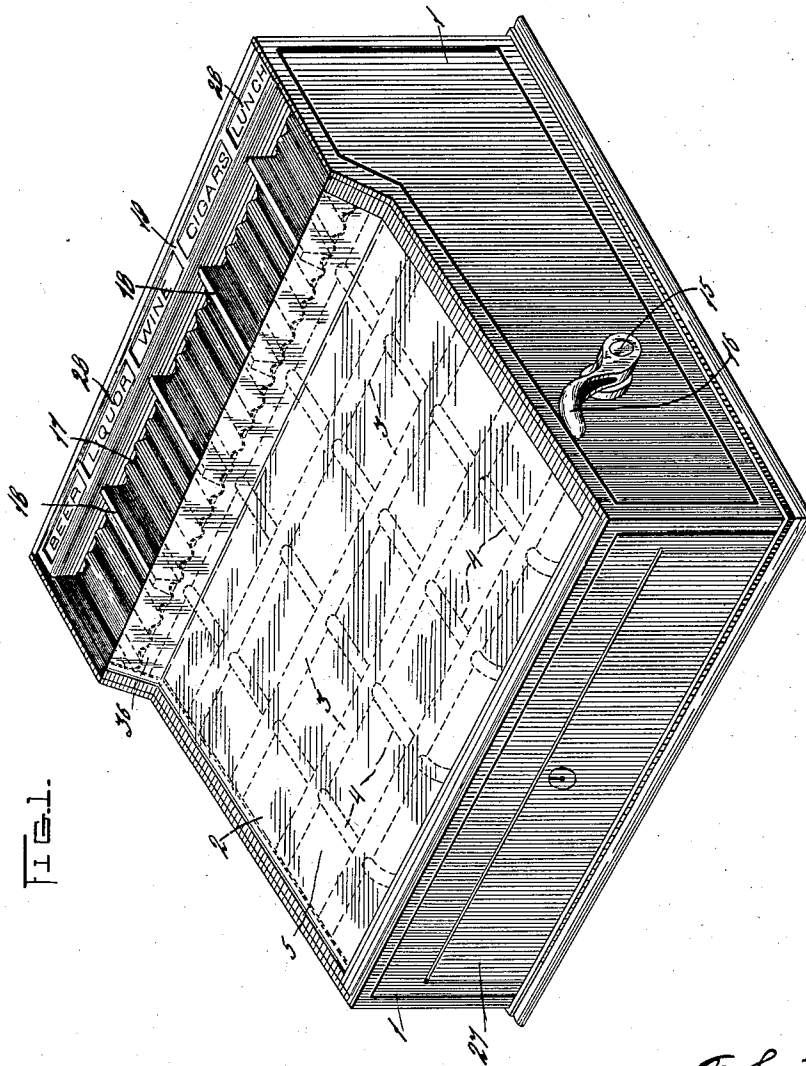


F. C. FABRY.
COIN DISPLAYER.
APPLICATION FILED FEB. 8, 1907.

1,013,991.

Patented Jan. 9, 1912.

2 SHEETS—SHEET 1.



Witnesses

Charles

Karl M. Benst.

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Inventor

by
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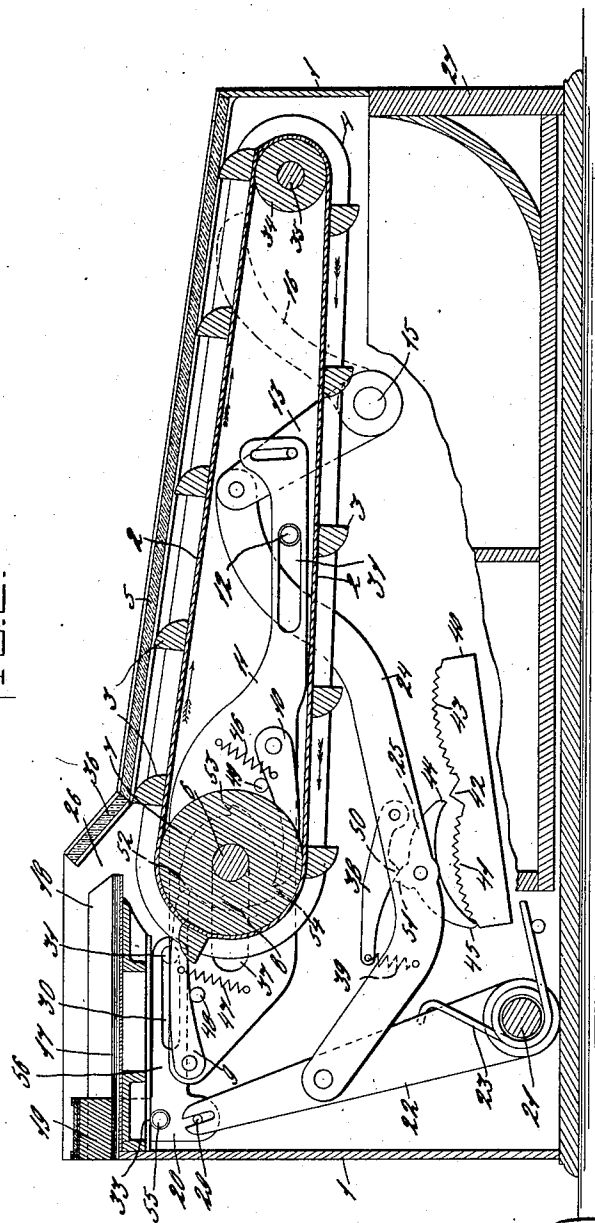
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2 SHEETS-SHEET 2.

FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

FRAUR C. FABRY, OF BERLIN, GERMANY, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO, (INCORPORATED IN 1906.)

COIN-DISPLAYER.

1,013,991.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed February 8, 1907. Serial No. 356,472.

To all whom it may concern:

Be it known that I, FRAUR C. FABRY, a subject of the Emperor of Germany, residing at Berlin, in the Province of Brandenburg and Empire of Germany, have invented certain new and useful Improvements in Coin-Displays, of which I declare the following to be a full, clear, and exact description.

The present invention relates to coin displays and has more particular relation to that class of machines in which the money received during the last few transactions is kept in plain view of the operator.

An object of the invention is to provide a machine which will enable the persons using it to keep separate the money received by different clerks or for different transactions. This furnishes a decided advantage over machines of this class which are at present well known in the art, in that the proprietor is enabled to tell which clerk is taking in the most money or which class of goods sold is netting him the greatest profits.

A further object of the invention is to provide a machine, the construction and arrangement of whose mechanism is such as to eliminate all possibility of the coins handled thereby becoming jammed in the coin handling parts.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in appended claims and a preferred form of embodiment of which is hereinafter specifically described with reference to the drawings which accompany and form part of this specification.

Of said drawings: Figure 1 is a perspective view of the complete machine. Fig. 2 is a transverse vertical sectional view taken just inside the right hand end of the machine and looking to the right, showing the parts in their normal position, portions of the cash drawer being broken away for the sake of clearness.

As seen in Fig. 1 the machine comprises an inclosing casing 1 containing the locked compartment 27 and the general mechanism of the machine and at its right hand end is provided with the main operating lever 16 which lever is rigidly connected to the protruding end of the main operating shaft 15.

At the rear of the top of the casing the machine is provided with the rigidly mounted coin receiving table 17 the upper surface of which is corrugated for the purpose hereinafter described, and is further provided with cross pieces 18 which serve to keep the money of the different transactions separate for the purpose hereinbefore referred to. At the rear end of said coin receiving table 17 there is slidably mounted a cross bar 19, the upper side of which is provided with designating marks or words 28 which are located relatively to the sections of the coin receiving table 17, the office of said designations 28 being to indicate to the operator the classes of transactions or the clerks to which the various sections of the coin receiving table have been assigned. For the purpose of illustration the designations assigned are "Beer", "Liquor", "Wine", "Cigars" and "Lunch".

The under side of the cross bar 19 is provided with corrugations the contour of which corresponds exactly with that of the corrugations on the upper surface of the coin receiving table 17, and the two sets of corrugations are so arranged with relation to one another that the raised portions of one fit snugly in the depressions of the other, this construction being for the purpose of preventing any coins which may be lying on the coin receiving table 17 from catching in any slight opening which might exist between said table 17 and the cross bar 19 when the latter is slid in a forward direction for the purpose and in the manner hereinafter described. The remaining portion of the top of the machine consists of a plain glass plate 5 with upturned rear portion 36 through which plate 5 the operator can see the coins which may have been deposited in the machine during the last four transactions said coins lying on the continuous carrying band 2 which is divided in sections by the continuous parallel ribs 4, which correspond in number, location and function to the cross pieces 18 of the coin receiving table 17, and by parallel cross pieces 3 which are so located with relation to one another that the distance between them corresponds exactly with the degree of movement which is imparted to the band 2 by the main operating lever 16 at each operation of the machine.

The continuous coin carrying belt 2 is designed to move in the direction of the arrows (Fig. 2) and at its forward loop passes around the roller 34 loosely mounted on the shaft 35. At its rearward loop the belt passes around the roller 7 which roller acts through its frictional contact with the belt 2 as the driving roller therefor.

The roller 7 has fast to its right hand end a driving ratchet 8 which ratchet is provided with three teeth 52, 53 and 54. The ratchet 8 is adapted to be actuated by the plate 11 through the medium of the actuating pawls 9 and 10, which pawls are pivotally mounted on said plate 11 at opposite edges thereof, the operating ends of said pawls 9 and 10 normally engaging the ratchet 8 and being drawn toward one another by the springs 47 and 46 respectively, but limited in their action responsive thereto by the stop pins 48 and 49 which pins are also mounted on the plate 11. By the provision in the plate 11 of the elongated slot 37 surrounding the shaft 6 and the elongated slot 31 surrounding the pin 12 mounted in the side frame of the machine, said plate 11 is adapted to be given a longitudinal sliding movement, which movement it receives upon the rocking of the main operating lever, through the medium of the upward and rearwardly extending arm 13 rigidly mounted on the shaft 15 and the slot and pin connection of said arm 13 with the plate 11 at the extreme forward end of said plate. At its upper end the arm has pivoted to it the link 24 which link at its rear end is pivotally connected to the upwardly extending arm 22. The arm 22 is pivotally mounted on the shaft 21 and is spring pressed rearwardly to normal position by the spring 23 which spring is made of sufficient strength to perform the function of returning the main operating lever and the mechanism connected thereto to normal through the medium of the train of mechanism last recited viz. the arm 22, link 24, arm 13, shaft 15.

The arm 22 is bifurcated at its upper end to straddle the pin 29 on the hanger 20, which hanger is rigidly connected to the cross bar 19 at the top of the machine. To insure a more perfect sliding movement of the cross bar 19, the hanger 20 has mounted upon it an anti-friction roller 55 which roller bears against a guiding edge 33 on the under side of the coin receiving table 17, and said hanger also has a forwardly extending arm 56 which is provided at its forward end with an elongated slot 30 surrounding the guide pin 31 mounted on the side frame of the machine.

The general operation of the machine is as follows: Suppose for the sake of illustration that the clerk sells an amount of wine valued at \$.75. He would deposit the

money received in payment therefor in the section on coin receiving table 17 which has been allotted to sales of wine and then depress the lever 16 to its lowermost position from which position it would be returned automatically to its normal position through the action of the spring 23 as hereinbefore described. In the normal adjustment of the machine the rearmost cross piece 3 (in sight) on the coin carrying belt 2 is located just below the bottom edge of upturned section 36 of the glass top 5. When the lever 16 is depressed as before described the shaft 15 will be rocked thereby rocking the arm 13 in a forward direction. Through the medium of the slot and pin connection between the plate 11 and the arm 13 said plate 11 will be slid forward and the pawl 9 thereon will engage the tooth 52 of the ratchet 8 thereby turning said ratchet 8 and roller 7 to which it is connected $\frac{1}{3}$ of a revolution, thereby bringing the tooth 53 in path of the pawl 10 to be engaged thereby upon the return movement of the same, said pawl having been drawn forward away from the ratchet 9 upon the forward movement of the plate 11. The movement of the roller 7 is transmitted to the belt 2 and said belt is moved a distance equal to one half the complete movement given the same at each complete operation of the machine, thereby moving the last mentioned cross piece 3 from its position at the lower edge of the glass plate 36 to a point half way between its original position and the original position of cross piece immediately preceding it, and also moving the cross piece immediately following it around the rear loop of the belt 2 to a position just below the forward edge of the coin receiving table 17 thereby bringing a section on the belt 2 to a position to receive the coin as it passes down through the opening 26. Simultaneously with this adjustment of the coin receiving belt 2, the cross bar 19 will be moved forward to sweep the coins down through the opening 26, by the arm 22 which arm received its forward rocking movement from the arm 13 through the medium of the link 24. When the operator releases the handle at the end of the downward stroke, the spring 23 will return the arm 22 to its normal position thereby returning the cross bar 19 to its original position, and through the link 24 will draw the arm 13 rearward thereby forcing the plate 11 to its home position. Upon the rearward movement of the plate 11, the pawl 10 will have engaged the tooth 53 on the ratchet 8 and turned said ratchet to complete its regular operating movement thereby moving the belt 2 to bring the cross piece which was just below the forward edge of the coin receiving plate 17 at the end of the first half movement of the belt forward to a position

just below the lowermost edge of the glass plate 36 thereby closing the space between the belt 2 and the glass plate 5 to prevent the insertion of a wire or other material to withdraw any of the coins which were deposited in the machine.

Located immediately below the coin carrying belt 2 is the locked compartment 27 which compartment is divided into sections corresponding in number, size and position to the sections on the coin receiving table 17 and are adapted to receive and keep separate the coin as it falls over the forward loop of the coin carrying belt 2.

To prevent the return of the main operating lever 16 to normal position after it has once been started and before it has been put through a complete operation, a well known form of full stroke device has been provided, a brief description of which follows: Pivottally mounted to the link 24 is the bow pawl 25 which is provided with two projecting arms 45 and 44 and also with the upwardly extending bevel headed nose 51 immediately above the pivotal point, said nose 51 coacting with the bevel nose 50 on the pawl 38 to hold the bow pawl 25 in one of two positions as hereinafter described, the pawl 38 being pivottally mounted on the lever 24 and held in yielding contact with the pawl 25 by the spring 39. Immediately below the bow pawl 25 is the plate 40 which is rigidly mounted to the main frame of the machine. The plate 40 is divided into two sections 41 and 43 each of which sections is provided on its upper edge with small ratchet teeth. The plate 40 is further provided with a large tooth 42 which tooth is located just between the two toothed sections 41 and 43 of said plate 40. In the normal position of the mechanism the bow pawl 25 is in a position in which the rearwardly extending arm 45 of the same rests at the extreme rear end of the toothed section 41 of the plate 40, and the bevel nose 51 of the pawl 25 rests against the rear face of the bevel nose 50 on the pawl 38. When the link 24 is drawn forward the arm 45 of the pawl 25 will wipe over the teeth of the section 41 of the plate 40 and thereby prevent the return of the link to normal rear position.

When the link has reached its extreme forward position the arm 45 will have struck the tooth 42 of the plate 40 and been forced upward, thereby rocking the pawl 25 to bring the arm 44 of said pawl into contact with the forward end of the toothed section 43 of the plate 40, and also will have forced the bevel nose 51 of the pawl 25 past the bevel nose 50 of the pawl 38 and is held in that position by the pressure of the pawl 38 against it which pressure is caused by the spring 39. When the link 24 moves rearward the arm 44 of the pawl 25 wipes over the teeth of the section 43 of plate 40 there-

by preventing retrograde movement of the link 24 and when said link has completed its movement the arm 44 will strike the nose 42 of the plate 40 and again trip the pawl 25 to normal position.

While the form of mechanism here shown and described is admirably adapted to fulfil the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein disclosed, for it is susceptible of embodiment in various forms all coming within the scope of the claims which follow.

What is claimed is as follows;

1. A check receiver, having in combination, a table having corrugations and on which checks are deposited, a pushing device above said table having complementary corrugations, and means for reciprocating said device over the table. 70
2. A check receiver, having in combination, a table having corrugations and on which checks may be deposited, a pushing device having complementary corrugations, a traveling conveyer, and means for moving said pushing device to carry the checks from the table and deposit them on the conveyer. 75
3. A check receiver, having in combination, a table having corrugations, and on which checks may be placed, a plate over said table and having complementary corrugations, and means for producing relative motion between said table and plate to deposit the checks in the receiver. 80
4. A check receiver, having in combination, a table having corrugations and on which checks may be placed, a traveling conveyer, a plate over said table and having corrugations complementary to those on the table, and means for producing relative motion between said plate and table to deposit the checks on the conveyer. 85
5. A check receiver, having in combination, a table having corrugations and on which checks may be placed, a traveling conveyer, a plate over said table and having corrugations complementary to those on the table and a common means for moving said conveyer and said plate. 90
6. A check receiver, having in combination, a table having corrugations and on which checks may be placed, a plate over said table and having corrugations complementary to those on the table, means for producing relative motion between said plate and table to deposit the checks in the receiver, and a device compelling a full stroke of said motion producing means. 95
7. A check receiver, having in combination, a traveling conveyer, means for moving same twice at each operation of the machine, a table on which checks may be deposited, a plate movable over said table to deposit checks on said conveyer, and means 100

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for moving said plate to so deposit checks as the conveyer is given its first movement.

8. A check receiver, having in combination, a belt conveyer having projections, and moved at each operation of the machine, a table on which checks may be deposited, a plate movable over said table and serving to deposit checks on said conveyer, and a common operating means for said plate and conveyer the construction being such that the plate deposits checks on the conveyer directly in advance of a projection.

9. A check receiver, having in combination, a conveyer moved twice at each operation, a movable plate serving to deposit checks on said conveyer, a transparent covering for said conveyer having an aperture for the checks, and a common operating means for said plate and conveyer, serving to move the plate to deposit checks in correspondence with the first movement only of said conveyer, the second conveyer movement carrying the checks under said transparent covering.

10. A check or coin receiver having in combination a conveyer belt having projections, a table on which checks or coins may be placed, a plate movable over said table and serving to deposit said checks or coins on said belt, a lever reciprocated at each operation of the check receiver, connections whereby said lever moves said plate, and two oppositely positioned pawls actuated by said lever and serving to successively actuate said belt during opposite directions of movement of said lever.

11. A check receiver having in combination a conveyer belt; an operating mechanism for said belt comprising a ratchet movable with said belt, two pawls engaging opposite sides of said ratchet; a slide on which said pawls are mounted, means for

moving said slide in opposite directions successively.

12. A check receiver having a stationary corrugated plate on which checks or coins may be placed, a plate having corrugations complementary to those on the stationary plate and positioned so that the ridges on one plate engage the depressions on the other plate, means for reciprocating the second plate over the first, and a receptacle into which the checks or coins are forced by the said reciprocation.

13. A check or coin receiver having in combination a casing, a conveyer belt, having projections positioned to rub along said casing as the belt moves, means for twice moving said conveyer belt at each operation, the sum of the two movements being equal to the distance between two consecutive projections, a table on which checks or coins may be placed and devices for moving checks or coins on said belt between the projections from said table.

14. A check or coin displayer, having in combination a transparent covering, a conveyer belt passing parallel to said covering, projections on said belt spaced equally thereon and positioned to engage and rub along said covering, means for moving said belt at each operation an extent equal to the distance between consecutive projections thereon, a table on which checks or coins may be placed, and devices for moving checks or coins on said belt between the projections from said table.

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

FRAUR C. FABRY.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.