

(No Model.)

W. W. DALE.  
TELEPHONE ATTACHMENT.

No. 562,807.

Patented June 30, 1896

Fig. 1.

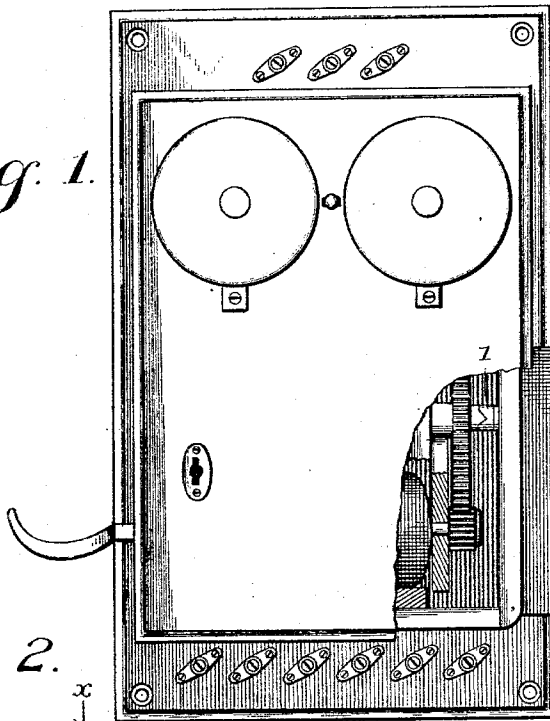


Fig. 4.

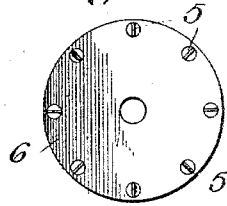


Fig. 2.

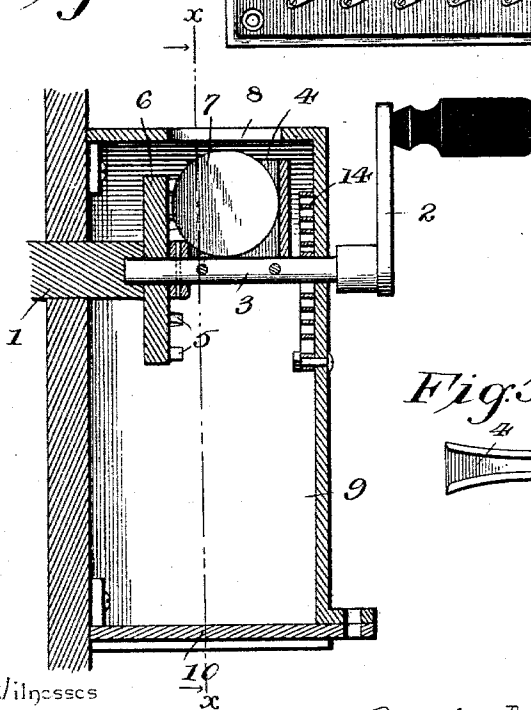


Fig. 3.

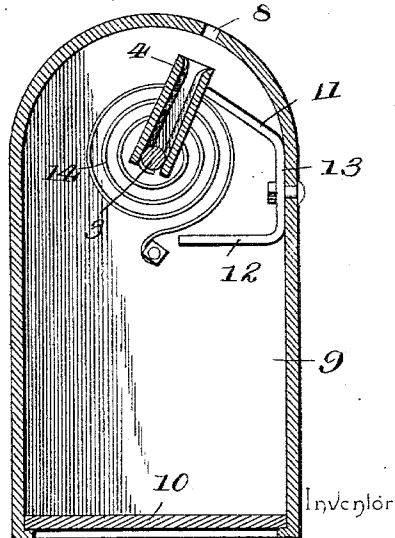


Fig. 5.



Witnesses

Chas. A. Ford.  
V. B. Hillyard.

By his Attorneys.

Wm W. Dale,

Chas. Snow & Co.

# UNITED STATES PATENT OFFICE.

WILL W. DALE, OF FOSTORIA, OHIO, ASSIGNOR OF TWO-THIRDS TO LEVI HARBAUGH AND S. L. GHASTER, OF SAME PLACE.

## TELEPHONE-ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 562,807, dated June 30, 1896.

Application filed July 10, 1895. Serial No. 555,530. (No model.)

*To all whom it may concern:*

Be it known that I, WILL W. DALE, a citizen of the United States, residing at Fostoria, in the county of Seneca and State of Ohio, have invented a new and useful Telephone Attachment, of which the following is a specification.

This invention relates to toll apparatus for telephone sub or pay stations, and aims to provide a coin-controlled mechanism which, upon the introduction of a coin of proper denomination into a slot, will lock the crank-arm with the shaft bearing the armature of the magneto-machine, whereby upon the turning of the said crank the magneto-machine will be actuated and the central station called up, so as to put the user in communication with the required subscriber. Thus, before a prospective user can call up the central or subscriber, it is incumbent upon him to deposit the required toll into a slot of a coin-controlled mechanism applied to the telephone before the latter can be brought into requisition.

The invention consists, primarily, of a crank-shaft having a coin-receiving pocket which is open at two sides, and a plate or disk mounted upon the armature-shaft of the magneto-machine and having a series of projections on the face adjacent to the open side of the said coin-pocket, any one of which projections is adapted to be engaged by the coin in the pocket so as to form a lock, whereby the crank-shaft and armature-shaft are caused to revolve together upon the turning of the said crank-shaft after a coin has been placed in the pocket.

The invention also consists of a stop for limiting the rotation of the crank-shaft and for properly positioning the coin-pocket, and in a spring for returning the coin-pocket to an initial or normal position after the operating-crank has been released.

The many objects and advantages attendant upon the practice of the invention will become apparent as the nature of the latter is understood, and for a complete disclosure thereof, reference is to be had to the following description, and the drawings hereto attached, in which—

Figure 1 is a front elevation of a magneto call-box of common and well-known construction

having the invention applied thereto, parts being broken away so as to disclose the connection of the invention. Fig. 2 is a detail view in section, showing the crank-shaft and power-shaft in locked relation. Fig. 3 is a detail view in section on the line X X of Fig. 2, showing the means for returning the coin-pocket to a normal position and the provisions for limiting the movements thereof. Fig. 4 is a detail view of the plate or disk having the projections which are engaged by the coin. Fig. 5 is a detail plan view of the coin-pocket.

The invention is designed to be applied to telephonic instruments so as to insure the payment of a toll before the same can be used, and is shown in connection with a magneto call-box of ordinary construction, as it will generally be employed with apparatus of this character. To simplify the disclosure of the invention, the shaft carrying the disk or plate having the projections to be engaged by the coin will be designated as the "power-shaft," whether it carries the armature of the magneto-machine or is supplied with a gear-wheel for augmenting the speed of the said armature. This power-shaft 1 extends through a side of the box and receives the force expended upon the crank 2 for actuating the magneto-machine when it is required to call up the central or a subscriber. As the call-box and its appurtenances are common and of well-known construction, the parts thereof will not be referred to, as their construction and operation will be readily comprehended by one skilled in the art.

The crank-shaft 3, so designated because the operating-crank 2 is applied to the projecting end thereof, is in alinement with the power-shaft 1 and has the coin-pocket 4 affixed thereto, said pocket being radially disposed and closed on all sides except the outer and inner sides, which are designed to receive the coin and admit of the latter engaging with one of the projections 5 on the plate or disk 6 carried by the power-shaft 1. The projections 5 taper to a sharp edge, so as to prevent the lodgment of the coin thereon, and the walls of the coin-pocket flare slightly toward the inner open side, so as to admit of the coin 7 having a slight lateral play, so as to

clear the end of the projection opposite the inner open side of the pocket when the said coin is introduced into the outer open side or end of the pocket through the slot 8 in the casing 9, made fast to the side of the call-box.

The casing 9 is closed at its lower end by a sliding door 10, which is locked so as to be opened only by duly-authorized persons when making collection of the coins deposited therein. The slot 8 is at the upper end of the casing, and the coin-pocket 4 normally occupies a position so that its outer open side or end comes opposite or alines with the slot 8, so as to receive the coin when the latter is passed through the said slot. A stop 11, secured to a side of the casing 9, engages with the coin-pocket and holds the latter with its outer open side properly positioned opposite the slot 8, and a corresponding stop 12 is provided and engages with the said coin-pocket to limit its movement when it reaches a nearly vertical position with its outer open side or end extending downward, thereby permitting the coin to drop into the bottom of the casing and preventing it from being carried around too far to effect its discharge from the said pocket. These stops 11 and 12 are formed by bending the ends of a strip 13, which is secured to a side of the casing 9.

A coil-spring 14 has one end attached to the crank-shaft 3 and its opposite end secured in any convenient manner to a portion of the casing, and the purpose of this spring is to hold the coin-pocket against the stop 11 and in proper position opposite the slot 8, so as to receive the coin when the latter is passed through the said slot, and this spring also serves to return the coin-pocket to an initial or normal position should the crank be released at its lowermost position or at any other point not corresponding with the initial position of the coin-pocket.

The operation of the invention is as follows: When it is required to use the telephone, the person passes a coin of proper denomination through the slot 8 into the coin-pocket 4, and said coin having its edge portion projecting beyond the inner open side of the coin-pocket and engaging with the projection 5 adjacent thereto, forms a lock between the crank-shaft and the power-shaft, and on turning the crank the power-shaft will be rotated and effect the result of calling up the central or the required subscriber. As soon as the coin-pocket reaches its lowermost position it will be stopped by engagement with the part 12, and the coin contained in the pocket will drop into the lower portion of the casing 9, thereby disconnecting the crank and power shafts. On releasing the crank-shaft the spring 14 will regain itself and return the coin-pocket into a normal position, as will be readily understood.

Inasmuch as the invention is designed for

telephonic apparatus of various kinds, it is to be understood that in adapting the same for a particular make of machine various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. In a coin-controlled apparatus for telephonic instruments, the combination with the power-shaft and the crank-shaft disposed in horizontal alinement, of a vertical plate secured to the power-shaft and having a series of lateral projections on its outer face which taper on both sides to a knife-edge, and a coin-pocket secured to the crank-shaft and open on its inner and outer sides, the walls of the said pocket flaring slightly toward the inner open side, substantially as described for the purpose set forth.

2. In a coin-controlled apparatus for telephonic instruments, the combination with a power-shaft having a plate provided with a series of projections, and a crank-shaft disposed in horizontal alinement with the power-shaft and having a coin-receiving pocket which is open on the side opposite the said plate to admit of the coin forming a lock between the two shafts, of a spring for returning the coin-pocket to a normal position for the proper reception of the coin and stops to limit the movements of the crank-shaft, substantially as set forth for the purpose described.

3. In a coin-controlled apparatus for telephonic instruments, the combination of a casing accessible by means of a locked door and provided in its top side with a coin-slot, a power-shaft extending horizontally into the casing, a vertical plate secured to the power-shaft and provided on its outer side with a series of projections whose sides taper uniformly to a knife-edge, a crank-shaft journaled in a wall of the casing and in the power-shaft, a pocket attached to the crank-shaft and open at its outer end and the side facing the vertical plate, the walls flaring slightly toward the said plate, a strip attached to the casing and having its end portions bent to provide stops to engage with and limit the movements of the said pocket, and a spring for returning the pocket to a normal position after being actuated, and operatively connected with the crank-shaft and casing, substantially in the manner set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILL W. DALE.

Witnesses:

JESSIE KAGY,

W. MERGANTHALER.