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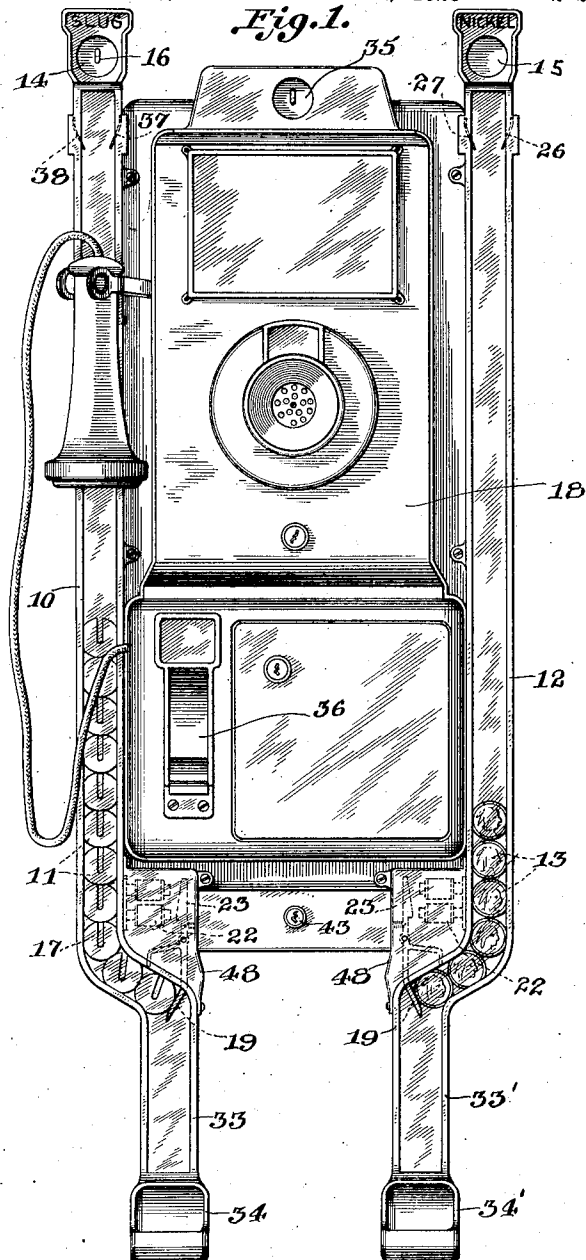
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SLUG DISPENSING CABINET

Original Filed Oct. 11, 1923

2 Sheets-Sheet 1



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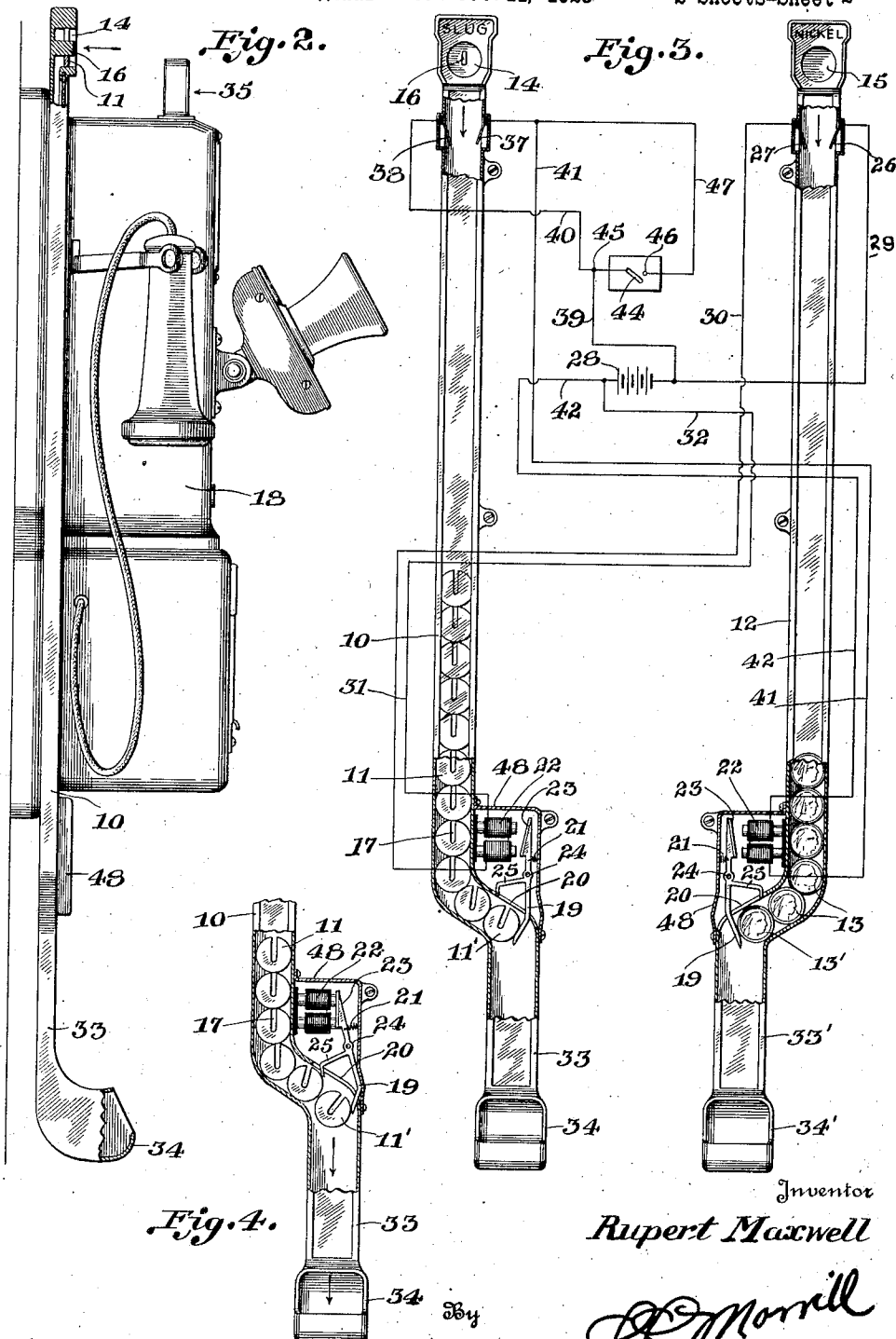
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UNITED STATES PATENT OFFICE.

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SLUG-DISPENSING CABINET.

Application filed October 11, 1923, Serial No. 667,892. Renewed March 31, 1927.

This invention relates to slug dispensing cabinets and has for an object to provide a device intended for use in conjunction with a check-controlled telephone, and to provide means to dispense to the user a check ordinarily known as a slug which is of some particular shape, size or other configuration for actuating the mechanism of said particular telephone.

A further object of the invention is to provide improved means for converting a coin into a check of the particular kind required and with improved means for reconverting the check into a coin in case the connection is not made or for any other reason it is desired to return the check.

It is well known that in present day telephony some installations are provided wherein the central operator can only be called by the insertion in the apparatus of a check of a particular shape or conformation, ordinarily known as a slug, which said slugs are obtained in any of various ways, and the present invention is to provide an automatic device for delivering to the user one slug in return for a coin of a particular denomination introduced into the apparatus.

A further object of the invention is to provide improved means for discharging the accumulated coins only to one holding a key properly conformed to actuate the device.

With these and other objects in view, the invention comprises certain novel parts, elements, units, combinations, connections, magnetic appliances and mechanical movements as disclosed in the drawings, together with mechanical, functional and electrical equivalents thereof, as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a view in front elevation of a conventional telephone of the check-controlled type showing the coin and slug dispensing mechanism associated therewith in one form.

Figure 2 is a view of the telephone installation in side elevation with the dispensing apparatus attached thereto, parts of said dispensing apparatus being broken away to show the construction.

Figure 3 is a diagrammatic sectional view of the apparatus and the electrical wiring.

Figure 4 is a fragmentary detail view of the slug dispensing apparatus shown in position for releasing one slug when actuated

by the insertion of a coin into the coin control associated therewith.

Like characters of reference indicate corresponding parts throughout the several views.

The improved slug dispensing apparatus which forms the subject matter of this application is shown and in ordinary use, preferably, will be used in conjunction with a coin or check-controlled telephone of the type employing a specific type of anomalous slug for its actuation, but it is to be understood that it is in no way limited in its utility to association with a telephone and may be likewise and equally well employed for various other purposes and in various other combinations wherein any check-controlled device is or may be actuated from a specific type of check dispensed for the purpose, and the description of the device bringing in any features of telephone, telephone connection or operation is only by way of explanation and is no limitation upon the invention, its functions or utility.

Associated in some position with the telephone or other device to be employed is a chute 10 of such size, shape or dimensions as to properly contain a plurality of checks or slugs indicated conventionally at 11 and preferably, though not necessarily, with such slugs edge to edge as indicated in the drawings.

Also conventionally associated relative to the chute 10 and the mechanism to be actuated is a second chute 12, properly proportioned to similarly contain a plurality of coins 13, the size and proportion of the chute 12 being commensurate with the particular denomination of coin 13 to be employed therein.

At the upper ends of the chutes 10 and 12, introduction inlets 14 and 15 are provided, proportioned to permit the introduction of a coin or slug therein moving perpendicular to its own plane and in the case of the slug inlet, some obstruction, as for instance a lug 16, will be provided to coact with the particular type of slug employed, that in the drawing being shown as merely a radial slot 17, but it is to be understood, of course, that the particular type of obstruction indicated generally by the lug 16 will conform to the particular type of slug for which the device is provided.

These two chutes 10 and 12 and the other

devices as just described may be associated in any approved manner with the device to be actuated, as shown at Figures 1 and 2 a conventional telephone 18.

At some point adjacent the lower ends of the chutes 10 and 12 escapement mechanisms are provided. The escapement mechanisms in the two chutes are substantially identical and the description of one will be understood to describe both. These escapement mechanisms comprise a detent 19 extending through a slot 20 in the chute 10 or 12 and in such position as to normally bear against and hold the lowermost slug or coin 11' or 13' as shown at Figures 3 and 4. A spring 21 is provided for holding this detent 19 normally in detaining position, as shown at Figure 3, so that the column of coins or slugs above this point will be restrained from discharging from the position of said detent.

For removing this detent from detaining position, electro-magnets 22 are provided, when energized attracting an armature 23, preferably, though not necessarily, integral with the detent 19 and fulcrumed at some convenient point as the pintle 24. To prevent the discharge of more than one coin or slug when the detent is released from detaining position by the energizing of the magnet 22, a finger 25 is provided, also inserted through the slot 20 of the chute and in such position as to engage in front of the second coin or slug in the column when the detent 19 moves to releasing position as shown at Figure 4, so that at each energizing of the magnets 22, a single coin or slug is released and, when the magnet is de-energized, the detent 19 returns to the position shown at Figure 3, preventing the further release until further actuated.

For the purpose of actuating the slug release mechanism, the coin chute 12 is provided with spring contacts 26 and 27 in such position that a coin introduced through the opening 15 into the chute 12 in its passage downwardly will engage the contacts 26 and 27 and form electrical connection through said contacts from the source of electrical energy indicated at 28, through the wire 29, through said contacts and coin to the wire 30 which leads to the magnet 22 of the slug release, returning through the wires 31 and 32 to battery 28. As, therefore, a coin is introduced into the chute 12, the circuit is closed to energize the magnet 22 of the slug chute, dropping a single slug beyond the detent 19 into the extension chute 33 and from thence into the receptacle 34 from which it may be manually removed. The coin so released and manually removed is used to actuate the check control mechanism and in the specific type of device as shown would be inserted in the opening 35 in the telephone apparatus. This introduction of the coin must, as is well known, pre-

cede the call of the central operator and, in case the connection requested can not be made by the employment of certain well known mechanisms, the slug is released to fall into the receptacle 36 from which it may be manually removed.

As in the present practice, the telephones of various locations require the employment of different types of slugs, the slug thus released would be of no service to the user in another location.

To enable the proposed user to recover his coin, provision is made that by inserting the slug thus released into the opening 14 it may pass downwardly in the chute 10 into engagement with the spring contacts 37 and 38. This arrangement acts as in the matter of the coin chute 12 bridging the interval between said contacts, taking current from battery 28 through wires 39 and 40 to the contact 38, through the slug and contact 37 to the wire 41 to energize the electro-magnet 22 of the coin chute, releasing the lowermost coin indicated as 13' to drop through the extension 33' into the receptacle 34' to be removed by the user; the current returning through the wire 42 to battery.

It is also well known that these telephone installations provide, or must provide, for some manner of releasing the accumulated coins or checks, and the check dispensing apparatus disclosed herein makes similar provision for releasing the coins from the coin chute 12 when said chute has become filled. This provision may comprise a key hole 43, conveniently located in any part of the apparatus, controlling a switch 44 which connects at 45 with the wire 40 and is positioned to engage a contact 46 connected through wires 47 and 41 with the magnet 22, so that, when the contact 44 engages the contact 46, current passes from the battery 28 through the wires 39 to 45, through contacts 44 and 46, wires 47 and 41 to the electro-magnet 22 of the coin chute, returning through the wire 42 to battery. Each manual closing of the switch 44 by the use of a key in the key hole 43 will, therefore, release one coin from the chute 12. The repeated actuations of the key will release in series all of the coins contained in said chute.

It is the intent to provide both the coin chute and the slug chute with transparent closures so that the contained coins and slugs will be continually visible to the user or lessee of the equipment. Also, it is intended that the electro-magnets and their associated parts will be contained in housings 48 so positioned and attached as to prevent unauthorized tampering with the mechanism and that the wiring disclosed in diagrammatic form in Figure 3 will be wholly contained within the device so that short circuiting by unauthorized users can not be accomplished.

From the foregoing description of the apparatus and combination, it is believed that the utility and use will be fully understood and that further description thereof would be superfluous.

What I claim to be new is:

1. A slug and coin dispensing apparatus comprising a coin chute and a chute adapted to contain anomalous slugs of predetermined, uniform contours, independent electrical means for discharging a coin or a slug from its respective chute, means controlled by the introduction of a coin into the coin chute for actuating the slug discharging means, an inlet proportioned to permit the return of the discharged slug to the slug chute, and means controlled by said returned slug to actuate the coin discharging means.

2. A check dispensing apparatus comprising associated check and coin chutes, each provided with an escapement mechanism adapted to release a single check or coin, independent electro-magnetic means for actuating the escapement mechanism, and means within each of said chutes for energizing the electro-magnetic mechanism of the other chute when the appropriate body is introduced into its respective chute.

3. A slug and coin dispensing apparatus comprising independent chutes proportioned to receive independently coins of a predetermined denomination and checks of a predetermined contour, independent escapement mechanisms for each of said chutes adapted

to release a single one of the bodies in said chute contained, inlet conduits for each chute properly proportioned to receive the appropriate check and coin, and contacts within said chutes employing said introduced body to close an electric circuit to the electro-magnetic escapement means of the other chute to release one of the bodies contained in said other chute.

4. A coin and check dispensing apparatus, comprising independent receptacles for said coins and checks respectively, means in conjunction with said receptacles for releasing a single one of the bodies in said receptacle, electric circuits controlling said releasing mechanism, and means contained in each of said receptacles to coact with an introduced body to close the circuit to the releasing mechanism of the other receptacle.

5. A coin and check controlling device comprising independent coin and check receiving and retaining chutes, escapement mechanisms within said chutes for releasing a single one of the bodies contained in said chute, electro-magnetic means controlling each of said escapement mechanisms, means associated with each chute for closing an electric circuit to the electro-magnetic means of the other chute, and independent manually operable means for closing the circuit to the electro-magnetic means of the coin chute.

In testimony whereof I affix my signature.

RUPERT MAXWELL.