

F. L. SATTLEY.
COIN SORTER.
APPLICATION FILED APR. 30, 1904.

990,909.

Patented May 2, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

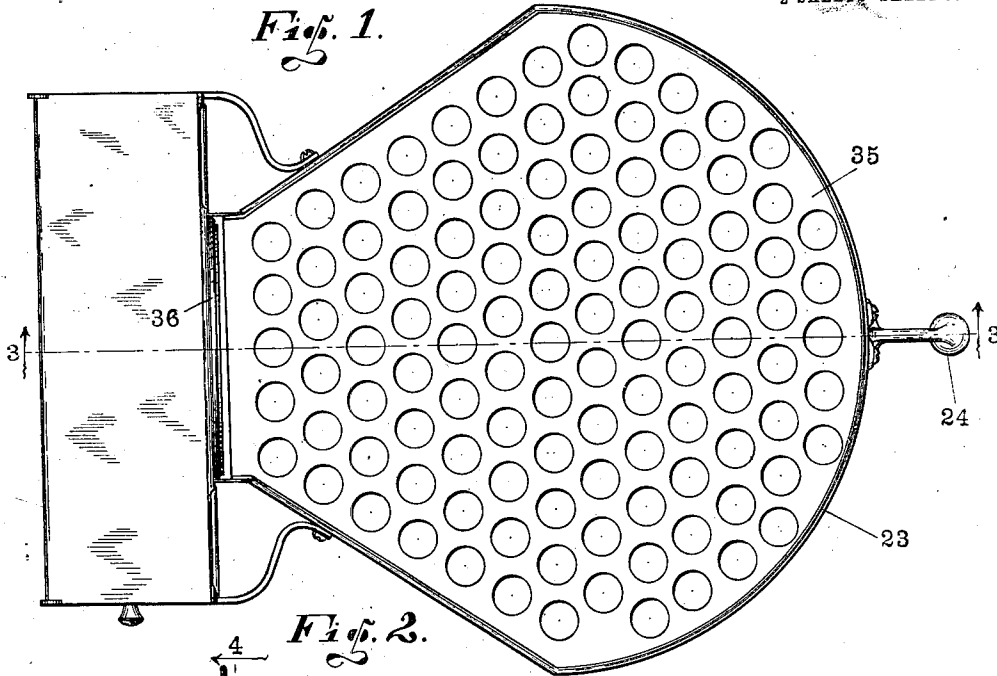
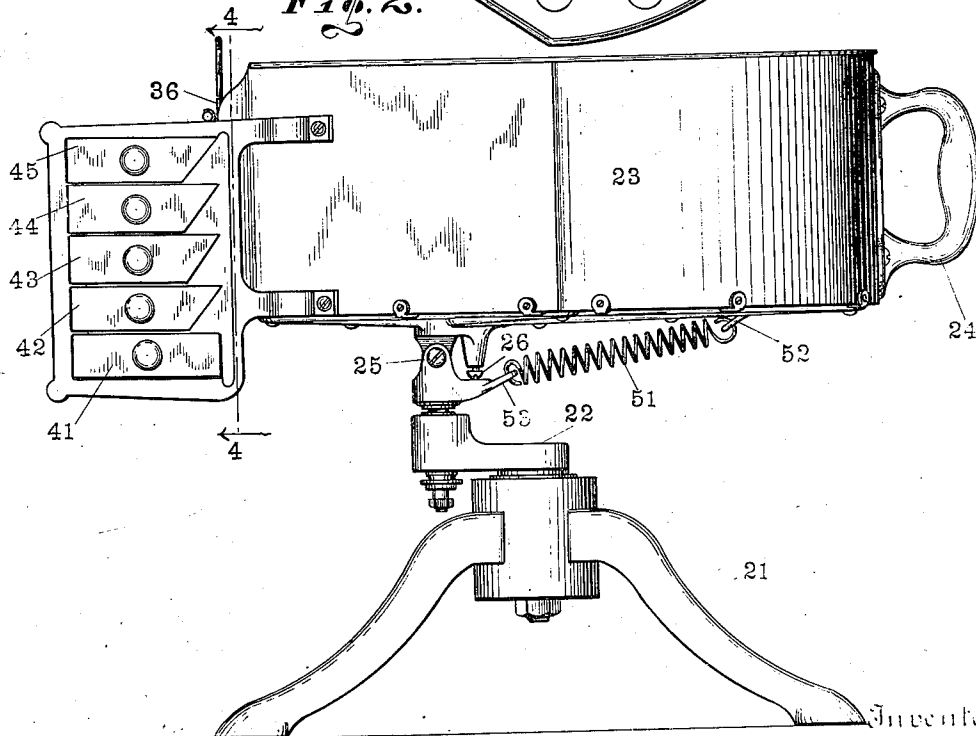


Fig. 2.



Witnesses

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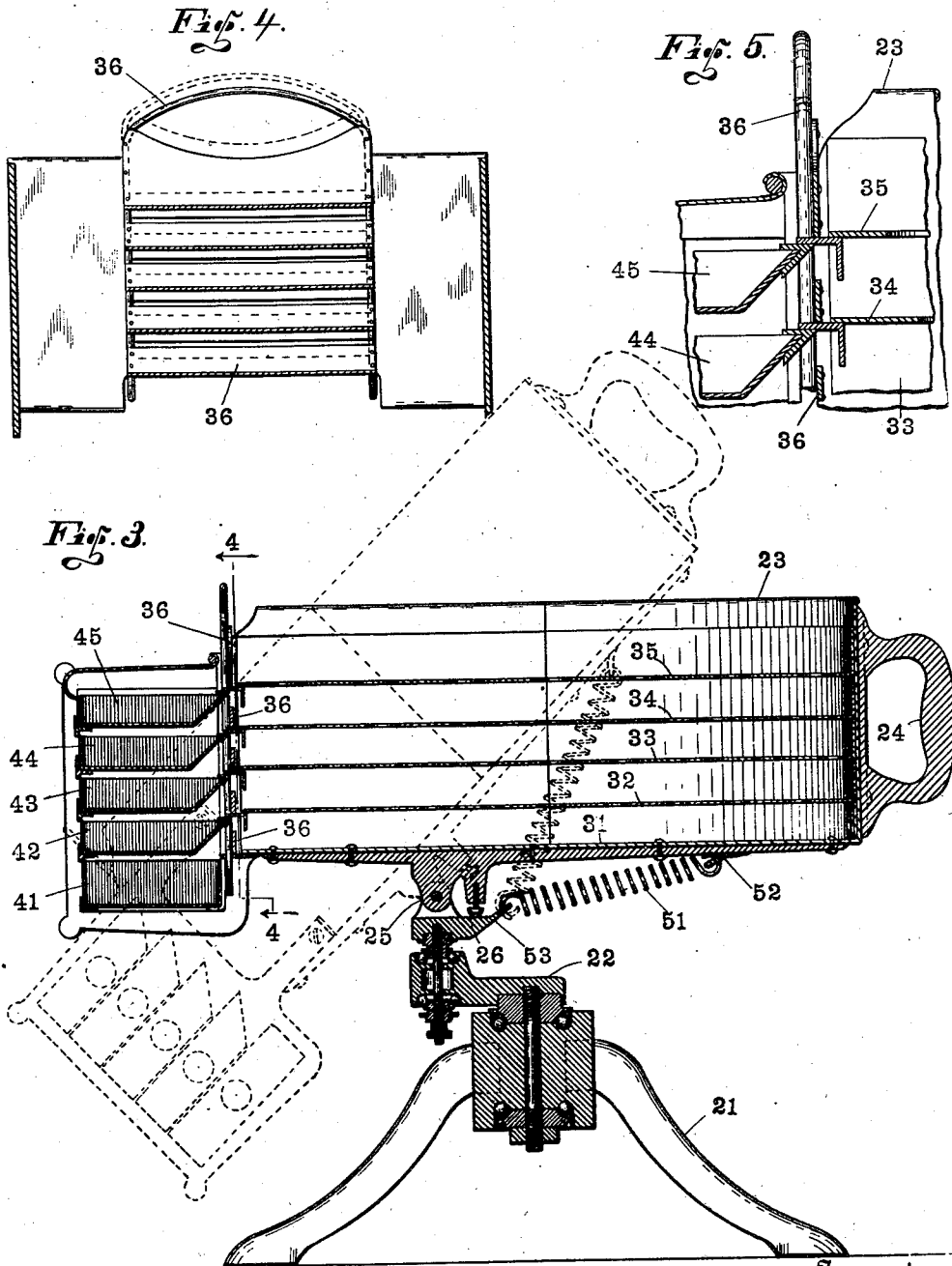
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UNITED STATES PATENT OFFICE

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COIN-SORTER.

990,909.

Specification of Letters Patent.

Patented May 2, 1911.

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To all whom it may concern:

Be it known that I, FREDERICK L. SATTLEY, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Coin-Sorters, of which the following is a specification.

In many classes of business considerable amounts of money are received in the form of small coins of various denominations. In many cases it is difficult or inconvenient to keep such coins assorted as they are received. The assorting and counting of a mixed mass of coins is tedious and laborious.

It is the object of my invention to provide a machine into which a considerable quantity of coins, of all ordinary denominations which are commonly used, may be thrown, and which may be so manipulated as to almost instantly separate and assort several denominations from each other.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts, Figure 1 is a top or plan view of a coin-sorting machine embodying my said invention; Fig. 2 a side elevation thereof; Fig. 3 a central vertical sectional view as seen when looking in the direction indicated by the arrows from the dotted line 3 3 in Fig. 1, the discharging position of the machine being indicated by means of dotted lines; Fig. 4 a section at the point indicated by the dotted line 4 4 in Figs. 2 and 3, showing the gate and immediately adjacent parts, and Fig. 5 a detail view similar to a portion of Fig. 3, but on an enlarged scale.

Said machine is provided with a suitable stand or base, as 21, in which is mounted, vertically, a crank 22. The body 23 of the machine is mounted upon the upper arm of this crank. In operation, the body is given a reciprocatory or gyratory motion around the crank. This is done by the operator, who grasps the handle 24, and by this means he is enabled to conveniently impart motion thereto.

Within the body 23 I arrange a series of shelves equal in number to the number of denominations of coin to be assorted;—all but the lower one of said shelves being perforated. In the machine which I have illustrated, I have shown five such shelves, 31, 32, 33, 34 and 35, and which are adapted, respectively, to receive dimes, cents, nickles, quarters and half-dollars. The lower shelf

or bottom 31 is imperforate, and receives the dimes, which are of the least diameter among the denominations mentioned. The second shelf, 32, contains perforations through which dimes will pass, but through which the cents will not pass. The third shelf, 33, contains perforations through which the dimes and cents will pass, but through which the nickles will not pass. The fourth shelf, 34, contains perforations through which the dimes, cents and nickles will pass, but through which the quarters will not pass; while the fifth shelf, 35, contains perforations through which all the coins mentioned will pass except the half-dollars, which will not pass through the perforations of any of the shelves, and which, consequently, will remain upon this top shelf after the sorting is completed. A mass of money containing coins of these various denominations having been poured upon the top shelf, the operator sets it in motion, and, as I have found by experience, the coins are almost instantly assorted, and find their respective places on the shelves, as designated.

The body 23 I prefer to construct of sheet metal. The bottom is composed of a plate of suitable size and is preferably semicircular upon one side, with a straight portion opposite, the intermediate portions converging as shown in Fig. 1; while attached thereto, adjacent to the narrow straight portion, is the extension which contains receptacles 41, 42, 43 44 and 45 to receive the coins from the sorting shelves after said coins are assorted. The wall of this body 23 at all other points should be continuous and imperforate; but at the flattened side, where the receptacle-containing extension is attached, said wall is omitted, and, instead, I provide a gate 36, containing corresponding openings through which the coins may pass when the gate is opened. It is a matter of convenience to have this extension or receptacle structure attached rigidly to the main body, and formed as substantially a part thereof; but, obviously, it is possible to make these receptacles as a separate structure and arrange the same in such relation to the discharge openings in the body that the latter will come into registry therewith at the time the coins are to be discharged. The attachment between the crank 22 and the body 23 is in the form of a hinge, 25, so that I am enabled to discharge the coins from the

shelves into these drawers, or receptacles, by simply raising the body on its hinge, and this inclining said shelves so that the coins will slide off. This inclined (or discharging) position is indicated by the dotted lines in Fig. 3. I also provide a stop 26, which may be adjustable, as shown, by means of which a level position of the apparatus in use is maintained.

10 The body of the apparatus should, of course, normally remain in its level position. In order to hold it in this position, except when it is purposely tipped, I have provided a spring 51 which is connected at one end at 52 to the body 23 and at the other end at 15 at 53 to the crank 22. By suitably proportioning this spring I insure the holding of this body in its level position at all times, except when it is forcibly tipped up at the time of discharging the assorted coin.

20 It will be understood that while I have shown and described a particular construction and arrangement of parts which I at present prefer, I may vary such construction and arrangement in many ways and I may also vary the means for imparting motion to the sorting devices, without departing from the essential requirements of my invention.

30 In operation, as will be noticed, this machine first separates the coins into groups each of which contains all the coins of one denomination, and retains these groups of assorted coins until ready to be discharged, when the groups are each discharged in a convenient manner for separate disposition.

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

40 1. The combination, in a coin-sorter, of a suitable base, a body containing a plurality of assorting-shelves having graduated perforations, and a vertically mounted crank connecting the base and the body whereby a gyrotory motion is enabled to be imparted to the latter.

2. The combination, in a coin-sorting machine, of a base, a body containing a plurality of coin-assorting shelves, a crank vertically mounted in said base, and a hinge connection between said body and said crank whereby said body may be tipped for the purpose of discharging the assorted coin.

3. The combination, in a coin-sorter, of a body containing coin-assorting shelves, a gate arranged at one side of said shelves whereby the spaces therebetween may be kept closed during the sorting operation and opened for the purpose of discharging the assorted coin and means whereby a gyrotory movement is imparted to the coin sorter in operation.

4. The combination, in a coin-sorter, of a base, a body mounted to gyrate thereon and containing coin-assorting shelves, a gate at

one side of said shelves which may be opened to discharge the assorted coin, and separate receptacles arranged to receive the assorted coins from the several shelves when said coins are discharged therefrom.

5. The combination, in a coin-sorter, of a body containing coin-assorting shelves, means for imparting a gyrotory motion thereto in assorting the coin, a gate whereby the walls bounding the shelves are kept continuous during the assorting operation but which when opened provides discharge openings for the assorted coin, receptacles for the coin arranged to receive the coin when discharged, and means whereby the body may be tipped and the coin thus caused to slide out through said discharge openings.

6. The combination, in a coin-sorter, of a base, a body containing the assorting shelves, a crank mounted in said base, a hinge connecting said crank to said body, and a spring extending from said crank to said body whereby it is normally held in level position but permitted to be raised to inclined position to discharge the coin.

7. The combination, in a coin-sorter, of a base, a crank vertically mounted therein, a body hingedly mounted on said crank, a spring whereby said body is normally held to level position, a gate at one side of said body which when raised provides discharge openings for the assorted coin, and receptacles arranged to receive the coin as discharged.

8. The combination, in a coin-sorter, of a base provided with a vertical pivot, a body pivotally mounted thereon, and assorting shelves mounted in said body and provided with graduated openings (the lower shelves having the smaller openings and the upper shelves the larger) whereby, when motion is imparted to said body, the coins become assorted.

9. The combination, in a coin-sorter, of a base provided with a vertical pivot, a body pivotally mounted thereon, and assorting shelves mounted in said body and provided with graduated openings, said body being hingedly mounted and thereby adapted to be tipped to assist in the discharge of the coins after the same have been assorted.

10. The combination, in a coin sorter, of a base, a body having a plurality of assorting shelves containing graduated perforations and pivotally mounted on a vertical crank-shaft carried by said base whereby it is enabled to have a gyrotory motion and having a comparatively narrow discharging side and straight walls diverging thence to the wider portion of the body, said crank-shaft, and means for opening and closing the discharging points at will.

11. A coin-sorter comprising a body composed of assorting shelves and a surrounding wall having a discharging side narrower

than the diameter of said body and walls diverging thence to the greater diameter, said discharging side being provided with a gate whereby during the sorting operation the walls are rendered substantially continuous, but which, when opened, permits the discharge of the assorted coins through said side.

12. The combination, in a coin-sorter, of a body having sides which converge from the greater diameter in approximately straight lines to the discharging point, a receptacle case secured to said side over the discharge openings, receptacles in said case adapted to receive the coins from the assorting shelves, said shelves, and a gate by means of which the discharge openings may be closed during the process of assorting the coins.

13. The combination, in a coin-sorter, of a body having sides which converge from the greater diameter in approximately straight lines to a discharging point, a receptacle case secured to said side over the discharge openings, receptacles in said case adapted to receive the coins from the assorting shelves, said shelves, a gate by means of which the discharge openings may be closed during the process of assorting the coins, and means for tipping said body to facilitate the discharge.

14. In a coin-sorter, a body containing a plurality of assorting shelves, means whereby said body is given motion in a substantially horizontal plane during the assorting work, and means whereby said body may be tipped on a substantially horizontal axis for discharging the coins.

15. The combination, in a coin-sorter, of a base, a body mounted on said base to move in a substantially horizontal plane and provided with a hinge connection whereby it may be tipped on a substantially horizontal axis.

16. In a coin sorter, the combination, with a supporting base, of a body supported thereon by means permitting gyration thereof in a substantially horizontal plane, a pivotal connection between said body and its support permitting swing in a substantially vertical plane, and a plurality of superposed coin sorting shelves arranged in said body.

17. In a coin sorter, the combination, with a supporting base, of a body supported thereon by means permitting gyration thereof in a substantially horizontal plane, a pivotal connection between said body and its support permitting swing in a substantially vertical plane, a plurality of superposed coin sorting shelves arranged in said body, a gate structure arranged to normally prevent discharge of coins in the planes of the sorting shelves, and receptacles arranged beyond said gate structure to receive coins from said shelves.

18. In a coin sorter, the combination, with

a suitable supporting base, of a body containing a plurality of superposed coin sorting shelves and having a discharge opening opposite each shelf, a gate structure arranged to normally close each of said openings, a gate structure connecting said several gates for simultaneous movement, means for supporting said body on the base to permit gyratory movement of said body in a substantially horizontal plane, a pivotal connection between said body and its supporting base permitting swing of said body in a substantially vertical plane, and coin receptacles arranged opposite the several openings to receive coins from the several shelves.

19. In a coin sorter, the combination, with a suitable supporting base, of a body containing a plurality of superposed coin sorting shelves and having a discharge opening opposite each shelf, a gate structure arranged to normally close each of said openings, means for withdrawing said gates from normal position, means for supporting said body on the base to permit gyratory movement of said body in a substantially horizontal plane, a pivotal connection between said body and its supporting base permitting swing of said body in a substantially vertical plane, and coin receptacles arranged opposite the several openings to receive coins from the several shelves.

20. In a coin sorter, the combination, with a suitable supporting base, of a body containing a plurality of superposed coin sorting shelves and having a discharge opening opposite each shelf, a gate structure arranged to normally close each of said openings, a gate structure connecting said several gates for simultaneous movement, means for supporting said body on the base to permit gyratory movement of said body in a substantially horizontal plane, a pivotal connection between said body and its supporting base permitting swing of said body in a substantially vertical plane, and a plurality of independently removable coin-receiving trays one arranged opposite each of said openings.

21. In a coin sorter, the combination, with a suitable supporting base, of a body containing a plurality of superposed coin sorting shelves and having a discharge opening opposite each shelf, a gate structure arranged to normally close each of said openings, means for withdrawing said gates from normal position, means for supporting said body on the base to permit gyratory movement of said body in a substantially horizontal plane, a pivotal connection between said body and its supporting base permitting swing of said body in a substantially vertical plane, and a plurality of independently removable coin-receiving trays one arranged opposite each of said openings.

22. A coin sorter comprising a casing hav-

ing a plurality of superimposed spaced differentially perforated screens, the said casing having an opening opposite a part of each screen, an extension carried by said casing
5 adjacent such openings, means for normally closing the openings opposite the several screens, and coin-receiving means mounted in the extension.

23. A coin sorter comprising a casing having
10 a plurality of superimposed spaced differentially perforated screens, the said casing having an opening opposite one side of each screen, gates for normally closing said openings and a plurality of withdraw-
15 able receptacles arranged in receiving position relative to the several screens.

24. A coin sorter comprising a casing having
20 a plurality of superimposed spaced differentially perforated screens, the said casing having an opening opposite one side of each screen, gates for normally closing said

openings, and a plurality of separately withdrawable receptacles arranged in receiving position relative to the several screens.

25. In a coin sorter, the combination of a 25 plurality of differentially perforated superimposed sorting shelves, a casing inclosing said shelves and provided with an opening through which the sorted coins may be delivered, a plurality of receptacles, one for 30 each shelf, arranged to receive the sorted coins from said shelves, and a vibratory supporting means for said shelves and casing.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, 35 this twenty-fifth day of April, A. D. one thousand nine hundred and four.

FREDERICK L. SATTLEY. [L. s.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.