

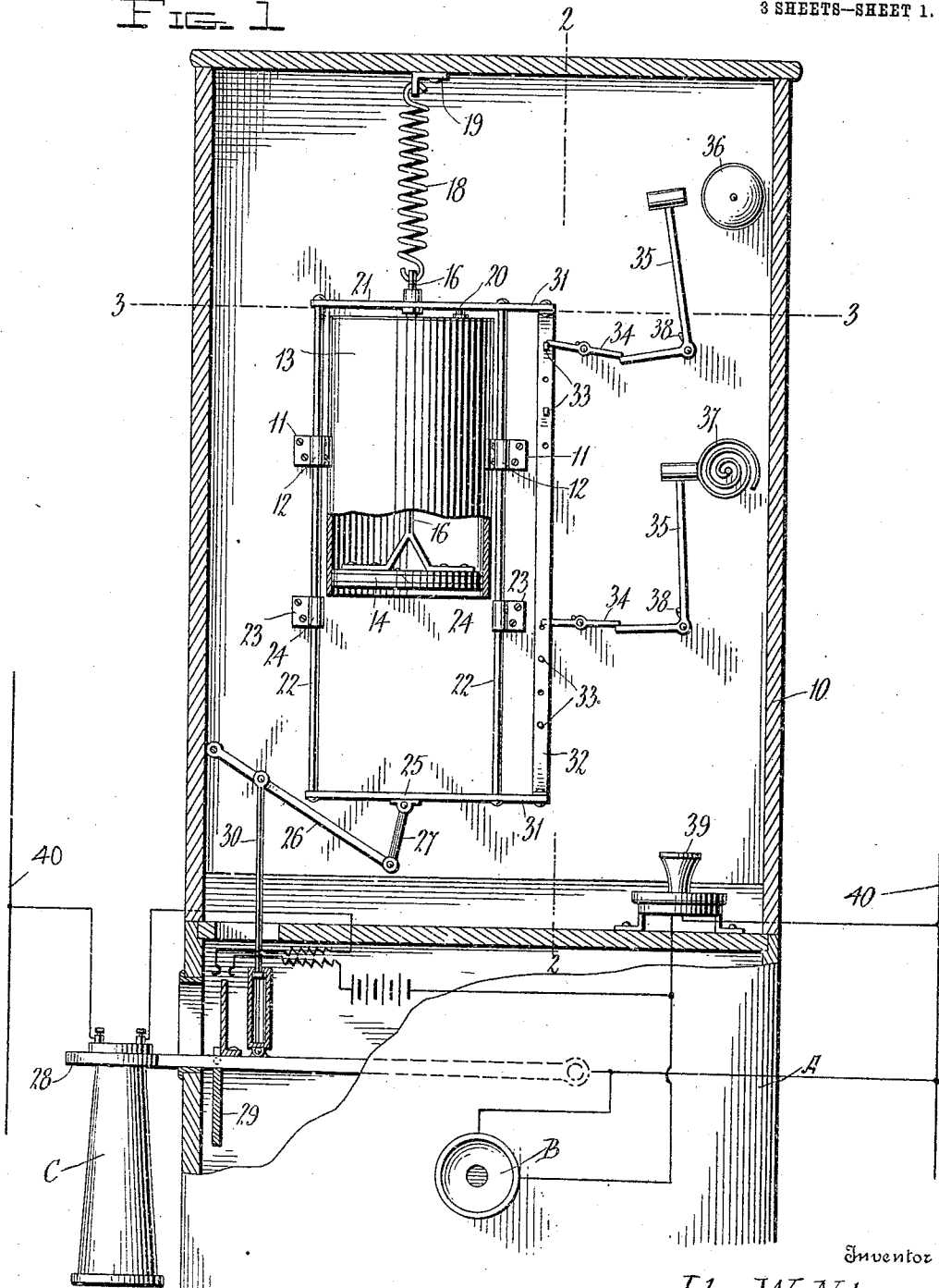
J. W. NILSSON.
ATTACHMENT FOR TELEPHONES.
APPLICATION FILED JAN. 19, 1909.

940,047.

Patented Nov. 16, 1909.

3 SHEETS-SHEET 1.

FIG. 1



Witnesses

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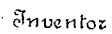
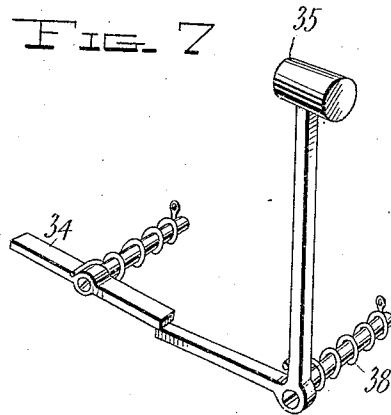
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

FIG. 4

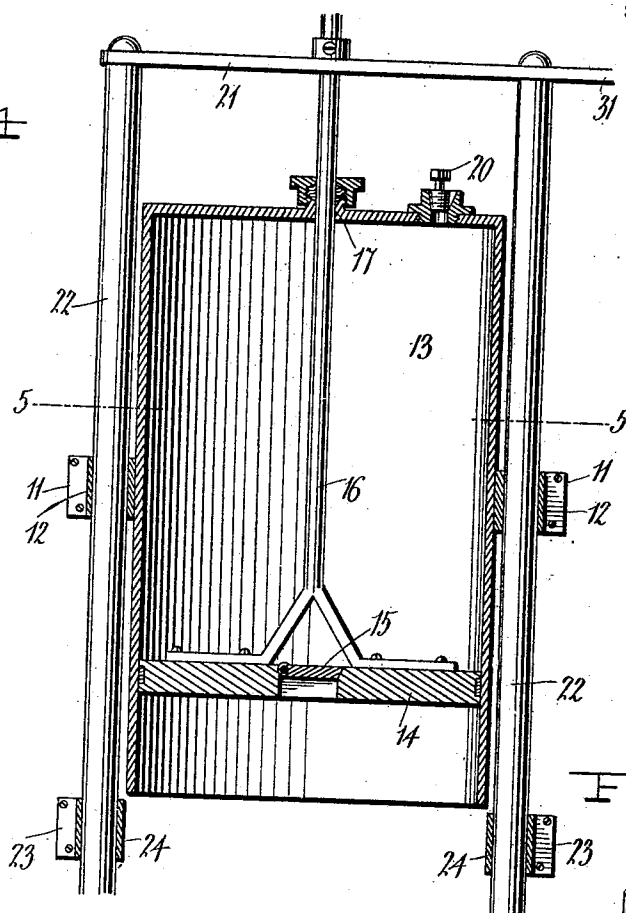


FIG. 6

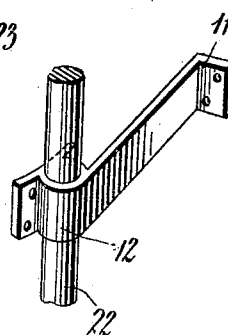
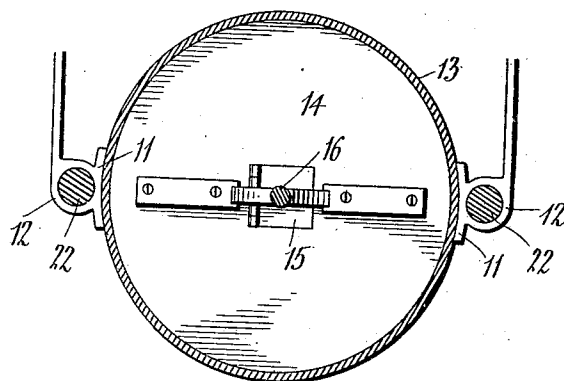


FIG. 5



Witnesses

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR TELEPHONES.

940,047.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN W. NILSSON, a citizen of the United States, residing at Balfour, in the county of McHenry, State of North Dakota, have invented certain new and useful Improvements in Attachments for Telephones; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to telephone circuits and more especially to a device for detecting a third party on a telephone circuit. More particularly the invention is an attachment for telephones.

The principal object of the invention is to provide an audible signal which will indicate to a person using any one of the telephones in a telephone system the presence of an auditor at another telephone of that system.

Another object of the invention is to indicate to a person using any one of the telephones of a telephone system the number of the telephone answering his call, thereby detecting whether the right telephone has responded.

With the above and other objects in view, the invention consists, in general, of an attachment for telephones so arranged as to render audible any attempt to listen through any one of said telephones to such other person as may be in conversation and at the same time to indicate what telephone is being used to intercept the conversation.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a front elevation of an attachment for telephones constructed in accordance with this invention, the front of the casing of the device being removed to show the interior. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a detail section on the line 4—4 of Fig. 1. Fig. 5 is a detail section on the line 5—5 of Fig. 4. Fig. 6 is an enlarged detail per-

spective of one of the brackets. Fig. 7 is an enlarged detail view showing the arrangement of one of the hammers.

The device has here been shown as applied to an ordinary telephone of the wall or box type such as indicated by the letter A. This telephone is equipped with the usual transmitter B and receiver C, all of these parts being of the ordinary and well known form.

Secured to the back board of the telephone A is a casing 10 provided with a lock front, not being necessary here to be shown. Within the casing 10 and mounted on the back wall thereof is a pair of brackets 11 provided with guide ears 12 for a purpose to be hereinafter fully described.

Rigidly attached to the brackets 11 is a dash-pot 13 wherein is arranged to move a piston 14 provided with an upwardly opening valve 15. The piston 14 is supported on a stem 16 which is attached thereto and passes through an aperture 17 formed in the upper end of the dash-pot 13. The upper end of the stem 16 is connected to a spiral spring 18 the upper end of which is in turn connected to a bracket 19 fixedly mounted upon the casing. Upon the upper end of the dash-pot 13 is mounted an escape valve 20 which may be regulated to permit slow movement of the piston 14 within the dash-pot 13.

Attached to the stem 16 outside of the dash-pot 13 and immediately below the spring 18 is a cross bar 21 where to are attached a pair of vertically movable rods 22, these rods passing through the guide ears 12 of the brackets 11. Brackets 23 are also mounted on the casing and are provided with guide ears 24 which serve to guide the lower ends of said rods. A cross bar 25 rigidly connects the lower ends of these rods.

Pivotally mounted on the casing 10 and arranged to lie substantially in the plane of the frame just described is a lever 26 which is connected at one end to the bar 25 by means of a link 27. At 28 is indicated the usual receiver fork and upon this fork is mounted a guard plate 29 arranged to prevent tampering with the working mechanism when the telephone is being used.

Connecting the lever 26 and the guard plate 29 is a link 30.

In the operation of the device as thus far described, when the receiver is removed from the fork the latter rises in the usual manner to complete the circuit common to such devices. Meanwhile, the spring 18 pulls the frame previously described up and with it carries the piston 14 in the dash-pot.

For the purpose of providing a signaling means an auxiliary frame comprising top and bottom bars 31 and a side bar 32 is supported on the main frame surrounding the dash-pot. Upon the bar 32 are positioned a number of pins 33, the pins being in two series as plainly indicated in the drawings. Adjacent each series of these pins is mounted an oscillating lever 34 so arranged that the pins are free to pass downward over the ends of these levers when the receiver is hung upon the fork. The opposite ends of these levers project over a pair of hammers 35 preferably of bell crank shape, and these hammers are arranged to respectively strike against a bell 36 and a bell 37. For the purpose of providing a variety of signals, these bells are arranged to be of different tones and in the form here shown the bell 36 is of the ordinary round bell type while the bell 37 is composed of a coil of tempered wire such as is frequently used in the gongs of clocks. The pins 33 before referred to are so positioned that as the frame rises the levers 34 will be alternately actuated by the respective series of pins, and consequently the bells alternately struck. For the purpose of forcing the hammers against the bells each hammer is provided with a suitable coil spring 38.

In order to render the device audible at a calling station, an auxiliary transmitter 39 is positioned within the casing and wires 40 are led from this transmitter and form a part of the transmitting circuit in two telephone systems.

Now considering the entire operation of the device: When the receiver is removed from the fork and the frame rises, the bells will be alternately struck. When a person has called a telephone by ringing the usual magneto signal he immediately removes the receiver and applies it to his ear. If some other telephone than the one called attempts to answer the ringing of the bells in the wrongfully used telephone will be heard by the person calling and the improper use immediately detected. If, however, the right person answers that also will be indicated. Further, if two persons are using the line and attempt be made to overhear their conversation this can only be done by removing the receiver at some other telephone than those being used and when this is done the signal will in like manner be transmitted to each of the persons using the telephone and the attempt at espionage instantly be made known.

The device thus provides a positive security against any overhearing of private conversation and is at the same time simple in its character.

It is obvious that minor changes may be made in the form, proportions and construction of this invention without departing from the material principles thereof. It is not, therefore, desired to confine the same to the exact form herein shown and described but it is wished to include all such as properly come within the scope of the appended claims.

Having thus described the invention, what is claimed as new, is:—

1. An attachment for telephones having a receiver and transmitter, comprising an audible signaling device, a second transmitter adapted to be connected to the telephone circuit, and means to operatively connect the signaling device to a receiver fork.

2. An attachment for telephones having a receiver and transmitter, comprising a bell, a movable element, means to operate the bell when the movable element is moved, a second transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable element to a receiver fork.

3. An attachment for telephones comprising a casing, a bell mounted therein, a movable element, a dash-pot to control the motion of said element, mechanical means to operate the bell when the element is moved, a transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable element to a receiver fork.

4. An attachment for telephones comprising a bell, a movable frame, a hammer arranged to strike said bell, an operating lever to move said hammer, means on said frame to actuate the operating lever, and other means to operatively connect the frame to a receiver fork.

5. An attachment for telephones comprising a bell, a hammer arranged to strike the bell, a lever arranged to actuate said hammer, a movable frame, means on said frame to actuate the lever, a dash-pot to control the motion of said frame, a transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable frame to a receiver fork.

6. An attachment for telephones comprising a pair of bells of different tone, a movable element, mechanical means carried by said element to operate said bells when the element is moved, a transmitter adapted to be connected to the telephone circuit, and other means to operatively connect the movable element to a receiver fork.

7. An attachment for telephones comprising a plurality of bells, a movable element

arranged to alternately operate said bells, a transmitter adapted to be connected to the telephone circuit, and means to operatively connect the movable element to a receiver fork.

8. An attachment for telephones comprising a plurality of bells of different tone, a movable element arranged to alternately operate said bells, a transmitter adapted to be connected to the telephone circuit, and means to operatively connect the movable element to a receiver fork.

9. An attachment for telephones comprising a plurality of bells of different tone, a movable frame, hammers arranged to strike said bells, levers arranged to actuate said hammers, pins on said frame arranged to alternately actuate said levers, said pins being further arranged to indicate the call number of the telephone to which the device is attached, a transmitter adapted to be connected to the telephone circuit, a dash-pot to control the movement of said frame, and

means to operatively connect the frame to a receiver fork.

10. An attachment for telephones comprising a plurality of bells of different tone, a movable frame, hammers arranged to strike said bells, levers arranged to actuate said hammers, pins on said frame arranged to alternately actuate said levers, said pins being further arranged to indicate the call number of the telephone to which the device is attached, a transmitter adapted to be connected to the telephone circuit, a dash-pot to control the movement of said frame, means to operatively connect the frame to a receiver fork, and a spring attached to said frame to move the same in one direction.

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

JOHN W. NILSSON.

Witnesses:

S. L. KEENE,
MARTIN MANSON.