No. 658,282. Patented Sept. 18, 1900.

J. M. SAILER.

SIGNAL.

(Application filed Dec. 15, 1899.)

(No Model.)

Fig. 1.

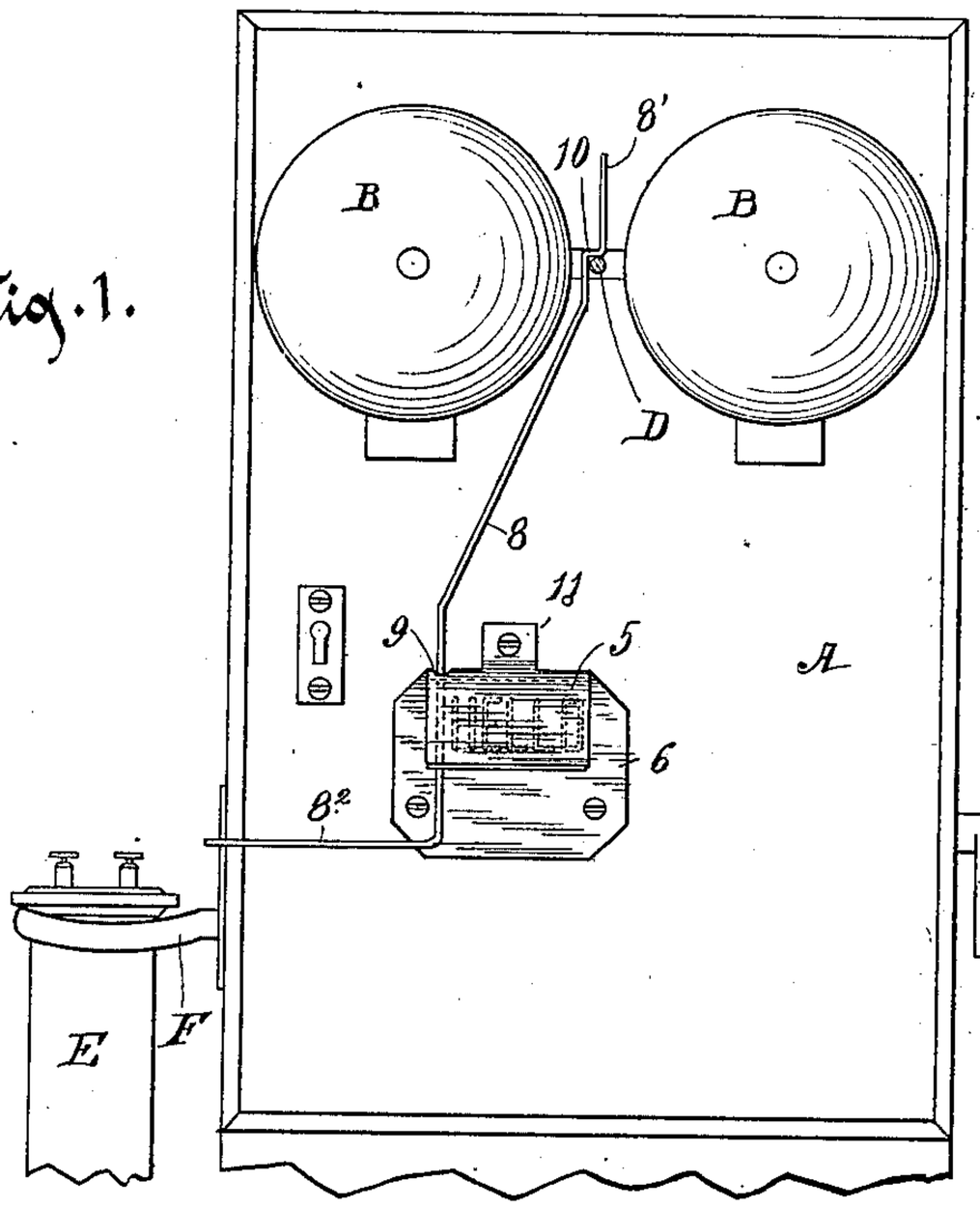


Fig. 2.

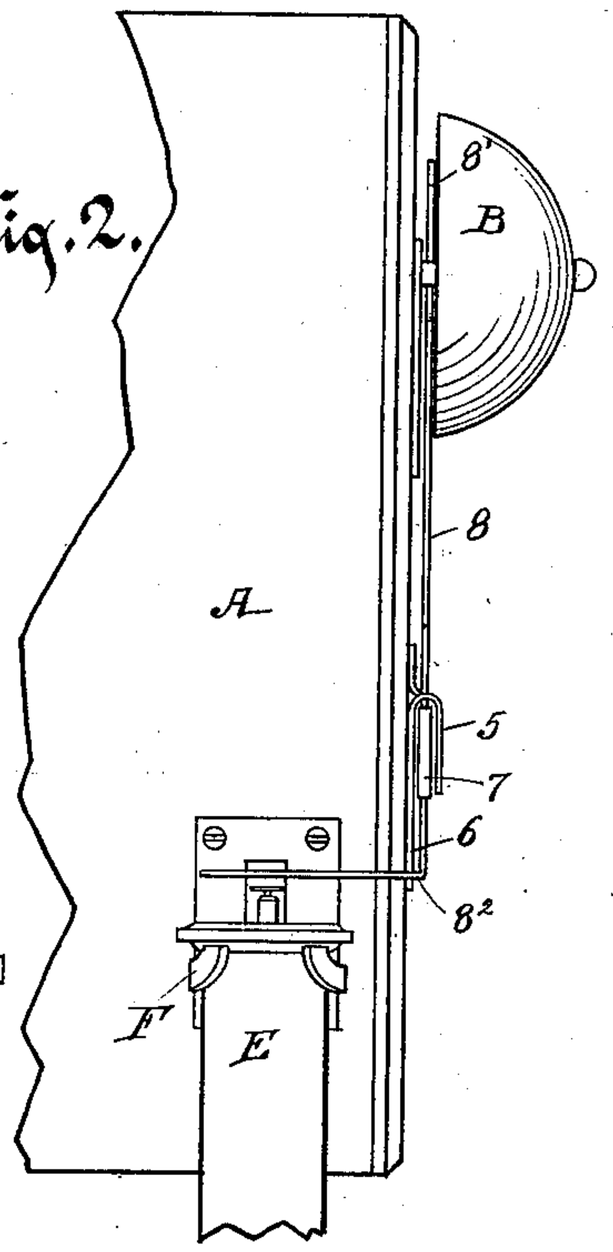


Fig. 3.

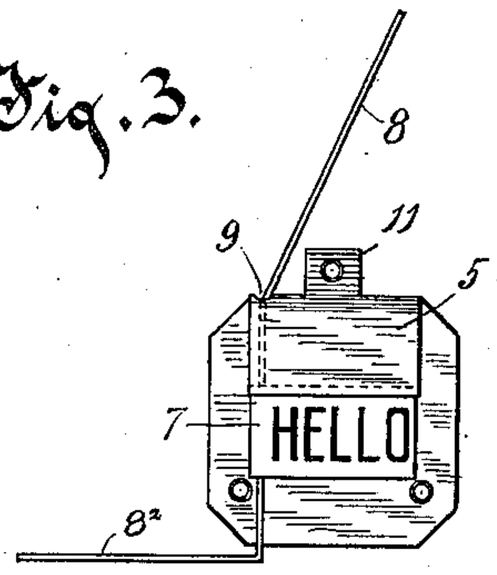
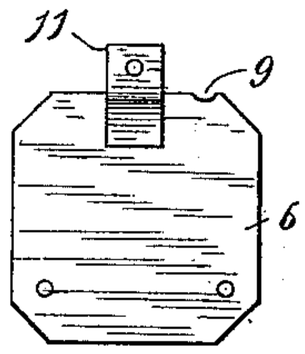


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SIGNAL.

SPECIFICATION forming part of Letters Patent No. 658,282, dated September 18, 1900.

Application filed December 16, 1899. Serial No. 740,409. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. SAILER, of Janesville, in the county of Rock and State of Wisconsin, have invented a new and useful Improvement in Signals, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to means by which a signal normally hidden is automatically exposed to view and is supported in such exposed position, and incidentally to means for automatically replacing the signal in its normal concealed position.

The invention is especially adapted for use with the call devices and automatic circuit-closing mechanism at a box or subscriber's station on an electric telephone, and I have shown my invention in connection with such telephone devices and mechanism, though I do not wish thereby to limit my invention to use with telephone devices or mechanism, but to cover its use in any place and with any devices or mechanism where or with which it may be employed successfully.

I have not shown the operative devices or mechanism belonging to the telephone construction, as such devices and mechanisms are well known and form no part of this invention, except so far as my improvements are combined with features of the telephone devices and mechanism illustrated in the drawings.

My invention consists of the device, its parts, and combinations, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 is a front view of a box and a fragment of a receiver of the form in common use at a subscriber's station on an electric telephone, with which my invention is shown in its relations thereto, the stem of the bell-hammer being shown in section. Fig. 2 is a side view of the devices shown in front view in Fig. 1. Fig. 3 is a detail of a portion of means embodying my invention. Fig. 4 is a rear view of the plate shown in Fig. 3.

In the drawings, A is the box employed at a subscriber's station in an electric telephone system, on which are mounted call-bells B B and within which there are devices adapted to vibrate a hammer adapted to strike against the bells B B, the stem of which hammer is shown at D. The bell-hammer is arranged to be set in motion by an electric current transmitted thereto from the central station or by the rotating of the crank-handle C. My device when used in connection with this telephone-call is especially adapted for displaying the signal when a call is made from the central station in the absence of the user from the room or so distant from the bells as not to be within the hearing of the sound produced by the ringing of them. The subscriber's telephone-receiver E is hung on the spring-lifted arm F, which arm F is mounted in the box A and is adapted in the usual manner by its uptilting to disconnect the bell-ringing devices and to close the circuit through the receiver. The lever F is so mounted as to automatically swing upwardly when relieved of the weight of the receiver E.

I provide a hood 5, conveniently constructed of sheet metal and being an overturned continuation of the metal plate 6, which plate is a convenient means for securing the hood to the box A or other suitable support. The hood 5 is located at a little distance in front of the plate 6, and the space between the hood and the plate is open at the bottom edge of the hood. A signal 7, which in the drawings I have shown as being a strip of cardboard having thereon the word "Hello," is of such size and form as to be placed loosely under the hood 5 and to be normally covered and hidden thereby. This signal 7 is secured to a supporting device 8, which in a desirable form, as shown in the drawings, consists of a wire that extends upwardly through an aperture 9 therefor in the top of the hood 5, and at the proper distance above the hood is provided with a shoulder 10, conveniently formed by bending the wire to form an offset thereof, which shoulder is adapted loosely to rest normally on the stem D of the bell-hammer. By this means the signal is supported normally in place under the hood 5 and in such manner as to be concealed from observation. The weight of the signal-plate on the supporting device 8 at one side is adapted to tilt the supporting device 8 toward the right, as shown in Fig. 1—that is to say, in that direction laterally that would tend to hold the shoulder 10 on the stem D except by being forcibly re-

moved therefrom or by having the stem swung quickly out from beneath the shoulder. The construction and arrangement are such that the signal being supported concealed behind the hood 5, as shown in Fig. 1, when the bell-hammer is caused to vibrate between the bells B B by the means provided therefor, the quick lateral movement of the stem D carries it from beneath the shoulder 10 and releases the supporting device 8, permitting it and the signal 5 to fall by gravity to such extent as to expose the signal to view below the hood 5, as shown in Fig. 3. When thus exposed to view, the upwardly-projecting extremity 8′ of the device 8 rests against the side of the stem D, retaining the device in position to be again elevated, so that the shoulder 10 will take onto the stem D. The signal-supporting device 8 is continued, as shown at 8^2, to a locality above the arm F and in such relation thereto that when the signal 7 has dropped below the hood 5 the continuation 8^2 rests on the arm F, and thus supports the signal in the exposed position shown in Fig. 3. In this position the user of the telephone, who, it may be understood, has been absent from the room in which the signal and telephone call device are located, may on his return see the signal down and therefrom learn that a call on the telephone has been made during his absence, and thereupon on removing the receiver E from the arm F to receive the telephonic communication the arm F, under the action of its supporting devices, will move upwardly, carrying the supporting device 8 and the signal 7 thereon with it, replacing the signal in its hidden position under the hood 5, and lifting the shoulder 10 above the stem D, with which it will again engage by the slight tilting of the supporting device 8 under the action of the weight of the signal and its disposition with reference to the stem. The signal is thus replaced in the position shown in Fig. 1, in which it is adapted to be again released and dropped into exposed position by the vibration of the stem D on a call being made over the telephone. It will be observed that as the part 8^2 of the supporting device rests on the arm F while the supporting device is being lifted thereby the weight of the supporting device supported on the arm at one side of its center of gravity also tends to cause the shoulder 10 to fall over the stem D when raised above it.

As a convenient means for attaching the plate 6 to the box A, I cut therefrom a lip 11, which being turned upwardly into the plane of the plate C is adapted to lie against the surface of the box A and is secured thereto by a screw through the lip. Screws or other equivalent means may be employed for securing the plate 6 detachably to the box A.

My invention, though shown in connection with telephone apparatus and its action described in connection therewith, is not limited in its purpose to use with telephone apparatus, but may also be employed in analogous situations wherever similar call devices or alarm-signals are employed.

What I claim as my invention is—

1. A signal device, comprising a hood, a signal normally under and hidden by the hood, and a signal-supporting device consisting of a wire to which the signal is affixed, the wire being provided with a laterally-disposed shoulder adapted to rest on a laterally-movable call device and to be released therefrom by the movement laterally of the supporting call device and an upwardly-projecting part of the supporting device adapted to rest against the side of the laterally-movable call device after the shoulder has been released therefrom and has dropped below the call device.

2. A signal device, comprising a hood, a signal normally under and hidden by the hood, and a signal-supporting device provided with a shoulder adapted to engage releasably a movable call device and an extension of the supporting device adapted when the shoulder is released from the call device to fall to and rest on a supporting lifting device.

3. In a signal apparatus, a device normally supported releasably adapted when released to fall and disclose a signal, a withdrawable supporting device, means for engaging the supporting device releasably, means for upholding the signal-disclosing device in position after release from the supporting device to be replaced on the supporting device, an uptilting circuit-controlling arm, and means on the signal-disclosing device adapted when the signal-disclosing device falls to engage the uptilting arm and be lifted by the uptilting thereof into normal position.

4. The combination with a vibrating hammer of a telephone call device, and an uptilting circuit-controlling arm, of a signal, a signal-concealing device, a signal-supporting device, the supporting device being constructed to engage the vibrating hammer of the call device and to be released therefrom by the vibration of the hammer, and an extension of the signal-supporting device located above and adapted to fall on the uptilting arm when released from the call device and to be lifted thereby to its initial position when the arm moves upwardly.

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

JOHN M. SAILER.

Witnesses:
ARCHIE GIFFORD,
H. A. MOESER.