

(No Model.)

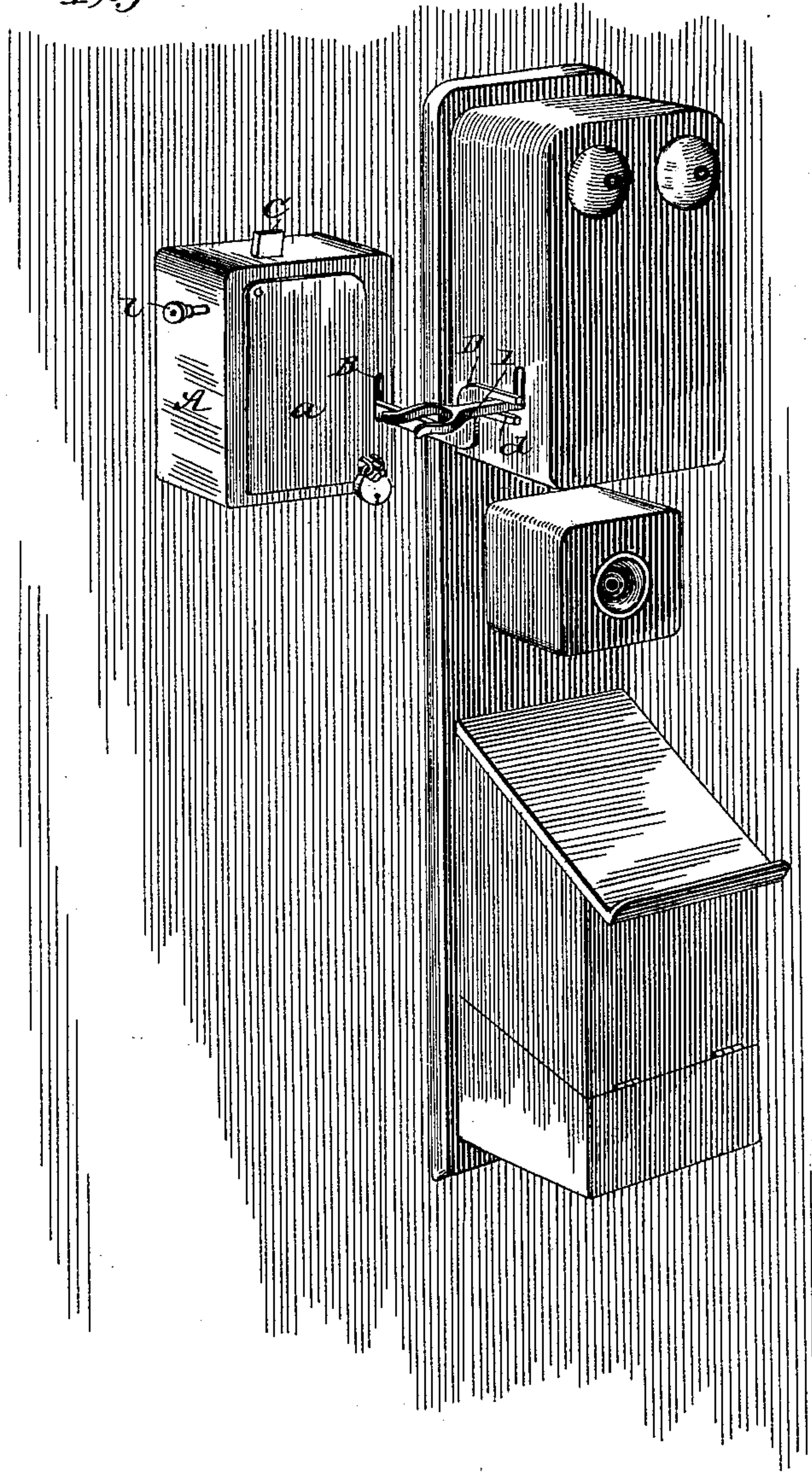
2 Sheets—Sheet 1.

H. L. CASSARD.
COIN RELEASED TELEPHONE LOCK.

No. 428,828.

Patented May 27, 1890.

Fig. 1.



WITNESSES:

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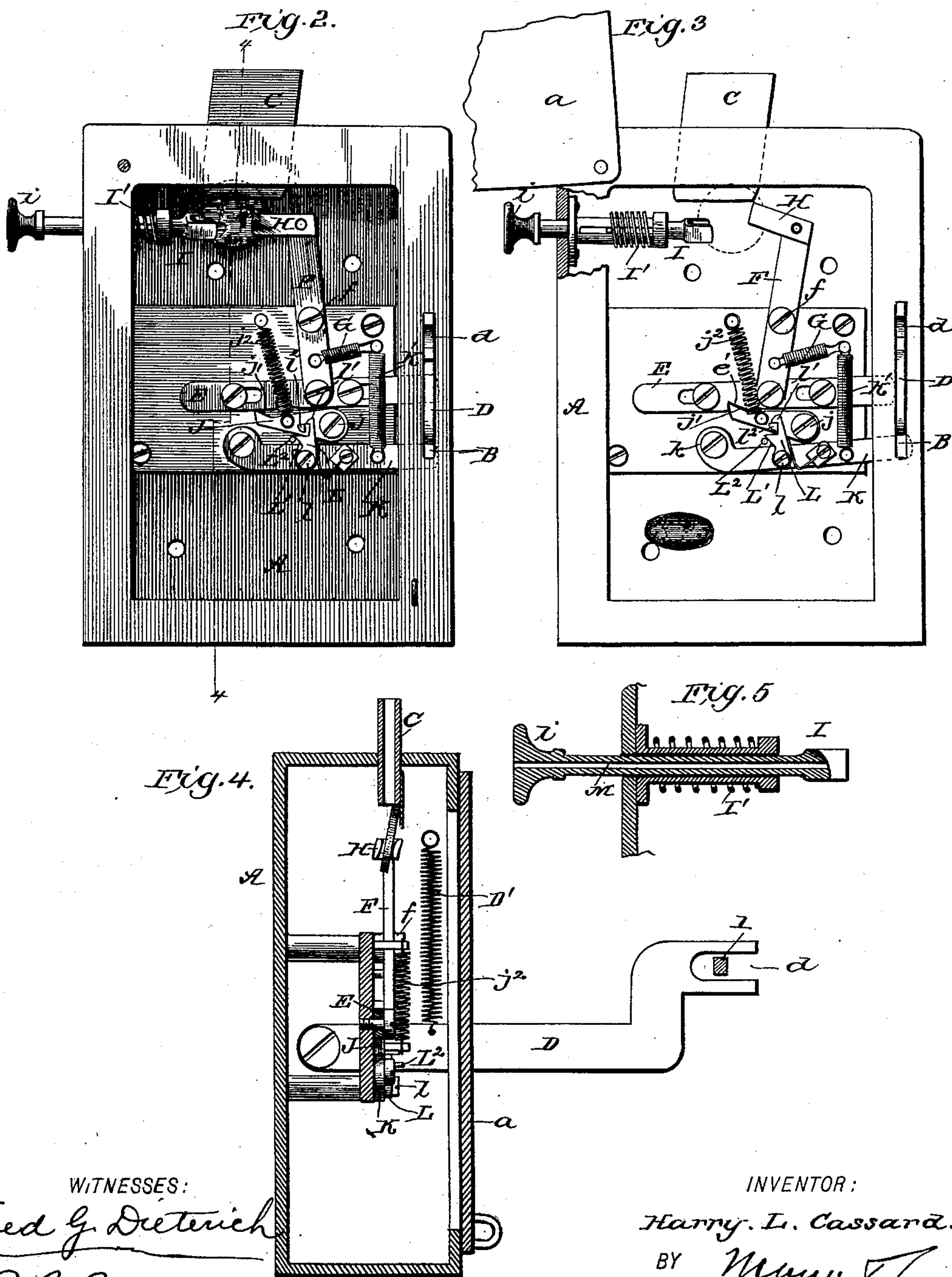
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UNITED STATES PATENT OFFICE.

HARRY L. CASSARD, OF BALTIMORE, MARYLAND.

COIN-RELEASED TELEPHONE-LOCK.

SPECIFICATION forming part of Letters Patent No. 428,828, dated May 27, 1890.

Application filed November 22, 1889. Serial No. 331,252. (No model.)

To all whom it may concern:

Be it known that I, HARRY L. CASSARD, of the city of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Coin - Released Telephone-Locks, of which the following is a specification.

My invention is a telephone-lock by which the so-called "suspension-hook" for the receiver is held from upward movement to complete the telephone-circuit, and which lock may be released through the aid of an inserted coin to permit the said suspension-hook to move upward when the receiver is removed from such suspension-hook.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 shows the invention as in use. Figs. 2 and 3 are front views of the improved lock, the lid being removed. Fig. 4 is a cross-section of the device, and Fig. 5 is a detail sectional view.

In the ordinary telephones, as is well known, the upward movement of the suspension-receiver hook, which movement is effected through the aid of a spring when the receiver is lifted from it, operates to throw the telephone into circuit, so it can be used; and it is also well known that without this upward movement of the suspension-hook the telephone cannot be used. Consequently if this hook be held down the telephone cannot be used.

In carrying out my invention I provide devices for holding the hook down, and also devices actuated through the aid of a coin to release said hook. It is also desirable to so construct and arrange the devices that their application to the telephone will in no wise disorganize or disarrange the telephone mechanism, to which end I construct the lock devices so that they will involve no change whatever in the construction or arrangement of any of the parts of the telephone, and, in fact, so that in the normal arrangement of the suspension-hook the lock attachment will not be in even contact therewith or with any other part of the telephone.

The box or case A has a lid *a*, which may be locked in any suitable manner and is provided with a slot B and with a coin chute or

passage C. This case is adapted to be secured in suitable position, preferably by screws passed through its back plate, so access to such screws cannot be had except by opening the lid of the case.

The arm or portion D for holding the suspension-hook may be called the "holding-arm," and in the construction shown is pivoted at one end in the case, extends thence through the slot B, and is movable up and down in such slot, a spring D' being arranged to balance the said arm, and the outer end of the arm being constructed to embrace the suspension-hook. This is preferably carried out by forming the arm with a slot *d*, which receives the said hook, so that the edges of the latter when it is in its lowest position will rest clear of the walls of the slot *d*. In connection with such arm or portion D, I provide devices for locking it down, which may be released through the aid of a coin to free the arm, so it and the hook may be moved upward. It should be understood that in referring to the part 1 as the suspension-hook I simply do so as a matter of reference and that the device might be applied to operate any other conveniently-accessible circuit-closing part of a telephone, which circuit-closing part may be regarded as within the scope of the expression "suspension-hook."

The locking-bolt E is supported to slide and is movable at one end across the path of the holding-arm, projecting above said arm when the latter is down and holding it in such position. This bolt is connected with or engaged by the lever F, which is pivoted at *f*, engaged by spring G, and has at its upper end the jaw or coin-receiving section H. The opposing coin-receiving section I is supported on a handle or plunger bar *i*, which is actuated by a spring I'. These coin-receiving sections are arranged below the coin-chute and have their adjacent faces grooved to receive the coin, which drops into and is held between the sections H I. It will be noticed that when a proper coin is dropped into the sections it forms a connection therebetween, so that the inward movement of the plunger *i* will push the lever F back and retract the bolt E to release the holding-arm.

To prevent the coin from moving back up the chute when the arm *i* is pushed in, I

adapt the sections II I to hold the coin at an angle or incline to the passage through the coin-chute, so that the coin when in the receiver will bind under one wall of the coin-chute and be prevented from moving back up the coin-chute. If a coin too small be dropped through the chute, it will drop between the sections II I and fail to operate anything. When the lever has been pushed back, the return movement of the section I will release and drop the coin which has previously aided in actuating the lever.

To hold the bolt in retracted position, I provide a detent J, consisting, as shown, of a bar pivoted at j and arranged at j' to engage a shoulder or notch e' in the bolt E, a spring j^2 being arranged to actuate the detent. This detent springs automatically into engagement with the bolt and holds the said bolt retracted until the detent is freed therefrom. To this end I provide a detent-releasing bar K, pivoted at k , actuated by spring K' , and arranged to be engaged and depressed by the holding-arm when the latter moves to its lowest position. This bar K has a catch-bar L, which is pivoted at l to the bar K, and has at its upper end a hook-like portion l' , which engages a projection l^2 on the detent J, and as the bar K is lowered the catch-bar L draws the detent down out of engagement with the bolt and permits the bolt to move forward over the holding-arm to lock the latter down. After the catch-bar has drawn the detent out of engagement with the bolt it continues its downward motion and engages by its inclined portion or face L' with a projection or bearing L^2 , which forces the catch-bar clear of the detent, so that the latter is again free to engage and hold the bolt when the latter is again retracted. Thus it will be seen in operation the coin is inserted, the plunger or handle bar is pushed in, the lever retracts the bolt, and the holding-arm springs up slightly in front of the bolt, so that when the receiver is removed from the hook the latter may move upward to close the circuit. The detent now holds the bolt retracted until the receiver is again placed on its hook, bearing the latter down, when the holding-arm bears the detent-releasing bar down, the catch-bar frees the detent from the bolt, and such catch-bar is in turn freed from the detent, leaving the apparatus in condition to repeat the operation when it is desired to again use the telephone. It will be understood that the apparatus is especially useful for application to telephones in drug-stores and the like, where the proprietor rents the machine, and it is desired to collect tolls from outside parties who use the telephone. To enable the proprietor to use the telephone without inserting a nickel, an opening for the insertion of a rod or key may be formed opposite the lever-arm, so a rod may be inserted to move such lever-arm back to release the lock. This opening M may preferably be made longitudinally through the plunger or handle bar, as shown.

Having thus described my invention, what I claim as new is—

1. An improved telephone-lock comprising an arm or portion pivotally supported at one end and adapted to engage the receiver suspension-hook, and movable vertically with such hook, and devices for holding such arm or portion down, such devices being arranged to be released through the aid of a coin or the like, substantially as set forth.
2. An improved telephone-lock comprising an arm or portion adapted to engage the receiver suspension-hook, such arm being pivoted at one end and movable vertically at its opposite end, and devices for holding such arm in one of its positions, all substantially as and for the purposes set forth.
3. An improved telephone-lock having an arm or portion pivoted at one end, movable up and down at its opposite end, and slotted to embrace the suspension-hook, and a lock device to secure such arm or portion in one of its positions, substantially as set forth.
4. An improved telephone-lock comprising an arm or portion pivotally supported at one end, whereby its free end may rise and fall with the receiver suspension-hook, and having portions adapted in use to rest above and below the receiver suspension-hook, and coin-released devices for holding such arm or portion down, substantially as set forth.
5. In an apparatus substantially as described, the combination of the coin-chute and the coin-receiver arranged below and adapted to receive the coin from such chute, such coin-receiver being constructed to hold the coin in a plane inclined to that of the chute, whereby the coin held in said receiver will rest at its upper edge under one of the walls of the chute and will be held thereby from movement up the chute, all substantially as and for the purposes set forth.
6. In an apparatus substantially as described, the combination of the case having a vertical slot for the passage of the holding-arm, the holding-arm pivoted within said case and extended through and movable vertically in the slot of the case, and the coin-released devices for securing said holding-arm, all substantially as and for the purposes set forth.
7. In an apparatus substantially as described, the combination, with the arm or portion for securing the suspension-hook, of the longitudinally-sliding bolt arranged to hold such arm or portion in one of its positions, and devices operating through the aid of a coin for sliding the bolt to release the said arm or portion, substantially as set forth.
8. In an apparatus substantially as described, the combination of the casing, the arm or portion for securing the suspension-hook, the longitudinally-sliding bolt arranged to hold such arm or portion in one of its positions, devices operating through the aid of a coin for retracting said bolt, and detent-releasing devices arranged for operation by the

holding-arm when the latter is lowered, substantially as and for the purposes set forth.

5 9. In an apparatus substantially as described, the combination, with the holding-arm, the sliding bolt, and the detent for the latter, of a detent-releasing arm arranged for operation by the holding-arm, and a catch-piece connected with the releasing-arm and adapted to draw the detent clear of the bolt,
10 substantially as set forth.

15 10. In an apparatus substantially as described, the combination, with the holding-arm, the bolt, and the detent for such bolt, of the detent-releasing arm arranged for operation by the holding-arm, a catch-piece pivoted to the releasing-arm, adapted at its upper end to engage the detent, and having a cam or inclined face, and a projection arranged for engagement by said face to free the catch-piece
20 from the detent, substantially as set forth.

25 11. In an apparatus substantially as described, the combination of the holding-arm, the bolt for securing said arm in one of its positions, the lever pivoted between its ends, connected at its lower end with the bolt and

provided at its upper end with a coin-receiving section, and the spring-actuated plunger provided with the opposing coin-receiving section, substantially as set forth.

12. The combination, in a telephone-lock, of 30 the holding-arm, the bolt movable longitudinally and constructed to secure the holding-arm in one of its positions, the lever pivotally supported, connected with the locking-bolt and provided with a coin-receiving section, 35 and the plunger provided with the opposing coin-receiving section, substantially as set forth.

13. An apparatus substantially as described, comprising the holding-arm or portion, the devices adapted to lock said arm and to be released through the aid of a coin, and the case having a chute for the insertion of the coin and an opening for the passage of a rod or key by which to release said locking 45 devices, substantially as set forth.

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Witnesses:

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