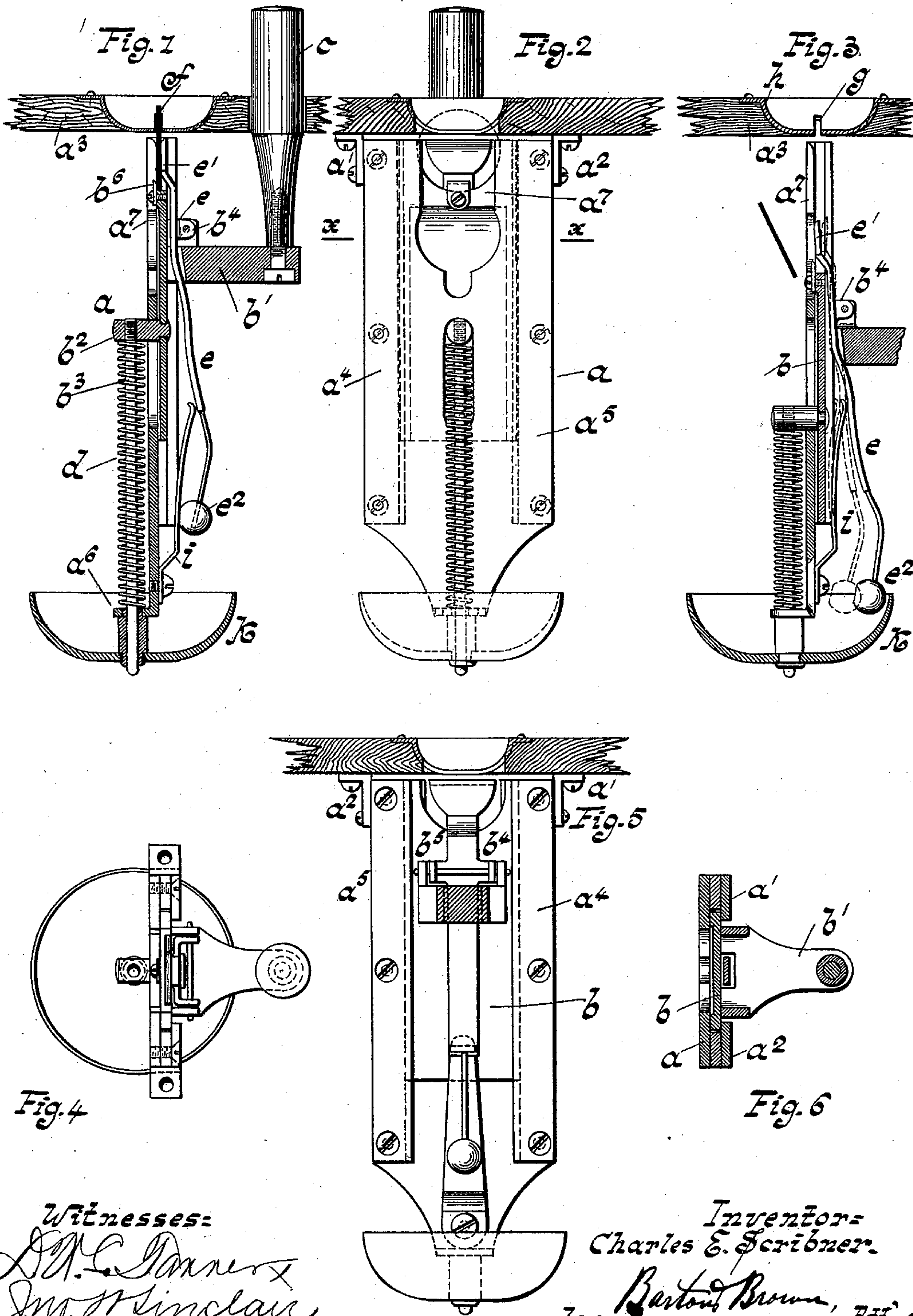


(No Model.)

C. E. SCRIBNER.
TOLL COLLECTING DEVICE FOR TELEPHONES.

No. 599,801.

Patented Mar. 1, 1898.



Witnesses:

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By: *Barton Brown*, Atty.

UNITED STATES PATENT OFFICE.

CHARLES E. SCRIBNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

TOLL-COLLECTING DEVICE FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 599,801, dated March 1, 1898.

Application filed July 20, 1896. Serial No. 599,799. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SCRIBNER, 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-Collecting Devices for Telephones, (Case No. 427,) 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 appliances for receiving and depositing coins or tokens and simultaneously giving a signal of the deposit of the coin.

It consists in novel mechanism of simple and cheap construction, comprising, essentially, a socket for the coin, a finger displaced by the coin when in the socket, means for suddenly withdrawing or projecting the coin from the socket, and a bell-hammer or other sounding mechanism connected with the finger and actuated thereby to give a signal.

In the present form of the invention the finger and bell-hammer are located upon opposite extremities of a centrally-pivoted lever. These are mounted upon a sliding block or cross-head, wherein the socket adapted to receive the coin is formed. The means for expelling the coin consists in an opening of suitable size, before which the coin is brought in one position of the sliding block, in conjunction with a spring acting upon the finger to project the coin through the opening. For convenience the spring and the bell are mounted upon fixed portions of the slide in such positions that the parts with which they cooperate are brought into position to permit them to exercise their several functions at the proper moment.

The device is illustrated in the accompanying drawings, wherein—

Figure 1 is a vertical central section of the instrument. Fig. 2 is a front elevation of it. Fig. 3 is a sectional view representing the mechanism in position ejecting a deposited coin and giving a signal. Fig. 4 is a plan of the apparatus. Fig. 5 is a rear view, partially in section. Fig. 6 is a horizontal sectional view.

The operative parts are mounted in a frame

a , fixed by brackets a' a^2 within any suitable case, a portion of which is shown at a^3 . This frame is provided on one of its faces with a guideway formed by overlapping guides a^4 a^5 , wherein a block or cross-head b slides vertically. Fixed to the block b is a projection b' , carrying a button c , projecting through an opening in the case. The block b is also provided with a stud b^2 , upon which a spiral spring d abuts, the other end of the spring being carried against a bracket a^6 of the frame. A small vertical rod b^3 is provided having one extremity fixed to the stud b^2 and its other extremity journaled in the bracket a^6 for the purpose of maintaining the alinement of the spring. This spring d tends to hold the block b at the upper position of its range.

The upper end of the block b is cut away to present a semicircular socket a little larger than the coin for which the instrument is adapted—for example, a dime. The frame-plate a is cut away at a^7 at the front of the instrument, but the edges of the opening are permitted to overlap the opening in the block b . This opening a^7 is enlarged, however, to circular form of the same diameter as the semicircular opening in the block b at a position coinciding with the said semicircular opening when the block is brought into its lowest position. At the rear of the block b is a pivoted lever e , carried in trunnions b^4 b^5 of block b . This lever terminates at its upper extremity in a finger e' , and carries at its lower extremity a bell-hammer e^2 , the lower extremity being formed of smaller diameter to obtain a slight flexibility. Opposite the finger e' a lug b^6 is secured to the block. The semicircular opening in block b , the lug b^6 , and the overlapping edges of the plate a form a socket to receive the coin, while the finger e' projects normally into this socket and is slightly displaced therefrom by a deposited coin, as represented at f of Fig. 1. The socket is brought opposite a slot g in a suitable escutcheon h in the case a^3 to permit the insertion of a coin into the socket.

A flat spring i is fixed at one extremity to the frame a and has its other extremity in position to engage the lower portion of the lever e . The lever is bent in such a way that normally it engages with spring i with a very

light pressure; but as the pivotal point of the lever approaches the extremity of spring *i* the pressure continually increases.

On the bracket *a*⁶ of the frame is carried a bell *k* in such a position that ordinarily the hammer *e*² in descending with the block *b* when depressed shall not strike the bell.

The operation of the contrivance is as follows: If when no coin is present in the socket the button *c* be depressed, the block *b* will be carried down to its lowest position. The spring *i* will engage the lever *e* with a gradually-increasing pressure; but since the finger *e'* is free to project into the socket in block *b* the spring *i* will not be materially compressed. When the plug has reached its lowest position, the hammer *e*² will lie opposite the edge of bell *k*, as shown in Fig. 3, but out of contact with the bell. When, however, the required toll or coin *f* has been deposited in the socket, the depression of button *c* will cause the bell *k* to ring in the following manner: While the block *b* is in its normal position, the coin will lie loosely in the socket. In the first downward movement of button *c*, however, the lever *e* will be thrust against the spring *i*, whereby the finger *e'* will be caused to press the coin against the lug *b*⁶, and thus to grasp the coin securely. The coin thereafter will move downward with the block, being grasped with a continually-increasing pressure. Finally, at the lowest position of block *b*, as shown in Fig. 3, the coin will be brought opposite the enlargement of the opening in frame-plate *a*, at which moment it will be projected through that opening by the pressure of finger *e'* upon it. The lever *e*, being suddenly released, will be thrust by a spring *i* into its alternate position. The flexibility of the lower extremity of the lever will permit the hammer *e*² to strike the bell *k*, and thus to give the required signal.

The invention is designed to be associated with telephone toll-boxes in such position that the sound of bell *k* may be transmitted to the station-telephone, and may thus be heard by an operator at the central office. The ringing of the bell will therefore become a signal to the operator of the deposit of a coin; but since numerous other forms of coin-controlled bell-ringing mechanisms have been associated with similar telephonic apparatus I have not considered it necessary to illustrate the latter apparatus.

I claim as new and desire to secure by Letters Patent—

1. The combination with a coin-chute provided with a socket for a coin, of a finger adapted to grasp the coin when in the socket, means for releasing the coin from the pressure of the finger and a signal-sounding device operated by the finger when released, substantially as described.

2. The combination with a coin-chute provided with a socket adapted to receive a coin,

of a spring-pressed finger lying in the socket and adapted to be displaced therefrom, means for projecting the coin from the socket, a bell-hammer attached by a flexible connection to the said finger, and a bell in position to be struck by the hammer, substantially as described.

3. In combination, two parts movable with relation to each other and adapted to form a socket for a coin in their normal position, one of said parts being provided with an opening adapted to permit the ejection of a coin in their alternate position, means for changing the position of said parts with relation to each other to release the coin, a spring-pressed finger projecting into the socket and adapted to be displaced therefrom by a coin in the socket, a bell-hammer connected with said finger by a yielding connection, a signal-sounding appliance, and means for actuating the same brought into operative connection when the said socket-forming parts are in position to release the coin, and means actuated by the spring-pressed finger when released adapted to actuate the said mechanism, as described.

4. In combination two parts constructed to slide upon each other and adapted to form a socket for a coin in their normal position, means for moving one of them into an alternate relative position, an opening in the socket-forming portion of one of them brought into coincidence with the corresponding portion of the other in said alternate position to release the coin, a finger projecting into the socket and adapted to be displaced therefrom by a coin in the socket, a bell-hammer connected by a yielding extension with said finger, a bell in position to be struck by said hammer, and a pressure-spring brought into operative connection with said finger when the socket-forming parts are in their alternate position, substantially as described.

5. In combination a fixed plate and a block adapted to slide thereon, a socket formed in part by a portion of said plate and by a portion of said block, means for moving the block into an alternate position, an opening in the plate at said alternate position adapted to permit the ejection of the coin, a finger projecting into the socket, a bell-hammer carried by a yielding connection thereon, and a fixed pressure-spring adapted to engage with said finger after it has moved slightly from its normal position; whereby a deposited coin is grasped in the socket to be carried to the alternate position, and is ejected therefrom to cause the operation of the bell, substantially as described.

In witness whereof I hereunto subscribe my name this 26th day of May, A. D. 1896.

CHARLES E. SCRIBNER.

Witnesses:

ELLA EDLER,

FRANK R. MCBERTY.