W. H. RIESS.

TELEPHONE OPERATING DEVICE.

APPLICATION FILED MAR. 2, 1917.

1,350,737. Patented Aug. 24, 1920.

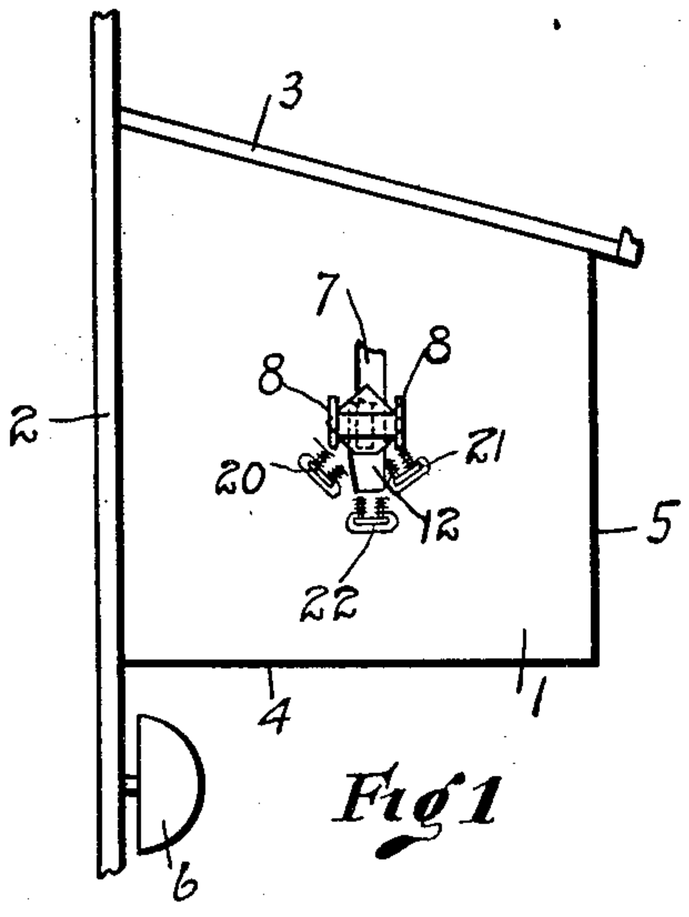

Fig 1

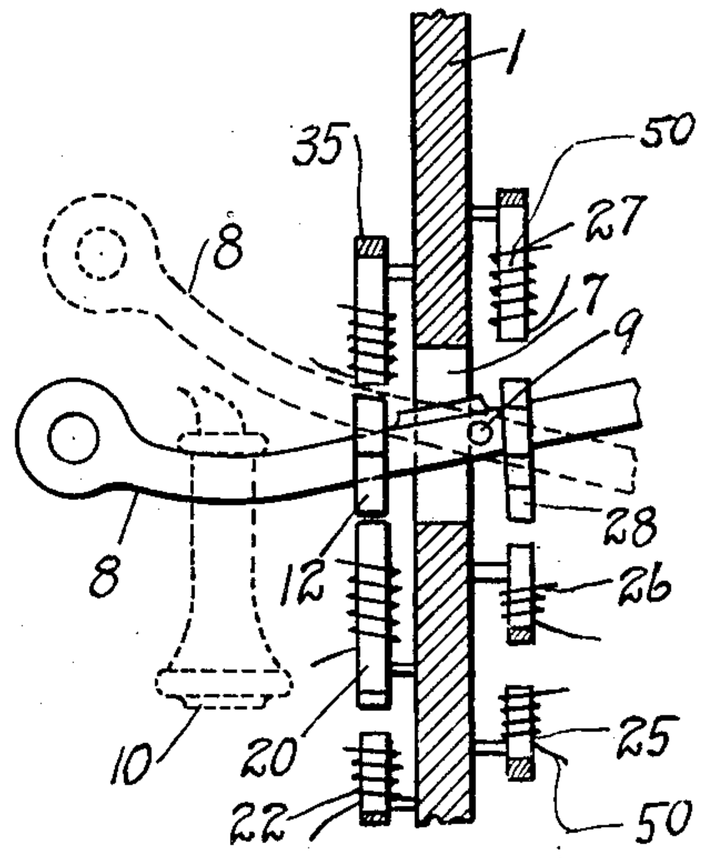

Fig 3

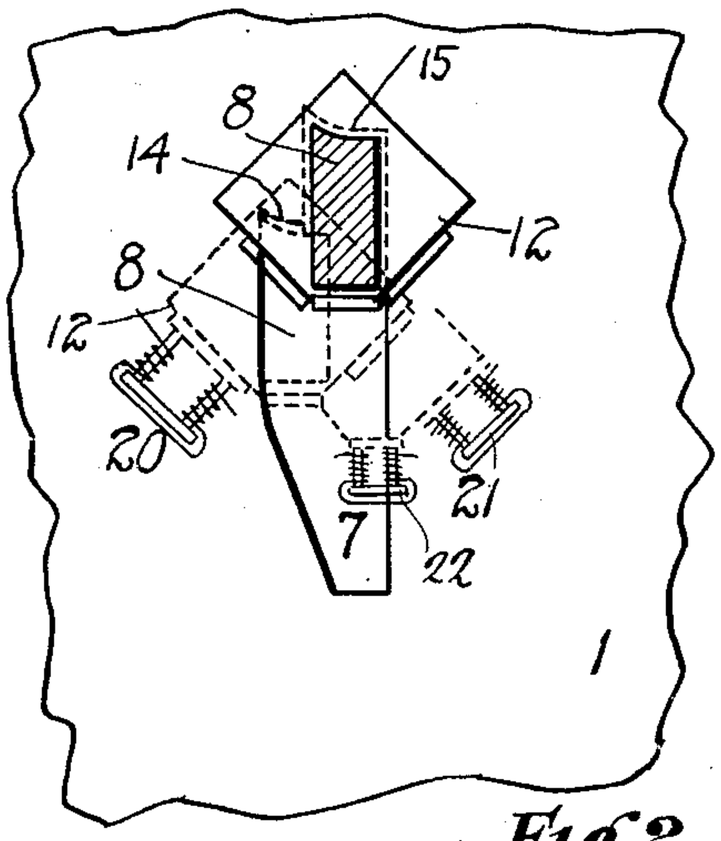

Fig 2

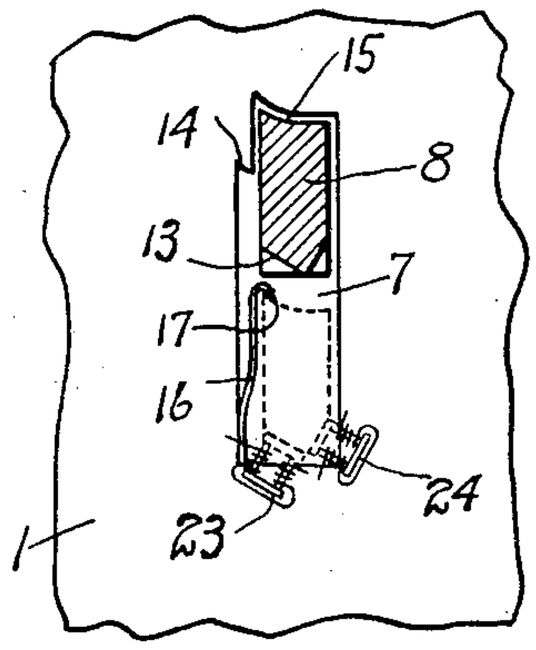

Fig 4

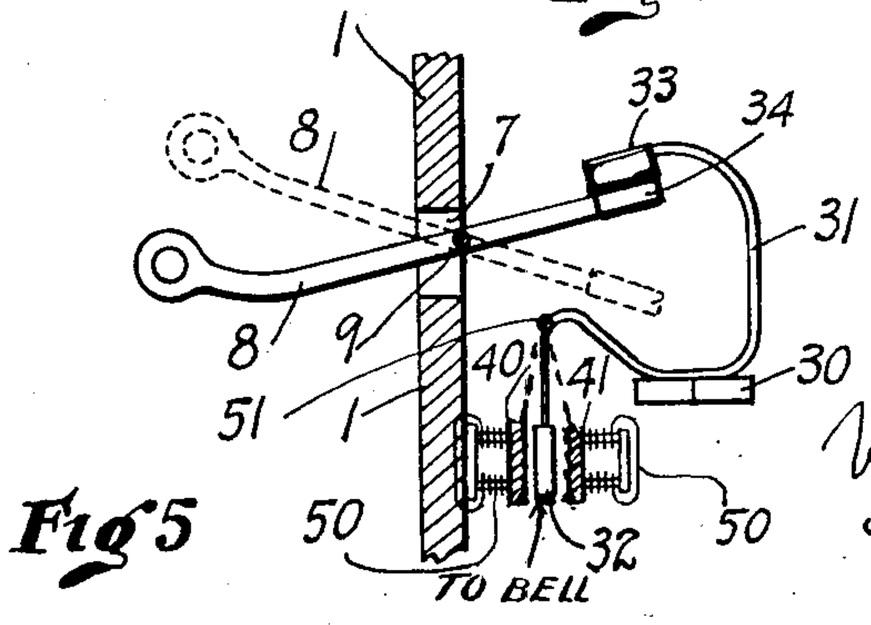

Fig 5

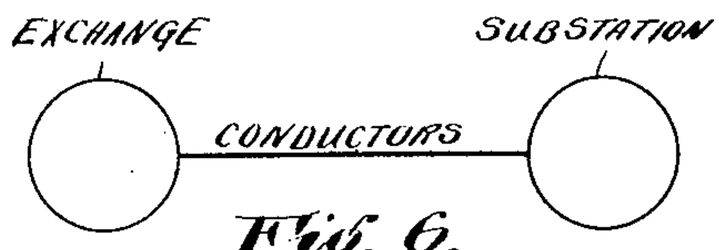

Fig. 6.

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UNITED STATES PATENT OFFICE.

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TELEPHONE-OPERATING DEVICE.

1,350,737.

Specification of Letters Patent. Patented Aug. 24, 1920.

Application filed March 2, 1917. Serial No. 152,104.

To all whom it may concern:

Be it known that I, WILLIAM H. RIESS, a citizen of the United States, residing at the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Telephone-Operating Devices, of which the following is a specification.

The object of my invention is to place the telephone in the hands of the operator at the exchange, so that many troubles now incident to the careless or unwarranted use of the telephone can be remedied from the exchange.

A great deal of trouble is experienced by the telephone exchange when users inadvertently leave the receiver off of the cut out or lever, or when it is left off to call some one, or is placed mouth down upon a table; in the first instances it may be desirable to call the user and in the latter he cannot be called as no sound can be emitted from the mouth or trumpet end of the telephone on account of the position in which it is resting.

Under some of these circumstances it is impossible to reach the user and notify him. It is often desirable for the exchange to call the user or owner, whether the telephone is in use or out of use, for some reason and it is impossible to do so.

The object of my invention is to place the telephone at all times and under all conditions under the direct manipulation of the exchange operator, so the user or owner can be called up or notified.

Under this system time can be saved, to the exchange and user, the service can be bettered, electric energy saved and the use of the telephone enhanced in value.

In the accompanying drawings forming part of this specification,

Figure 1, is a side view of a telephone instrument box with receiver removed and my invention in position,

Fig. 2, is a similar view, the box being broken away, the cut out or lever being in section,

Fig. 3, is a section of the side wall of the telephone box of the instrument with the system of magnets and parts shown in elevation being a modified form,

Fig. 4, is a modified form,

Fig. 5, is a section of side wall of telephone box, with magnets and connecting parts shown in elevation, being a modified form, and

Fig. 6, is a plan view showing exchange and substation united by conductors.

The character 1 designates the side of the telephone box of the telephone instrument, 2 is the back, 3 the top, 4 the bottom, 5 the front and 6 is the call bell.

In the side wall 1 is a slot or aperture 7. In this slot the cut out or lever 8 is moved up and down and works or tilts on a pivotal point 9. In Fig. 3 the cut out 8 is shown down with the receiver 10 suspended therefrom and the dotted lines show the cut out up in its normal position, the receiver being removed.

On the cut out or lever 8, I place a metal piece 12 which acts as an armature for the magnets. I provide a series of magnets of the proper character and power. These magnets in Figs. 1, 2 and 3 on the outside of the instrument are marked 20, 21 and 22 and the magnets in Fig. 4 are marked 23 and 24.

In Fig. 3 on the inside, if I desire, I may place magnets as 25, 26 and 27 which work and operate in connection with a contact point or armature 28 on cut out or lever 8. I may also place a magnet 35 above the cut out or lever 8 as shown in Fig. 3.

In Fig. 5, I place contact point 34 on the end of the cut out or lever 8, being the same as now used. On the inside of the wall 1, I place a contact point 40 and away therefrom but in alinement therewith, I place a magnet 41. The spring 31 is of the peculiar shape shown and is fastened at the point 30. At its upper end it carries a contact point 33 which works in connection with contact point 34 on lever 8. At the lower extremity of spring 31 I place a contact point 32. The wires are marked 50.

Near the top of the slot 7, at one side, I place or form an offset 14 shaped as shown, and the top of the lever 8 at 15 is also curved or shaped to fit said offset 14. In Fig. 4, I show the bottom edge of lever 8, beveled as shown at 13, and in this figure, I show a spring 16 attached inside of slot 7, which spring has at its upper extremity a hook 17.

It will, of course, be understood that magnetic action is communicatingly connected and disconnected with the exchange to each

telephone, so that the operator at the telephone exchange can reach any particular telephone desired.

If the exchange desired to pull down the lever or cut out 8, connection is established between the contact point 12 and the magnetic action of armature 20, this pulls the lever 8 down as shown in dotted lines, the peculiar shaped edge 15 on lever 8 slipping over under the offset or notch 14; if the exchange desires to place the cut out 8 into another position it uses a stronger magnet 21 which pulls the lever or cut out 8 out from under the notch 14. The magnet 22 can be used to pull the cut out or lever 8 down vertically in slot 7. The magnet 35 in Fig. 3 can be utilized to pull up the lever or cut out. The magnets 25 and 26 can pull the lever 8 down and the magnet 27 can pull said lever up as desired by the exchange.

In the device shown in Fig. 4, the magnet 23 will pull down the lever 8 into the position shown in dotted lines, the edge 15 catching under the edge or hook 17 of spring 16; and the magnet 24 will pull it off and away from this position.

The incoming electric wires in the telephone instrument are connected and disconnected by means of magnets and electric power operated through and from the telephone exchange. Through this agency the operator at the telephone exchange may, independently of the cut out or lever, force the contact point 32 to operate in connection with either contact point 40 or 41 to ring the call bell or to cut off said ringing. This operation is now done through the medium of the cut out or lever 8, or some analogous means, so that my invention enables me to ring the bell of any telephone independently of said lever or cut out whether said lever is up or down or the receiver is on or off.

It will be understood that the magnets and connections may be of any form, shape or character best adapted to carry my invention into effect and they may be connected in any expedient manner and the communication between the exchange and the individual telephones may be of any approved form.

While I have described specifically the means for carrying my invention into effect, it will be obvious that the same may be changed and modified without departing from the spirit of the invention and I wish to be understood as claiming that such changes and modifications will still fall within the scope of my invention.

What I claim as new and my invention and desire to secure by Letters Patent is:

1. In telephone operating devices, electric communication between an exchange and individual telephones, a cut out and a receiver and connecting parts, and independent means for enabling the exchange to raise or lower said cut out, whether the receiver is on or off or the line is in or out of use.

2. In telephone operating devices, electric communication between an exchange and individual telephones, a cut out and a receiver and connecting parts, and means comprising magnets and connections enabling the exchange to independently raise or lower the cut out, whether the receiver is on or off or the line is in or out of use.

3. In telephone operating devices, electric communication between an exchange and individual telephones, a cut out and a receiver and connecting parts, and means comprising magnets and connections enabling the exchange to independently raise or lower the cut out, whether the receiver is on or off or the line is in or out of use, enabling the exchange to ring the bell if desired.

Witness my hand at Cincinnati, Ohio, February 27th, 1917.

WILLIAM H. RIESS.

Witnesses:
H. E. Carstens,
John W. Strehli.