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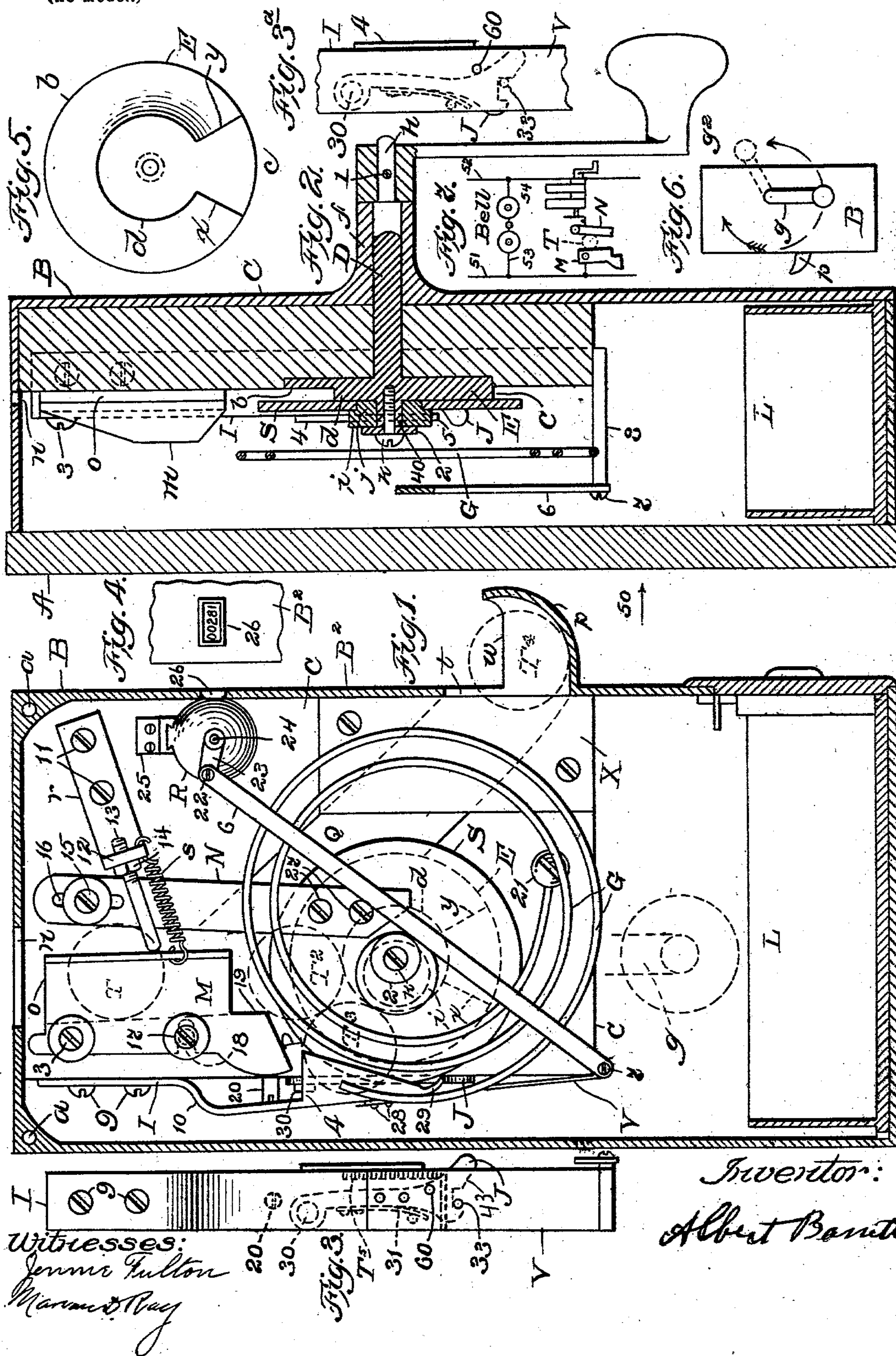
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A. BARRETT.

COIN ALARM AND REGISTERING APPARATUS.

(Application filed Jan. 21, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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COIN ALARM AND REGISTERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 704,954, dated July 15, 1902.

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To all whom it may concern:

Be it known that I, ALBERT BARRETT, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain
5 Improvements in Coin Alarm and Registering Apparatus, of which the following is a specification.

The present invention relates to apparatus to be associated with the outfit of a telephone-
10 substation by means of which a registration is made of the connection with a second substation through the switching apparatus at the central office and also by which an audible signal is sounded in such a way as to be
15 heard by the operator at the central station.

The apparatus consists of a box, preferably of metal, secured to a back board in the vicinity of the telephone at the substation. There is an orifice in the top of the box for the insertion of a coin, which falls a certain distance and lodges between two resilient or adjustable walls, where it remains until the operator ascertains whether connection can be made with the desired substation. If the
25 line is busy, the operator so informs the waiting subscriber, who then turns a crank-handle to the right, whereupon the coin descends a runway and appears upon a ledge or holder outside the box; but if the second substation
30 can be obtained upon reception of the intelligence the subscriber turns the said handle to the left side and the coin is carried down a second runway and finally is violently expelled from the carrying device against a
35 gong, the resonance of which is heard by the operator through the substation-transmitter. At the same time the register is operated and counts one, and when the operator hears the sound of the gong she makes the switching
40 connection between the two substations. It is intended that the coin be inserted into the box before the subscriber calls the central station, and in a modification of the invention it is necessary that the coin be so inserted in order that it may by its substance
45 close the circuit of the magneto-generator in order that it may be operated to call the central-station operator.

Of the drawings, Figure 1 is a partly-sectional view with the back board removed
50 looking to the front of the apparatus, as in-

indicated by the arrow 50 in Fig. 2, which is a vertical section of Fig. 1. Fig. 3 is a side view of a detached portion. Fig. 3^a is a view of Fig. 3, showing a movement of its
55 parts. Fig. 4 is a side view of a detached portion, showing the indicator of the registering apparatus. Fig. 5 is a rear view of a detached part. Fig. 6 is a reduced view of the face or front of the apparatus, and Fig. 7 is
60 a diagram to illustrate the action of the coin or token as a circuit-closer.

Referring to the drawings, A represents a back board, to which is screwed the metal box B, the screws passing through the board
65 into holes *a* in the covers of the box.

C is a block, preferably of wood, fastened by screws to the inner front wall of the box and supports most of the parts of the apparatus, and L is a drawer adapted to slide into
70 the lower part of the box and to be locked thereto and constitutes the till or treasury of the box.

D is a spindle extending from the inside of the box through the block C and the stud *f*,
75 and onto its smaller end *h* is secured the hub of a crank *g* by the pin 1.

E (see Figs. 2 and 5) is a disk on the end of the spindle and integral therewith, having a thin part *b* for the most of the diameter and
80 the sector-shaped part *c* of the same thickness as the hub portion *d*. The part *b* is let into the block C, so that its face is flush with its surface.

i is a metal button having an inner portion
85 *j* of smaller diameter and has a hole eccentric of its center, through which passes the small squared stud 40, projecting from the face of the hub *d*, so that it will move with the hub, and upon the portion *j* is a disk S, clamped
90 between the hub *d* and the button *i*. This disk is of larger diameter than the disk *b* and with the latter forms a pocket from the abutment *x* to the abutment *y* directly under the chute *o*, formed on the under side of the re-
95 silient and movable jaw M, which swings upon the screw 3, there being a slot 18 in its edge from the screw 17 to permit motion. The jaw M is held in position by the spring *s*, one end of which engages with the jaw, while its
100 opposite end is secured to the projection 12 from the plate *r*, a screw 13 extending through

the projection to the rim *m* of the jaw to steady the same. The plate *r* is held to the block C by screws 11.

N is a bar having a slot 16, through which is the screw 15. The lower end of the bar is secured to the disk S by screws 27. The jaw M and the bar N are inclined toward each other, as shown, and the angle is adjustable by means of the screw 13 and its set-nut 14, the spring *s* holding the jaw to the end of the screw. A chute *o* is thus continued from the coin-slot *n*, which lower down is divided into the two runways P and Q. The latter terminates at the orifice *t* in the side of the box and the coin-holder *p*, projecting from the side, and has two sides *w*. The lower part of the runway Q is covered by the plate X to guide the coin at this part of the runway.

I is a strap-spring fastened to the edge of the block C at one end by the screws 9 and is curved outward at 10 and inclined toward the block at its end 29 and is provided there with the inclosing triangular side 4. The spring is adjustable by the screw 20.

v is a strap riveted to the end of the spring I and has upon its end the rod 8, to the outer end 7 of which is pivoted the bar 6, whose opposite extremity is pivoted to the lever 23, attached to the spindle 24 of the registering device R, which is secured by the foot 25 to the block C. There is an orifice 26 in the side of the box B, through which the figures of the indicator may be seen.

J is a lever pivoted at 30 to the edge of the block, having a stop-pin 33 at its end to engage the shoulders of the indenture 32. A spring 31, attached to the lever, bears upon a pin and is adapted to throw the lower projecting part of the lever 43 into the position shown in Fig. 3 under the part 4 of the spring I.

G is a spring-gong secured at one end by the screw 21 to the block C, while its opposite end is free and opposite the lower part 43 of the lever J.

In Fig. 7, 51 and 52 represent the conductors of a telephone-circuit, having a bell in the bridge 53. The jaw M is connected to the conductor 51 and the generator 54 with the conductor 52 and to the bar N. Normally the generator-bridge is open and the generator cannot be used to send a current over the line; but when a coin or token T is inserted into the coin-slot *n* it falls between the jaw M and the bar N and closes the generator-bridge, and while it remains in this position the generator can be used to signal over the line.

In the operation of the invention, whether the coin is to close a circuit or not, upon insertion of the same, as previously said, it drops between the jaw M and bar N, as represented by T in Fig. 1, and is held in the chute. The order having been previously given to the operator by the person calling, if the line wanted is reported to be busy the subscriber rotates the crank *g* in the direction indicated by dotted lines in Fig. 6, (which

will be reversed in Fig. 1, as the view is from the rear side,) the crank is turned until the eccentric *i* rises and carries the disk S and bar N to one side, widening the space between the bar and the jaw M, the coin then falls upon the edge of the hub *d* as into a pocket, as represented by T², and is supported on one side by the abutment 19, and as the crank is turned the abutment *x* strikes the coin and carries it over, and it falls down the runway Q through the slot *t* into the holder *p*, as T⁴, from which the subscriber can regain it; but if the line is found not to be busy and can be engaged the crank is turned in the direction of the feathered arrow shown in Fig. 6, operating the eccentric, as before, as it opens the chute in either direction, (which of course will be reversed in Fig. 1,) until the abutment *y* strikes the coin and forces it against the abutment 19, which yields, owing to the spring *s*, and the coin is carried into the position T³ and in the runway P past the jaw M, which returns to its normal position. The coin now rests against the spring I and is inclosed by the block C on one side and the piece 4 and the disk S on the other, and as the crank is turned the hub *d* and the abutment *y* force the spring outward and the coin downward until the latter is in the position of T⁵ in Fig. 3, when its edge presses the end 43 of lever J inward, and when the coin reaches the end 29 of spring I and is a trifle more than half by it and the lower edge of the disk S, which has assisted to inclose it up to this point, the spring I reacts, pressing the end 29 against the coin, forces it outward violently and suddenly against the convolutions of the spring-gong G, and then falls into the drawer L. As the coin strikes the gong it makes a loud resonant sound, which can be heard by the operator at the central station through the substation-telephone. As the spring I is forced outward, as described, it carries with it the bar 6, which operates the registering mechanism R and records "1," and returns to normal position as soon as the coin is expelled from its seat. Upon hearing the sound of the gong the operator understands that the coin has reached the till L and then couples the connection. The member M does not move to permit the coin to fall from between its side and the side of the bar N; but when the coin is forced into the coin-passage P it yields to permit the coin to pass and then closes again, preventing the return of the coin. The bar N is, however, positively moved to one side by the eccentric *i*. When the spring I is in its normal position, a pin 60, projecting inward from the same against the edge of the lever J, holds the latter against the pressure of its spring 31, so that its end 43 does not extend from the edge of spring I, and when the said spring I is pressed outward by the coin the pin 60 moves away and the spring 31 presses the lever J outward, where it remains until forced inward by the coin, at which instant the spring I returns and holds

the lever J retracted again. The office of the lever J is by its projecting end 43 to prevent or bar the spring I from coming back to its normal position when a coin is forced far enough through the passage P to set the register, for if the coin should be partly returned and then forced against the spring I again the register would be operated a second time unless the lever J was interposed.

It will be seen that the apparatus is so devised that the person calling may recover the coin in case he cannot secure the desired substation, and if he does obtain the connection he is obliged to sound an audible signal before the operator will switch the lines together, and after the signal is made the coin cannot be recovered.

I claim as my invention—

1. A coin alarm and registering apparatus, consisting of a box, a coin-chute within the same whose opposite guiding adjustable edges are relatively movable and inclined toward each other at their lower ends, adapted to detain a coin inserted in the chute, a pocket to receive the coin from the chute, a coin-runway from the pocket to a coin-receptacle outside the box, a second coin-passage from the pocket normally obstructed, a gong at the exit of said passage, and means as described for directing the coin from the chute to the pocket and to the external coin-receptacle, or from the chute to the pocket through the second coin-passage and the exit thereof to the gong, as set forth.

2. A coin alarm and registering apparatus, consisting of a box, a coin-slot in a wall of the box adjacent to a coin-chute within the box whose edges are inclined toward each other and are relatively movable, a revoluble pocket provided with abutments, a coin-runway descending from the said pocket to a coin-receptacle outside the box, a second coin-passage normally blocked by a spring, a registering device operated by the said spring, a gong in proximity to the exit of the second coin-passage; with means for retaining a coin within the coin-chute, for causing the same to fall therefrom into said pocket, and for diverting the coin into the runway, or through the second coin-passage and against the gong, as set forth.

3. A coin alarm and registering apparatus,

consisting of a box supported upon a base or back board, a coin-slot in a wall of the box opening to a coin-chute within the box, one edge and side of which are formed by a pivoted resilient member, the opposite edge consisting of a movable bar, the two edges normally inclining to each other, a revoluble pocket having abutments, a coin-runway descending from the said pocket to a coin-receptacle outside the walls of the box, a second coin-passage normally blocked by a flat spring, a gong in proximity to the exit of the second coin-passage, a registering device operated by the movement of the said flat spring; with means for retaining a coin within the coin-chute, for causing the same to fall therefrom into said pocket, and for diverting the coin into the runway or through the second coin-passage, and against the gong, as set forth.

4. A coin alarm and registering apparatus, consisting of a box, a block secured within the box adapted to support the operating parts, a drawer or coin-receiver; a coin-slot in the top of the box opening to a coin-chute within the box, the edges of the lower ends of which are inclined toward one another, and relatively movable, a rotative pocket having two abutments secured to a spindle projecting through the front wall of the box and having upon its end a crank-lever, a coin-runway descending from the said pocket to a coin-receptacle outside the box, a second coin-passage normally blocked by a resilient abutment and a spring, a registering device operative by the said spring, a gong in proximity to the exit of the second coin-passage, and an ejecting-lever; whereby when the said crank-lever is rotated in one direction, an inserted coin falls into said pocket and is carried to the said coin-receptacle, and when turned in the opposite direction the coin is carried through the second coin-passage and ejected against the gong, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of January, 1902.

ALBERT BARRETT.

Witnesses:

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 MARIAN D. RAY.