Nov. 14, 1933. E. J. BRANDT 1,935,012

COIN RECEIVER

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Fig. 1.

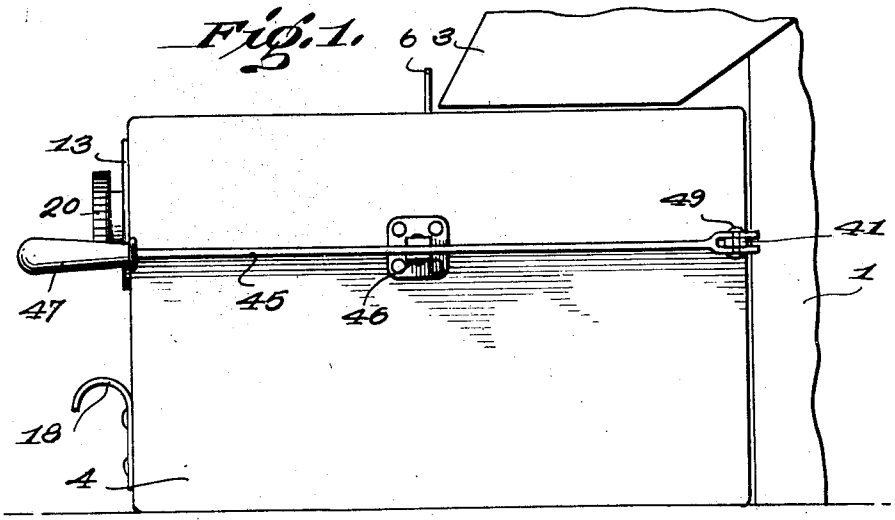


Fig. 2.

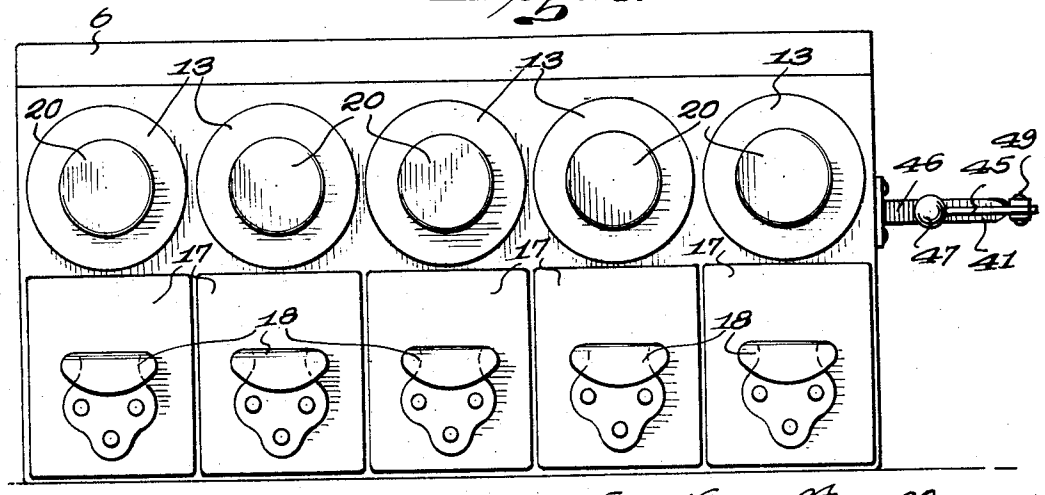
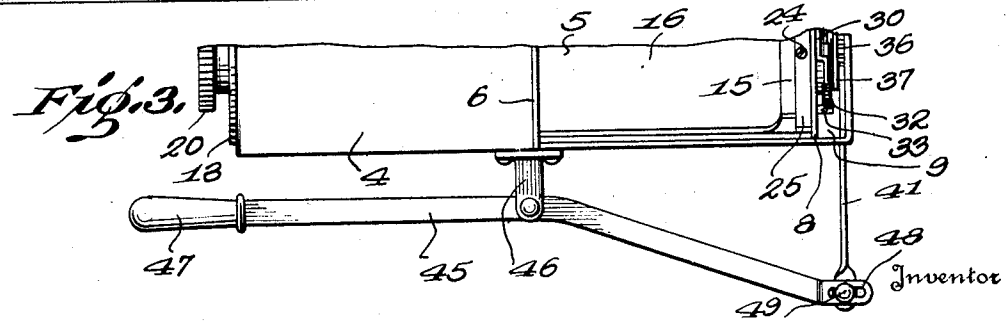


Fig. 3.



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Fig. 4.

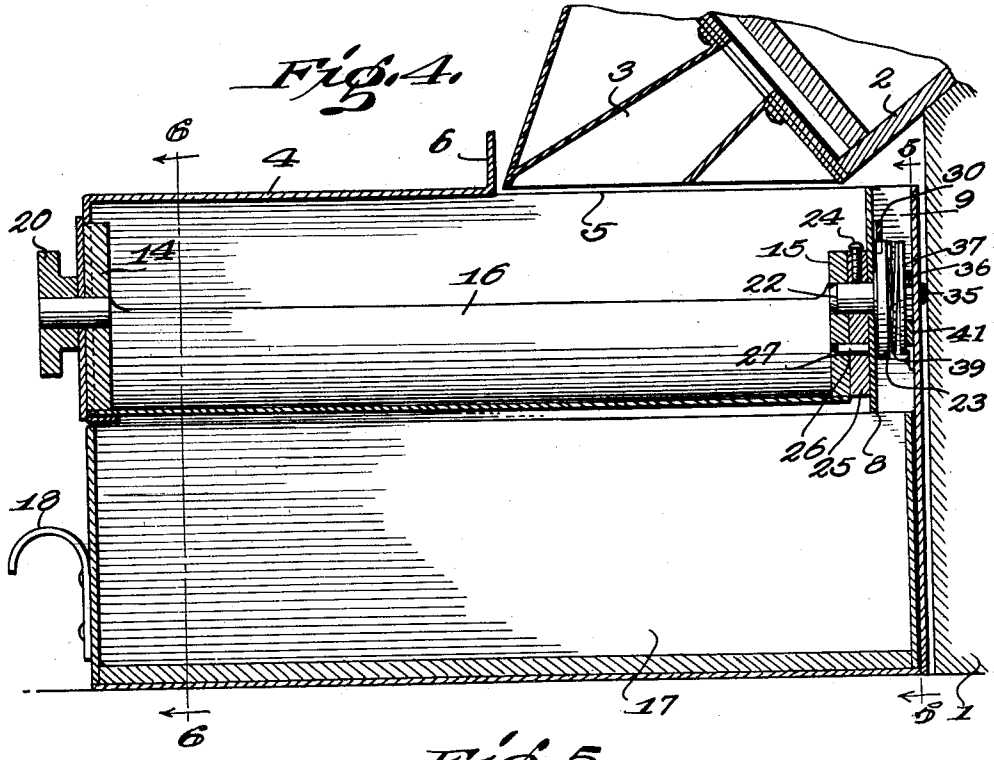
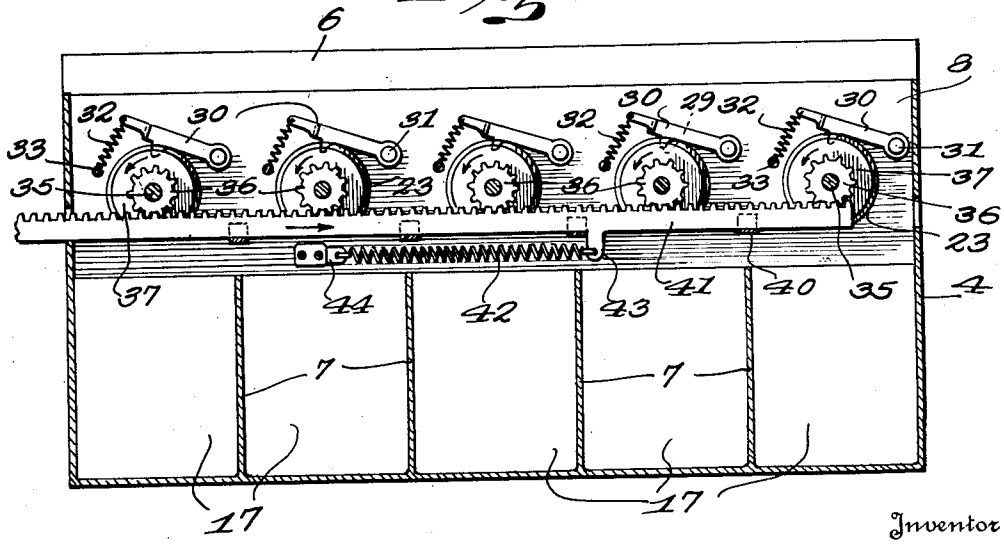


Fig. 5.



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Fig. 6.

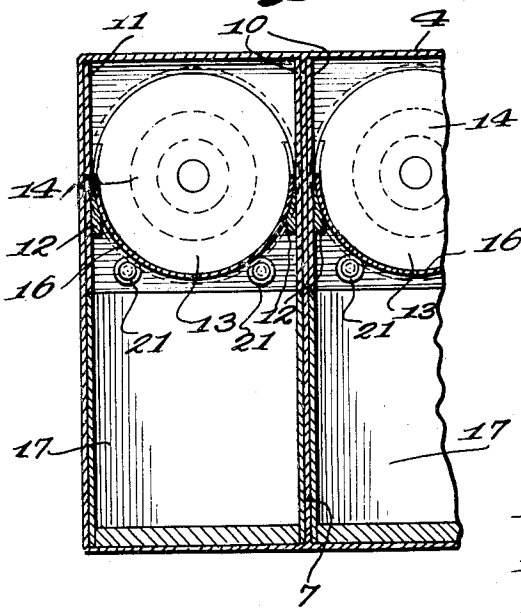
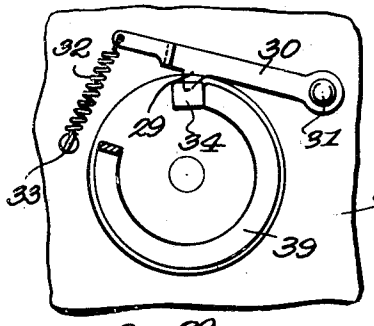


Fig. 7.



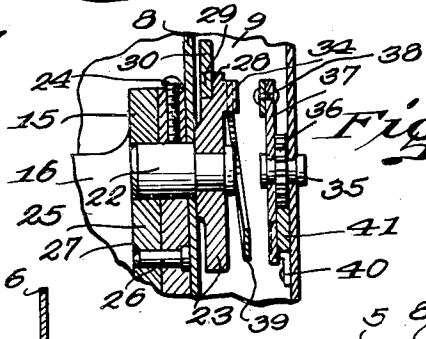
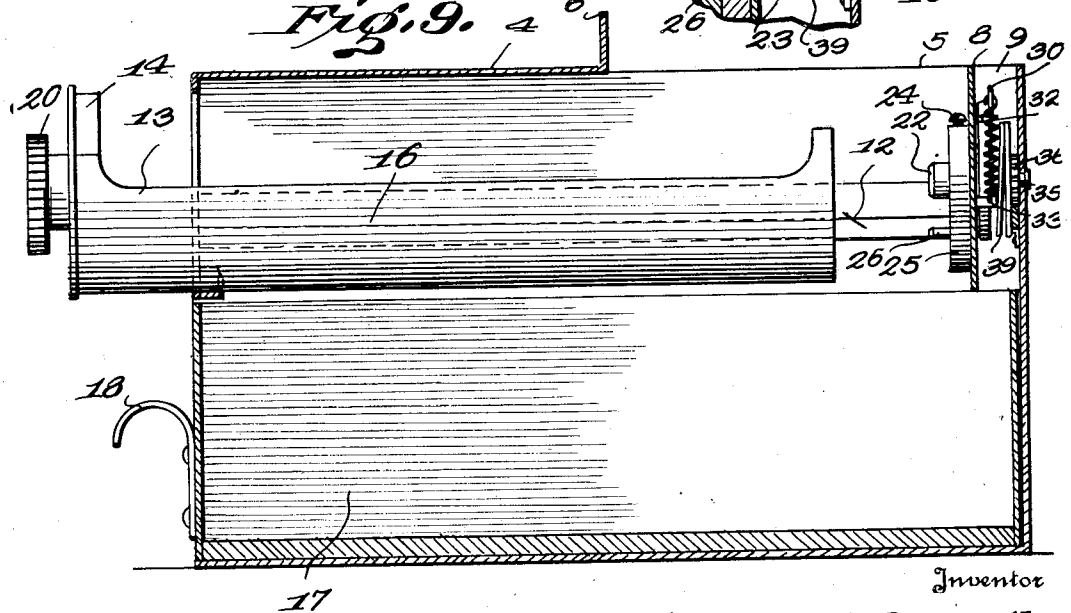


Fig. 8.

Fig. 9.



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UNITED STATES PATENT OFFICE

1,935,012

COIN RECEIVER

Edward J. Brandt, Watertown, Wis., assignor to Brandt Automatic Cashier Company, Watertown, Wis., a corporation of Wisconsin

Application April 16, 1930. Serial No. 444,722

27 Claims. (Cl. 133—11)

My invention relates to new and useful improvements in coin receivers and more particularly to a device of this character adapted to receive coins from a money handling machine such as a coin counting machine or a coin assorting machine.

The principal object of the invention resides in the provision of a device of the character described which is relatively simple and inexpensive in construction and of a size whereby it may be readily moved from place to place and while primarily intended to be a separate part from the coin handling machine it could, if desired, be connected to the machine in any desired manner or formed as a part thereof.

Another object of the invention resides in the provision of a coin receiver in which there are a plurality of receptacles for receiving coins of different denominations.

A further object of the invention consists in the provision of a coin receptacle having a primary series of receptacles and a secondary series of receptacles, the receptacles of the primary series being adapted to receive the coins as they are discharged from the money handling machine and adapted to temporarily hold the same until such time as it is desired to discharge the coins into the receptacles of the secondary series, the primary receptacles being adapted for movement whereby the coins may be discharged therefrom into the receptacles of the secondary series.

Still another object of the invention resides in the provision of means whereby the primary receptacles may be normally held in position to receive the coins from the money handling machine and means whereby the primary receptacles may be individually operated for discharging the coins therefrom or operated in unison.

As another object of the invention I provide novel means for mounting the primary receptacles whereby they are adapted for either sliding movement or rotatable movement, the primary receptacles being positioned over the secondary receptacles, and the secondary receptacles being adapted for slidable movement relative to a casing in which both the primary and secondary receptacles are mounted.

With the above and other objects in view, which will appear as the description proceeds, my invention consists in the novel details of construction and arrangement of parts, described in the following specification and illustrated in the accompanying drawings, and while I have illustrated and described the preferred embodiments of the invention, as they now appear to me, it will be understood that such changes may be made as will fall within the scope of the appended claims.

In the drawings:—

Fig. 1 is a side elevation.

Fig. 2 is a front elevation.

Fig. 3 is a fragmental top plan.

Fig. 4 is a longitudinal vertical section with parts shown in elevation.

Fig. 5 is a transverse vertical section on the line 5—5 of Fig. 4 looking in the direction of the arrows.

Fig. 6 is a section on the line 6—6 of Fig. 4 looking in the direction of the arrows.

Figs. 7 and 8 are details of the operating means for the primary receptacles; and

Fig. 9 is a section similar to Fig. 1 showing one of the primary receptacles partly removed from its casing or housing.

In the drawings 1 indicates the base of a money handling machine, such as a coin counting and assorting machine, of well-known construction, 2 indicates a casing or housing for the operating mechanism thereof, and 3 indicates a spout or chute through which the coins are discharged.

In the well-known forms of coin assorting and counting machines there are usually mechanism for assorting and discharging coins of five denominations, these being, 50¢ pieces, 25¢ pieces, 5¢ pieces, 10¢ pieces and pennies and in disclosing my improved form of receiver I have shown receptacles for receiving coins of the five denominations mentioned although it will be understood that I do not desire to be limited to this particular number, it being readily apparent that any number of receptacles might be employed to adapt the receiver for money handling machines having any number of discharge spouts or chutes. While in the showing in the drawings I have illustrated but a single chute or spout 3 for the discharge of coins it will be understood that there will be one of such spouts or chutes discharging into each of the coin receiving receptacles to be later described.

The numeral 4 indicates the housing or casing forming a part of my improved form of receiver formed adjacent the rear longitudinal edge with a top opening 5 over which the spouts or chutes 3 are positioned, as shown more particularly in Figs. 1 and 4 of the drawings, and through which the coins are discharged. Adjacent the forward edge of the opening is an upwardly directed flange 6 which extends in front of the chutes or spouts 3 and prevents any possibility of the coins jumping from the receiver. The

casing or housing 4 is divided into a plurality of compartments, five being illustrated, by means of the vertically extending plates 7 the rear ends of the upper portions of these plates terminating short of the rear wall of the casing or housing, as shown more particularly in Figs. 4 and 9 of the drawings, and a transversely extending plate 8 being provided at the rear ends of the upper portions of the plates to provide the compartment 9 for a purpose to be later described. Secured to the sides of the upper portions of the partition plates 7 are the plates 10 and secured to the inner face of each of the side walls of the casing or housing 4 are the plates 11 corresponding to the plates 10 and the purpose of these plates 10 and 11 will be readily apparent. Secured to the inner face of each of the plates 10 and 11 is a strip 12 of the shape shown more particularly in Fig. 6 of the drawings and forming supports for the primary receptacles 13, these primary receptacles including the end plates 14 and 15 and the intermediate semicircular body portion 16. These primary receptacles 13 are mounted on the strips 12 for both sliding and rotatable movement and the receptacles are normally so positioned to receive the coins discharged through the chutes or spouts 3 and when rotated will discharge the coins into the secondary receptacles 17 positioned therebeneath. These secondary receptacles are in the form of slidable drawers and each is provided with a finger grip 18 whereby they may be withdrawn from the housing or casing 4 or slid therein. By reference to Fig. 6 of the drawings it will be seen that there is a primary and a secondary receptacle in each of the compartments formed by the plates 7 and by providing the plates 10 and 11, which will overlie the upper edges of the sides of the drawers 17 there will be no ledges upon which coins may be lodged as the primary receptacles 13 are operated to discharge the coins into the secondary receptacles.

A knob 20 is secured to the outer end of each of the primary receptacles 13 and by engaging or grasping these knobs the primary receptacles may be slid relative to the casing or housing 4, as shown more particularly in Fig. 9, or the receptacles may be individually rotated when desired. Rollers 21 support the forward ends of the receptacles 13, as shown more particularly in Fig. 6 of the drawings, and the rear end of each of the receptacles 13 is supported by a bearing pin 22 extending forwardly from a disc 23 positioned in the compartment 9. Secured to each of the bearing pins 22, by means of a screw 24, or other suitable fastening, is a plate 25 which carries a pin 26 adapted to be received in an opening 27 in the end 15 of the receptacle, as shown more particularly in Fig. 4 of the drawings.

Each of the discs 23 is provided, in its inner face, at the outer periphery, with a notch 28 to receive a projection 29 carried by an arm 30 pivotally connected to the partition plate 8 at 31. The projections 29 are normally held in the notches of the discs by means of the coiled springs 32, one end of each of the springs being secured to the free end of an arm 30 and the opposite end being secured to a projection 33. Each of the discs 23 is provided on its outer face with a projection 34 positioned in alignment with the notch 28 for a purpose to be later described.

Rotatably mounted in the rear wall of the casing or housing 4 are the transversely spaced shafts 35 each of which carries a gear wheel 36 and disc or plate 37 positioned within the compartment 9. As shown in the drawings the discs or plates 37 are of considerably greater diameter than the gears 36 and secured to each of the discs or plates 37, by means of the rivet 38 or other suitable fastening is one end of a flat coiled spring member 39, the free end of which is normally positioned, as shown more particularly in Figs. 7 and 8 of the drawings to engage the projection 34 of an aligning plate or disc 23.

Slidably supported on the transversely spaced brackets 40, secured to the inner face of the rear wall of the casing or housing 4, and positioned between the said rear wall of the casing or housing and the discs or plates 37 is a rack bar 41 the teeth of which engage the gears 36, as shown more particularly in Figs. 5 and 8 of the drawings. This rack bar is adapted for sliding movement transversely of the casing or housing 4 and is normally held in the position shown in Fig. 5 by means of the coiled spring 42, one end of which is secured to the lug or projection 43 formed on the rack bar and the opposite end of which is secured to the bracket 44.

For manipulating the rack bar I provide the lever 45 pivotally connected to one end of the casing or housing 4 by means of the bracket 46. The outer end of the lever 45 is provided with the hand grip 47 and an elongated opening 48 is formed in the lever, adjacent the opposite end to receive a pin 49 carried by the rack bar 41 and by means of which the lever is connected to the rack bar.

From the above detail description it is thought that the construction will be understood. It will be seen that I have provided a set or series of primary receptacles and a set or series of secondary receptacles, the secondary receptacles being positioned beneath the primary receptacles. The coins discharged from the counting and assorting machine are initially received and held in the primary receptacles and are later discharged into the secondary receptacles. This is of particular advantage for the coins of an individual operation of the machine may be held in the primary receptacles until it is ascertained that the amount registered by the machine, in the assorting operation, corresponds with the customer's record. If there is any conflict the coins are maintained in the primary receptacles until the customer's record may be checked or the receptacles may be withdrawn from the casing or housing 4 and the coins returned to the counting or assorting machine for repeating and rechecking the count therethrough. After it has been ascertained that the record of the machine corresponds with the customer's record the primary receptacles may be either singly rotated or rotated in unison to discharge the coins therefrom into the secondary receptacles. The secondary receptacles may be withdrawn from the casing or housing when it is desired to remove the coins therefrom but it will be understood that several operations of the machine and primary receptacles may take place before the coins are removed from the secondary receptacles. When the primary receptacles are withdrawn from the casing or housing, as shown more particularly in Fig. 9 of the drawings, the bearing pins 22 and the pins 26 will be removed from engagement with the ends of the receptacles, but when the receptacles are again pushed into the casing or housing the pins 22 and 26 will be

engaged therewith, as shown more particularly in Figs. 4 and 8 of the drawings.

Normally the parts are in the position shown in Figs. 1 to 8 inclusive of the drawings. When it is desired to withdraw the primary receptacles 13 or to rotate them individually the knobs 20 will be engaged. The primary receptacles are adapted to be rotated in the direction indicated by the arrows in Fig. 5 and when rotated individually the pins 26 being received in the openings 27 of the receptacles the plates or discs 25 will be rotated therewith and as these plates or discs are secured to the bearing pins 22 by means of the screws 24 the bearing pins will likewise be rotated and carry with them the discs or plates 23. The projections 29, of the arms 30, will ride out of the notches 28 and when a complete revolution of the receptacles has taken place the projections 29 will again be received in the notches 28 and the projections 34 will again be engaged by or positioned adjacent the inner free ends of the spring members 39, it being understood that the free ends of the spring members 39 will yield sufficiently for the projections 34 to pass thereover. When the primary receptacles are to be rotated in unison the hand grip 47, of the lever, will be engaged and the lever manipulated to throw the opposite end thereof towards the casing or housing. This will cause the rack bar to be moved in the direction indicated by the arrow in Fig. 5 and rotate the gears 36 in the directions indicated by the arrows. The rotation of the gears will also rotate the discs or plates 37 which carry the spring members 39 and the ends of the spring members engaging the projections 34 will rotate the discs or plates 23 and in turn the discs or plates 25 and bearing pins 22 and pins 26 to rotate the receptacles. As the discs or plates 23 are rotated the projections 29, of the arms 30, will ride from the notches 28, but when a complete revolution of the receptacles has taken place the projections will again be received in the notches. The rack bar and lever 45 are returned to their original positions by means of the coiled spring 42. It will be seen that only a single revolution of the receptacles may take place upon a single operation of the rack bar and as the rack bar is returned to its normal position it rotates, in an opposite direction, from that to turn the receptacles, the gears 36, plates or discs 37, and spring members 39, the free ends of the spring members riding over the projections 34 to assume their original positions.

While in the above description, I have referred to my invention as being intended to receive coins it will be understood that the use of the word coin or coins is sufficiently broad to cover tokens or the like.

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

1. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a projection on the mounting of the receptacle, and means adapted to be engaged with the projection for rotating the receptacle.

2. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a projection on the mounting, and yieldable means engageable with the projection for rotating the receptacle.

3. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a projection on the mounting, and a spring member engageable with the projection for rotating the receptacle.

4. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a projection carried by the mounting, a yieldable member adapted to be engaged with the projection, to rotate the receptacle, and means for operating the yieldable member.

5. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a projection carried by the mounting, a yieldable member adapted to be engaged with the projection, to rotate the receptacle, and means including a gear and rack for operating the yieldable member.

6. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a projection carried by the mounting, a yieldable member adapted to be engaged with the projection, to rotate the receptacle, and means including a gear and slidable rack for operating the yieldable member.

7. A coin receiver including a housing, a receptable rotatably mounted within the housing, a rack bar slidably mounted in the housing, a gear mounted in the housing and adapted to be engaged and operated by the rack bar, and means controlled by the movement of the gear to rotate the receptacle.

8. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a slidable rack, a gear adapted to be engaged and operated by the rack, and a yieldable connection between the gear and receptacle, said connection causing rotation of the receptacle in the movement of the rack bar in one direction but allowing independent movement of the rack bar in the opposite direction without operation of the receptacle.

9. A coin receiver including a receptacle, means for rotatably mounting the receptacle, a slidable rack bar, a gear adapted to be engaged and operated by the rack bar, and a yieldable connection between the gear and receptacle, said yieldable connection allowing movement of the receptacle independently of operation of the rack bar and rotation of the receptacle upon movement of the rack bar in one direction and operation of the rack bar in the opposite direction without movement of the receptacle.

10. A coin receiver including a housing, a receptacle mounted in the housing for initially receiving the coins, and a second receptacle positioned relative to the first receptacle, said first mentioned receptacle being adapted for movement while within the housing for discharging the coins into the second receptacle and for movement from the housing for removal of the coins therefrom.

11. A coin receiver including a housing, a receptacle mounted in the housing for initially receiving the coins, and a second receptacle positioned relative to the first receptacle, said first mentioned receptacle being adapted for rotary movement while within the housing for discharging the coins into the second receptacle and for slidable movement from the housing for removal of the coins therefrom.

12. A coin receiver including a receptacle for initially receiving coins, said receptacle being mounted for both slidable and rotatable movement, a second receptacle adapted to receive the coins from the first mentioned receptacle, and a member adapted to be engaged for either sliding or rotating the first mentioned receptacle.

13. A coin receiver including a plurality of receptacles for initially receiving the coins, said re-

ceptacles being mounted for slidable and rotatable movement, a plurality of receptacles adapted to receive the coins from the first mentioned receptacles, means adapted to be engaged for sliding and rotating the first mentioned receptacles singly, and separate means for rotating the first mentioned receptacles in unison.

14. A coin receiver including a receptacle for initially receiving the coins, a second receptacle, means for imparting a complete revolution to the first mentioned receptacle to discharge the coins therefrom into the second mentioned receptacle, and means for stopping and holding the first mentioned receptacle after said complete revolution.

15. A coin receiver including a receptacle for receiving coins, means for mounting the receptacle for both slidable and rotatable movement, means adapted to be engaged for sliding the receptacle, means for rotating the receptacle, and a second receptacle positioned relative to the first mentioned receptacle to receive the coins therefrom.

16. A coin receiver including a housing, a receptacle mounted in the housing for receiving coins, means whereby the receptacle may be slid from the housing, means for rotating the receptacle to discharge the coins therefrom, and a second receptacle positioned relative to the first mentioned receptacle for receiving the coins discharged therefrom.

17. A coin receiver including a housing, a receptacle slidably mounted in the housing and adapted to receive coins, means for rotating the receptacle for discharging coins therefrom, and a second receptacle slidably mounted in the housing and normally positioned beneath the first mentioned receptacle to receive the coins discharged therefrom.

18. In a coin receiver, a housing, a primary receptacle mounted in the housing, a secondary receptacle mounted in the housing, means for emptying coins from the primary receptacle into the secondary receptacle while within the housing, and means for withdrawing the primary receptacle from the housing for the discharge of coins therefrom.

19. In a coin receiver, a housing, a primary receptacle bodily removable from the housing, a secondary receptacle mounted within the housing, and means for emptying coins from the primary receptacle into the secondary receptacle when within the housing.

20. In a coin receiver, a housing, a plurality of primary receptacles mounted in the housing, a plurality of secondary receptacles mounted in the housing, means for emptying coins from the primary receptacles singly or in unison into the secondary receptacles, and means for withdrawing the primary receptacles singly from the housing.

21. In a coin receiver, a housing, a primary receptacle mounted in the housing, a secondary receptacle mounted in the housing, means for emptying coins from the primary receptacle into the secondary receptacle when within the housing, and means whereby either of the receptacles may be removed with coins therein.

22. In a coin receiver, a housing, receptacles positioned within the housing in super-posed relationship, means whereby coins may be emptied from one of the receptacles into the other, and means whereby either of the receptacles may be removed from the housing with the coins intact therein.

23. In a coin receiver having a plurality of receptacles to receive coins; the combination of means for rotating the receptacles singly or in unison to discharge the coins therefrom.

24. In a coin receiver having a plurality of receptacles to receive coins, and a plurality of secondary receptacles positioned to receive the coins from the first mentioned receptacles; the combination of means for rotating the first mentioned receptacles singly or in unison to discharge the coins into the secondary receptacles.

25. In a coin receiver having a receptacle to receive coins and means for mounting the same; the combination of means for discharging the coins from the receptacle while mounted or for bodily removing the receptacle from the mounting to discharge the coins therefrom.

26. The combination with a frame or casing, drawers slidably removable therefrom and adapted to be rotated for dumping purposes when placed in the frame or casing, a rotatable connecting device for each drawer, means for operating all of the connecting devices together, each drawer being provided with cooperating means to engage its said connecting device when the drawer is slid into the casing.

27. The combination with a frame or casing, drawers slidably removable therefrom and adapted to be rotated for dumping purposes when placed in the frame or casing, a rotatable connecting device for each drawer, instrumentalities for operating the connecting devices, each drawer being provided with cooperating means to engage its said connecting device when the drawer is slid into the casing.

EDWARD J. BRANDT.