

June 11, 1940.

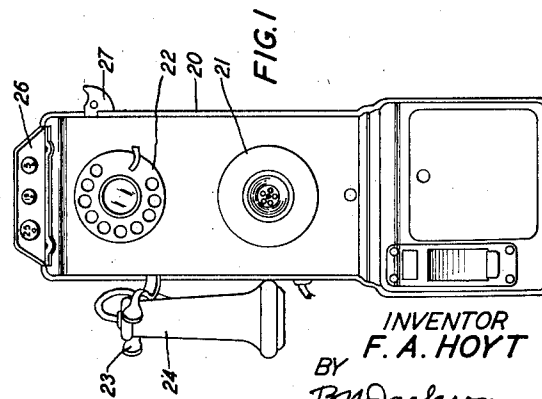
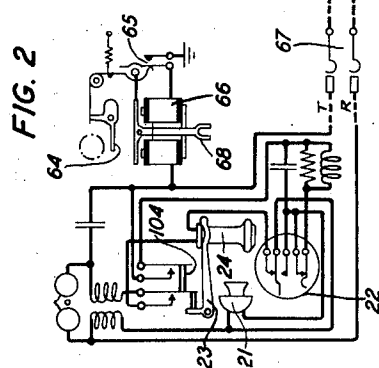
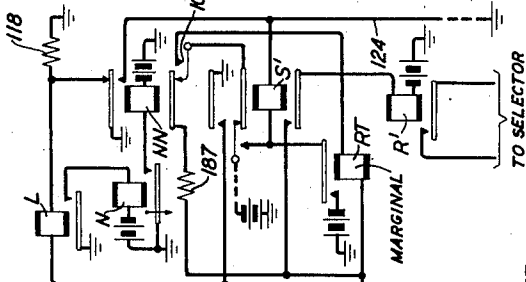
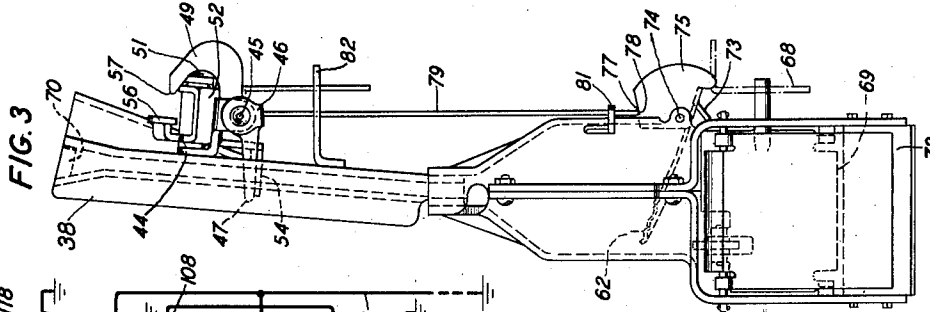
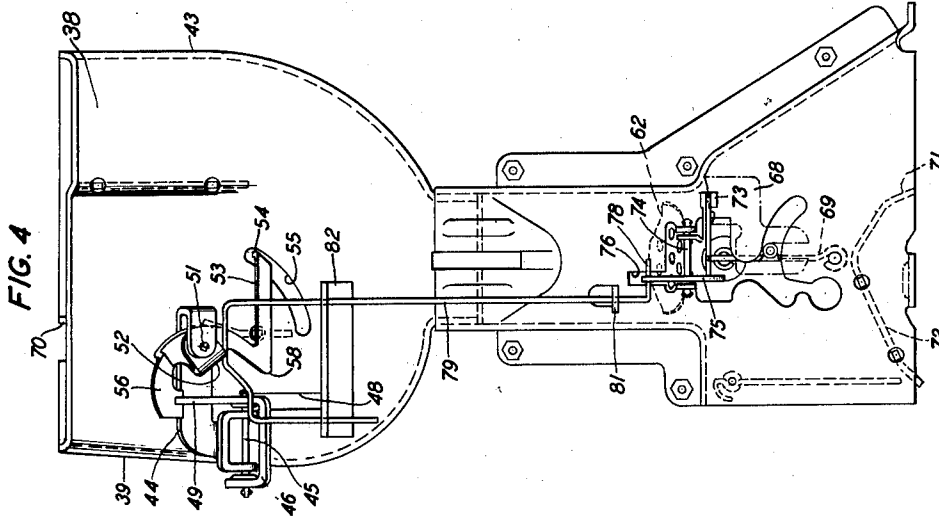
F. A. HOYT

2,204,083

COIN COLLECTOR

Filed Jan. 29, 1938

4 Sheets-Sheet 1



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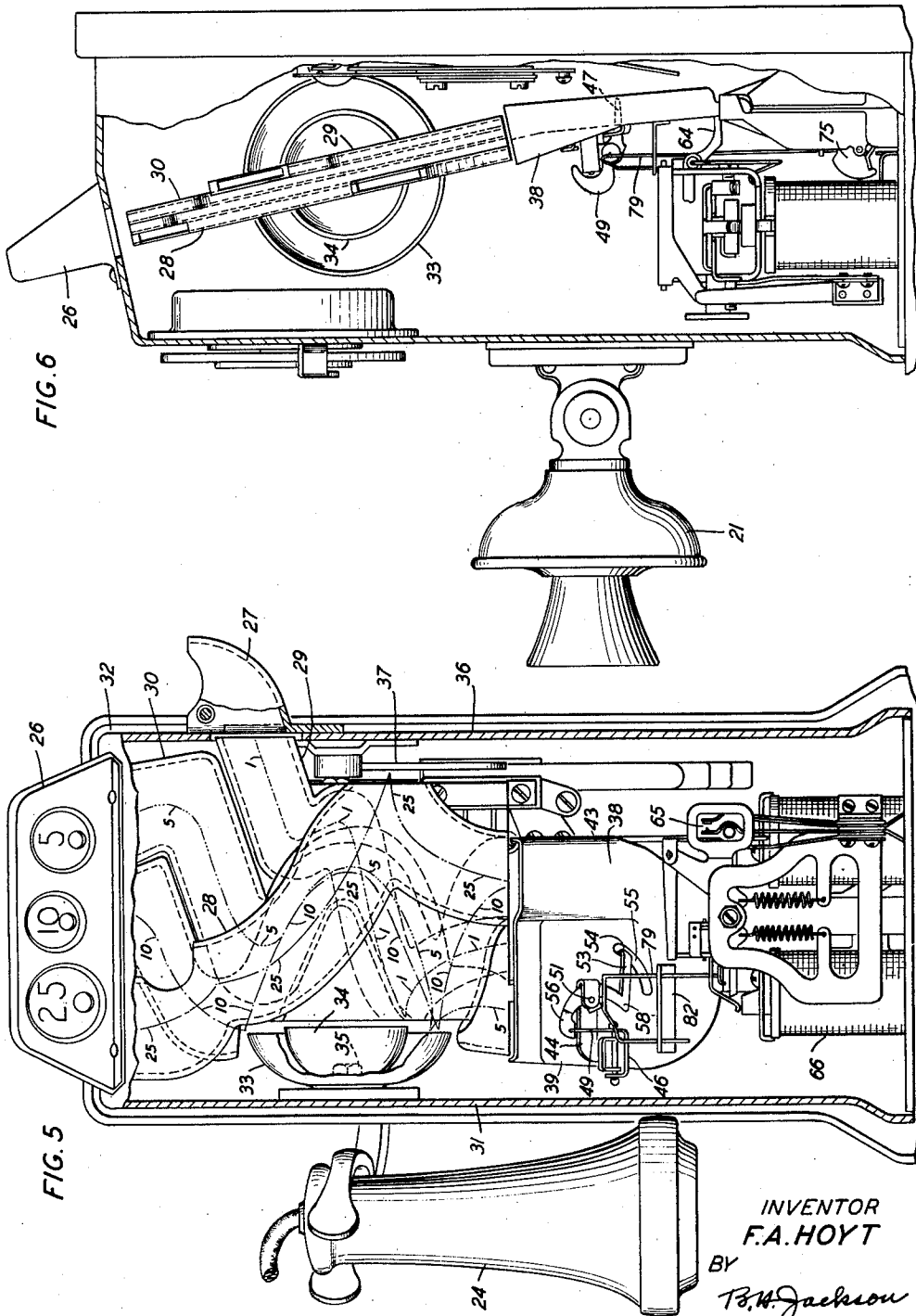
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COIN COLLECTOR

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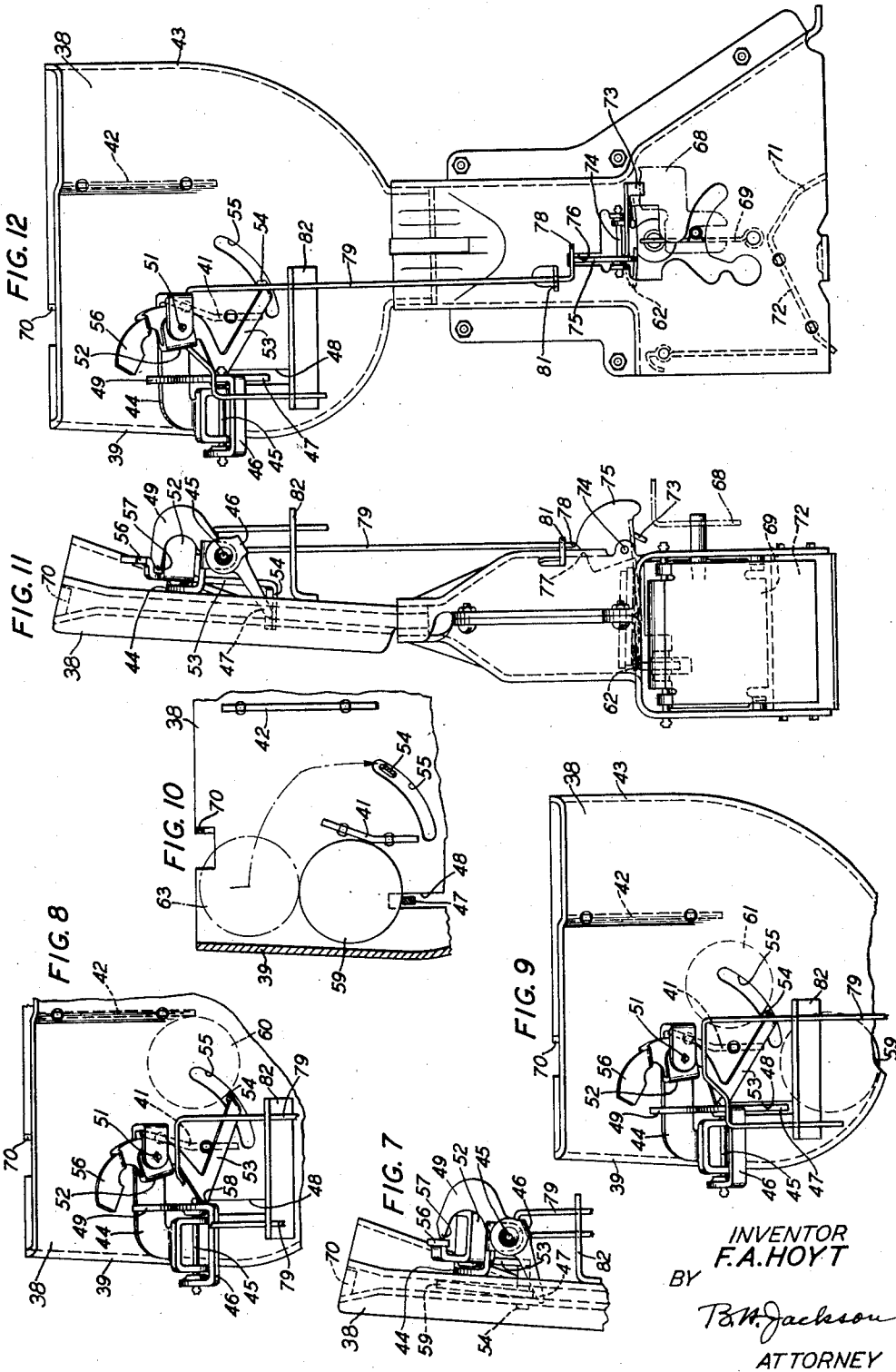
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COIN COLLECTOR

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June 11, 1940.

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COIN COLLECTOR

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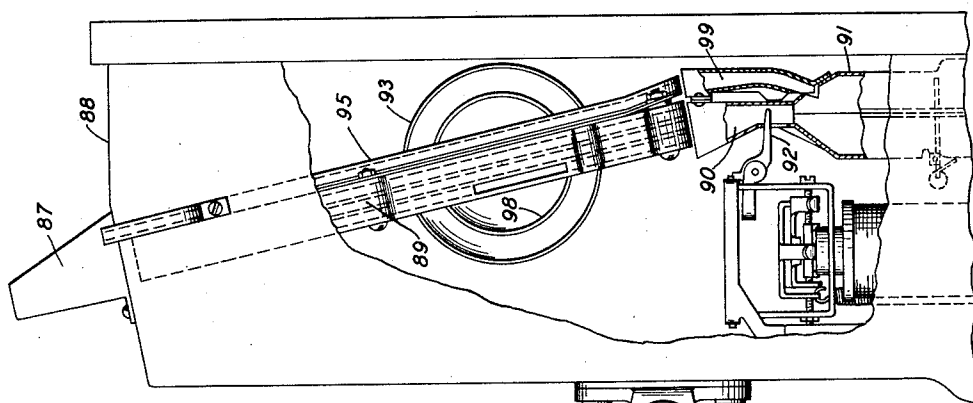
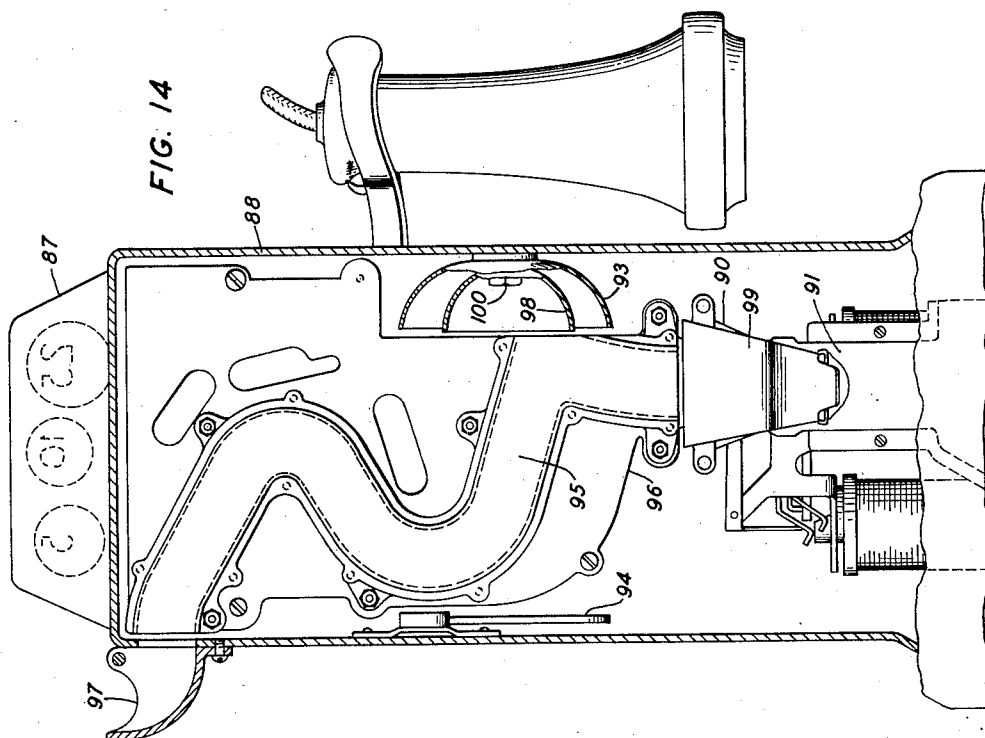
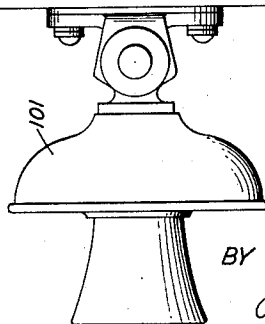


FIG. 13



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UNITED STATES PATENT OFFICE

2,204,083

COIN COLLECTOR

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Application January 29, 1938, Serial No. 187,640

19 Claims. (Cl. 179-6.3)

This invention relates to coin collectors and particularly to those collectors where the deposit of more than one coin is required for obtaining certain services from the instrument.

As applied to telephone coin collectors, one object of the invention is to provide a collector arranged to require the deposit of two or more coins of the same or different denominations before the central office operator may be signaled or before the depositor can dial a desired telephone number.

Another object is to permit the deposit in a telephone coin collector of a coin of one denomination while preventing such a deposited coin from operating certain coin controlled apparatus, which operation should be performed only by coins of a different denomination.

In the preferred embodiment of the invention a telephone coin collector is provided which for illustrative purposes is arranged to require the deposit of both a nickel and a penny before the collector can be utilized. In the usual type telephone coin collector as shown, for example, in the Forsberg U. S. Patent 1,043,219 the deposit of a nickel operates the coin trigger which for a manual system signals the central office operator of the coin deposit and which for a machine switching system prepares apparatus at the central office to permit the dialing of a local call. In the preferred form of the invention disclosed in the attached drawings, the collector is arranged to require the deposit of both a nickel and a penny before the collector can be utilized. Separate coin chutes are provided for pennies and nickels and associated with the coin runways are means for preventing the operation of the coin trigger until both a penny and a nickel have been deposited.

Referring to the drawings,

Fig. 1 is a front view of a telephone coin collector;

Fig. 2 is a circuit schematic of a coin box substation circuit showing also certain portions of the associated central office equipment;

Fig. 3 is a side view of a coin hopper embodying one form of this invention;

Fig. 4 is a front view of the coin hopper of Fig. 3;

Fig. 5 is an enlarged view of the interior of the upper portion of the collector of Fig. 1 showing the relation of the coin hopper of Fig. 4 to other parts of the collector;

Fig. 6 is a side view of the apparatus of Fig. 5;

Fig. 7 is a fragmentary view of the portion of

the coin hopper containing a pivoted finger adapted to be operated by a deposited nickel;

Fig. 8 is a fragmentary view of another portion of the coin hopper showing a pivoted finger adapted to be operated by a deposited penny;

Fig. 9 shows the nickel and penny runways of the coin hopper after both a nickel and a penny have been deposited;

Fig. 10 illustrates the nickel and penny runways of the coin hopper after two nickels have been deposited;

Fig. 11 is a side view of the coin hopper showing the operation of the pivoted fingers after certain coins have reached the coin trap;

Fig. 12 is a front view of the apparatus of Fig. 11;

Fig. 13 is a side view of the upper portion of a telephone coin collector showing an alternative form of the invention; and

Fig. 14 is a rear view of the apparatus of Fig. 13.

Referring to Fig. 1 the front view of a telephone coin collector 20 is disclosed having the usual transmitter 21 and calling dial 22 mounted on the front wall and having on one side the usual switchhook 23 for supporting the receiver 24. On top of the box is a coin gauge 26 for receiving quarters, dimes and nickels while on the right side of the box is a separate coin gauge 27 for receiving pennies.

Referring more particularly to Figs. 5 and 6 it will be seen that multiple coin chute 28 as far as quarters, dimes and nickels are concerned is substantially the same as the coin chute disclosed in the above-mentioned Forsberg U. S. Patent 1,043,219, but an additional section 29 has been added to the rear of the chute assembly to provide between chute wall 30 and section 29 a runway for receiving pennies from gauge 27. Mounted on the side wall 31 of the upper housing 32 are two bells 33 and 34, one within the other and mounted in resonant connection with the upper housing 32 and transmitter 21 by a common mounting screw 35. Similarly mounted on the opposite side wall 36 is the usual spiral gong 37.

Referring particularly to Figs. 5 and 6, a deposited nickel follows the coin runway indicated by the dotted arrow 5, strikes the lower edge of outer bell 33 and falls into the left side of coin hopper 38 between partition 41 and side wall 39 (Fig. 9). A deposited dime follows the runway indicated by the dotted arrow 10, hits the outer bell 33 both at its upper edge and at its lower edge, and falls into coin hopper 38 between parti-

tion 42 and side wall 43 (Fig. 9). A deposited quarter follows the runway marked by the dotted arrow 25, strikes the spiral gong 37 and enters the coin hopper 38 at the same point as a deposited dime. A penny inserted in gauge 27 follows the runway indicated by the dotted arrow 1, strikes the lower edge of inner bell 34 and falls into coin hopper 38 between partitions 41 and 42 (Fig. 9). The openings in the coin chutes that enable dimes and nickels to hit the outer bell 33 are so arranged as to avoid having either a dime or a nickel strike the inner bell 34. Similarly, the opening in the penny runway that enables a deposited penny to strike bell 34 is arranged to avoid the possibility that a penny can strike the outer bell 33.

It will be apparent from Fig. 9 that the coin hopper 38 has an elongated mouth which receives nickels to the left of partition 41, receives pennies between partitions 41 and 42, and receives dimes and quarters between partition 42 and side wall 43.

Referring more particularly to Figs. 3 and 4 a bracket 44 mounted on the front wall of the coin hopper has projections forming bearings for a pin 45 which pivotally supports a member 46 having a finger 47 which extends through slot 48 in the front wall of the hopper and through a corresponding slot in the rear wall of the hopper to normally occupy such a position as to be struck by a deposited nickel and to temporarily hold the nickel above the finger 47 and between side wall 39 and partition 41 until the finger has been released. Above its pivoting axis member 46 has arcuate shaped arm 49 whose weight is sufficient to bias member 46 in a clockwise direction to the normal position shown in Fig. 3 with finger 47 resting against the upper edge of slot 48.

Referring particularly to Fig. 4 bracket 44 also provides spaced bearings for a pin 51 which pivotally supports a member 52 having an angular arm 53 at the end of which is a right-angle projection 54 projecting through slot 55 in the front wall of the coin hopper and through a corresponding slot in the hopper rear wall to obstruct the penny channel and hold a deposited penny above finger 54 and between partitions 41 and 42 until finger 54 has been released. Member 52 also has an upper arcuate arm 56 of sufficient mass to bias arm 53 in a counter-clockwise direction to the position shown in Fig. 4 where further clockwise rotation is prevented by arm 54 contacting with the upper end of slot 55. Member 52 is adapted to hold a deposited penny until the member has been released in a manner to be described later.

It will be noted from Fig. 3 that the end 57 of member 49 is spaced away from arm 56 of the penny member and is adapted to strike the side of arm 56 when finger 47 is actuated by a nickel. It will also be noted from Figs. 3 and 4 that the nickel finger 47 normally lies in the path of movement of shoulder 58 of the penny member but that shoulder 58 will not strike the nickel finger 47 until shoulder 58 has been moved a short distance in a clockwise direction.

Assume that both the nickel finger and the penny finger are in their normal positions as in Figs. 3 and 4, and that a nickel 59 is then deposited as shown in Fig. 7. When the nickel 59 reaches the coin hopper and strikes finger 47 the finger is moved counter-clockwise a short distance until end 57 strikes the penny arm 56, thereby maintaining finger 47 still in coin holding

position, but the movement of the nickel member 49 has been sufficient to remove the nickel finger 47 from the path of the penny shoulder 58. If now a penny 61 is deposited as shown in Fig. 9, the penny will strike the penny finger 54 which will be free to move clockwise to the position shown in Fig. 9, in which position arm 56 is out of the path of end 57 of the nickel member, allowing the nickel finger 47 to complete its movement out of the nickel runway and allow the nickel to fall upon coin trap 62. Also the previously described initial movement of the nickel finger 47 due to a deposited nickel has removed the finger 47 from the path of shoulder 58 so that after the deposit of the penny 61 the penny finger is free to be actuated to the position shown in Fig. 9, which position is sufficient to permit the penny to roll off between finger 54 and the lower end of partition 42 so that the penny is also allowed to fall onto the coin trap 62.

Assume, however, that a penny is deposited without the previous deposit of a nickel and with the nickel finger 47 in normal position. This condition is shown in Fig. 8 where the deposited penny 60 is held suspended between finger 54 and partition 42 due to the fact that with the nickel finger 47 in normal position shoulder 58 after moving clockwise a short distance strikes the nickel finger 47 and the penny finger 54 is thereby held in a coin restraining position since as shown in Fig. 8 the gap between finger 54 and the bottom edge of partition 42 is not large enough to discharge the penny 60. This small movement of the penny finger 54, however, is sufficient to move arm 56 out of the path of end 57 of the nickel member 49 and hence the subsequent deposit of a nickel will permit the nickel finger 47 to move outside the nickel runway, permitting the nickel to drop on coin trap 62, and this actuation of the nickel finger 47 frees the penny member 52 to permit its further clockwise movement to penny freeing position so that the penny 60 also reaches coin trap 62.

The interlocking latches 46 and 52 are also arranged to be operated by the deposit of two nickels instead of a nickel and a penny. This alternative operation is shown in Fig. 10 where a first nickel 59 has been deposited to move nickel finger 47 until as shown in Fig. 7 the end 57 of the nickel member strikes the face of penny arm 56 so that nickel 59 is supported by finger 47 against partition 41. If now a second nickel 63 is deposited this second nickel after striking the top of the first nickel rolls over the upper edge of partition 41 through the gap between partitions 41 and 70 into the penny runway and operates the penny finger 54 to free not only the first nickel by the movement of arm 56 out of the path of nickel arm 49 but also to move the penny trigger 54 downwardly to a position that will permit the second nickel 63 to pass between finger 54 and the bottom edge of partition 42 onto the coin trap 62. Coin hopper 38 in the region above the penny finger 54 and nickel finger 47 has its front and rear walls spaced apart a distance only slightly greater than the thickness of a nickel or a penny so that a second deposited nickel cannot be wedged between the first nickel and the front or rear wall of the hopper but upon striking the first nickel, the second nickel will freely roll off the top of the first nickel into the penny channel. Also in the penny channel the front and rear walls are close enough together that a second deposited penny

will rest on the top of the first deposited penny until the coins have been released.

The relative positions of the interlocking fingers 47 and 54 in coin holding position are properly arranged with respect to the height of partition 41 so that as previously described a second deposited nickel will enter the penny channel through the gap between partitions 70 and 41 while preventing any penny from entering the nickel channel through the same gap. The position of a first deposited penny is shown in Fig. 8. If now a second penny should be deposited instead of a nickel, the second penny, after striking the first penny, would lodge against the upper portion of partition 41 and thereby would be prevented from entering the nickel channel. If a third penny should be deposited the third penny, after striking the second penny, would be unable to reach the nickel channel because of partition 70; and the third penny could not pass through the gap between partitions 70 and 41 because of the partial closure of this gap by the second penny.

The released nickel and penny or the released two nickels in passing down the coin hopper to the coin trap 62 also strike the main coin trigger 64 as in the usual telephone coin collector of the type disclosed in the above-mentioned Forsberg patent, and the actuation of coin trigger 64 serves in the usual manner to permit the electrical contacts 65 to be closed, thereby establishing a circuit through the coin relay 66 over the telephone line to the central office.

Thus in Fig. 2 it is shown that the operation of coin trigger 64 permits contacts 65 to close, placing ground on one side of the telephone line 67 which for a manual system will signal the central office operator that a telephone connection is desired. For a machine switching system the closing of contacts 65 will prepare the central office equipment to receive impulses from the calling dial 22 as disclosed, for example, in Conway U. S. Patent 1,491,337. Fig. 2 for purpose of illustration includes in a simplified form certain of the central office apparatus of the Conway patent to show why the dial 22 will be ineffective to connect the illustrated coin box station with a remote substation until both a nickel and a penny have been deposited to close contacts 65. Assume in the first instance that receiver 24 has been removed from switchhook 23 but no money has been deposited. The closure of the switchhook contacts 104 causes the primary line switch (not shown) individual to calling line 67 to be operated to seize a preselected trunk circuit containing the line relay L; whereupon relay L is operated over a circuit from battery, upper inner contact relay S', lower contact relay NN, resistance 187 over the ring side of the line circuit through the substation back over the tip side of line, winding relay L and upper contact relay NN to ground. Relay L in operating energizes relay N which in turn energizes relay NN. With the operation of relay NN the energizing circuit for line relay L has been changed so that it now may be traced from battery, upper inner contact relay S', closed contacts 108, winding marginal relay RT, through the line circuit back to winding relay L, resistance 118 to ground. This circuit just traced has sufficient current to maintain line relay L operated but due to the inclusion of resistance 118 is insufficient to operate marginal relay RT and until marginal relay RT is operated the impulse relay R' will not be connected to receive the impulses from calling dial 22. However, as soon as a nickel

and a penny are deposited, the closure of contacts 65 places ground on one side of the line, so that the previously described circuit from battery through winding relay RT can now be traced to ground through contacts 65 instead of through resistance 118. The consequent increase in current through relay RT energizes the relay RT and causes relay S' to operate over a circuit from battery closed contact relay RT, winding relay S' and closed contact relay NN. Subsequently a holding circuit for relay S' is established over lead 124. A circuit for impulse relay R' is now established from battery, winding relay R', lower closed contact relay S' over one side of the line circuit through the contacts of dial 22 back over the other side of the line circuit to ground at the upper closed contact relay S'. Impulse relay R' is now prepared to receive the impulses from dial 22 and to transmit them to the selector to extend the calling line to the desired called party.

It will be apparent from the circuit arrangement of Fig. 2 when employed with a coin hopper of Figs. 3 and 4 that for a manual system the central office operator cannot be signaled until a nickel and a penny or until two nickels are deposited, and that for a machine switching system the dial 22 will be ineffective to connect the substation shown with another substation until the two described coins have been deposited. As disclosed in the above-mentioned Forsberg patent any coins on the coin trap 62 will be collected or refunded by the application of collect current or refund current to relay 66 which in operating causes its armature lever 68 to move vane 69 from beneath coin trap 62 allowing the coin trap to fall and direct the coins either into a collect chute 71 or a refund chute 72.

The form of the invention showns in the above-described figures also enables money for toll calls to be correctly deposited even though the toll charges do not include the deposit of a penny.

It has been previously described that a deposited dime or quarter enters the coin hopper between partition 42 and side wall 43 whereby such coins by-pass the nickel and penny fingers 47 and 54, actuate the coin trigger 64 if it happens to be in a non-operated position and then fall upon the coin trap 62. The invention is also arranged to receive an initial nickel for an overtime charge which does not involve the payment of a penny. Thus if the subscriber initially deposits a nickel and a penny these coins remain on the coin trap 62 while the conversation progresses, and when the subscriber is notified that a second nickel is due for an overtime charge means are provided for permitting the second nickel to reach the coin trap without requiring the deposit of a second penny to release the nickel finger 47.

Normally as shown in Fig 3 the coin trap 62 is biased by its counterweight to a tilted position with lug 73 resting against the outside wall of the hopper. Integral with the counterweight of the trigger and also pivoted on axis 74 is a cam member 75 which is adapted to enter the coin hopper through slot 76 when the coin trap is released. This cam has an offset portion 77 upon which rests the lower end 78 of a rod or wire 79. Rod 79 extends upwardly through a slot in lug 81 through a slot in bracket 82 to a point beneath the stationary bracket 44 where it passes to the left (Fig. 4) under portion 52 of the penny finger, then away from the coin hopper to pass under the lower portion of arm 49 of the nickel finger and then downwardly through another slot in bracket 82. With no coin on coin trap 75

62 and with no coin against either finger 47 or finger 54 the bottom portion 78 of rod 79 rests on cam portion 77 while the portion 52 of the penny finger and the bottom portion of the nickel arm 49 rests on the adjacent horizontal portions of rod 79. Rod 79, therefore, does not interfere in any way with the previously described operation of the penny finger 54 or nickel finger 47. But as soon as the assumed penny and first nickel are released to reach the coin trap 62 the force of the coins striking the coin trap is sufficient to bring the coin trap from its tilted position to the horizontal position shown in Figs. 11 and 12. This downward movement of coin trap 62 causes the counter-clockwise rotation of cam 75 to raise rod 79 until its bottom portion 78 rests on the outer surface of cam 75 as shown in Fig. 11. This lifting of rod 79 by cam 75 causes the horizontal portion of rod 79 to raise portion 52 of the penny finger to rotate the penny member clockwise as shown in Fig. 12 until arm 56 is no longer capable of restraining the complete counter-clockwise movement of the nickel finger 47; and this raising of rod 79 also raises arm 49 of the nickel member to move the nickel finger 47 downwardly until it no longer restrains the complete clockwise movement of the penny finger 54. Hence with any coin on coin trap 62, rod 79 serves to free the penny finger and the nickel finger from each other whereby any additional nickel deposit will readily throw the nickel finger 47 out of the coin hopper channel and allow the additional nickel to continue on to reach the coin trap 62. It is also obvious that with rod 79 in its raised position a deposited penny will throw the penny finger 54 downwardly sufficiently to permit the penny to reach the coin trap 62.

It will also be obvious that when the subscriber initially deposits a nickel and a penny to obtain the long distance operator and the nickel and penny are subsequently refunded accompanied by a request from the operator to deposit, for example, a nickel, a dime and a quarter, as payment for the desired toll call, all three coins will reach the coin trap 62 even though no penny is deposited. If the nickel for the toll call is first deposited it will temporarily be restrained by nickel finger 47 because of the non-operation of the penny finger 54, but as soon as the quarter or the dime is deposited such a coin will reach the coin trap 62 directly causing the coin trap to occupy the horizontal position shown in Fig. 11, which operation of the coin trap will raise rod 79 to free the nickel finger 47 from the restraining action of the penny member and allow the nickel also to reach the coin trap.

Figs. 13 and 14 illustrate a somewhat simpler form of the invention where the deposit of only a nickel is required for a local call, but where the deposit of a penny along with other coins may be required for a toll call. In these figures the usual coin gauge 87 is mounted on top of the upper housing 88 for receiving quarters, dimes and nickels, the openings in gauge 87 registering with runways in the coin chute 89 whereby a deposited nickel falls into channel 90 in coin hopper 91 to actuate coin trigger 92 and fall upon the usual coin trap (not shown) after the nickel has struck the lower edge of bell 93, while a deposited dime strikes both the upper and the lower edge of bell 93 before entering channel 90 in the coin hopper; and whereby a deposited quarter strikes the spiral gong 94 before entering the coin hopper channel 90. The

operation of this collector for quarters, dimes and nickels is the same as in the previously mentioned Forsberg Patent 1,043,219.

In addition to the three standard coin runways the coin chute assembly of Figs. 13 and 14 contains a penny runway formed by mounting the channel member 95 on the rear of plate 96 of a chute assembly. The upper end of coin runway 95 registers with the penny coin gauge 97 and an opening in the side of this runway 95 enables a deposited penny to strike bell 98 and then be discharged into a side channel 99 of the coin hopper, whereby the penny by-passes the coin trigger 92 and falls directly upon the usual coin trap. The penny bell 98 is preferably mounted inside bell 93 by means of a common mounting screw 100 whereby both bells are in resonant connection with the upper housing 88 and telephone transmitter 101. It will be apparent that the coin runways are so formed that deposited nickels and dimes will not be able to strike bell 98 and that deposited pennies will not be able to strike bell 93.

The arrangement of Fig. 13 and 14 is, therefore, particularly adapted for the collection of pennies in connection with toll calls but not for their collection for an initial or local call. In making a toll call with the collector of Figs. 13 and 14 the central office may be signaled by the usual deposit of a nickel which is subsequently refunded and when requested by the operator the subscriber may then deposit the required money for the toll call, including one or more pennies if needed, the deposit of a penny being signaled to the listening operator by the vibration of the bell 98 to which the local transmitter 101 is responsive. It will be apparent that the penny channel 99 in the coin hopper 91 in by-passing the coin trigger 92 insures that no one will be able to make a local call by the deposit of only a penny instead of the usual nickel.

In the above arrangements it has been convenient to describe them as applicable to United States coins of certain denominations but it will be readily understood that the invention may be applied to the control of coins or tokens of any desired denomination or size.

What is claimed is:

1. In a coin collector housing, a coin runway for receiving a coin of one denomination, a coin runway for receiving a coin of a different denomination, a coin trap adapted to receive coins from both of said runways, means for temporarily preventing a coin received in one of said runways from reaching said coin trap, and means controlled by a second coin in one of said runways for rendering said preventing means ineffective.

2. In a coin collector housing, a coin runway for receiving a coin of one denomination, a coin runway for receiving a coin of a different denomination, a coin trigger adapted to be operated by coins from both runways, means for temporarily restraining a first coin in one of said runways from operating said trigger, and means operated by a second coin deposited in one of said runways for rendering said restraining means ineffective.

3. In a coin collector, a coin hopper having a branch channel for receiving coins of one denomination and having a second branch channel for receiving coins of a second denomination, a main channel in said hopper for receiving coins from both said branch channels, a coin trigger in said main channel adapted to be operated by a coin reaching said main channel, means for preventing the operation of said trigger by a first coin re-

ceived in said first branch channel, and means operated by a coin received in said second branch channel for rendering said preventing means ineffective.

4. In a coin collector housing, a coin runway for receiving a coin of one denomination, a coin runway for receiving a coin of a different denomination, a relay, means adapted to be operated by coins from both of said runways for controlling said relay, means for preventing said first means from controlling said relay when a first coin is deposited and means operated by a second coin deposited in one of said runways for causing said preventing means to become ineffective.
5. In a telephone coin collector substation housing, a coin runway for receiving a coin of one denomination, a coin runway for receiving a coin of a different denomination, an impulse sending device mounted on said housing for controlling the connection of said coin collector substation with a remote substation, said device normally being ineffective to establish said connection, means adapted to be operated by a first coin deposited in one of said runways for rendering said device effective, means for temporarily restraining said first coin from operating said first means, and means operated by a second coin deposited in one of said runways for rendering said restraining means ineffective.
6. In a telephone coin collector substation housing, a coin runway for receiving a coin of one denomination, a coin runway for receiving a coin of a different denomination, an impulse-sending device mounted outside said housing for controlling the connection of a distant substation with said collector substation, said device being normally ineffective, coin operated means for rendering said device effective to establish said connection, said means being adapted to be operated by a coin deposited in either of said runways, means in said first runway for temporarily preventing a coin deposited in said first runway from operating said coin means and means in said second runway operated by a coin deposited in said second runway for rendering said preventing means ineffective.
7. In a coin collector housing, a coin runway for receiving a coin of one denomination, a coin runway for receiving a coin of a different denomination, means in said first runway for temporarily holding a coin deposited in said first runway and means operated by a coin deposited in said second runway for freeing the coin in said first runway.
8. In a coin collector housing, a coin runway for receiving coins of a given denomination, means in said runway for temporarily holding a first coin deposited in said runway, and means operated by a second coin deposited in said runway for freeing said first coin.
9. In a coin collector housing, a coin runway for receiving a coin of one denomination, a second coin runway for receiving a coin of a different denomination, a coin trigger adapted to be operated by a coin deposited in one of said runways, means in said first runway for restraining a first deposited coin in said first runway from reaching said coin trigger, means in said second runway operated by a second coin deposited in one of said runways for releasing said first coin from said restraining means to permit the operation of said trigger, and means effective only after the actuation of said coin trigger for preventing said restraining means from restraining a third coin deposited in said first runway.

10. In a coin collector housing, a plurality of coin runways having independent openings accessible outside the housing, a coin trigger operated by coins deposited in said runways after the coins have reached a definite position in said runways, means for temporarily restraining a coin in one of said runways from operating said trigger, means controlled by a coin deposited in a second of said runways for releasing said first coin from said restraining means, and means controlled by a coin deposited in a third of said runways for releasing said restraining means.

11. In a coin collector housing, a plurality of coin runways having independent openings accessible outside said housing, a coin hopper having a channel for receiving coins from one of said runways, a pivoted coin trigger projecting into said channel, means projecting into said channel for temporarily restraining a first coin deposited in said first runway from operating said coin trigger, and means operated by a second coin deposited in said first runway for releasing said first coin from said restraining means.

12. In a coin collector housing, a coin runway having an opening accessible outside said housing for receiving coins of one denomination, a second coin runway having an opening accessible outside said housing for receiving coins of a second denomination, a coin hopper having one channel for receiving coins from said first runway and having a second channel for receiving coins from said second runway, a pivoted member which in its normal position has an arm occupying a coin obstructing position in said first channel, a second pivoted member which in its normal position has an arm occupying a coin obstructing position in said second channel, means on said second member effective in the absence of a coin in said second channel for preventing said first member from moving to a non-obstructing position when said first member is struck by a deposited coin, said second arm being actuated by a coin received in said second channel to move said means to a position freeing said first member.

13. In a coin collector housing, a coin runway having an opening accessible outside said housing for receiving coins of one denomination, a second coin runway having an opening accessible outside said housing for receiving coins of a second denomination, a coin hopper having one channel for receiving coins from said first runway and having a second channel for receiving coins from said second runway, a pivoted member which in its normal position has an arm occupying a coin obstructing position in said first channel, a second pivoted member which in its normal position has an arm occupying a coin obstructing position in said second channel, said members having interlocking projections for preventing the release of a coin held by one arm until the other arm is struck by a deposited coin.

14. In a coin collector housing, a coin runway having an opening accessible outside said housing for receiving coins of one denomination, a second coin runway having an opening accessible outside said housing for receiving coins of a second denomination, a third coin runway having an opening accessible outside said housing for receiving coins of a third denomination, a multichannel coin hopper having one channel for receiving coins from said first runway, a second channel in said hopper for receiving coins from said second runway, a third channel in said hopper for receiving coins from said third runway, a pivoted member which in its normal position has an arm

occupying a coin obstructing position in said first channel, a second pivoted member which in its normal position has an arm occupying a coin obstructing position in said second channel, and means controlled by a coin received in said third channel for moving said members to coin releasing positions.

15. In a coin collector housing, a coin runway having an opening accessible outside said housing for receiving coins of one denomination, a second coin runway having an opening accessible outside said housing for receiving coins of a second denomination, a third coin runway having an opening accessible outside said housing for receiving coins of a third denomination, a multichannel coin hopper having one channel for receiving coins from said first runway, a second channel in said hopper for receiving coins from said second runway, a third channel in said hopper for receiving coins from said third runway, a pivoted member which in its normal position has an arm occupying a coin obstructing position in said first channel, a second pivoted member which in its normal position has an arm occupying a coin obstructing position in said second channel, a coin trap in said hopper for receiving coins from all three channels, said third runway and said third channel being arranged to cause the actuation of said coin trap by the deposit of a coin in said third runway, and means controlled by the said actuation of said coin trap for moving said members to coin freeing positions.

16. In a coin collector housing, a coin runway for normally receiving a coin of one denomination, a second coin runway for normally receiving a coin of a different denomination, means for temporarily holding a first coin deposited in said first runway, means effective for a second coin deposited in said first runway for directing said second coin into said second runway, means in said second runway operated by said second coin for releasing said first coin, said directing means preventing any coin deposited in said second runway from reaching said first runway.

17. A telephone coin collector substation housing comprising a coin channel for receiving coins of one denomination, a second coin channel for receiving coins of a second denomination, electrical contacts which in their non-operated condition prevent a local call from being initiated at said substation, a pivoted member occupying a coin obstructing position in said first channel, a second pivoted member occupying a coin obstructing position in said second channel, and means contingent upon the operation of both of said members by coins received in both of said channels for operating said contacts, said means being ineffective to operate said contacts when only one of said members is struck by a deposited coin.

18. A telephone coin collector substation comprising a calling dial, a housing including a coin channel for receiving coins of one denomination, a second coin channel for receiving coins of a second denomination, electrical contacts which in their non-operated condition render said dial ineffective for dialing a local call from said substation, a pivoted member occupying a coin obstructing position in said first channel, a second pivoted member occupying a coin obstructing position in said second channel, and means contingent upon the operation of both of said members by coins received in both channels for operating said contacts, said means being ineffective to operate said contacts when only one of said members is struck by a deposited coin.

19. In a coin collector, a coin runway for receiving coins of a first denomination, a second coin runway for receiving coins of a second denomination, a third coin runway for receiving coins of a third denomination, means in said first runway for temporarily restraining a coin received in said first runway, means in said second runway for temporarily restraining a coin received in said second runway, and means controlled by a coin received in said third runway for rendering both said restraining means ineffective.

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