April 16, 1935. M. M. ALTOONIAN 1,998,181

TELEPHONE DISTINGUISHING MEANS

Filed May 10, 1934

Fig. 1.

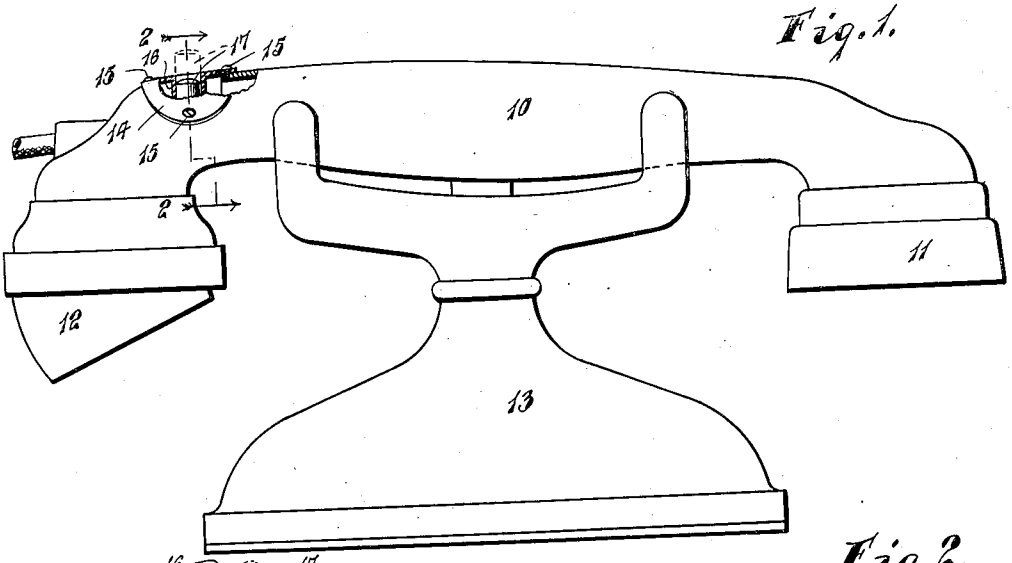


Fig. 2.

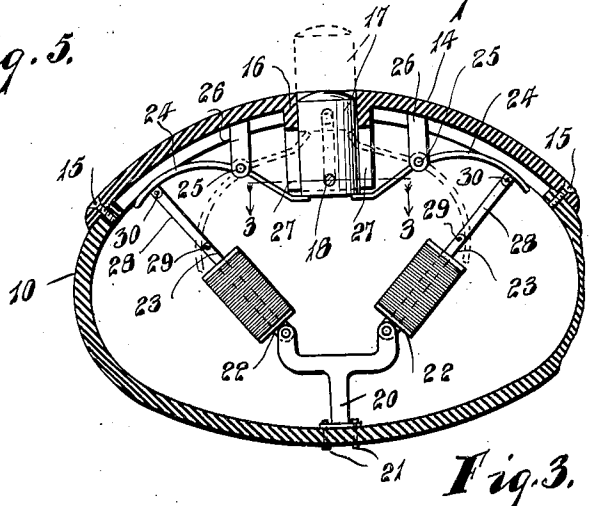


Fig. 5.

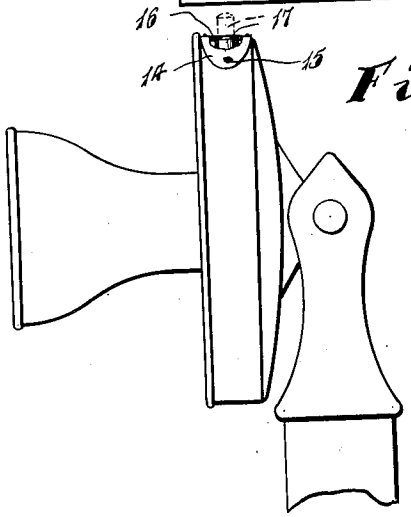


Fig. 3.

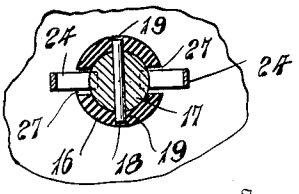
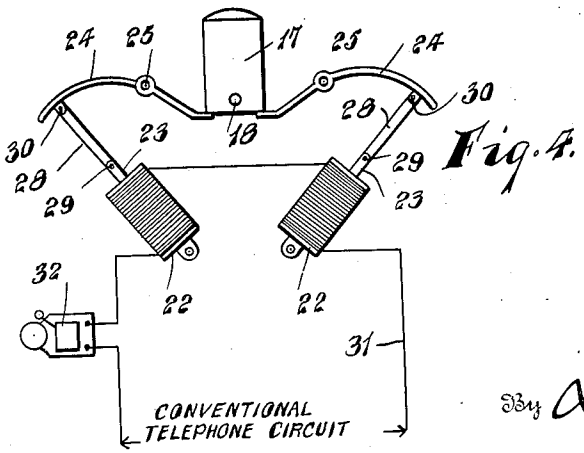


Fig. 4.



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TELEPHONE DISTINGUISHING MEANS

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Application May 10, 1934, Serial No. 724,994

3 Claims. (Cl. 179—84)

This invention relates to a means associated with a telephone to indicate the ringing of the bell thereof, to the end that such telephone, especially where it is used adjacent other telephones, so that the telephone on which there is a call may be readily ascertained.

It is aimed to provide a novel means which is operable in the electric circuit of the telephone which includes the bell, to the end that when the bell is energized, the distinguishing means will also be energized.

The more specific objects and advantages will in part be pointed out and otherwise become apparent from a consideration of the description following taken in connection with accompanying drawing illustrating an operative embodiment.

In said drawing:—

Figure 1 is a view in front elevation showing a telephone of the French type, embodying my improvement;

Figure 2 is a cross sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a detail of the distinguishing means and circuit therefor; and

Figure 5 is a side elevation of an ordinary telephone embodying my improvement.

Referring specifically to the drawing wherein like reference characters designate like or similar parts, 10 designates the arm of a French telephone embodying the transmitter 11 and receiver 12, the arm being supported on the usual pedestal or stand 13.

On the arm 10 is secured a plate 14, for instance, by means of screws 15 so that it may be detached when desired. Centrally of the plate 14 is a depending tube 16 in which an indicator element 17 is normally retracted as shown in full lines in Figures 1 and 2 and which is adapted to be projected to the dotted line position when the bell of the telephone rings to indicate a call. This indicating or distinguishing plunger 17 has a pin 18 projecting therethrough and sliding in vertical elongated slots 19 in the wall of cylinder 16, by means of which, the plunger 17 is held against accidental detachment.

A suitable bracket 20 is fastened at 21 within the arm 10 and mounts a pair of diverging electromagnets 22 having slidable cores 23. Levers 24 are pivoted at 25 to depending lugs 26 on the plate 14, having free ends extending below and engaging the lower end of the plunger 17, upward movement of the levers being accommodated in slots 27 in said sleeve 16. Links 28 are pivoted at 29 to the cores 23, and at 30 to said levers 24.

The invention is capable of use in any conventional telephone circuit as at 31 wherein the bell 32 which rings when central makes a call, and which circuit also includes the windings of the electromagnets 22.

Normally the indicator 17 is retracted in full lines as best illustrated in Figures 1 and 2. Upon the operator or central closing the circuit 31 through the bell 32 to indicate the call, the circuit also is closed through the solenoids 22, retracting the armatures 23 and moving the links 28 and levers 24, thereby projecting the indicator 17 to the dotted line position, shown in Figures 1 and 2. This projection of the indicator 17 shows which particular telephone the call is on and is especially useful where there are a number of telephones arranged close together. Of course when the circuit is again opened through the bell 32, the magnets 22 will become deenergized and by gravity, the links 28, levers 24 and indicator 17 will return to normal retracted position.

The invention is not limited to use in a French telephone, but may be used in one of the ordinary type as illustrated in Figure 5, the same reference characters as far as the invention is concerned being used in Figure 5 as in the other figures.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:—

1. In combination with a telephone and the ringing circuit for the bell thereof, and means in said circuit operable through the closing thereof to ring the bell, to distinguish the telephone from another, said means being mounted on the telephone, said means including a normally retracted slidably mounted element, a lever in engagement with said element, said circuit including an electromagnet, a movable core for said magnet, and a link connecting from said core with said lever, whereby the energization of the magnet will slidably project said element.

2. In combination with a telephone and the ringing circuit for the bell thereof, means in said circuit operable through the closing thereof to ring the bell, to distinguish the telephone from another, said means being mounted on the telephone, said means including a normally retracted element, a lever in engagement with said element, said circuit including an electromagnet, a core for said magnet, a connection from said

core to said lever, whereby the energization of the magnet will project said element, a plate to which said lever is pivoted, and a sleeve depending from said plate in which the element is slidably mounted.

3. In combination with a telephone and the ringing circuit for the bell thereof, means in said circuit operable through the closing thereof to ring the bell, to distinguish the telephone from another, said means being mounted on the telephone, said means including a normally retracted element, a lever in engagement with said element, said circuit including an electromagnet, a core for said magnet, a connection from said core to said lever, whereby the energization of the magnet will project said element, a plate to which said lever is pivoted, a sleeve depending from said plate in which the element is slidably mounted, a pin and slot connection between the sleeve and element, said sleeve having a slot in which the lever operates, and a bracket mounting the electromagnet.

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