

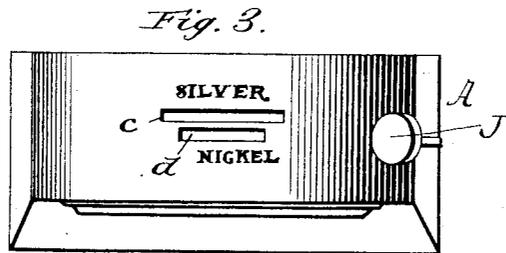
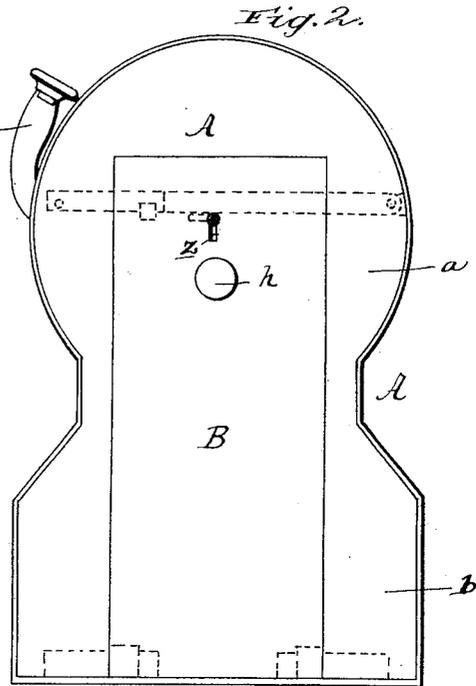
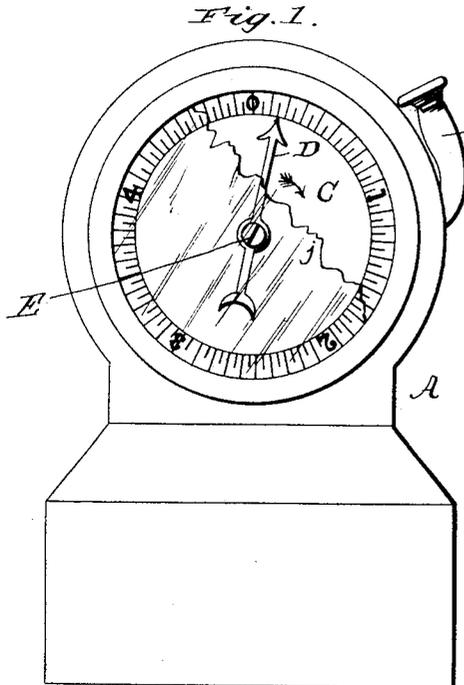
(No Model.)

4 Sheets—Sheet 1.

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CASH REGISTERING SAVINGS BANK.

No. 537,448.

Patented Apr. 16, 1895.



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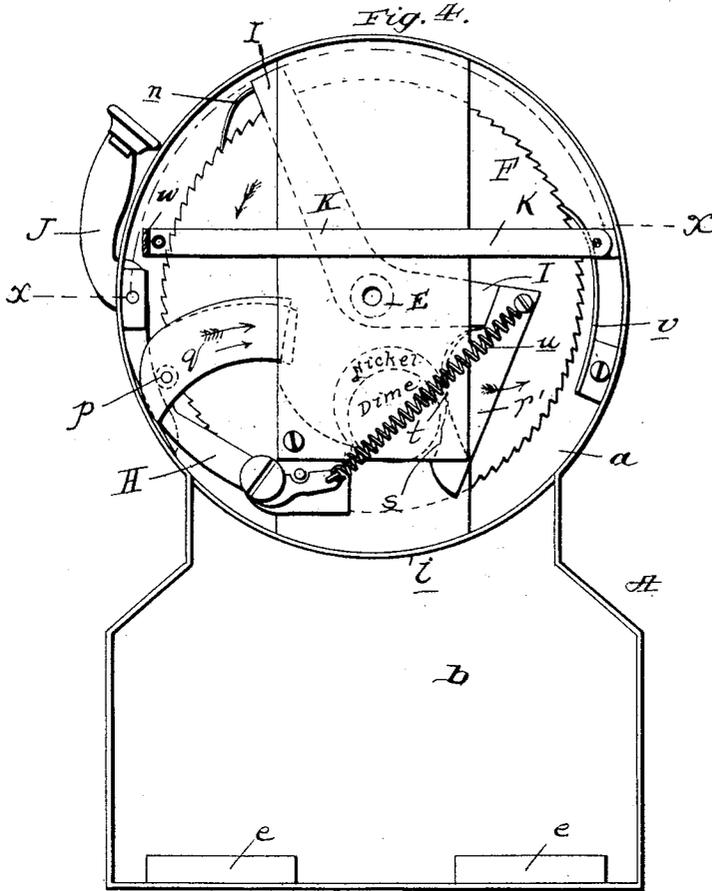
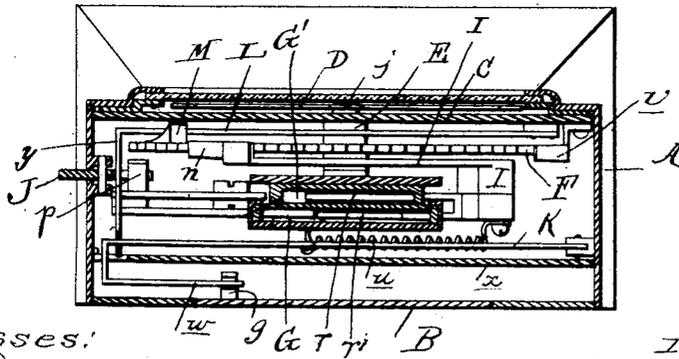


Fig. 5.



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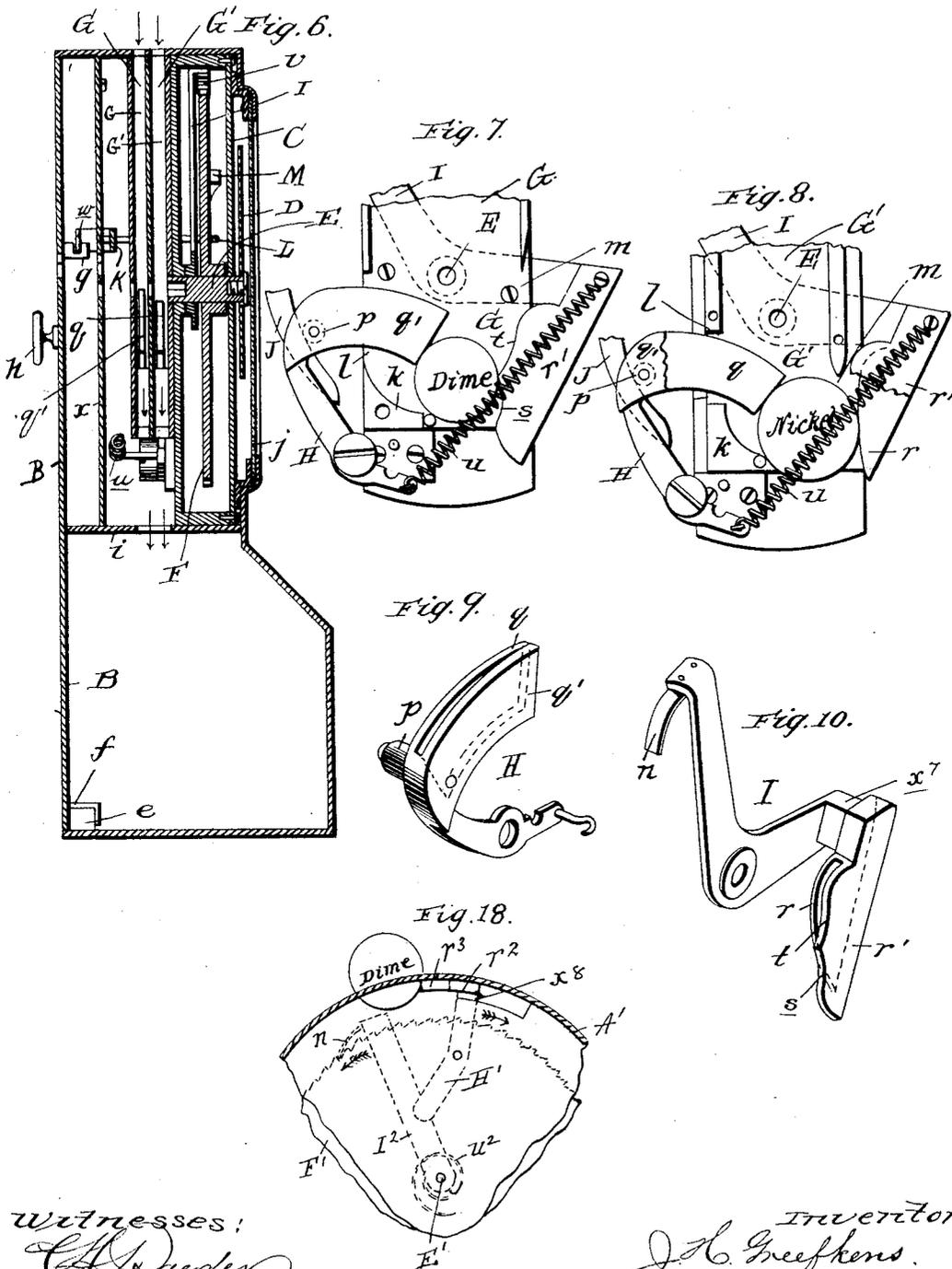
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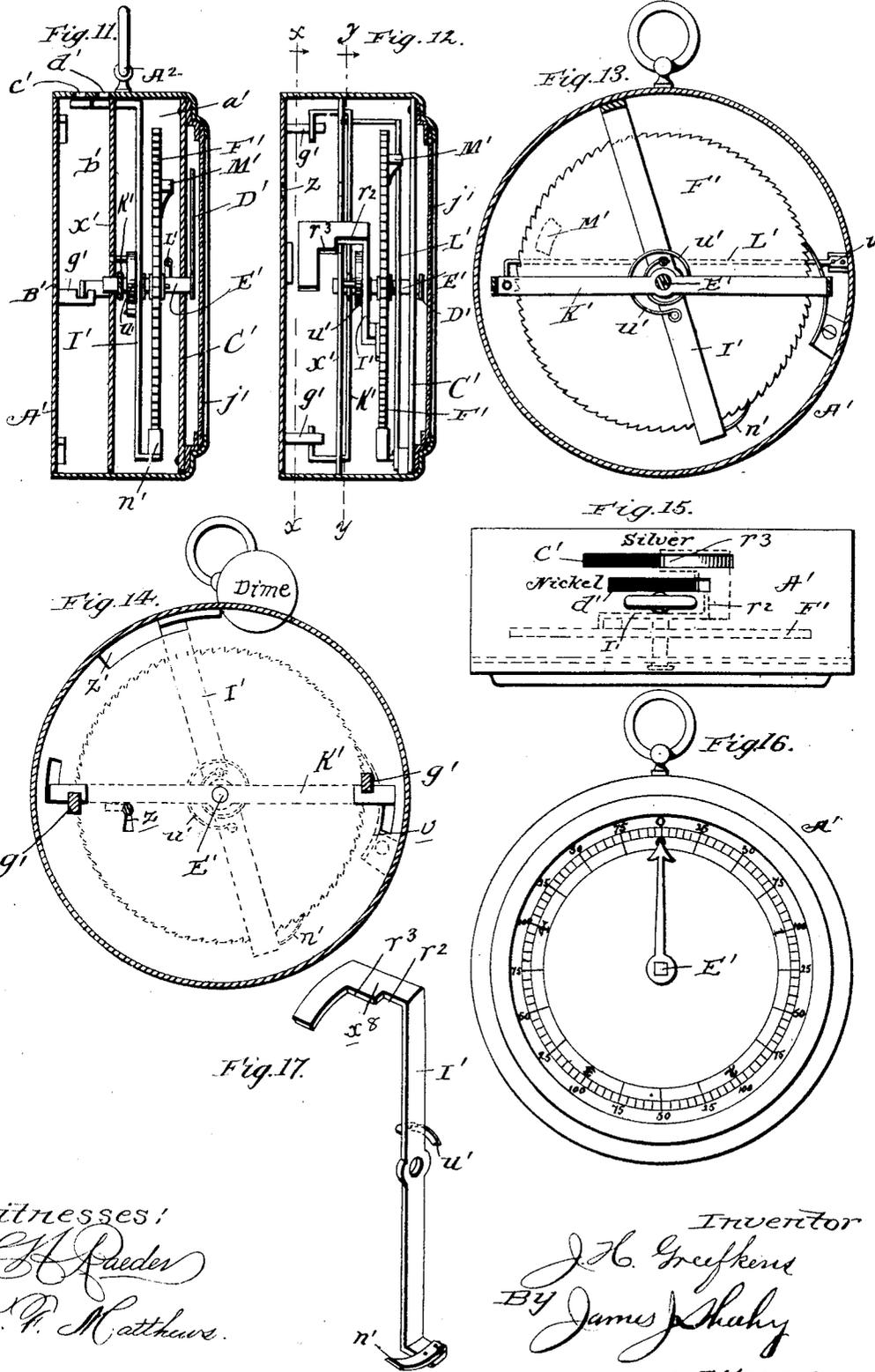
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UNITED STATES PATENT OFFICE.

JOHN HUBERT GREEFKENS, OF SAN FRANCISCO, CALIFORNIA.

CASH-REGISTERING SAVINGS-BANK.

SPECIFICATION forming part of Letters Patent No. 537,448, dated April 16, 1895.

Application filed April 21, 1894. Serial No. 508,472. (No model.)

To all whom it may concern:

Be it known that I, JOHN HUBERT GREEFKENS, a subject of the King of Belgium, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Cash-Registering Savings-Banks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in registering savings banks; and it has for one of its objects to provide such a bank embodying mechanism through the medium of which, coins of various denominations may be correctly registered when the same are deposited.

Another object of the invention is to provide a savings bank embodying mechanism adapted to effectually prevent the door from being opened until a predetermined amount of money has been deposited; and still another object is to provide a registering savings bank embodying such a simple and compact construction that it may be made in the form and of about the size of a watch so as to admit of its being conveniently carried in the pocket.

Other objects and advantages of the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1 is a front elevation of my improved registering savings bank. Fig. 2 is a rear elevation of the same. Fig. 3 is a top plan view. Fig. 4 is an enlarged rear elevation with the rear wall of the casing and the vertical partition wall removed. Fig. 5 is a horizontal section taken in the plane indicated by the line x, x , of Fig. 4. Fig. 6 is a vertical, longitudinal, central section. Fig. 7 is a detail elevation illustrating the manner in which a dime or other coin of corresponding size effects connection between the pushing lever and the lever connected with the pointer. Fig. 8 is a similar view illustrating the manner in which a nickel or similar piece of money effects such a connection. Fig. 9 is a perspective view of the pushing lever removed. Fig. 10 is a detail, perspective view

of the lever connected with the pointer. Fig. 11 is a vertical, diametrical section of the registering bank made in the form of a watch. Fig. 12 is a top plan view of the same with the casing in section. Fig. 13 is a section taken in the plane indicated by the line y, y of Fig. 12. Fig. 14 is a section taken in the plane indicated by the line x, x , of Fig. 12. Fig. 15 is a top plan view of the device as shown in Figs. 11, 12, 14, and 16. Fig. 16 is a front elevation. Fig. 17 is an enlarged perspective view of the pointer lever; and Fig. 18 is a view illustrating another modification.

Referring by letter to said drawings, and more particularly to Figs. 1 to 10 thereof, A, indicates the casing of my improved bank which may be of any form and construction but which is here shown as having a circular upper compartment a , designed to contain the registering mechanism and a lower compartment b , designed to serve as a receptacle for the coin. This casing is provided in its top with slots c, d , for the passage of silver coins and nickels, respectively, and it is also provided upon its bottom with projections as e , for the engagement of the lugs f , of the door B, which door has notched projections g , for the engagement of a locking lever (presently described) and a knob as h , by which it may be readily removed. The door B, is simply one of many kinds that may be employed and the manner of connecting the same to the casing may be changed at pleasure, as is obvious.

The upper compartment a , of the casing A, which is divided from the lower compartment by the circular wall i , is provided with a glass face as j , and adjacent to this face is arranged the dial C, which may be provided with graduations or divisions and designating numerals of various kinds. This dial is here shown as provided with five divisions, numbered 0, 1, 2, 3, and 4, and one hundred subdivisions, and when it is employed, the pointer D, will register up to five dollars. The said pointer D, is fixed upon a shaft or spindle E, upon which is also fixed the ratchet wheel F, which has one hundred teeth in accordance with the number of sub-divisions of the dial, and is designed to be moved the distance of one tooth when a "nickel" is deposited, two teeth when a "dime" is deposited, five teeth

when a "quarter" is deposited, and ten teeth when a half dollar is deposited, as will be hereinafter described.

G, G', indicate the vertical chutes for conveying the coins from the slots *c*, *d*, to the mechanism actuating the pointer. These chutes have their lower ends partly closed by the pieces *k*, which serve as seats for the coins and they are provided in one of their sides with openings *l*, for the passage of the pushing lever H, and in their opposite sides with openings *m*, for the passage of the lever I, which lever I, carries a pawl *n*, designed to engage and transmit motion to the ratchet wheel F.

The pushing lever H, is fulcrumed at an intermediate point of its length as shown in Fig. 4, and it is provided with the lateral projection *p*, for the engagement of the hand lever J, which extends through the casing, and said lever H is also provided with the coin engaging portions *q*, *q'*, which are designed to extend into the chutes and engage the silver coins and nickels, respectively, in the manner shown in Figs. 7 and 8.

The lever, I, is fulcrumed at an intermediate point of its length upon the shaft E, and it is provided with a lateral branch *x'*, carrying the portions *r*, *r'*, designed to normally rest in the chutes and be engaged by the nickels and silver coins respectively. The portion *r*, of the lever I, may have a plain edge as illustrated, since it is designed to be engaged by coins of the same size, but the portion *r'*, which is designed to be engaged by dimes, quarters, and half dollars, has its engaging edge shaped as better shown in Fig. 10 to form a lower seat *s*, for the dimes, and an upper seat *t*, for the quarters and half dollars, in order to enable it to hold each coin until the lever has been moved sufficiently far to properly register the same.

The levers H, and I, are held in and brought back to their normal positions shown in Fig. 4, by the coiled spring *u*, which is connected to both levers as illustrated, and with the parts in the position shown in said figure, it will be seen that when a "nickel" is deposited in the slot *d*, or a silver piece in the slot *c*, it will fall down its respective chute and assume a position between the levers H, I, so that when the hand lever J, is depressed, the said levers H, and I, together with the ratchet wheel F, shaft E, and the pointer D, will be moved in the directions indicated by arrows (see Figs. 1 and 4,) until the coin drops from between the coin engaging portions of the levers, when the said levers will be returned to their normal position by the spring *u*, while the ratchet wheel and the pointer will be held in the position to which they have been moved by the detent *v*, which engages the wheel and prevents retrograde movement of the same.

In order to prevent the door B, from being opened until a pre-determined amount of money has been deposited in the bank, I pro-

vide the locking lever K, which is fulcrumed at one end and is provided at its opposite end with an angular portion *w*, which extends through an opening in the partition *x*, and is designed to engage the projection *g*, of the door as shown in Figs. 5 and 6. This lever K, is normally held against upward movement by the spring L, which is fixedly connected at one end to the back of the dial and is provided at its opposite end with an angular branch *y*, adapted to take through apertures in the lever K, and partition *x*, as better shown in Fig. 5, and the said spring L, is designed to be engaged and withdrawn from the lever K, and the partition *x*, so as to release the said lever, by the beveled projection M, on the wheel F. This beveled projection M, is of such a size and is so arranged on the wheel F, that it will engage the spring L, about the time the pointer D, reaches the "\$1.25" mark or graduation and it will consequently be seen that when the pointer arrives at "0" or the \$5 mark, the projection will have moved the end of the spring out of engagement with the lever and partition, so as to permit of the lever being raised out of engagement with the projection *g*, of the door by a key introduced through the opening *z*. (See Fig. 2.) When the lever is raised from the projection *g*, by a key or other implement, the door may be removed by simply drawing out its upper end and disconnecting the legs *f*, from the projections *e*.

It will be seen from the foregoing that through the medium of the mechanism embodied in my improved bank, the operator is enabled to correctly register a nickel, dime, quarter or half dollar when the same is deposited in the slot designed to receive it. It will also be seen that the mechanism is very simple and compact and that the mounting of the lever I, on the shaft E, admits of the mechanism being arranged in a small compass, which is a desideratum. The mounting of the lever I, on the shaft E, is also advantageous because it keeps the pawl at an equal distance from the shaft and enables it to run easy over the teeth of the ratchet wheel.

In Figs. 11 to 17, of the drawings, I have illustrated a modified case A', together with other modified parts which will be hereinafter specifically described. The said case A', is of circular form and has a handle A², and glass face *j'*, so as to resemble a watch, and it is divided by a partition *x'*, into a compartment *a'*, to contain the mechanism, and a compartment *b'*, to receive the money, which compartment *b'*, communicates with the "silver" and "nickel" slots *c'*, *d'*, as illustrated. The dial C', pointer D', shaft E', and ratchet wheel F' of the modified construction, are substantially the same as those illustrated in Figs. 1 to 10, and therefore need not be again specifically described. The said lever I', for actuating the pointer of the modified construction is fulcrumed upon the shaft E', as shown, and it is provided at one end with a pawl *n'*, adapted to engage and transmit motion

to the wheel F' , and at its opposite end with the lateral branch x^s , having the coin-engaging portions r^2, r^3 , which normally rest in the position shown in Fig. 14, and are designed to be engaged by the silver coins and nickels, respectively. By reason of the construction just described and the fact that the lever I' , is normally held in the position shown in Fig. 14, it will be seen that it is necessary in order to insert a coin to push the lever with the coin, in the direction indicated by arrow. (See Fig. 14.) This movement of the lever I' , effects a movement of the ratchet wheel F' , and pointer D' , the extent of such movement corresponding to the denomination of the coin. For instance when a "nickel" is pressed in the nickel slot, the wheel F' , will be moved one tooth, while when a "dime" is pressed in the silver slot, it will be moved two teeth.

K' , indicates the locking lever of the modified construction. This locking lever is fulcrumed at a point midway its length upon the shaft or spindle E' , and it has its ends bent and passed through slots in the partition x' , so as to enable them to engage the projections g' , of the door B' , and securely hold said door in its closed position. The said lever K' , is normally held against movement by a spring L' , similar to the spring L , before described, until a projection M' , on the wheel F' , moves said spring out of engagement with the lever, when it (the lever) may be moved out of the notches in the projections g' , by a key introduced through a hole z in the door or back B' , in the manner shown in Fig. 14.

The construction shown in Figs. 11 to 17, may be made so small as to admit of its being conveniently carried like a watch in the pocket, and by reason of its simplicity and few parts it may be made so cheap as to place it within the reach of every one, which is a desideratum.

The construction shown in Figs. 1 to 10, by reason of its simplicity and small number of parts may be made very cheaply and when the casing is embellished, the bank will make a very pretty center piece for a mantel.

Instead of the lever I' , for actuating the pointer employed in the modified construction shown in Figs. 11 to 17, I may employ the lever I^2 , and the pushing lever II' , shown in Fig. 18. The said lever I^2 , is fulcrumed upon the shaft E' , and is provided with a pawl n , designed to engage the ratchet wheel F' , in the manner before described, and it is designed to be engaged and moved in the direction of the arrow by the pushing lever II' . This pushing lever is fulcrumed at an intermediate point of its length as shown, and it is provided at its outer end with an angular branch x^s , having portions r^2, r^3 , similar to that of the lever I , which portions are designed to normally rest beneath the nickel and silver slots (not illustrated) of the casing. When a coin is pushed through either of the slots the levers H' , and I^2 , will be moved in the directions in-

dicated by arrows, and after the coin has fallen out of engagement with the lever II' , said lever and the lever I^2 , will be returned to their normal positions by the spring u^2 , while retrograde movement of the wheel F' , will be prevented by a detent in a manner similar to that before described.

It will be noticed that in all of my constructions, the wheel and the lever for moving the pointer are mounted on the central spindle or shaft. This is very desirable since when the lever is so arranged, the other parts may be compactly arranged within a small space, so as to permit of their being placed in a small case.

I have in some respects specifically described the construction and relative arrangement of the several parts of my improved bank, in order to impart a full and exact construction of the same, but I do not desire to be understood as confining myself to such construction and arrangement, as I reserve the right to make in practice such changes or modifications as fairly fall within the scope of my invention.

Having described my invention, what I claim is—

1. In a registering savings bank, the combination of a casing, a door, a lever engaging the door and adapted to hold it in its closed position, a spring connected at one end to the casing and having an angular branch engaging the lever and adapted to hold it in engagement with the door, a rotary spindle or shaft and a wheel mounted on the spindle or shaft and carrying a beveled projection adapted to disengage the spring from the lever, substantially as specified.

2. In a register, the combination of a chute a pointer, a pushing lever, a lever I , connected by intermediate mechanism with the pointer and adapted to be actuated through the medium of the pushing lever when a coin is interposed between the two, and a hand lever engaging the pushing lever and extending outside the casing, substantially as specified.

3. In a register, the combination of a casing, a chute a pointer, a pushing lever having a projection p , a lever I , connected by intermediate mechanism with the pointer and adapted to be actuated through the medium of the pushing lever when a coin is interposed between the two, and a hand lever engaging the gudgeon of the pushing lever and extending outside the casing, substantially as specified.

4. In a register, the combination of a plurality of chutes having openings in their opposite sides, a pointer, a pushing lever having portions adapted to enter the chutes from one side, and a lever I , connected by intermediate mechanism with the pointer and having the plain portion r , and the portion r' , provided with seats for coins of different denominations; said portions r, r' , being adapted

to enter the chutes from the side opposite to the pushing lever, substantially as and for the purpose set forth.

5 In a register, the combination of a casing having a plurality of slots of different sizes, a rotary spindle or shaft, a pointer and a ratchet wheel fixed on said spindle or shaft, and a lever fulcrumed on the spindle or shaft and provided with means for engaging the ratchet
10 wheel and also provided with a lateral branch having portions for the engagement of coins of different sizes, substantially as and for the purpose set forth.

6. In a register, the combination of a chute, a pushing lever so arranged that it is enabled to enter the chute from one side, and another lever arranged on the opposite side of the chute and adapted to be actuated through the medium of the pushing lever when a coin is interposed between the two, substantially
15 as and for the purpose set forth.

7. In a register, the combination of a plurality of chutes arranged side by side and having openings in opposite sides, a pushing lever
25 arranged on one side of the chutes and having coin-engaging portions q, q' , adapted to enter the chutes and another lever arranged on the opposite side of the chutes and having portions adapted to enter the chutes, substantially
30 as and for the purpose set forth.

8. In a register, the combination of a chute having openings in opposite sides and also having its lower end partly closed by a piece
35 k , a pushing lever so arranged that it is enabled to enter the chute from one side, and another lever arranged on the opposite side of the chute and adapted to be actuated through the medium of the pushing lever when a coin is interposed between the two, substantially
40 as specified.

9. In a register, the combination of a chute, a shaft or spindle extending through the chute and carrying a pointer and a ratchet wheel, a pushing lever so arranged that it is adapted
45 to enter the chute from one side, and a lever fulcrumed on the spindle or shaft and provided with means for engaging the ratchet wheel and adapted to be actuated through the medium of the pushing lever when a coin
50 is interposed between the two, substantially as and for the purpose set forth.

10. In a register, the combination of a chute, a pushing lever adapted to enter the chute from one side, another lever arranged on the
55 opposite side of the chute and adapted to be

actuated through the medium of the pushing lever when a coin is interposed between the two, and a spring connected at its ends to the levers and adapted to return them to their normal position after they have been moved,
60 substantially as specified.

11. In a register, the combination of a casing, a chute, a pushing lever, having a projection p , and adapted to enter the chute from one side, another lever arranged on the opposite
65 side of the chute and adapted to be actuated through the medium of the pushing lever when a coin is interposed between the two, a hand lever engaging the projection of the pushing lever and extending outside the
70 casing, and a spring connected at its ends to the pushing lever and the lever on the opposite side of the chute and adapted to return said levers and the hand lever to their normal positions, when they have been moved,
75 substantially as specified.

12. In a register, the combination of a plurality of chutes arranged side by side and having openings in opposite sides, a pushing lever arranged on one side of the chute, and
80 having coin engaging portions q, q' , adapted to enter the chutes, and another lever arranged on the opposite side of the chutes and having portions r, r' , adapted to enter the chutes; the portion r' , being provided with
85 seats for coins, of different denominations, substantially as and for the purpose set forth.

13. A registering savings bank comprising a casing having an upper compartment a , and a lower compartment or money receptacle b ,
90 communicating with the upper compartment, a chute arranged in the upper compartment and having openings in opposite sides, a spindle or shaft arranged in the upper compartment and extending through the chute and
95 carrying a pointer and a ratchet wheel, a lever l , fulcrumed on the spindle or shaft and provided with a pawl in engagement with the ratchet wheel and with a portion adapted to enter one side of the chute, a pushing lever
100 adapted to enter the opposite side of the chute, and a hand lever engaging the pushing lever, and extending through the casing, all substantially as specified.

In testimony whereof I affix my signature
105 in presence of two witnesses.

JOHN HUBERT GREEFKENS.

Witnesses:

LINCOLN SONNTAG,
JAMES A. MOYNA.