

G. A. LONG.
 COIN CONTROLLED APPARATUS.
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932,036.

Patented Aug. 24, 1909.

Fig. 1.

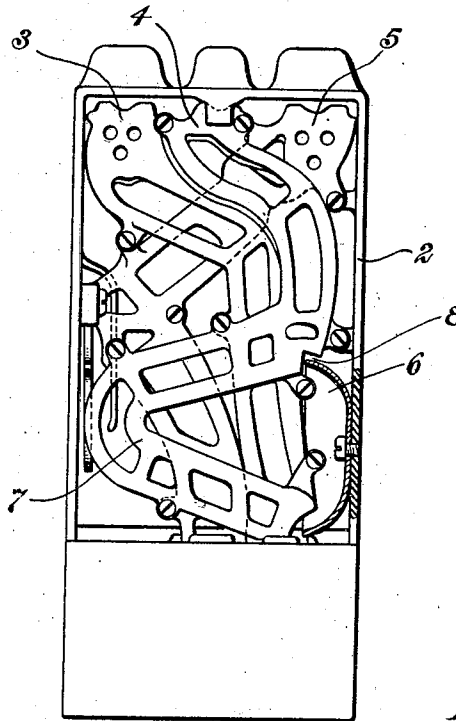


Fig. 3.

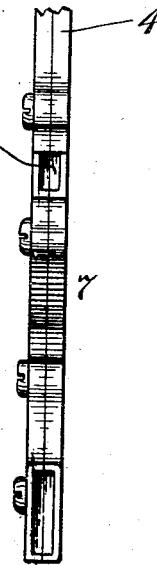
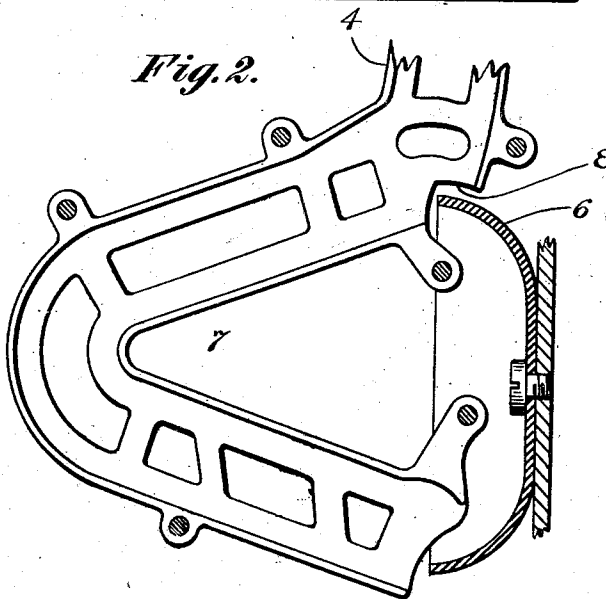


Fig. 2.



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 By his Attorneys,
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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.

932,036.

Specification of Letters Patent. Patented Aug. 24, 1909.

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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 may be employed with advantage in many different connections. For illustration it can be used in combination with or as an adjunct to what is known as a telephone-pay station.

Coin-controlled apparatus embodying my invention includes a coin-chute or run-way and signal means operable by a coin traversing or passing along said chute. I employ preferably in connection with said chute a single signal means the latter being in such relation with the chute as to be acted on a plurality of times, for instance twice.

One of the primary purposes of my invention is to so dispose this chute as to secure an appreciable and readily perceptible time between the two operations of the signal means so that an operator at a central station can readily distinguish definitely the two actions of the signal means.

I wish to indicate that I use the term signal means in a generic sense to include simply a bell which I prefer to use in conjunction with the chute, or any other type of signal which has means associated therewith for obtaining the successive operation thereof.

In the drawings accompanying and forming a part of this specification I illustrate one simple and effective form of embodiment of the invention which to enable those skilled in the art to practice the same will be set forth in detail in the following description. While the novelty of the invention will be covered in the claims succeeding said description.

Referring to said drawings, Figure 1 is a rear elevation partly in section of a telephone pay station comprising an apparatus embodying my invention. Fig. 2 is a longitudinal section of the lower portion of one of the three chutes illustrated in said Fig. 1, and, Fig. 3 is an edge view of said lower portion of said particular chute.

Like characters refer to like parts throughout the several figures of the drawings.

Referring now more particularly to Fig. 1, the numeral 2 denotes the casing of a portable pay station which in practice is equipped with the usual transmitter and receiver (neither of which is shown) and with the usual coin-receptacle or box into which latter the coin or coins drop after having passed through a chute or chutes. Within the upper portion of said casing 2 there are represented as located three of said chutes, they being designated by 3, 4 and 5 and being adapted for the receipt and traverse therealong of coins of the proper denomination, the coins prior to their discharge from the appropriate chutes preferably operating signal means.

The chute 3 may be employed for the reception of a nickel or five-cent piece, while the chute 4, may receive dimes or ten-cent pieces, while twenty-five cent pieces may be deposited in the chute 5. These are only illustrations, however, for the chutes may receive tokens not necessarily coins and only one coin or token may be necessary in the apparatus. I mention these to indicate that my invention does not concern any number of chutes or any particular arrangement thereof but resides more especially in a means whereby a coin or its equivalent after having operated a signal can again effect the action of said signal and in such a way that this fact can be at once and readily detected by a central operator. In other words there is no blurring or confusion in sounds as would follow where the two strokes of the bell are made practically concurrently. In the present instance the intermediate chute 4 is of such a character as to obtain the advantage mentioned. Preferably the result in question is obtained by making the coin after it has once operated the signal means follow an irregular or tortuous path before it again operates the signal.

As indicated hereinbefore the signal cooperative with the chute 4, consists preferably of a bell as 6 the concaved side of which faces inwardly or toward said chute 4. The bell may be fastened in any desirable way within the casing 2, its edge or peripheral portion being arranged as will hereinafter appear, in such a manner as to

be encountered twice by the coin descending the chute 4.

The chute 4 has a lower substantially V-shaped terminal portion 7 and which serves as a convenient and simple means for positively guiding the coin or equivalent device along an irregular path. I say substantially V-shaped for the reason that this part is not truly of V form it being somewhat curved or bent on an arc at the junction of its legs or branches whereby the progress of the coin through said substantially V-shaped portion is in nowise retarded or impeded. The coin after traveling through this V-shaped portion 7 passes into the usual coin-box or receptacle. At the place where the upper leg of this V-shaped terminal portion merges into or unites with the body of the chute I prefer to form a slot or opening as 8. Into this slot one part of the edge or peripheral portion of the vertically disposed bell 6 is slightly extended a substantially diametrically-opposite part of said bell being located in proximity to the delivery end or opening of the said chute 4. The upper part of the bell is not projected so far into the chute as to arrest the movement of the coin but only sufficiently to get a clear tone therefrom when encountered by the coin.

I desire to make it clear that the chute 4 comprises a plurality of sections each having a V-shaped terminal portion, at least one section of the chute having beads extending longitudinally thereof to produce a channeled section and the other section consisting of a strip shaped to agree with that of said beads and closing said channeled section to present a tube. It will therefore be clear that I so shape the chute 4 as to cause the coin after having operated the signal means once to move in a direction away from the signal means and afterward to approach said signal means, and this result I can accomplish in a feasible manner by bending the chute so that there will be a clearly discernible interval of time between the two strokes of the bell, this being accomplished in a positive manner. The bend in the chute 4 does not materially affect the gravitation of the coin although the lower leg thereof directs the coin squarely against the bell to secure a sharp, clear sound thereof, the same function being obtained by making the chute 4 above said V portion of such shape as to deliver the coin squarely against the upper portion of the bell. The chute 4 is of practically the same depth throughout its length thereby to prevent possibility of lateral motion of the coin therein and the deviation of the coin from its normal path.

It will be apparent that the chute 4 has a plurality of signal receiving openings one of which is located between the ends thereof and that said chute has a bent portion between these openings. Said bent portion is

preferably inclosed, by which I mean practically tubular although not necessarily imperforate or unslotted but such a construction as will properly guide a coin or its equivalent from one of said openings toward the other.

What I claim is:

1. The combination of a coin-chute having a substantially V-shaped tubular portion, and a bell disposed in operative relation to said chute, the latter having separated openings and different portions of the bell being disposed opposite said openings one of said openings being disposed approximately at one end of said V-shaped portion and the other being disposed approximately at the other end of said V-shaped portion.

2. The combination of a coin-chute having a substantially V-shaped terminal portion at the lower end thereof of tubular form, said chute having an opening at approximately the junction of said V-shaped portion with the body of the chute, and a bell one portion of which is disposed opposite said opening and another portion of which is situated at the lower end of said V-shaped portion said lower end constituting the delivery part of said chute.

3. In an apparatus of the class described, a coin-chute and a signal means in coöperative relation with said chute and operable successively by a coin passing through said chute the latter being shaped to positively direct the coin away from said signal means after the same has been initially operated and then to positively direct the coin toward and against the said signal means.

4. In an apparatus of the class described, a coin chute and a bell in coöperative relation with said chute the latter having longitudinally separated openings to permit a coin passing through said chute to strike said bell at least twice and the chute being shaped to first positively direct the coin away from the bell after the initial operation and then afterward positively toward the bell.

5. The combination of a coin-chute composed of two channeled sections fitted together to form a tube, said sections having V-shaped outer terminal portions and also having notches which mate to produce a slot the notches being situated substantially at the junction of said V-shaped portions with the remainder of the respective sections and a bell having one portion opposite said slot and another portion opposite the outer end of the V-shaped tubular portion made by said outer terminal portions of said sections.

6. The combination of a coin-chute composed of two sections having V-shaped outer terminal portions provided with beads along their inner faces which fit together to produce a tube and said beads having notches which mate to form a slot, said notches be-

ing situated substantially at the junction of
said V-shaped portions with the remainder
of said sections and a bell having one por-
tion opposite said slot and another portion
5 opposite the outer end of said V-shaped
tubular portion formed by the complemental
first-mentioned V-shaped portions.

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

GEORGE A. LONG.

Witnesses:

JOSEPH P. KENNEDY,
FRANCES E. BLODGETT.