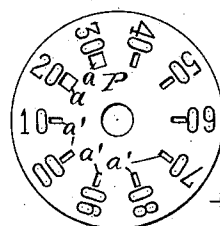
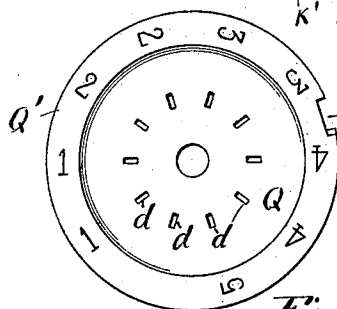
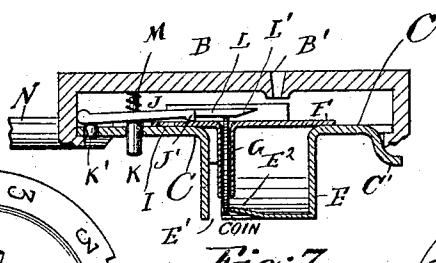
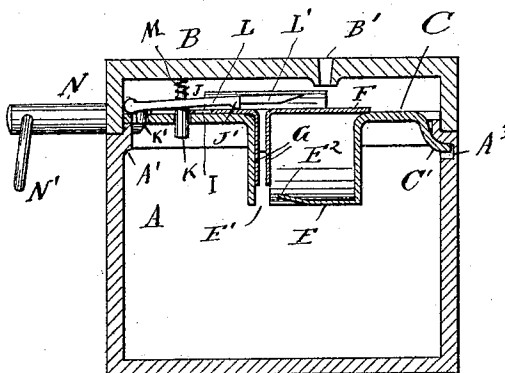
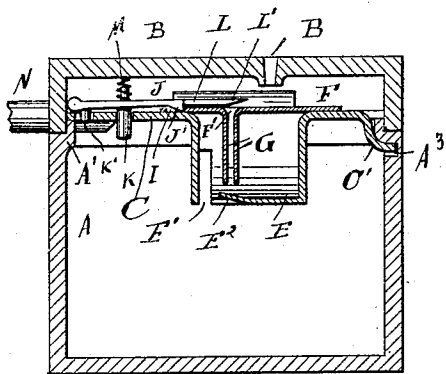
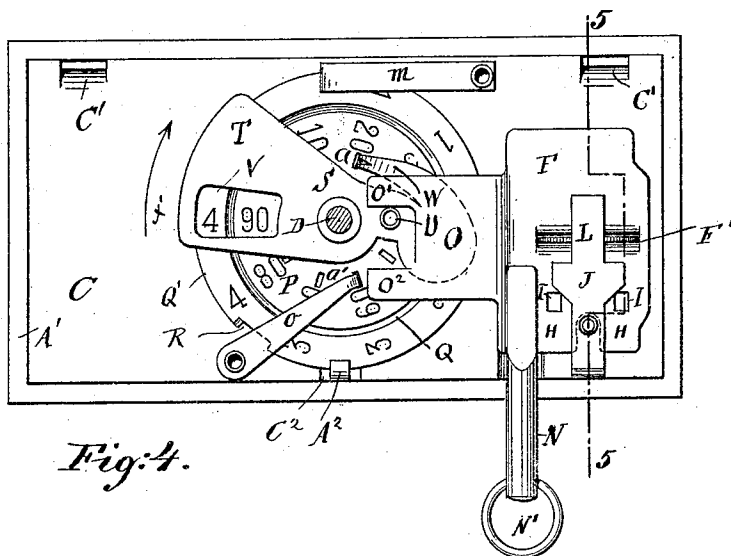


W. G. HORTON.
REGISTERING BANK.

No. 550,972.

Patented Dec. 10, 1895.



Witnesses
J. Levi - Palmer
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W. G. Horton Inventor

By his Attorney

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UNITED STATES PATENT OFFICE.

WILLIAM G. HORTON, OF BROOKLYN, NEW YORK.

REGISTERING-BANK.

SPECIFICATION forming part of Letters Patent No. 550,972, dated December 10, 1895.

Application filed August 31, 1894. Serial No 521,784. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. HORTON, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Registering-Banks, of which the following is a specification.

This invention relates to improvements in that class of toy savings-banks that are so constructed that each coin is registered after having been introduced, so as to show the amount of coins deposited, and which banks are further so constructed that they only can be opened after a predetermined number of coins have been deposited.

The object of my invention is to provide a bank of this kind which is simple in construction, reliable in registering and counting the number of coins deposited, not apt to get out of order, and not expensive in construction.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate like parts in all the views, Figure 1 is a plan view of my improved registering-bank. Fig. 2 is a plan view of the registering mechanism, the top of the cover being removed. Fig. 3 is a vertical longitudinal sectional view through my improved bank on the line 3 3 of Fig. 2. Fig. 4 is another plan view of the registering mechanism, showing the parts in another position and the top of the cover also removed. Figs. 5, 6, and 7 are vertical cross-sectional views on the line 5 5 of Fig. 4, showing the parts in different positions. Figs. 8 and 9 are detail views of the registering-disks.

The bank-body A is made of cast or sheet metal and provided with a top rim A', on which the cover B is detachably fastened, so as to give access to the interior of the bank for the purpose of removing the coins that have been deposited. The top rim A' is provided with an upwardly-projecting hook A², (see Figs. 2 and 4,) that is to be engaged by part of the registering mechanism for the purpose of locking the cover on the body, as will be described later on.

The cover B is provided in its top with a slot B', through which the coins to be deposited are inserted, and with an opening B²,

through which the numerals on the registering-disks appear, a small pane of glass B³ being placed in said opening to prevent tampering with the registering-disks. Within said cover B a bottom plate C fits, which rests against the interior rabbets b of said cover and is held in place by a screw D, which is screwed into the under side of the cover, as shown in Fig. 3. Said bottom plate is provided on one edge with two downwardly and outwardly curved hooks C', which engage the suitable aperture A³ of the body. At the opposite edge the plate C is provided with a notch C², through which the hook A², projecting upward from the top A', can pass when the cover is placed on the body.

A trough E, semicircular in cross-section, is formed on the under side of the plate C and extends transversely to said plate C, and in its bottom is provided at its front end, corresponding to the front of the trough, with a slot E' of sufficient size to permit a coin to pass through the same. A spring-spur E², projecting upward, is formed in the bottom of the trough adjacent to the slot E' and extends to the same for the purpose of preventing the coins from being moved back from said slot.

A plate F is mounted to slide on the top of the plate C directly above the trough and in the direction of the length of the same, which plate is provided with a transverse slot F' and from the edges of which slot two wings G project downward into the trough E, said wings being so shaped that they fit in the trough, but can be moved freely in the same.

From the front of the sliding plate F two lugs H project in the plane of the plate, and between them a recess H' is formed and each lug is provided with an aperture I. A latch J, having a beveled spur J' on its under side at the side edges, rests upon the bottom plate C and upon the sliding plate F and is provided in front of the said spurs with the downwardly-projecting pins K and K', which pass through suitable apertures in the plate C.

The latch J is provided at its inner end with a tongue L, having its under side beveled at its free end, as shown at L', which tongue also rests upon the sliding plate F. A helical spring M is interposed between the under side of the cover and the top of the latch

J, and presses the latter down upon the plate C and the sliding plate F.

The sliding plate F is provided with a handle-rod N, which passes through an opening in the front of the cover and is provided at its outer end with a handle-ring N' or other suitable handle, said rod being guided in the groove N² in the top of the bottom plate C, as shown in Fig. 2.

The sliding plate F is provided with a shouldered side wing O, having two arms O' O² (see Figs. 2 and 4) for a purpose that will appear hereinafter.

Two registering-disks P and Q are mounted to turn on the screw D between the under side of the cover B and the upper surface of the plate C. The inner smaller disk P has the numerals "00" "10" "20" "30" "40" "50" "60" "70" "80" "90" on its upper surface along the rim and equidistant from each other, and concentric with said circle of numerals a circle of slots is formed equidistant from each other, the slots *a* for the numerals "20" and "30" having greater width than the slots *a'* for the remaining numerals. The outer larger disk Q is provided in its top with a circular recess of sufficient size to receive the disk P, so that the upper surfaces of the two disks Q and P are flush when the latter is placed into or upon the former. The raised rim Q' of the disk Q is divided into ten equal spaces, of which one is left blank and the others bear the following numerals in the order given—namely, "1" "1" "2" "2" "3" "3" "4" "4" "5"—as the bank described is to open when five dollars in dimes have been deposited. For a bank that is to open when ten dollars in dimes have been deposited the numerals on the disk Q would have to be arranged differently.

The disk Q has ten slots *d*, arranged in a circle, all of the same size and concentric with and below the slots of the disk P.

The disk Q is provided in its edge part with a notch R, which is so located that when the numeral "5" of said disk Q appears in the opening B² of the cover said notch will register with the notch C² in the plate C.

A pawl-lever S is mounted to rock on the screw D above the registering-disks and is provided at one end with a wing T, forming a shutter and having an opening V, and at the other end with a spring-pawl W, resting on the top registering-disk P at that part having the slots *a* and *a'*. A pin U projects upward from the pawl-lever S and can be engaged by the two arms O' and O² of the sliding plate F.

A flat spring *m* bears on the rim part of the disk Q to prevent the same from turning too freely or backward, and a check-pawl *o* engages the slots in the disk P.

The operation is as follows: The cover B is placed upon the body A in such a manner that the two hooks C' engage the body A', as shown, and the hook A² passes through the

notch C² in the plate C and the notch R in the registering-disk Q, which is to be so set that its notch R registers with the notch C². A coin is now inserted through the slot B and passes down between the two wings G of the sliding plate F, between which it is held, and when the handle N is pulled the coin is conveyed to the front end of the trough and drops from between the wings G through the slot E' into the body of the bank. The sliding plate F is then pushed back again to receive the next coin, and so on. As the sliding plate with the coin is moved to the front, the beveled end L' of the tongue L rides upon the top of the coin, (see Fig. 7,) and thereby the latch J is maintained in its raised position and its spurs J' are prevented from snapping into the apertures I in the lugs H and locking the parts. When, however, the coin has not been inserted and the sliding plate F is pulled to the front while empty, there is nothing to hold the latch J raised, and when the spurs J' arrive at the apertures I in the lugs H they snap into the same, thus locking the sliding plate and preventing moving the same to the front sufficiently to operate the registering mechanism. (See Fig. 5.) When the sliding plate F moves to the front the proper distance for registering on the dials P and Q, as it does only when a coin has been deposited, its arm O' strikes against the pin U on the pawl-lever S and swings the wing T of said lever in the direction of the arrow *x'*, Figs. 2 and 4, and thereby the wing T is brought in such position that its opening V registers with the opening B² in the cover, thus exposing the numerals on the two registering-disks at that time below said opening B², as shown in Fig. 4. By this movement the pawl W has caught another slot of the disk P, and when the sliding plate F is pushed to the rear the arm O² of the same strikes against the pin U on the lever S and swings said lever in the inverse direction of the arrow *x'*, whereby the wing T is brought into the position shown in Fig. 2 and covers the numerals below the opening B², so that a person cannot tell how much money has been deposited. At the same time the pawl W turns one or both disks the distance of one set of numerals, so that when the sliding plate F is again pulled out new numbers will show. Attention must be called to the fact that this mechanism registers before the coin which it registers has actually been deposited, but does not expose the registering-numbers until after the coin has been deposited. When the numerals "00" on the disk P and "1" of the disk Q appear in the opening B², the numerals "20" and "30" are in such positions that the pawl W can pass through one of the larger slots *a* at said numerals and also engage the slots *d* in the disk Q and turn both disks, as will be understood by the following example: When the register shows "210" and another coin is deposited and the sliding plate F worked, the disk Q remains stationary, as

the pawl W cannot act on it, but the disk P is turned successively until it shows "290." Then the pawl W passes through one of the large slots *a* of the disk P and also engages one of the slots *d* of the disk Q, so that both disks P and Q are turned and the first "3" of the disk Q and the "00" of the disk P appear, indicating three dollars. At the next throw of the pawl-lever the pawl again engages both disks and both are turned, the second "3" of the disk Q and the "10" of the disk P appearing. Then the disk Q remains stationary, as the pawl W encounters only narrow slots *a'* of the disk P and cannot act on the disk Q until "390" has been registered, when again both disks are turned and the first "4" of the disk Q and the "00" of the disk P appear, and so on. When the register shows "500," the notch R in the disk Q registers with the notch C² in the plate C, the hook A² is no longer engaged, and the cover can be lifted off.

When the register is to be adjusted, which can only be done when the cover is off, the pin K is pressed upward, so as to hold the latch J clear of the sliding plate, (see Fig. 6,) which can then be worked to bring the registering-disks into the desired positions.

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

1. A registering bank having an opening through which the registering numerals show, a registering device, a pawl lever for operating the registering device and a wing on said lever forming a shutter for closing said opening, substantially as herein set forth.

2. A registering bank having an opening

through which the registering numerals show, a registering device, a pawl lever for operating said registering device, a wing on said lever which wing has an opening that can register with the opening through which the registering numerals appear, substantially as herein set forth.

3. In a registering bank, the combination with the bank body of a cover having a coin slot, a trough on the cover below said slot, a sliding plate above the trough and provided with a slot, wings projecting from the edges of the slot into the trough, a latch for locking said sliding plate and a registering device operated from said sliding plate substantially as herein set forth.

4. In a registering bank, the combination with the bank body of a cover for the same, which cover has a coin slot, a trough below said slot, a sliding plate above said trough, which plate has a slot, two wings projecting from the edges of the slot into the trough, apertured lugs projecting from the front of said plate, a latch above the plate, which latch has beveled spurs on its under side, adapted to pass into the apertures in the lugs and a tongue projecting from said latch and having its end beveled and a registering device operated from said sliding plate, substantially as herein set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 24th day of July, 1894.

WILLIAM G. HORTON.

Witnesses:

OSCAR F. GUNZ,
D. PETRI PALMEDO.