

G. A. LONG.
 COIN CONTROLLED APPARATUS.
 APPLICATION FILED OCT. 12, 1908.

932,404.

Patented Aug. 24, 1909.

Fig. 1.

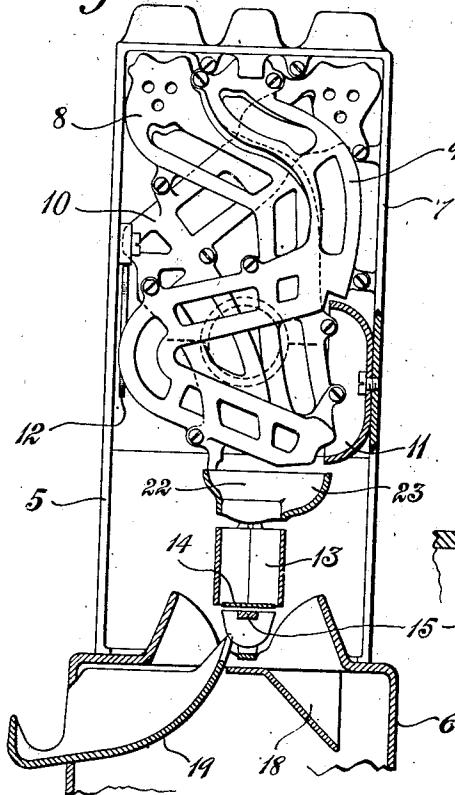


Fig. 2.

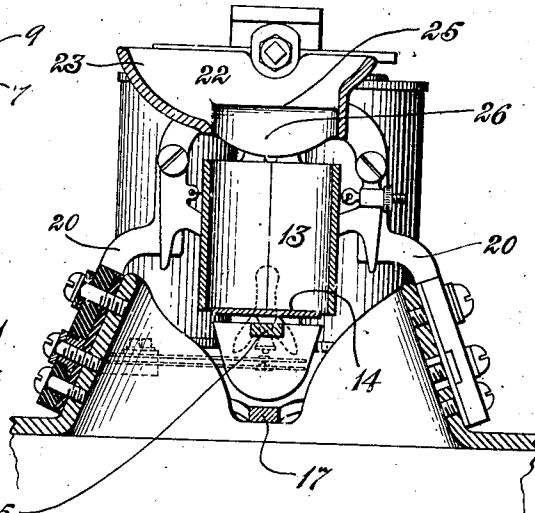
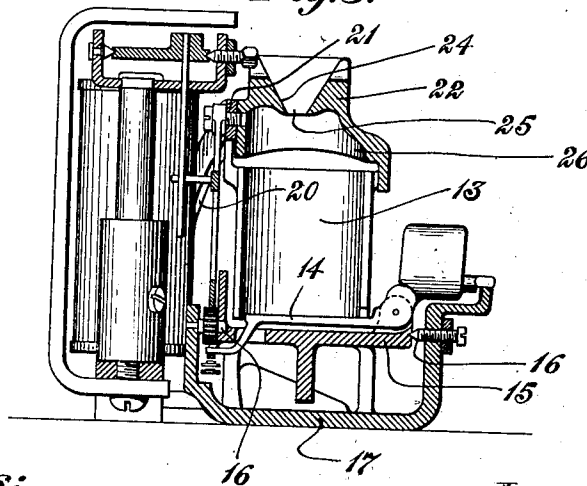


Fig. 3.



Witnesses:

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Inventor:

Geo. A. Long
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UNITED STATES PATENT OFFICE.

GEORGE A. LONG, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE GRAY TELEPHONE PAY STATION COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

COIN-CONTROLLED APPARATUS.

932,404.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Original application filed May 14, 1908, Serial No. 432,787. Divided and this application filed October 12, 1908. Serial No. 457,244.

To all whom it may concern:

Be it known that I, GEORGE A. LONG, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Coin-Controlled Apparatus, of which the following is a specification.

This invention relates to coin-controlled apparatus.

Coin-controlled apparatus involving my invention is susceptible of advantageous use in many different connections although it is of particular utility when embodied in or forming part of a telephone pay-station.

The present application is a division of an application for patent for telephone pay station filed May 14, 1908, Serial No. 432,787.

One of the primary objects of the invention is to provide a simple and effective device of the character set forth having means of a positively-acting nature for securing a definite relation of the coins or other tokens preferably after they have performed their acts in effecting certain operations of the apparatus.

In the drawings accompanying and forming part of the present specification I have illustrated in detail one form of embodiment of the invention which to enable those skilled in the art to practice the same will be fully set forth in the following description while the novelty of the invention will be included in the claims succeeding said description.

Referring to said drawings, Figure 1 is a sectional, front elevation of portion of a telephone pay station involving a device constructed in accordance with my invention, Fig. 2 is a vertical section of a coin-receptacle, hopper and certain cooperating parts, and, Fig. 3 is a transverse sectional view of the parts shown in said Fig. 2.

Like characters refer to like parts throughout the several figures.

As I indicate my apparatus can be employed in a variety of ways although it is of peculiar advantage when associated with a telephone pay station which as is well known provides for the operation of distinctive signals by the use of coins of different denominations. These signals are of different kinds. It is the custom after the signals have been operated to direct these coins

or tokens into a coin-box. In the application of which the present case is a division I have shown means for supporting such coins in a group, they being temporarily arrested prior to their final delivery into said coin-box so that if necessary they need not be emptied into said coin-box but on the contrary may be returned to a telephone subscriber. I prefer to catch these coins in a receptacle and to retain them therein momentarily or until a central office operator has determined to make proper disposition of them, by either causing their passage into the coin-box or their return to the person who inserted them in the telephone pay station. I prefer to superimpose the coins in said coin-receptacle and in this way can provide for a comparatively large collection of coins of different sizes in a relatively small compass.

Referring first to Fig. 1, the numeral 5 represents the cabinet of a telephone pay station the lower portion 6 of which contains the familiar coin-box (not shown) while the upper portion 7 of which incloses three chutes as 8, 9, and 10 into the entering ends of which are respectively placed the coins to effect the action of the signals. These chutes serve as a convenient means for directing or delivering the coins into the receptacle of the apparatus, or equivalent device of whatever nature it may be; other means might of course be employed in lieu of said chutes the invention not particularly residing in said chutes.

As will be gathered from what has been stated the coin-operated signals may be of any desirable type although preferably audible signal means are employed and for this purpose I have shown a bell as 11 and a gong as 12. I might add that the chute 8 is adapted for the traverse of nickels, the chute 9 for ten cent pieces and the chute 10 for twenty five cent pieces and that a nickel will operate the bell once, a ten cent piece will strike said bell twice, while a twenty-five cent piece will sound the gong once, the several chutes being so constructed as to permit the actions in question. The construction outlined is a familiar one in telephone pay stations for which reason it is not necessary to go further into detail with respect to the same.

The coin-receptacle may be of any suitable

form although I find that one of approximately cylindrical shape is quite satisfactory such a one being illustrated and being denoted by 13. The bottom of the receptacle 13 is made in the form of a tiltable closure or valve as 14 and this valve or closure and its various adjuncts need not be described herein as they form no specific part of the present invention. I have indicated that the valve or closure is tiltable it being supported for such action by an oscillatory support or carrier as 15 supported for rocking motion by pivots as 16 on the vertically-disposed branches of a yoke-like frame member as 17 located within the cabinet 5 and sustained by the top of the wall or partition which separates the portions 6 and 7 of said cabinet. Below the valve or closure 14 are disposed two chutes 18 and 19, the former leading to the coin-box to which I have referred and the other to a place outside the cabinet. In practice means are provided for oppositely tilting the carrier 15 at will by virtue of which the coin or coins resting thereon can be directed onto the chute 18 to be passed thereby into said coin-box, or onto the chute 19 to be returned to the subscriber. The valve or closure when at rest or normally stands preferably substantially horizontally or level and the coins are supported by it in superimposed relation although there may be instances where only a single coin or token may be employed to effect a desired result and in this event such coin will lie flatwise on said valve, closure or equivalent element. When there are several coins they will be arranged in a pile or stack and will not be disposed promiscuously.

Rising from the top of the portion 6 are uprights or bearings as 20 joined by a cross-bar as 21 to which a hopper as 22 is rigidly fastened. The receptacle or cup 13 is shown as being in sections capable of relative swinging movement and they are pivoted for this purpose to said hopper 22. This particular action does not concern the invention and it is only briefly described in view of the fact that it is illustrated. This hopper serves as a convenient means to secure the advantages to which allusion has been made it being of such construction as to effect positively a superimposition of the coins in the receptacle 13 so that the latter can be of comparatively small size. The upper portion of the hopper 22 is elongated or enlarged as at 23 and sufficiently so as to receive all the coins from the three chutes 8, 9, and 10 without possibility of scattering. The opposite ends of this elongated portion are somewhat rounded while the sides thereof are downwardly convergent as at 24, said converging faces or sides leading into a delivery slot or outlet as 25 which is made long enough to receive the coin of greatest diameter which may be

introduced into the machine and which in the present instance is a quarter. The length of said slot is equal or substantially equal to the internal diameter of the receptacle 13. Said slot is straight and it is located at one side (at the back in the present case) of the transverse central diameter of the receptacle 13 so that coins passing from the hopper are not delivered centrally thereby to the receptacle so that for example in the case of a quarter such coin will strike said receptacle at the top thereof and to the rear of such transverse central line and when such coin is fully free of the hopper it will be caused to tip or assume a horizontal position in which condition it enters the said receptacle. There is of course no necessity for thus tipping a dime or nickel owing to the fact that their diameters are so much smaller than the interior diameter of said receptacle. Said hopper is provided with a pendent substantially annular portion or apron as 26 which is of approximately the same diameter as the receptacle or cup 13 and which acts as a guard to prevent coins from being deflected outward after having passed through the slot 25.

It will be evident from what has been stated that I provide in connection with a coin-receptacle, such as that denoted by 13, means for effecting the discharge of the coins therefrom and while said means may be of any desirable nature, an oscillatory or tiltable valve as 14 answers satisfactorily my purpose and it will be evident that when said valve is tilted in one direction from its normal or neutral position shown in Fig. 1 the coins thereon will be caused to follow one path and that when said valve is tilted in the opposite direction from said neutral position said coins will be caused to take a different path. I also provide means for positively directing the coins along the different paths and these means may consist of the independent chutes or runways 18 and 19 the chute 18 directing the group of coins which may be deposited thereon into the usual coin box of the instrument while the chute 19 leads to a point outside the casing of said instrument so as to return said coins to a subscriber should this be necessary, the receiving ends of both said chutes being located within the casing and being so positioned as to alternately receive the groups of coins as necessity may dictate.

It will be observed that the hopper 22 is shown as being directly over the coin-receptacle 13 and that its delivery slot 25 is horizontally disposed and also in vertical line with the interior of said receptacle so that the coins are delivered directly into said receptacle.

What I claim is:

1. In a coin-controlled apparatus, a coin-receptacle of substantially cylindrical form

and a hopper located above the receptacle and having a horizontal delivery slot located directly over the interior of said receptacle and at one side of the center line of the latter the length of said slot being approximately the same as the transverse internal diameter of said receptacle.

2. In a coin-controlled apparatus, a coin-receptacle of substantially cylindrical form and a hopper located above the receptacle and having a delivery slot located at one side of the transverse center line of said receptacle said slot being in length substantially the same as the internal diameter of said receptacle and having a pendent substantially annular apron.

3. In a coin-controlled apparatus, a coin-receptacle of substantially cylindrical form, and a hopper located above the receptacle and having a horizontal delivery slot located directly over the interior of said receptacle and at one side of the center line of the latter.

4. In a coin-controlled apparatus, a coin-receptacle of substantially cylindrical form, and a hopper located above the receptacle, having a horizontal slot at one side of the transverse center line of said receptacle and for delivering coin directly into said receptacle.

5. In a coin-controlled apparatus, a coin-receptacle of substantially cylindrical form, and a hopper above said receptacle, having a horizontal slot situated directly over the interior of said receptacle and at one side of the transverse central line of the latter and also having two downwardly converging lateral faces leading to said slot.

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

GEORGE A. LONG.

Witnesses:

HEATH SUTHERLAND,
CHARLES TOBY,
KATHERINE E. MURPHY.