

(No Model.)

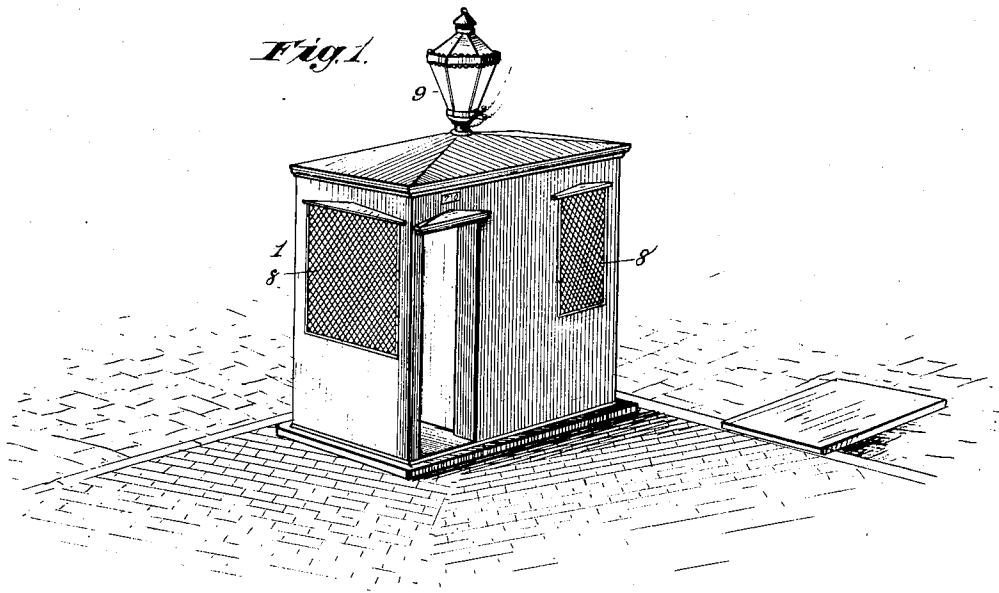
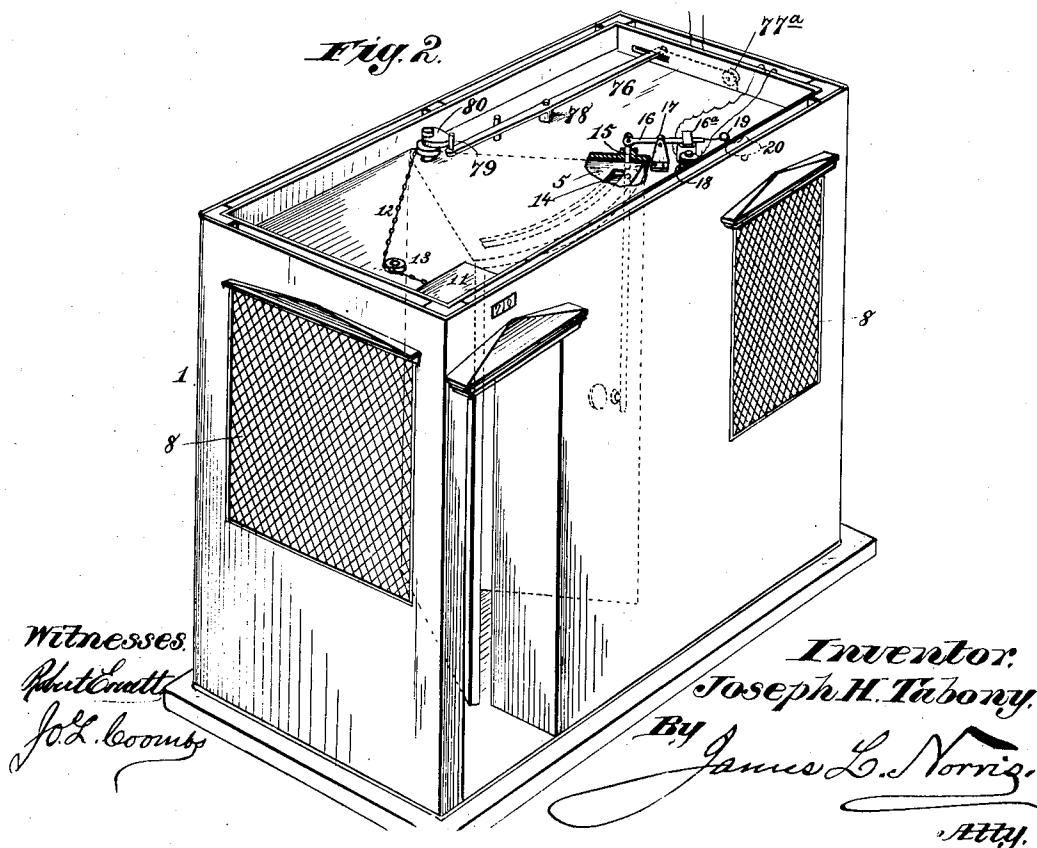
5 Sheets—Sheet 1.

J. H. TABONY.

TOLL COLLECTING APPARATUS FOR PUBLIC TELEPHONE STATIONS.

No. 359,747.

Patented Mar. 22, 1887.



(No Model.)

5 Sheets—Sheet 2.

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Fig. 3.

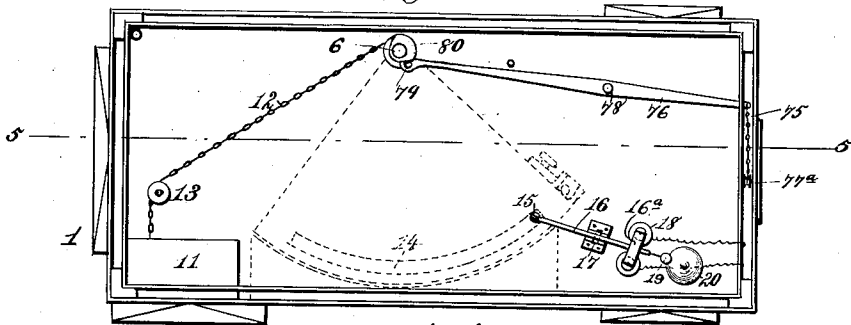


Fig. 4.

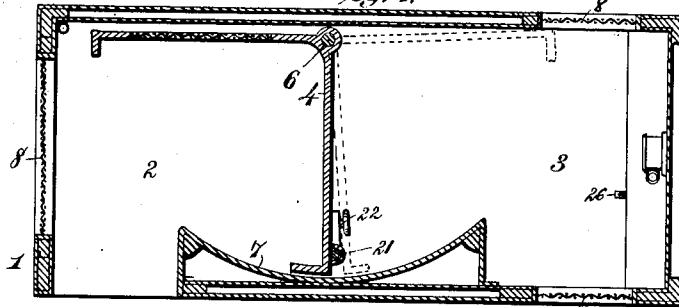


Fig. 5.

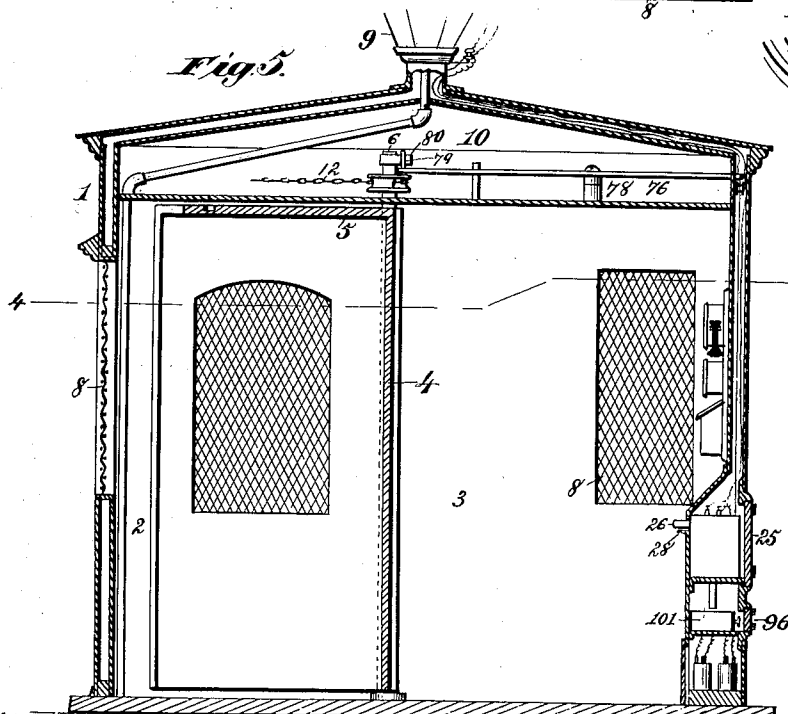
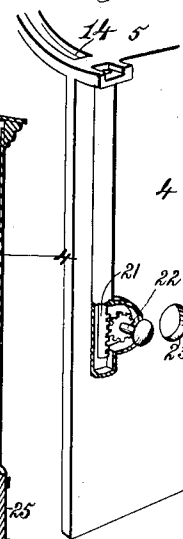


Fig. 6.



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(No Model.)

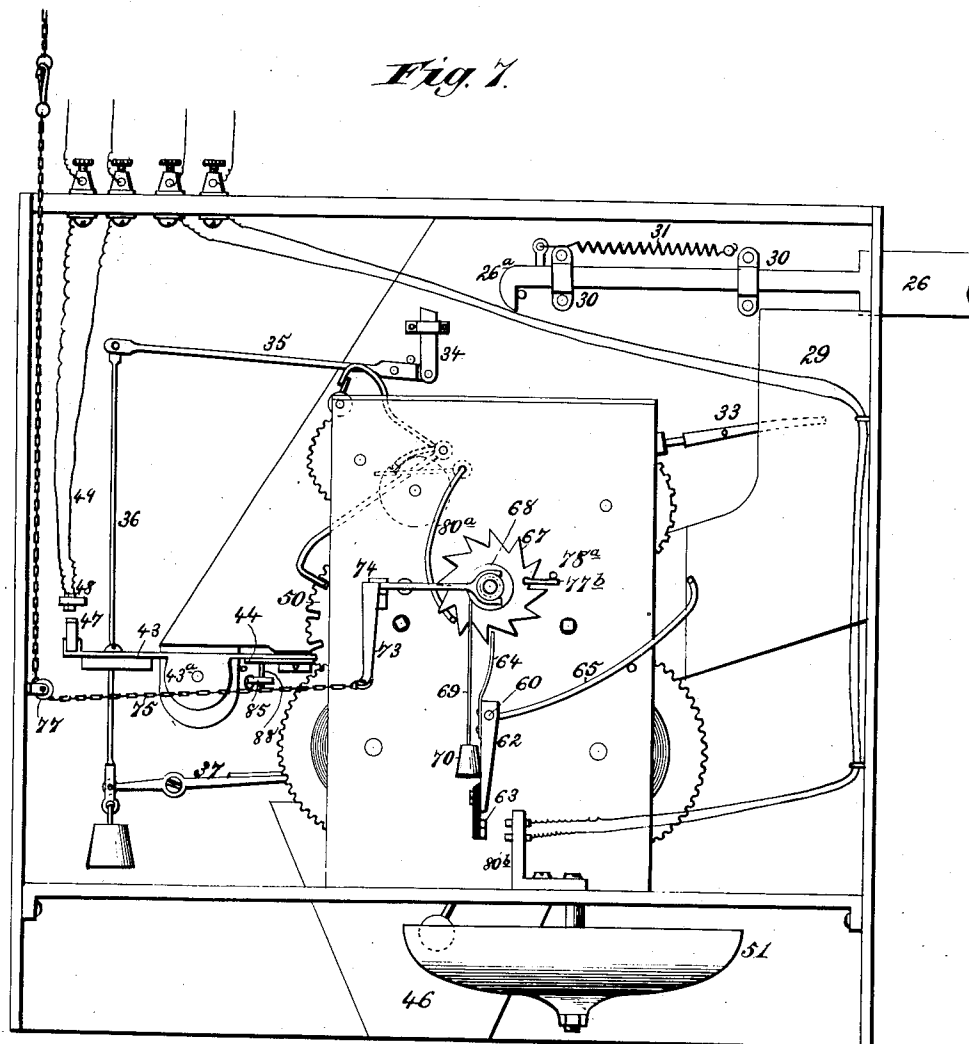
5 Sheets—Sheet 3.

J. H. TABONY.

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No. 359,747.

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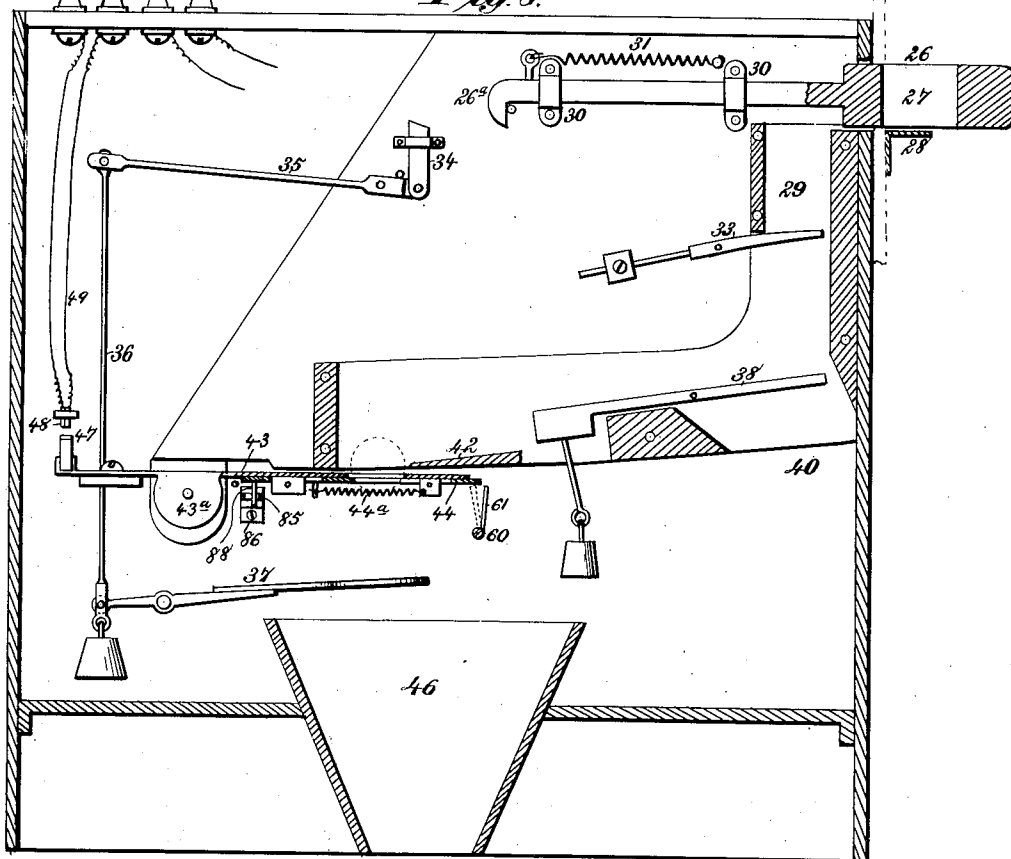
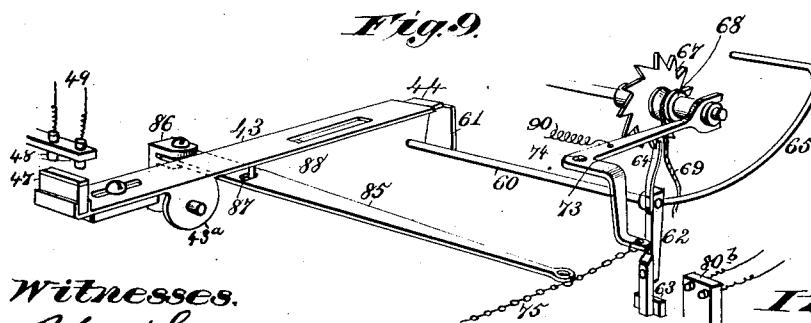
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J. H. TABONY.

TOLL COLLECTING APPARATUS FOR PUBLIC TELEPHONE STATIONS.

No. 359,747.

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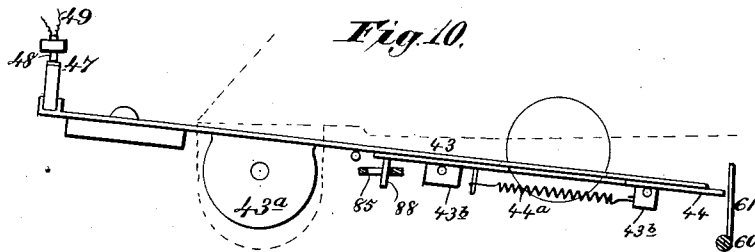
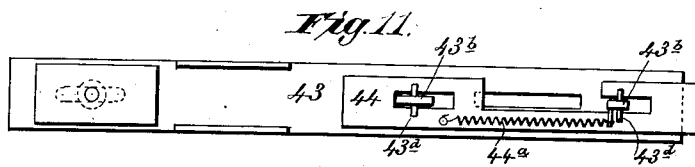
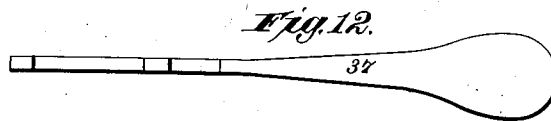
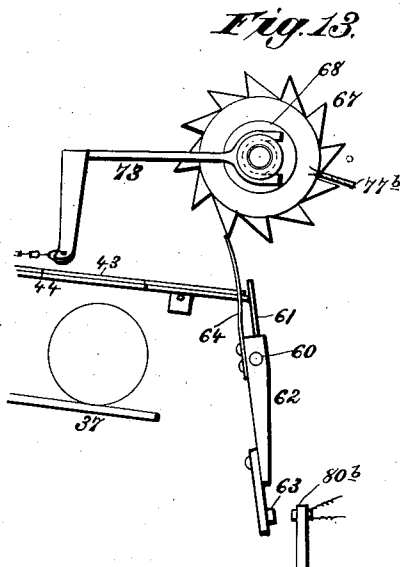
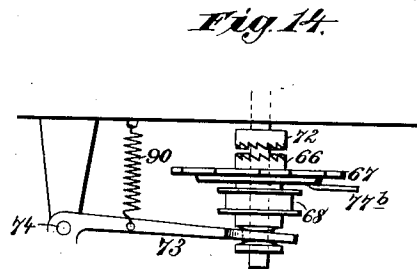
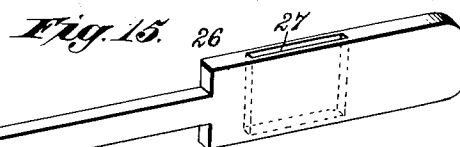
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TOLL COLLECTING APPARATUS FOR PUBLIC TELEPHONE STATIONS.

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UNITED STATES PATENT OFFICE.

JOSEPH H. TABONY, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-HALF TO ATWOOD VIOLETT, OF SAME PLACE.

TOLL-COLLECTING APPARATUS FOR PUBLIC TELEPHONE-STATIONS.

SPECIFICATION forming part of Letters Patent No. 359,747, dated March 22, 1897.

Application filed November 12, 1885. Renewed October 11, 1886. Serial No. 215,958. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. TABONY, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Toll-Collecting Apparatus for Public Telephone-Stations, of which the following is a specification.

The object of the present invention is to popularize and cheapen the use of the speaking-telephone by placing it within convenient reach of the public and dispensing with the employment of station-keepers or attendants, the collection of the toll or charges for the telephonic service being performed and controlled altogether by mechanical and electrical means.

The system devised by me involves the use of public local stations which can easily be entered by persons desirous of using the telephonic apparatus contained therein; but from which the exit can only be had upon the payment of a proper coin, the deposit of which acts upon the devices which serve to lock the entrance and exit door leading into the telephone-chamber.

A proper compliance with the conditions upon which the operation of the door-controlling devices depend will result in making the egress as easy as the passage through an ordinary door of any room or chamber; but any delinquency or tardiness in making the payment for the telephonic service will result in the imprisonment of the occupant of the telephone-chamber until such time as he shall be released by duly authorized agents of the telephone company or proprietors. The door through which entrance is had into the telephone-chamber serves to throw a clock mechanism in and out of action, so that when a person enters the telephone-chamber the time will be registered against him, and payment must be made for such occupancy of the chamber at certain intervals of time, determined by the clock mechanism; also, simultaneously with the entrance into the telephone-chamber the door bars all further egress until the payment of the toll or tax has been made, when the door is unfastened and can be opened during the time allowed for the user of the telephone to make his egress. A failure to

deposit a toll or tax; or a tardy deposition of the same, will result in the transmission of a signal to the central or main office, showing the necessity of sending a messenger to the local station to liberate its occupant and investigate matters.

It is the aim and purpose of the present invention to make the charges for telephonic service dependent upon the time the apparatus is in use, or to obtain a tax from every person who enters a local station, the collection of such tax being controlled by the apparatus contained in the local station, and alarm-signals only being transmitted to the central office to indicate that the station is occupied by a trespasser or delinquent or tardy user of the telephone.

In connection with my present system for popularizing and facilitating public telephonic service, I contemplate using another system applied to local stations or subscribers' instruments for indicating or registering the exact length of time such local stations have been in connection with the main line. This system is embraced in another application for a patent, and both systems together have for their object to attain the results and advantages above indicated.

The present invention, briefly outlined in the preceding general statement, will be herein after more fully described, and then set forth in the claims.

In the accompanying drawings, Figure 1 is a perspective view representing a street or public telephonic station. Fig. 2 is a perspective view showing the casing with its roof removed to illustrate the devices directly concerned in locking the door. Fig. 3 is a top view of the casing with its roof removed. Fig. 4 is a transverse section through the casing, showing the shape and arrangement of the door. Fig. 5 is a vertical section showing the interior of the casing and relative arrangement of the door, telephone, and mechanical and electrical devices. Fig. 6 is a detail view of part of the door, showing a latch-lifter applied thereto. Fig. 7 is an elevation of the clock, electrical circuit-closing devices, and mechanism for collecting the toll and controlling the door. Fig. 8 is a vertical sectional

view representing the construction and arrangement of the devices for collecting the toll. Fig. 9 is a detail view of a coin-depositing lever and a clutch mechanism on the clock-shaft. Figs. 10 and 11 are detail views of a coin-depositing and circuit-closing lever. Fig. 12 is a detail view of the lever which deposits the coin into the cash-box and restores the sliding coin-receiver to its normal position. Figs. 13 and 14 are detail views of the clutch mechanism. Fig. 15 is detail view of the sliding coin-receiver.

The reference-numeral 1 designates a house or casing which is of any desired form or size, and is constructed of any suitable material, and is intended to be placed on street-corners or other conspicuous place. This house or casing is divided into what may be termed the entrance and the telephone chambers 2 and 3, and it has double walls, between which I locate certain mechanical and electrical devices hereinafter referred to.

The chambers 2 and 3 are separated by means of a door, 4, which is made in the form of a box presenting a V or curved shape in cross-section, as is seen in Fig. 4.

The door is provided with a top panel or plate, 5, and is left open between its side walls so as to permit a person to enter the space between such side walls and stand upon the floor of the entrance-chamber 2. At the angle formed by the junction of the side walls I apply two top and bottom pivots, or a continuous pintle-rod, 6, which is stepped in bearings in the ceiling and floor of the casing 1, and constitutes the axis on which the door can turn. The door in its movement in the manner of a turnstile moves in contact with or in proximity to a curved panel or surface, 7, on the front wall of the casing 1, the object of such arrangement being to prevent any person or object from passing between the edge of the door and the casing 1. It should be observed that such casing or house is provided with suitably grated or protected windows or openings, 8, for purposes of ventilation and light, and, as shown in Figs. 1 and 5, the house is surmounted by a lantern, 9, and gas-pipes passing through the same.

A chamber or space, 10, formed between the roof of the house and the ceiling of the entrance and telephone chambers, contains devices for locking the door, and a suitable register, 11, is also placed in said chamber for the purpose of registering the number of times the door is moved or the telephone-station is occupied. This register is of any desired type, and its number-wheels are visible through an opening in the casing 1. For operating such register, I connect the same by a chain, 12, passing over a guide-sheave, 13, with the axis or pintle of the door.

In the top panel of the door I form an arc-shaped groove or slot, 14, which is adapted to receive a gravity latch or pin, 15, for holding the door in such position that no entrance can

be obtained to the telephone-chamber without first raising the latch from said groove or slot. This gravity-pin is carried by a horizontal lever, 16, which has its fulcrum at 17, and also bears an armature or metal plate, 16^a, arranged in co-operative relation to an electromagnet, 18. The lever 16 also carries a hammer, 19, which serves to strike a gong, 20, whenever the armature is attracted by the magnet. These devices concerned in locking the door are all arranged in the chamber between the roof and ceiling of the house, and the pin or latch 15 moves in an opening in the ceiling, so as to enter the groove or slot in the door or pass beyond the top edge of such door as is seen in Fig. 2. When in this latter position, the door can only be swung in a direction opposite to that necessary to gain admission to the telephone-chamber, since the gravity-latch serves as a stop for preventing the movement of the door into such a position as would bring the space between the same in communication with the telephone-chamber. When a would-be user of the telephone contained in the chamber 3 enters through the opening in the house or casing into the entrance-chamber 2 and places himself between the two walls of the door, he must first elevate the latch or gravity-pin before the door can be swung so as to gain entrance to the telephone-chamber. This raising of the latch is accomplished by means of a vertically-sliding bar, 21, which moves in a suitable guide-shield on the door, and can be projected on a level with the top edge thereof in order to move the gravity-latch vertically and allow the door to pass under such pin for bringing it in line with the groove or slot in the door. This latch-lifting bar is applied to the inner side of the door, and it is operated by means of a rack formed thereon, and a pinion-shaft, 22, which has a knob for turning it. This knob is at the side of a hole, 23, provided in the door in such position that a person desirous of entering the telephone-chamber can pass his hand through said hole, turn the knob, and raise the bar 21 for the purpose of elevating the gravity-latch in the manner and for the purpose already stated. When the chamber 3 is occupied by a user of the telephone, the door is in such a position that all exit is barred except upon the fulfillment of certain conditions—namely, the payment of a tax or toll—which must be before the expiration of a certain interval of time. A non-compliance with the requirements necessary to leave the telephone-chamber will tend to imprison the occupant until such time as the door is again opened by a duly-authorized person having access to the latch-operating devices from the outside of the house or casing.

It is obvious that the latch or gravity-pin entering the groove in the top panel of the door is entirely out of the reach of the occupant of the telephone-chamber, and for this reason the ability to depart from such chamber depends altogether upon the operation of

devices brought into action for allowing the door to be opened by the weight of a proper coin received as a toll or tax for the use of the telephone, or upon a failure to deposit such coin the door can only be opened by a person having access to the latch-controlling devices through a small door, 25, on the outside of the house or casing.

The mechanism directly employed for receiving and depositing the coin and closing an electrical circuit for unfastening the door is described as follows, viz:

A horizontally-reciprocating bar, 26, passing through an opening in the wall of the telephone-chamber, is provided with a slot, 27, extending vertically through said bar, and when the bar is in the position seen in Fig. 8 said slot is located above a ledge or flange, 28, applied to the wall of the telephone-chamber, in order to permit a coin, placed in the slot 27, to rest upon said ledge 28 until such time as the bar is shifted and the coin drops into a passage or chute, 29, located in the chamber between the outer and inner walls of the house or casing 1. The bar 26 moves in suitable guides or keepers, 30, and is connected with a coiled spring, 31, fixed to the casing, the object of said spring being to restore the bar 26 to its normal position after a piece of coin has been properly deposited into a final receiver and the user of the telephone is at liberty to leave the chamber 3. As shown in Fig. 8, the bar 26 consists of a head portion in which the coin-slot is made, and a narrow shank or body terminating at its inner end in a hook, 26^a; but it is obvious that such bar 26 can be made of any other suitable shape.

In the chute 29, I locate a balanced or weighted lever, 33, the purpose of which is to receive the coin as it drops from the bar 26 and permit it to pass on to the place of its final destination should it be of the proper weight capable of vibrating such lever by overcoming the weight applied to the other end of the lever. A light coin dropped upon the lever 33 will have no effect upon the same. Consequently such coin is arrested by this lever, and the sliding bar 26 also is by such act of depositing a light coin held in a retracted state by reason of its hook end 26^a engaging with a vertically-movable catch, 34, carried by a lever, 35, which is connected by a rod, 36, with a coin-depositing lever, 37.

It is apparent that a failure to comply with the requirements necessary for the proper or legitimate operation of all the devices will not only cause an interception of the light coin deposited, but will also place the coin-receiving bar into such a position that it cannot again be used by the occupant of the telephone-chamber for the purpose of depositing a proper coin, which would be the means of liberating him from said chamber.

Beneath the lever 33, and in the path or line of travel taken by the coin after it leaves the lever 33, I may locate a second weighted le-

ver, 38, the object of which is to drop into a suitable chamber, 40, coin of a greater weight than is required for operating the final coin-depositing devices. This lever 38 may be dispensed with and replaced by a fixed inclined plate. After a coin of the proper size and weight has passed beyond the levers 33 and 38, it rolls down an inclined plane, 42, and passes edgewise into a slot made in a lever, 43. The latter consists of a flat plate or thin body having ears 43^a for pivoting it to a suitable support, and on its under side is arranged a plate, 44, which is capable of moving in a lengthwise direction one way by mechanism, and in the other way by a spring, 44^a, it being guided in its movement and retained in position by lugs 43^b on the lever 43. These lugs enter slots or cuts made in the plate 44, and pins 43^a pass through the lugs and hold the plate 44 in position, so that it can slide back and forth to such an extent as will cause it to enlarge or diminish the length of the slot in the lever 43. The variations of this slot determine the retention or the passage of a coin dropped into the slot in the lever, it being obvious that when the plate 44 is in the position shown in Figs. 8 and 9 a shoulder thereon will project beyond or cover a portion of the slot in the lever, and a coin placed in said slot will be arrested and not allowed to drop through, except when all the conditions necessary to a proper working of the apparatus have been fulfilled. For example, should a coin of the proper weight and size be deposited after the expiration of the time in which payment should be made for the use of the telephone, such coin will pass onward to the lever 43; but it cannot pass through the same, because the plate 44 has not been moved to make the slot in the lever 43 of the proper size to admit the passage of the coin. When, however, a proper coin is tendered in time, the lever 43 and plate 44 are in such relative positions that the coin can pass through the same and drop upon the lever 37, disposed directly over a hopper, 46, leading to a cash-receptacle, 101. The weight of the coin vibrates the lever 43 and causes a circuit-closing head or button, 47, carried by the same, to come in contact with electrodes or contact-points 48 on electric wires 49. These wires, together with a battery located in the chamber between the walls of the house or casing, constitute, in connection with the electro-magnet 18, a complete electric circuit, in which the contact between the terminals 48 is made and broken by the device carried by the lever 43. When the current is passing through the electro-magnet, the armature will be attracted thereby, and consequently a vibration of the armature-lever takes place, which simultaneously effects a raising of the gravity-latch from the groove or slot in the door and a sounding of the gong or bell, the latter being the signal that the fare being correct the occupant of the telephone-chamber is free to depart therefrom. If this signal is not

heeded in time and the occupant remains in the telephone-chamber, the circuit is again broken and the gravity-latch again locks the door, which thereupon cannot be opened except upon the payment of a second piece of coin before the expiration of the period of time commencing from the payment of the first piece of coin. Should a greater interval of time elapse after any payment than is determined upon for the proper operation of the system, the electric current of the latch mechanism remains broken and the door cannot be opened, except by gaining access to the mechanism, which, as already stated, cannot be had from the interior of the telephone-chamber, but only from the outside by duly-authorized persons.

The clock or time mechanism employed for directly actuating some of the mechanical devices and bringing others into position for operation by electricity does not differ from any ordinary spring-motor clock so far as the general gearing and springs are concerned. It possesses, however, a wheel, 50, having its teeth divided into groups of three and deep notches between each group, so that the striking mechanism operated by this wheel will cause three taps to be given on the gong 51, notifying the occupant of the telephone-chamber that the time has arrived for making a deposit of the coin which is received in payment for the use of the telephone for a specified period of time. The gearing of the clock and attachments applied thereto is so timed that after the signal announcing that the toll is due and must be deposited a sufficient space of time—say half a minute—is allowed in which to deposit the toll. Should this period of grace be allowed to pass and no coin be deposited, the mechanism is brought into such position that the door cannot then be opened, even upon the payment of the toll, and the fact that a delinquent user of the telephone or trespasser is imprisoned at a particular local or public station is announced at the central or exchange office by a suitable signal brought into action by the closing of an electric circuit by the clock mechanism at the local station.

It is to be observed that this clock mechanism is always ready for operation; but some of the devices operated thereby are only periodically thrown into or out of gear by the coin-depositing devices and the movement of the door.

It is not the intention that any of the devices at a local station pertaining to the collection of the toll or tax should be controlled from the central office, and the only connection between such station and central office is by the usual lines for telephonic communication, and the special line for signaling the news that a messenger is needed to investigate matters at the local station and liberate a delinquent or trespassing occupant of the station.

As already stated, a small door permits access to be had to the chamber containing the

mechanism, and a simple movement of the coin-depositing lever 43 suffices to close the electric circuit of the latch mechanism, the latter then operating in the same manner as if a coin had been properly deposited. The pressure of a light coin, or one that has not been able to pass the first "weighing-lever," is detected by simply depressing said lever by hand and causing such coin to drop into the discharge-chute.

The devices for signaling the central office and throwing certain devices in and out of engagement with the clock mechanism, for preventing the passage of coin into the final receptacle after the elapse of the time when such coin should have been presented, may be determined as follows, viz: A shaft, 60, passing transversely through the clock casing or frame, carries at one end a wiper or wing, 61, and at its other end an arm, 62, to which is applied an insulated circuit-closing head or button, 63, a spring-tongue, 64, and a bent rod, 65. The center shaft of the clock receives a loose hub or collar, 66, on which is fixed a ratchet-disk, 67, and a grooved or flanged pulley, 68, a cord, 69, bearing a weight, 70, being connected with said pulley 68. The collar 66 has a clutch-surface on its inner end, adapted to engage with a clutch-collar, 72, on the clock-shaft, as is seen in Fig. 14, and for throwing the clutch-collar in and out of gear. I provide the forked elbow-lever 73, which is fulcrumed to a suitable bracket at the point 74, and is connected by a chain, 75, with a horizontal lever, 76, located in the chamber of the electrically-controlled latch. The chain 75 passes over guide-pulleys 77 and 77^a in the mechanism chamber, and is attached to the end of the lever 76, projecting into said chamber, as is shown in Fig. 2. This lever 76 is fulcrumed at 78, and has a pin, 79, at its inner end, which engages with an eccentric head, 80, on the upper end of the axis-rod of the door. It will thus be perceived that the turning or movement of the door will cause a vibration of the lever 76, and effect, through the intervention of the chain 75, an adjustment of the clutch-collar on the clock-shaft at the time and for the object hereinafter stated.

The ratchet-disk 67 on the clutch-collar is in the present instance provided with twelve teeth, which correspond each to a period of five minutes, and collectively represent one hour, said ratchet-disk being capable of making one complete revolution every hour when it is not previously disengaged from the clock-shaft. The ratchet-disk 67 also carries a lug or finger, 77^b, which comes in contact with a stop-pin, 78^a, on the clock-frame and serves to limit the movement of the ratchet-disk. In other words, this disk can only move in a direction which will bring the finger 77^b away from the under side of the stop-pin and in contact with the upper side of said pin. When such result has taken place, the ratchet-wheel has made a complete revolution, and is

then ready for being returned to its normal position.

It should be stated that the ratchet-wheel as herein shown can make a complete turn in one hour without the necessity of disengaging it from the clock-shaft; but obviously a larger number of teeth can be resorted to when the telephone-station is liable to be occupied by a single user for more than one hour. Such a contingency, however, seldom or never arises. Each progressive movement of the ratchet-wheel takes place at the end of every five minutes, and causes a sounding of the gong by the action of said wheel upon the arm 80^a on the rock-shaft, which releases the striking mechanism. If a coin is properly deposited after the signal has been given to pay the charge for five minutes' telephonic service, the lever 43 is depressed by the weight of the coin and caused to pass below the upper edge of the wing 61 on the shaft. The movement of the clock mechanism then causes a slight rocking of the shaft 60 by the pressure of the ratchet-wheel upon the spring-arm 64, and such rocking movement effects the movement of the slide-plate 44 for making the slot in the lever 43 of such a size that the coin can drop through the same. After the coin has been dropped into the hopper 46, the wing 61 is still held in contact with the plate 44 for a sufficient length of time, in order to prevent the upward movement of the lever 43 and the breaking of the electric circuit which controls the latch mechanism. Consequently the user of the telephone is given ample time—say one minute and a half—to pass out of the station; but should he fail to do so, the slipping of the tooth of the ratchet-wheel over the spring-arm will bring the wing 61 away from the lever 43 and cause the latter to return to its normal position. The door can then only be opened by depositing another coin before the expiration of the time allowed for such payment.

When the person in the telephone chamber disregards the signal to pay the toll or tax, the lever 43 and the wing 61 are held in such positions relatively to each other that the wing 61 can upon the expiration of the time allowed to make the payment pass under such lever, as is shown in dotted lines in Fig. 8. The onward movement of the ratchet-wheel 67 will then cause a rocking of the shaft 60 and bring the arm 62 with its contact-making button 63 against the electrodes or terminals 80^b of the signaling-circuit. The closing of such circuit will be the means of announcing at the central or exchange office that a toll has not been properly deposited at the station from which the signal is transmitted. Simultaneously with the transmission of such alarm-signal the arm 65 on the rock-shaft 60 is caused to engage with the clock-gearing for arresting the movement of the same until such time as the mechanism is again started by a duly authorized messenger sent from the central office.

Assuming that a person who has used the

telephone has properly paid his toll, he is at once notified and is at liberty to leave the station, the electrically-controlled latch being opened as soon as the weight of the coin upon the lever 43 has closed the circuit of the latch mechanism. In passing out of the door the turning of the same will cause a vibration of the lever 76, a drawing upon the chain 75, and a shifting of the lever 73 for disengaging the ratchet-wheel and clutch-collar from the clock-shaft, the clock mechanism then continuing to run by the action of the motor-spring. In order to provide means for returning the coin-lever 43 to its normal position before the expiration of the time when the clock mechanism effects such a result, I locate a lever, 85, beneath said coin-lever, as is seen in Fig. 9. This lever 85 is pivoted at one end to a bracket, 86, and at its other end it is connected with the chain 75. It also has a slot, 87, into which projects a pin, 88, depending from the slide-plate 44 on the lever 43. It follows by such contrivance that when the door is moved in the act of passing out the lever 85 is vibrated and caused to move the slide 44 in the same manner as if the wing 61 had acted upon the same. Consequently the lever 43 is restored to its normal position and the circuit of the latch mechanism is broken, so as to hold the door closed. When the next person enters the telephone-chamber, a movement of the turnstile-door effects a slackening of the chain 75 and a spring, 90, connected with the lever 73, is then free to act upon the same for throwing the clutch and ratchet-wheel collar into engagement with the clock-shaft, and the plate 44 is projected by the spring 44^a, the entire mechanism being then in position for the reception of the toll or tax in the manner and for the purpose hereinbefore fully set forth.

Referring again to the coin depositing and collecting devices, it will be seen that when the deposited coin drops from the lever into the hopper 46, and from there into the receptacle 101, (seen in Fig. 5,) the coin-receiving bar is released from the catch and returned to its normal position. The coin-receptacle is placed in a chamber having a door, 96, so that only a proper agent can have access to the same, and the battery and clock-controlled mechanism are also placed in separate chambers, as is seen in Fig. 5.

I reserve the right to use the devices and mechanism above set forth for other purposes than in a public telephone system, and I also intend to make such changes or modifications as will readily suggest themselves without departing from the spirit of the invention.

Having thus described my invention, what I claim is—

1. A house or casing having a toll or fare collecting chamber, a movable door for guarding the entrance to said chamber, a latch or lock mechanism for said door, and a coin-depositing mechanism connected with said latch mechanism for releasing the same upon the

proper payment of a toll or fare, substantially as herein set forth.

2. A house or casing having a movable door, an electrically-controlled latch mechanism for said door, and a toll or fare receiving and depositing mechanism adapted to close and break the electric circuit of the latch mechanism, substantially as herein set forth.

3. A house or casing having a chamber between its outer and inner walls, a chamber between its ceiling and roof, and a door for dividing the interior of the casing into two chambers, in combination with a latch mechanism engaging with the door, an electro-magnet and its circuit acting upon said latch mechanism for disengaging the latch, coin receiving and depositing devices adapted to close the circuit of said electro-magnet, and a clock mechanism for breaking the circuit upon the expiration of time allowed for depositing the toll, substantially as described.

4. The combination of the angular or curved door, consisting of two vertical walls and a top panel having a curved groove or way in its upper face, with a house or casing divided by said door into two compartments and an electrically-controlled latch mechanism adapted to engage with the groove or way in the door, substantially as herein set forth.

5. The combination of the angular swinging door having a grooved top panel, a vertically-movable latch-lifter, a hand-opening adjoining said latch-lifter, and a latch arranged above the door, adapted to be raised by said lifter to allow the door to swing beneath the latch and permit the latter to drop into the groove in the top panel, substantially as described.

6. The movable door having an eccentric on its axis or pintle-rod, a horizontal lever adapted to be acted upon by the eccentric, a chain connected with the lever, and a clock mechanism having a clutch and lever mechanism, in combination with the house or casing, substantially as herein set forth.

7. The combination of the reciprocating coin-receiving bar and a coin-depositing lever adapted to be moved by the weight of a coin, and having a contact-maker, with the electrically-controlled latch mechanism and its circuit-wires co-operating with said contact-maker, the movable door, and the house or casing, substantially as herein set forth.

8. The combination of the sliding bar having a slot for the reception of a coin, a hooked inner end, and a spring, with the retaining-catch for said bar, and a connecting-rod and tripping-lever for releasing said bar and returning it to its normal position by the weight of a coin and the action of the spring, substantially as herein set forth.

9. The combination of the coin-depositing lever having a slot, and a movable spring-pressed plate for covering and uncovering part of said slot, with means for conducting a coin upon said lever and moving the spring-plate

to allow the coin to pass through the slot in the lever, substantially as herein set forth.

10. The combination, with the clock mechanism and coin-depositing devices, of a clutch and ratchet-wheel collar, means for connecting and disconnecting the same from the clock-shaft, an electric circuit for signaling purposes, and a circuit-closer adapted to be operated by said ratchet-wheel, substantially as herein set forth.

11. The combination, with the clock mechanism having a spur-wheel, 50, divided into groups of several teeth, with a gong or alarm mechanism acted upon by said spur-wheel, a ratchet-wheel and lever devices, and a door 80 connected with said ratchet-wheel and lever devices for throwing the ratchet-wheel into engagement with the clock mechanism, substantially as described.

12. The combination of the rock-shaft having a wing at one end and an electric circuit-closing arm at the other end, with a clock mechanism, a clutch, and ratchet-collar fitted on the clock-shaft, and a coin-depositing lever provided with a spring-plate adapted to be moved by the wing on the rock-shaft, substantially as herein set forth.

13. The combination of the combined clutch and ratchet-wheel having a weighted cord, and a stop-lug, and means for periodically connecting and disconnecting it from the clock-shaft, with a stop on the clock-frame, and devices for closing a signaling-circuit and acting upon a coin-depositing lever, substantially as herein set forth.

14. The combination of the combined clock-stopping arm and electric circuit-closer, and the signaling-circuit, with the clock mechanism, the ratchet-wheel and lever and clutch devices, and the coin depositing mechanism, substantially as described.

15. The combination of the rock-shaft, the wing extending therefrom, and the circuit-closing arm having a spring-tongue, with the clock mechanism, the clutch-collar, and ratchet-wheel, and the coin-depositing lever co-operating with said rock-shaft, substantially as herein set forth.

16. The coin receiving and depositing devices comprising the reciprocating bar, the balanced weighing-lever, and the coin-depositing lever, in combination with means for holding the reciprocating bar in a retracted state until such time as the coin shall have passed through the depositing-lever, substantially as herein set forth.

17. The combination of the reciprocating coin-receiving bar, a delivery-chute, coin weighing and assorting levers located therein, a coin-depositing lever, a catch for holding the coin-receiving bar in a retracted state, and a lever for tripping said catch when the coin has passed the depositing-lever, substantially as herein set forth.

18. The combination of the tripping-lever

37, weighted rod 36, lever 35, catch 34, coin-receiving bar 26, and spring 31, with the coin-depositing devices and the coin-receptacle arranged beneath the tripping-lever, substantially as described.

5 19. The combination of the chain 75, the lever 85, having a slot, 87, the coin-depositing lever 43, having a plate, 44, carrying a pin, 88, projecting into said slot, with a door adapted to act upon said chain, and a clock mech-

anism having ratchet-wheel, and clutch devices adapted to be released by the action of the door and lever and chain, substantially as described.

In testimony whereof I affix my signature in 15 presence of two witnesses.

JOSEPH H. TABONY.

Witnesses:

JAMES L. NORRIS,

JOS. L. COOMES.