E. P. PARKER.

CHANGE MAKING APPARATUS.

APPLICATION FILED MAY 13, 1918.

1,302,961.

Patented May 6, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

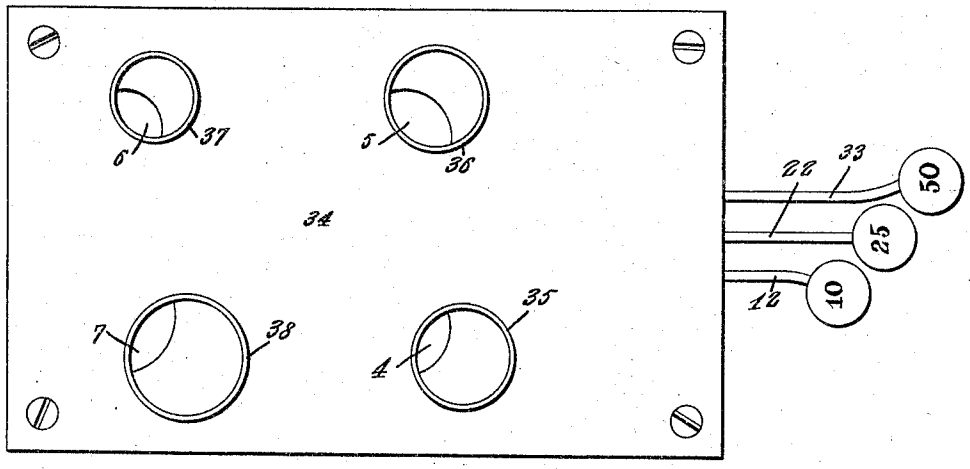
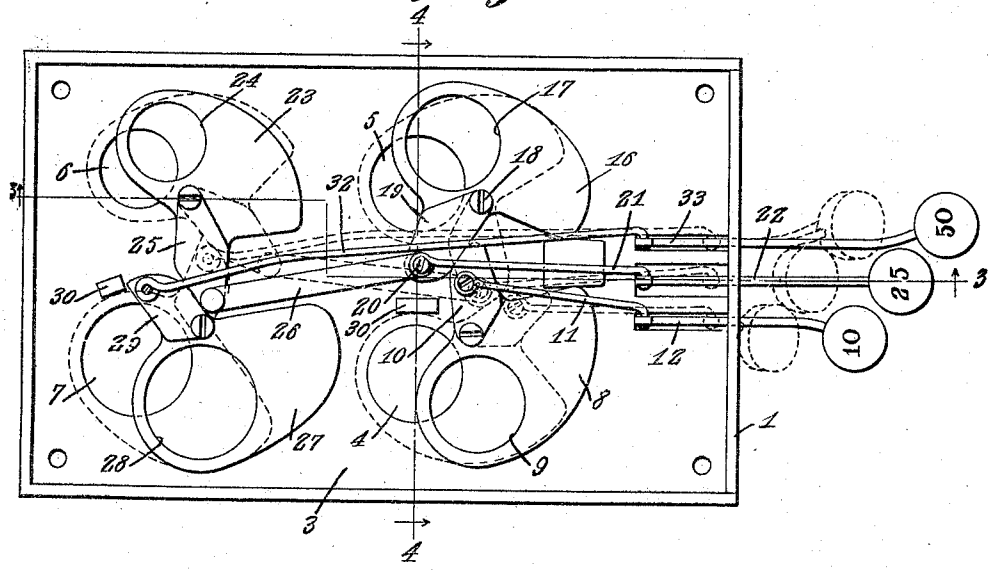


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

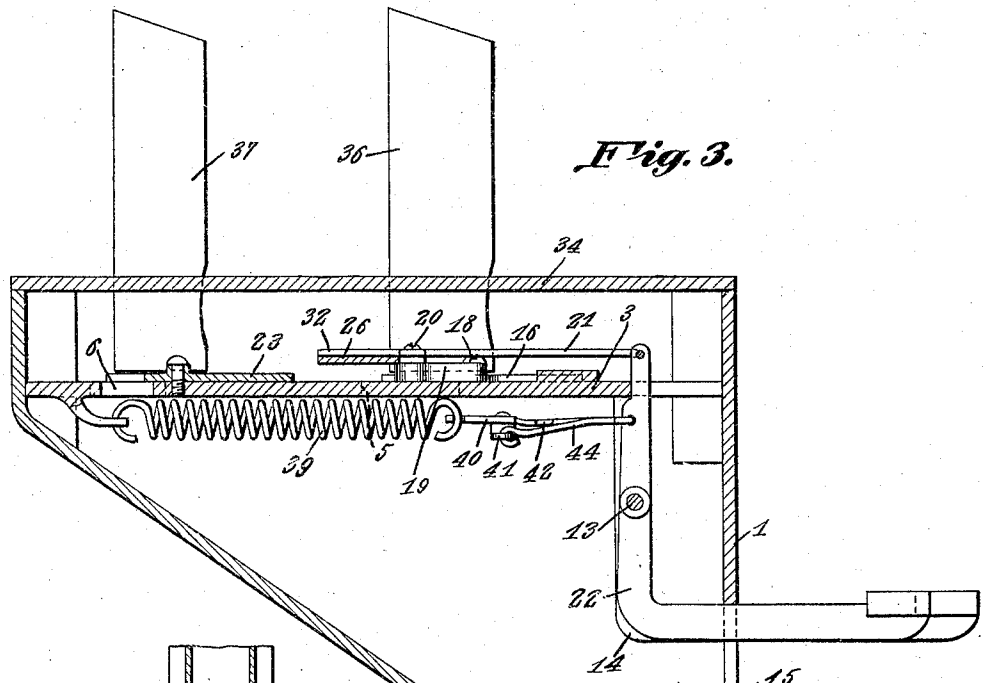


Fig. 4.

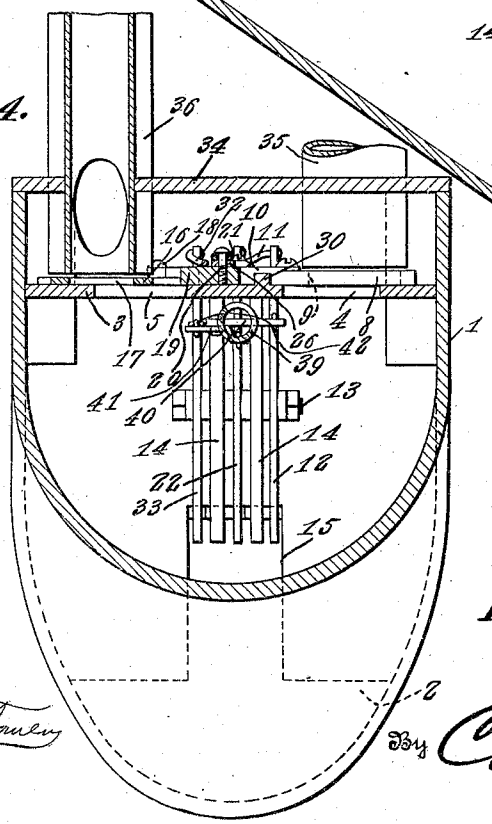
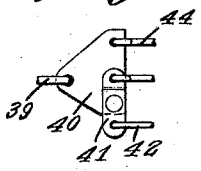


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CHANGE-MAKING APPARATUS.

1,302,961. Specification of Letters Patent. Patented May 6, 1919.

Application filed May 13, 1918. Serial No. 234,158.

To all whom it may concern:

Be it known that I, ELDRIDGE P. PARKER, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented a new and useful Change-Making Apparatus, of which the following is a specification.

This invention relates to apparatus for use in changing money and is more especially designed for use upon public conveyances, in ticket offices, and wherever it is desired to make change quickly and accurately.

One of the objects of the invention is to provide a simple and compact structure which will not readily get out of order and which can be manipulated readily to deliver in small change the equivalent of the amount received.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claim, it being understood that various changes may be made in the construction and operation of the parts without departing from the spirit of the invention as set forth in the appended claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings—

Figure 1 is a plan view of the apparatus.

Fig. 2 is a plan view thereof with the cover plate removed.

Fig. 3 is a section on line 3—3, Fig. 2, the cover plate being in position.

Fig. 4 is a section on line 4—4, Fig. 2.

Fig. 5 is a detailed view of one of the equalizers.

Referring to the figures by characters of reference, 1 designates a hopper like casing having an inclined bottom leading downwardly to an outlet provided at the front of the casing and shown at 2. Within the upper portion of this casing is secured a supporting plate 3 in which are formed coin outlet openings 4, 5, 6 and 7 arranged in pairs. The apertures 4 and 5 are adapted to receive and permit the discharge of nickels while the apertures 6 and 7 are designed to allow the discharge of dimes and quarters respectively.

Pivotally mounted on the plate 3 adjacent the opening 4 is a segmental plate 8 having an opening 9 therein the diameter of which is slightly greater than that of a nickel, the thickness of the plate 8 being equal to or slightly less than the thickness of two nickels. An arm 10 is extended inwardly from the plate 8 and is connected by a link 11 to the upper end of a bell crank lever 12 fulcrumed on a pin 13 which is extended through and supported by flanges 14 extending inwardly from the front wall of the casing. The lower end of the lever 12 is extended forwardly through a slot 15 in the front wall of the casing and is provided at its free end with a key on which the numeral "10" may appear, indicating ten cents.

Another segmental plate 16 is pivotally mounted on the plate 3 near the opening 5 and has an opening therein slightly greater in diameter than a nickel, and thickness of the plate 16 being equal to or slightly less than the thickness of one nickel. This opening has been shown at 17. The plate is pivotally mounted at 18 and has an arm 19 extending radially therefrom back of and in the path of the arm 10. A stud 20 is provided on the end of arm 19 and engages one end of a link 21 the other end of which engages the upper end of a bell crank lever 22 which is similar to the lever 12 and is mounted on the pin 13. The lower arm of this lever projects forwardly through the slot 15 and has a key on its end on which the numeral "25" may appear as designating twenty-five cents.

Pivotally mounted on the plate 3 adjacent the opening 6 is another segmental plate 23 having an opening 24 therein the diameter of which is slightly greater than the diameter of a dime, this plate being of a thickness equal to or slightly less than the thickness of a dime. An arm 25 is extended inwardly from the plate 23 and is connected by a link 26 to the stud 20.

Pivotally mounted on the plate 3 near the opening 7 is a segmental plate 27 having an opening 28 therein the diameter of which is slightly greater than the diameter of a quarter and the thickness of this plate is equal to or slightly less than the thickness of a quarter. This plate has an arm 29 extending inwardly therefrom and back of the arm 25 with which it normally contacts. Stops 30 are provided adjacent openings 4 and 7 for limiting the movement of the plates 8 and 27 when swung in one direction.

A link 32 is connected to the arm 29 and extends forwardly over the arm 19 and is

secured to the upper end of a bell crank lever 33 which is mounted on the pin 13 and has a key on its forwardly extending lower portion, said key bearing the numeral "50", designating a half dollar.

Secured on the casing 1 is a cover plate 34 through which extend tubular coin containers 35, 36, 37 and 38. The containers all terminate close to the upper faces of the segmental plates thereunder and the containers 35 and 36 are adapted to hold nickels while the containers 37 and 38 are designed to hold dimes and quarters, respectively.

Secured to the bottom of the plate 3 and extending forwardly between the openings in said plate, is a spring 39 secured to the intermediate portion of an equalizing lever 40. A smaller lever 41 is pivoted at its center on one end portion of the lever 40. A link 42 connects one end of lever 41 to the upper portion of lever 12. Another link connects the other end of lever 41 to the upper portion of lever 22 and a third link 44 connects the other end portion of lever 40 with the upper portion of the lever 33. Thus it will be seen that the pull exerted by the spring 39 will be equalized upon the levers 12, 22 and 33 and said levers normally maintained with their keys elevated and with the plates 8, 16, 23 and 27 positioned as shown in Fig. 2.

When the parts are positioned as illustrated, the lower coin in each of the containers 36, 37 and 38 will rest in the apertured segmental plates under said containers while the two lower coins in the container 35 will rest in the aperture 9, all of said coins being supported by the plate 3. Should it be desired to deliver change for a dime, the key lever 12 is depressed. This causes the plate 8 to swing upon its pivot and against the stop 30. Thus the two nickels contained in the opening 9 will be slid from under the container 35 and brought to position over the opening 4 through which they will fall into the bottom portion of the casing 1 and gravitate to the outlet 2. The stack of coins in the container 35 will be supported by plate 8 until the plate returns to its normal position whereupon two more coins will become seated in the opening 9. Change for a quarter is obtained by depressing the lever 22. Link 21 thus pulls through link 26 and both plates 16 and 23 are actuated to bring the contents of their openings 17 and 24 to the openings 5 and 6 respectively. At the same time the arm 19 of plate 16 moves against the arm 10 of plate 8 and causes said plate to deliver its contents to the opening 4. Thus at one operation two nickels will be delivered through opening 4, one nickel through opening 5 and one dime through opening 6. By depressing lever 33 the link 32 will pull on arm 29 and shift plate 27 to delivering position. This arm 29 will push against and actuate the arm 25 which, in turn, will thrust through link 26 against arm 19 which will actuate the arm 10. Therefore the contents of all four segmental plates will be delivered simultaneously into the bottom portion of the casing and will be the proper change for one half a dollar.

It is to be understood, of course, that the machine can be changed readily to adapt itself for use with coins other than those described.

What is claimed is:—

In change making apparatus the combination with separate key levers, an equalizing lever connected to one of the key levers, and another lever pivoted on the equalizing lever and connected at its ends to the other key levers, of a spring connected to the equalizing lever, separate coin holders, separate coin delivering plates movable thereunder and having coin receiving openings, a connection for coupling two of the plates to produce simultaneous movement thereof, a connection between said plates and one of the key levers, connections between the other or unconnected delivering plates and the remaining key levers, all of said plates being arranged in pairs and having arms, one arm of each pair being arranged in front of the other arm of said pair whereby actuation of one of the uncoupled plates will cause transmission of motion through the arms and coupling connection to all of the remaining plates, one of said unconnected plates being shiftable independently of the remaining plates and also with all but one of said remaining plates.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ELDRIDGE P. PARKER.

Witnesses:
R. L. GREGORY,
L. E. GAMBILL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."