(No Model.) 2 Sheets—Sheet 1.

H. J. ANDERSON.

MONEY REGISTERING DEVICE.

No. 419,620. Patented Jan. 21, 1890.

Fig. 1.

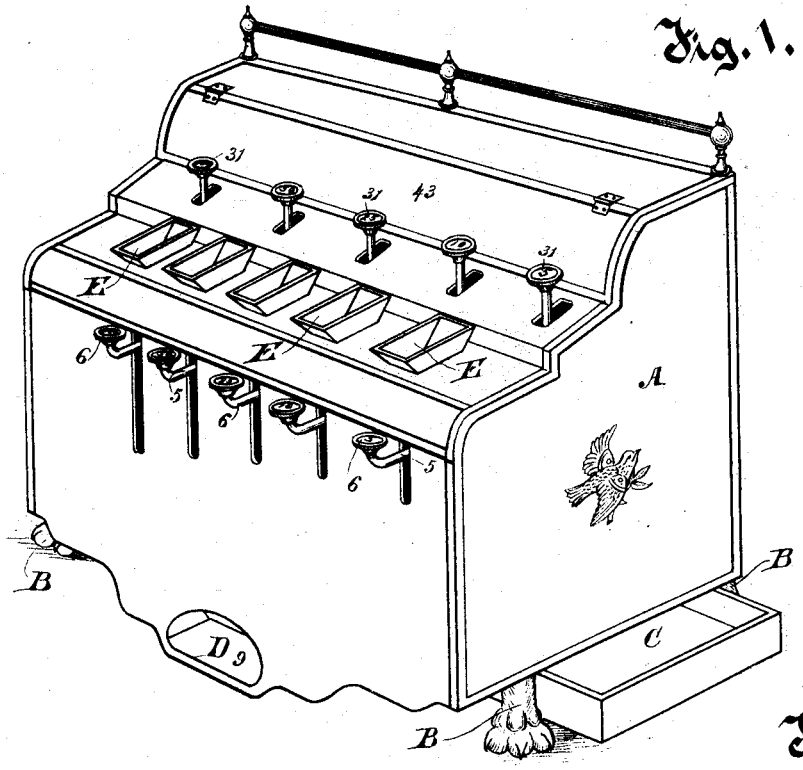
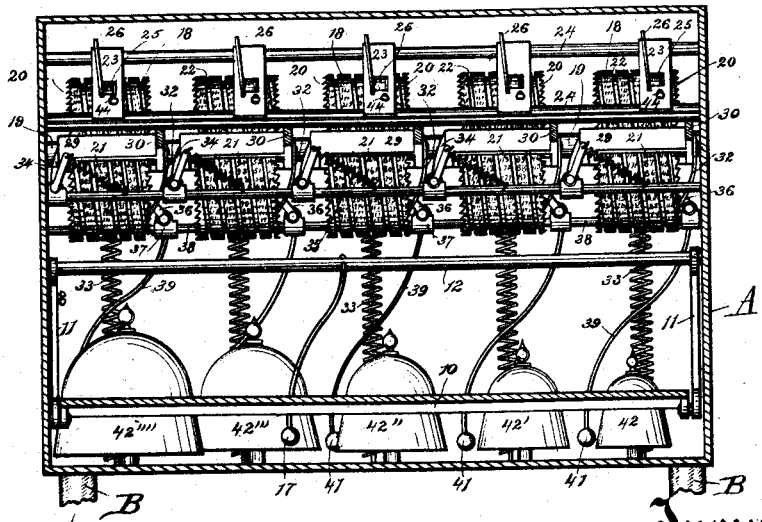


Fig. 2.



Witnesses.

C. A. Keeney.

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(No Model.) 2 Sheets—Sheet 2.

H. J. ANDERSON.

MONEY REGISTERING DEVICE.

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Fig. 3

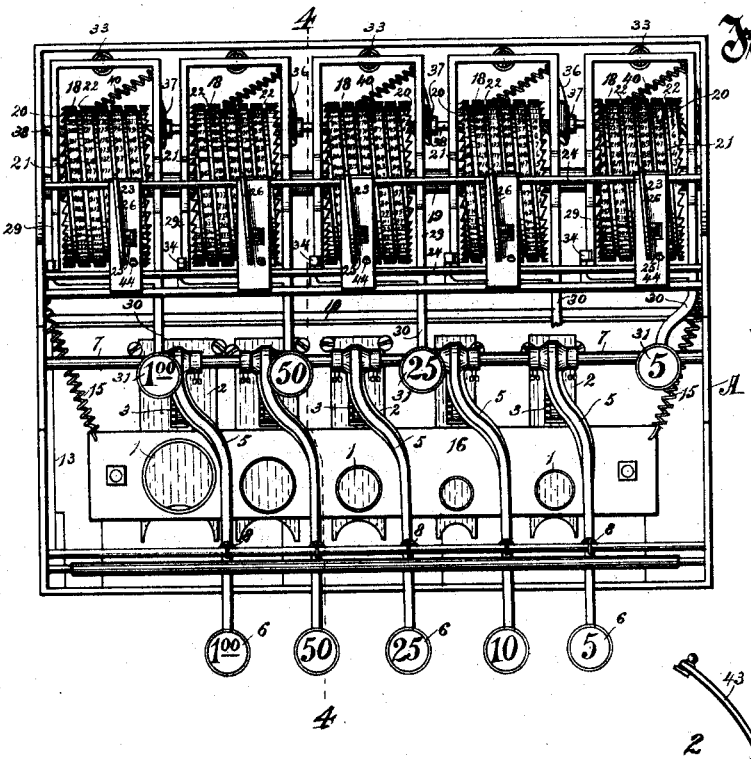


Fig. 6.

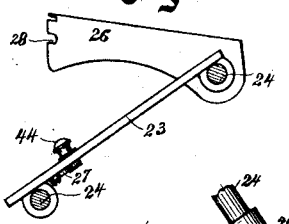


Fig. 7.

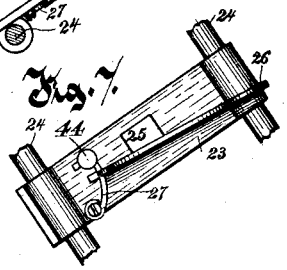


Fig. 5.

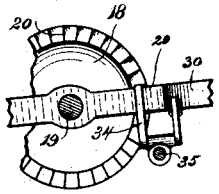


Fig. 4.

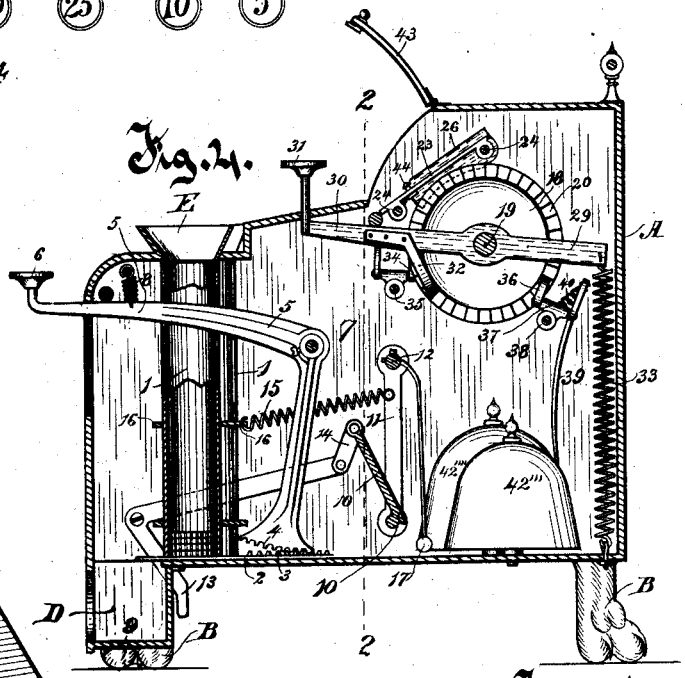
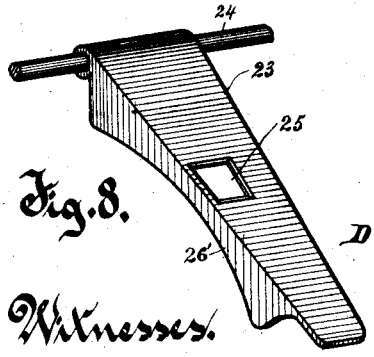


Fig. 8.



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UNITED STATES PATENT OFFICE.

HANS J. ANDERSON, OF LAKE MILLS, WISCONSIN.

MONEY-REGISTERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 419,620, dated January 21, 1890.

Application filed December 24, 1888. Serial No. 294,456. (No model.)

To all whom it may concern:

Be it known that I, HANS J. ANDERSON, of Lake Mills, in the county of Jefferson and State of Wisconsin, have invented new and useful Improvements in Money-Registering Devices; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a device for receiving and holding coins and for registering the amount of money received, and to give notice thereof by a sound that can be understood at a distance from the device.

In the drawings, Figure 1 is a perspective of the complete device. Fig. 2 is a view from the front of the rear part of the mechanism of my device, taken on line 2 2 of Fig. 4. Fig. 3 is a top view or plan of the mechanism of the complete device. Fig. 4 is a vertical transverse section of the complete device on line 4 4 of Fig. 3. Fig. 5 is a detail of a portion of registering lever and cylinder and of a check-pawl used in connection therewith. Figs. 6 and 7 are details of the sight-tablet and its guide. Fig. 8 is a modified form of tablet and guide.

The same letters and figures refer to like parts in all the views.

A is the case of the device, on and within which the other parts of the device are supported. It is provided with feet B B and with a bank-note or bill drawer C, and also has an aperture D for the discharge of coins from the device. A series of boxes or hoppers E E, affixed to the case and provided with slots at the bottom thereof for the passage of coin therethrough, are located above the coin-tubes, respectively, and are adapted for receiving and permitting the coin to pass therethrough into the tubes.

A series of upright tubes 1 1 are located in the front part of the device, and are of different sizes, being adapted for receiving coins of various sizes and of the values of one dollar, fifty cents, twenty-five cents, ten cents, and five cents, respectively. These tubes are open at the top, and at the bottom are each provided with a horizontal aperture, through which slides horizontally a plunger 2 2, which is a plate or strap of metal not quite so thick as the coin which it is intended and adapted to push out of the tube. These plungers 2 2 are each provided with a rack 3 of cog-teeth adapted to mesh with cog-teeth 4 4 on the segmental end of one arm of the bell-crank lever 5. There is a bell-crank lever 5 for each of the coin-tubes and plungers, each of which levers is provided with a character-plate knob 6, all the crank-levers being pivoted on the rod 7 and each being provided with a retrieving-spring 8, adapted to raise the front arm of the lever and to force the plunger 2 forward into the position shown in Fig. 4. These plungers reciprocate forward and back on the bottom of the case, their front ends passing beneath the coin-tubes, and they are adapted for forcing coins out of the tube onto the table 9 in the bottom of the case in front of the aperture D.

A locking-bar 10, extending across the device in the rear of the crank-levers 5 5, is pivoted at each end in the free ends of the swinging arms 11 11, which arms at their other ends are rigid on the oscillating rod 12, which is pivoted and supported in the case. This locking-bar 10 is operated by means of the crank-lever 13, which is pivoted at its angle to the side of the case and is connected at the extremity of one of its arms by the link 14 to the front edge of the bar 10, and this bar is adapted to be thrown down in a horizontal position behind the crank-levers 5 5 when in the position shown in Fig. 4, thereby locking them in that position firmly but yieldingly, the arms 11 11 being held toward the front by the springs 15 15, attached thereto and to a supporting-plate 16, which is rigid to the case A. A clapper 17 is affixed rigidly to the rod 12 and is so located that when the bar 10 is thrown down behind the cranks 5 5 any attempted depression of the front ends of any one of the cranks 5 5 will force the bar 10 rearwardly, and thereby oscillate the rod 12 sufficiently to bring the clapper 17 in contact with a bell located near thereto, as seen in Fig. 4.

A number of registering-cylinders 18 18 are supported in the upper rear part of the case on a fixed rod or axle 19, which axle is rigid on the case. These cylinders rotate in-

dependently of each other, and are each provided with crown-toothed lateral edges 20 20, and are also each provided with a continuous line of figures 21, commencing with 1 and continuing upward in the regular order of enumeration, which line of figures is on the periphery, commencing near one edge and continuing about the cylinder in helical form, terminating at the other edge of the cylinder in corresponding helical manner. A sight-tablet 23 is hung on two horizontal rods 24 24 near to and in front of each cylinder. These tablets are movable laterally on the rods 24 24. Each of these sight-tablets 23 is provided with an aperture 25, through which a single number on the cylinder beneath may be seen. A small guide 26, hinged on the upper rod 24 and fitted into a slot in the tablet 23, is adapted to enter and travel in the groove 22, whereby the tablet is moved laterally on the rods 24 24 as the cylinder 18 rotates. A small spring-latch 27 is fixed to the tablet 23 and is adapted to enter a recess 28 in the end of the guide 26 and lock it in position in its groove. This latch may be sprung out of its seat in the guide and release it, so that the guide can be swung upwardly, as seen in Fig. 6, and the tablet can then be moved to the right or left on its supporting-rods, as desired. A frame 29 about each cylinder is pivoted on the axle 19 and is provided with an arm 30, terminating in a character-plate knob 31. A spring-pawl 32 is secured at one end to the arm 30, and the free end of said pawl engages yieldingly with the adjacent crown-teeth 20 on the edge of the cylinder 18, so that as the arm 30 of the frame is depressed it rotates the cylinder to the extent of one notch. A retrieving-spring 33 is secured at one end to the rear of the frame 29 and at the other end to the case, and is adapted to throw the front end of the frame 29, with its arm 30, upwardly into the position shown in Fig. 4. A spring check-pawl 34 is fixed and supported on a rod 35, fixed in the case A, the free end of which spring check-pawl 34 engages yieldingly with the crown-teeth on the other edge of the cylinder, and are adapted to prevent the cylinder from rotating forward more than one tooth at each depression of the arm 30. The spring check-pawl 34 passes over an arm of the frame 29, whereby the pawl is thrown out of engagement with the crown-teeth of the cylinder when the front edge of the arm is thrown upward, as shown in Fig. 4, and is only permitted to engage the crown-teeth on the cylinder for a moment when the arm 30 is depressed. A pawl 36 is pivoted in a bracket 37, which bracket is supported on a rod 38, fixed in the case. The free end of the pawl 36 bears against the crown-teeth and drops into the recesses between them on the edge of the cylinder 18, and the pawl is rigid on its axle, which passes through the bracket 37, and on the other end of its axle is fixed the clapper-arm 39. This clapper-arm 39 at one end is provided with a retrieving-spring 40, which is attached at one end to the rod 38, whereby the pawl 36 is held yieldingly in contact with the crown-toothed edge of the cylinder, and at the other end the arm 39 is provided with a bell-clapper 41, adapted to strike against a bell 42, which is supported on the case A. There is such a pawl and bell-clapper provided for use in connection with each one of the several cylinders, and therefore a series of bells 42 42′ 42″ 42‴ 42⁗ of different tones, so that the sound produced by depressing any one of the registering-knobs 31 31 will be different from the sound produced by depressing any other of the several knobs, whereby a person at a distance from the box may know which one of the knobs has been depressed.

A hinged lid 43 is provided on the case A, covering an aperture provided for readily getting at the tablets 23 23 to replace them in position at the beginning of the column of figures on the registering-cylinders each morning, or at such other time as may be desired.

It will be understood that by depressing any one of the knobs 6 6 the plunger at the bottom of a tube holding a corresponding coin will be forced to the rear, and that when the knob is allowed to rise by the action of the spring 8 the coin will be forced out of the tube onto the table 9, from which it can be readily removed by the hand through the aperture D. When the locking-bar 10 is thrown down behind the bell-cranks 5 5, an attempt to depress any one of the knobs 6 6 will force the locking-bar backward slightly and will cause the clapper 17 to ring the alarm-bell, and thus attention will be called to the fact that some one is meddling with the coin-change box.

In use it will be understood that a certain amount of money in coin is placed in the several coin-tubes and that no money shall be taken therefrom unless another coin or coins of larger amount shall be placed in the coin-tubes, and that when any amount of money is added to the amount already in the change-tubes a corresponding amount shall be registered on a cylinder or cylinders by depressing a knob or knobs indicating an amount equivalent to the additional sum placed in the coin-tubes. Thus, if a coin of the value of one dollar be placed in a coin-tube and two coins, one of the value of fifty cents and the other of the value of twenty-five cents, be taken from the coin-tubes, the remaining amount (twenty-five cents) should be registered on the cylinder by depressing the registering-knob 31 having the figures "25 cts." thereon.

In using the registering device the guide 26 is lifted from the groove in which it runs in the cylinder and the tablet 23 is moved to the right-hand side, and the cylinder is then rotated, if necessary, by repeatedly depressing the registering-knob until the space cor-

responding with a tooth on the cylinder immediately before the one that registers the figure "1" is brought beneath the aperture 25 in the tablet, and the guide is then let down into the groove. On depressing the knob the cylinder will be rotated one tooth and the figure "1" will come beneath the aperture 25, and the process of depressing the knob and allowing it to rise may be continued until the tablet has been carried forward to the opposite side of the cylinder by its continued rotation, whereupon the guide may be raised and the tablet moved back again to the place of beginning. It will be seen that the pawl 34 prohibits the cylinder from rotating more than one tooth at each depression of the registering-knob, and that each depression of the knob will ring the corresponding bell through the action of pawl 36 and the mechanism thereto attached. In use all the tablets 23 should be placed at the beginning of the line of figures each morning, and at night the sum of the amounts indicated by the several numbers will be the amount of money added to the coin-change tubes during the day if an accurate registry thereof has been made, as should always be done.

44 is a small knob attached to the spring-latch 27 for its convenient manipulation.

In the modified form of tablet and guide shown in Fig. 8 the guide 26′ is made integral with the tablet and the tablet and guide are hinged and travel laterally on the upper rod 24. I prefer the form shown in Figs. 6 and 7, as that form can be locked in place to the cylinder while it travels on the rods 24 24.

What I claim as new, and desire to secure by Letters Patent, is—

1. In the case of a coin-change box, a series of rotating cylinders, each cylinder having crown-toothed edges and a series of numbers in a line in the order of numeration, and a groove alongside of the line of numbers about the cylinder helically, and sight-tablets, and a rod or rods above the cylinders on which the tablets are supported and travel, the tablets being therefore each provided with a guide which enters and travels in the groove about the cylinder, in combination with a series of pivoted levers designated with different numbers, each of which is adapted to act through a spring-pawl thereto affixed directly on a cylinder and by each depression of the lever to rotate the cylinder forward one tooth only, substantially as and for the purpose set forth.

2. The combination, with a rotating cylinder having a line of numbers and a groove alongside in helical form about its periphery, of a traveling sight-tablet and rods on which the tablet is supported and travels, the sight-tablet being provided with a hinged guide adapted to enter and travel in the groove on the cylinder, and a locking-latch for securing the guide in position, substantially as described.

3. The combination, with a rotating cylinder having a series of numbers on its periphery and crown-toothed edges, of a pivoted oscillating frame near the edge of the cylinder, having a yielding spring-pawl adapted for engaging the crown-teeth on the cylinder and rotating it, the frame being also provided with an arm and a knob for depressing it and a retrieving-spring for elevating it, substantially as described.

4. The combination of a rotating cylinder provided with a series of numbers on its periphery and means, substantially as described, for indicating a single number thereon, with an oscillating frame provided with a spring-pawl adapted to engage with crown-teeth in the edge of the cylinder and a spring check-pawl so located as to engage with the crown-teeth on the edge of the cylinder and check its forward rotation, and to be thrown out of engagement with the crown-teeth on the cylinder by the oscillating frame, substantially as described.

5. The combination of a rotating registering-cylinder provided with crown-teeth on its edge, and an oscillating frame adapted by its oscillation to rotate the cylinder, with a swinging click-pawl, a thereto-affixed clapper provided with a retrieving-spring, and a bell on which the clapper strikes, substantially as described.

6. The combination of several rotating registering-cylinders and oscillating frames adapted severally to rotate one of such cylinders, with bell-clappers severally in contact with said cylinders and adapted to be operated individually thereby and a series of bells each of a different tone from the others, on each of which one of said clappers is adapted to strike, substantially as described.

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

HANS J. ANDERSON.

Witnesses:
E. D. CHESMORE,
W. R. WATERS.