No. 835,292. PATENTED NOV. 6, 1906.

H. D. STROUD.

TOLL COLLECTOR.

APPLICATION FILED FEB. 8, 1904.

Fig. 2

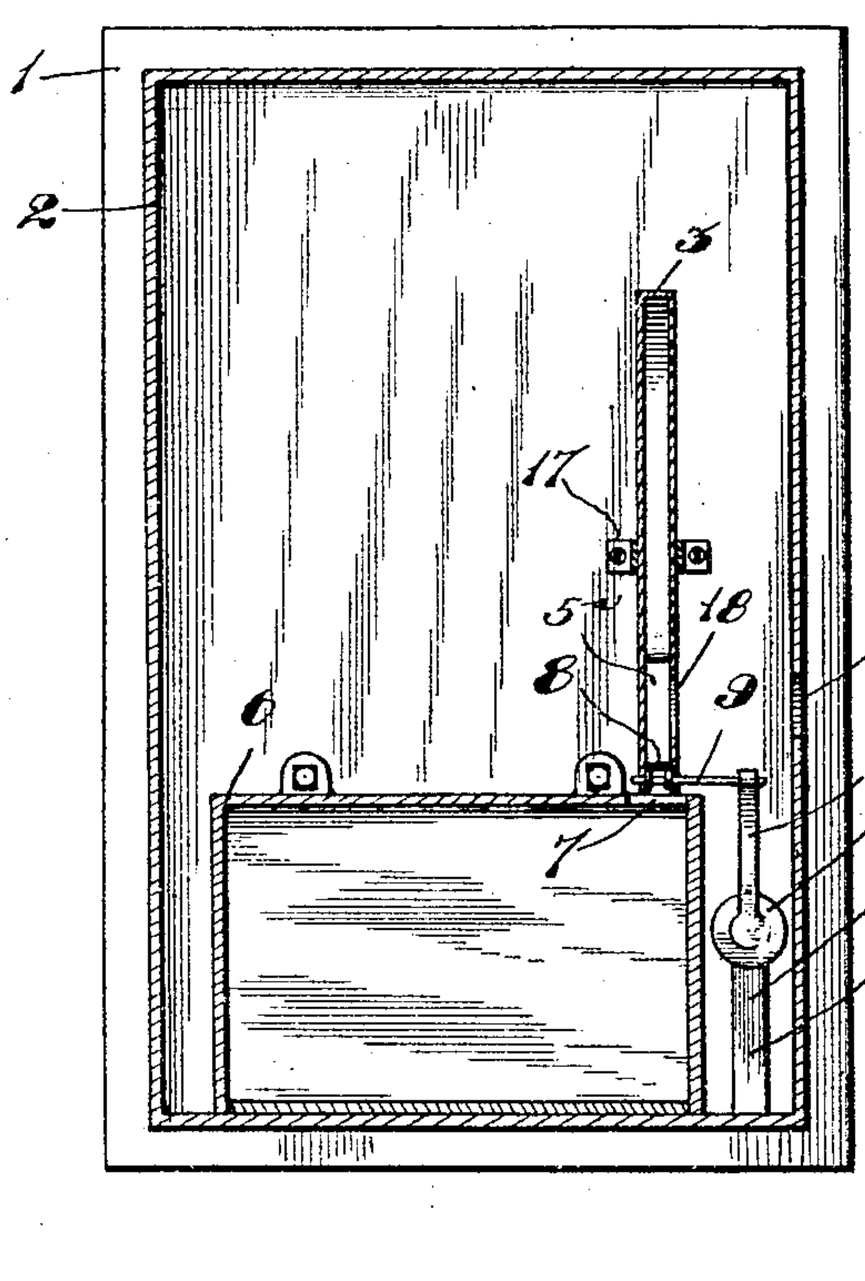


Fig. 1.

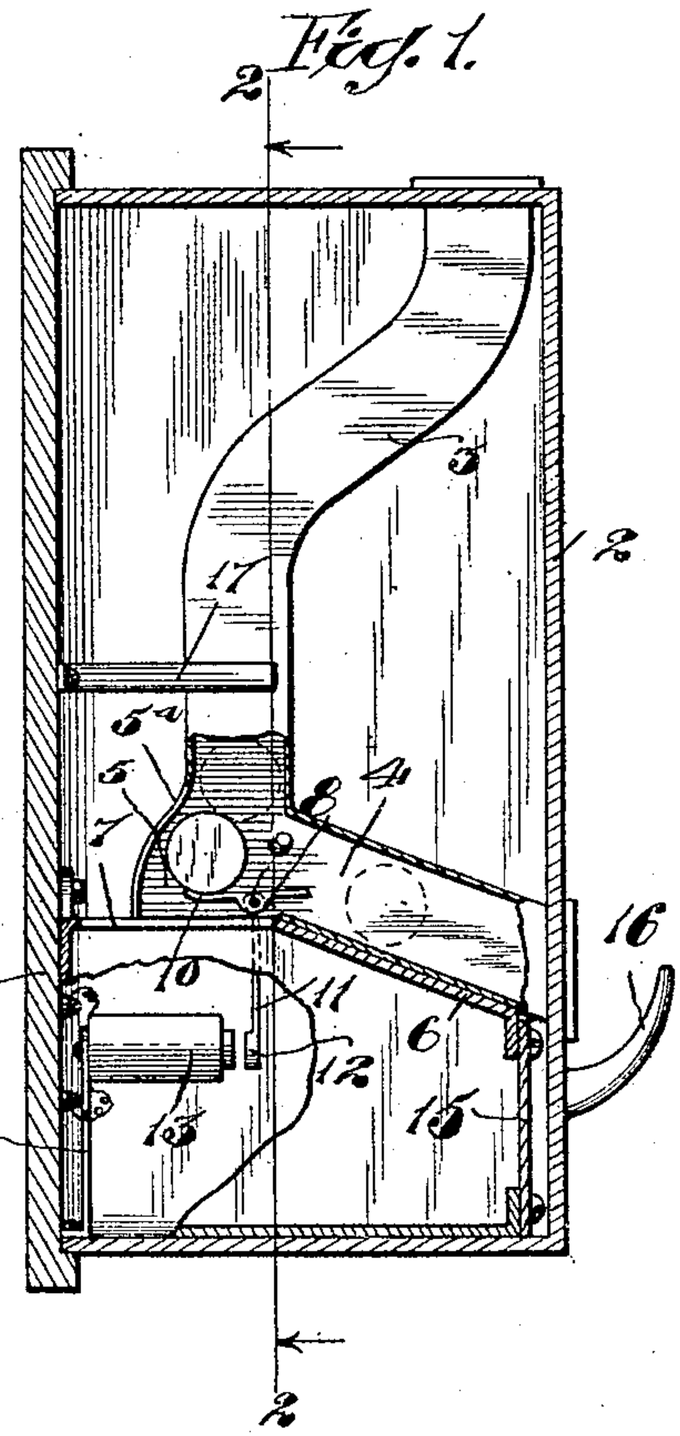


Fig. 3.

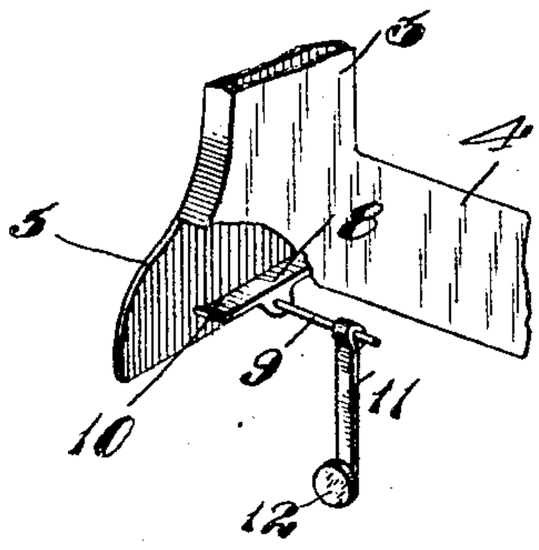
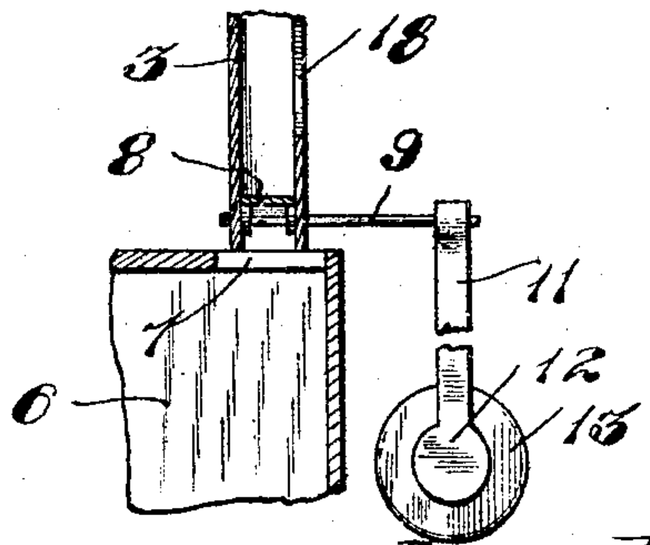


Fig. 4.



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UNITED STATES PATENT OFFICE.

HAROLD D. STROUD, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE STROUD INTERNATIONAL MEASURED SERVICE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

TOLL-COLLECTOR.

No. 835,292. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed February 8, 1904. Serial No. 192,673.

To all whom it may concern:

Be it known that I, HAROLD D. STROUD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Toll-Collectors, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to toll-collectors for telephone-exchanges.

Prominent objects of the invention are to provide a simple, practical, and inexpensive form of toll-collector, to arrange for the quick and automatic deposit of the coins, and also the easy and ready return of such coins as are not to be deposited, and to accomplish the foregoing in a simple and expedient manner.

In the accompanying drawings, Figure 1 is a transverse section of a toll-collector embodying my present invention. Fig. 2 is a section taken on line 2 2 in Fig. 1. Figs. 3 and 4 are views of details of construction.

Referring to the drawings, 1 is a base-plate for the toll-collector, and 2 is a removable casing which is fitted to the base-plate 1, so that the two together form a box. A coin-chute 3 is arranged within this box, its upper end being secured to the top of the casing 2 and opening through the same, and its lower end being split or divided into two parts 4 and 5. The part 4 is a return chute or duct and extends out laterally and downwardly to the side of the casing 2, through which it projects, so as to open outside of the box. The part 5 is the depositing chute or duct and extends slightly in the opposite direction. Its left side is cut away or slotted at 5^a. A coin box or receptacle 6 is situated at the base of the casing 2 and is adapted to receive the deposited coins. This coin box or receptacle has an opening 7 below the mouth or opening of the depositing-duct 5 of the chute 3, so that coins passing through the duct 5 will enter the cash-box 6. A tilting platform 8 is pivoted on a shaft 9 at substantially the junction of the ducts 4 and 5. This platform 6 is normally at a slight inclination to the left—that is, toward the opening 7 of the cash-box—and has its lower or left-hand e b t upwardly or provided with a lip 10. ft a t ds s shown in Fig. 2, to one side of the cash-box 6 and is provided with an arm 11, carrying an armature 12 for an electromagnet 13, which is supported on a suitable bracket or support 14. The cash-box is secured to the back or base 1, and is constructed with a side 15, which can be removed to remove the coins. The casing 2 is provided with a lip or basin 16 to receive the returned coins. The back 1 is provided with prongs 17 17, arranged on either side of the coin-chute 3 to support and steady the same. The coin-chute is provided with an aperture 18 and the casing 2 with an aperture 19 substantially opposite the aperture 18.

The operation of the device is as follows: A coin when deposited at the top of the chute 3 will descend in the same until it strikes against the platform 8, by which its fall will be arrested, and it will remain on this platform. The slight inclination of the platform will cause the coin to roll slowly to the left-hand end of the platform, where it will be engaged by the lip 10. While in this position the coin can be seen through the aperture 18 in the coin-chute. If the party depositing this coin receives the connection desired, the coin is allowed to remain on the platform 8. If the connection desired is not secured, the operator at the central exchange sends a current through the magnet or relay 13, thereby attracting the armature 2 and swinging the rock-shaft 9 so as to tilt the platform 8, and thereby cause the coin to roll down the return-chute 4 into the basin 16, from which the depositor will take it. When the next user comes to the telephone and deposits a coin in the chute 3, if the preceding coin remains on the platform 8 this subsequently-dropped coin will strike the former one, as shown by dotted lines in Fig. 1, and thereby cause the first one to move to the left over the lip 10 of the platform 8, whence it will drop into the cash-box. In such case the second coin will rest on the platform 8 as the former one did. If the first coin has been already deposited, the second coin will simply rest on the platform 8. In either event the second coin is on the platform 8, where it will remain if the connection desired is secured, but from which it will be moved by the magnet 13 if the desired connection is not secured. Subsequent coins will in like manner each deposit a preceding coin, if there is

one, and will remain on the platform 8 whether the preceding coin was deposited or not. It will be seen that in this way the system is simple and practical and satisfactory, there being no operation required to deposit any coin. Each coin is automatically deposited by the coin following it. It is only necessary for the operator to energize an electromagnet to return a coin. As the large majority of efforts to secure subscribers are successful, the work of the operator is thus greatly reduced, because in the large majority of cases no operation whatever is necessary. In the vastly smaller number of cases an operation is necessary to return the coin; but as this number is so relatively slight the ultimate saving to the operator is considerable. Thus the service is greatly unburdened, and therefore quickened and made more economical.

It will be understood that the coin-box or toll-collector herein set forth is properly associated with the telephone instruments, so as to be available in connection with them, and is properly connected with the central station, so that the magnet 13 can be properly energized. It will also be understood that the box can be equipped with other apparatus or devices than that shown, if such be desired.

When it is desired to remove the coins or inspect the interior of the device, the cover or casing 2 is removed, drawing with it the coin-chute 3 and duct 4. The front 15 of the coin-box 6 is then removed and the coins extracted, after which the device can be restored to shape for subsequent use.

I have referred herein to the object deposited in the box as a "coin." It will be understood, however, that in so doing I mean to include various objects or articles used in boxes of this kind—such, for example, as tokens, slugs, and other pieces—it being well known that such other devices are used and in some cases properly so. In the claim I have used the expression "toll-piece" to indicate such object, be it a coin, token, slug, or other article.

It will be understood that changes and modifications can be made in the arrangement herein set forth without departing from the spirit of my invention.

What I claim is—

In a toll-collector, the combination with a chute having branch ducts, of a tilting platform located substantially at the junction of said ducts and adapted to support a toll-piece in such position that it will be struck by another passing down the chute and directed into one branch duct, and means for tilting the platform to pass the coin into the other duct.

In witness whereof I hereunto subscribe my name this 27th day of January, A. D. 1904.

HAROLD D. STROUD.

Witnesses:
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