Feb. 6, 1934. C. B. ROWELL 1,945,956

TELEPHONE STAND AND LIGHT

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FIG. 1.

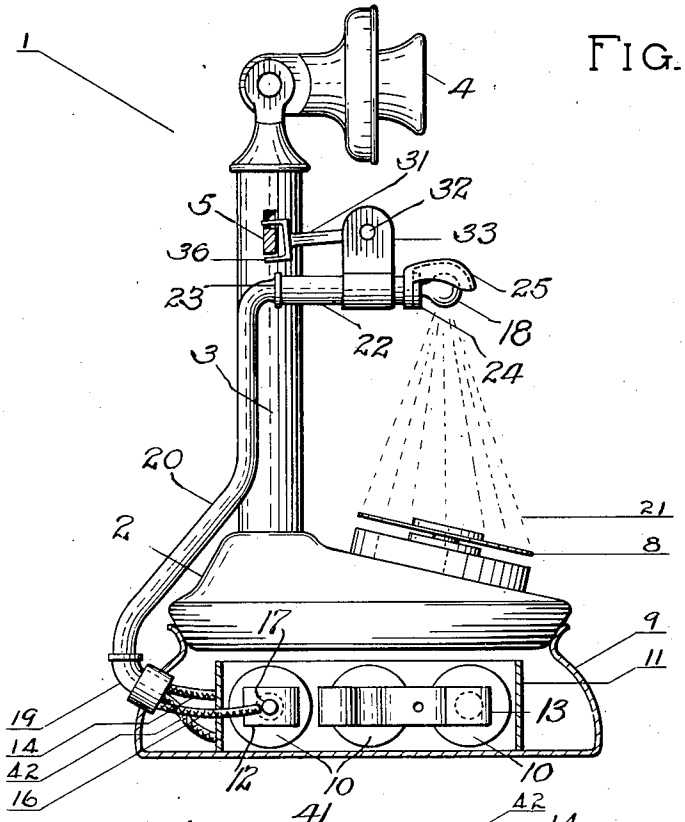
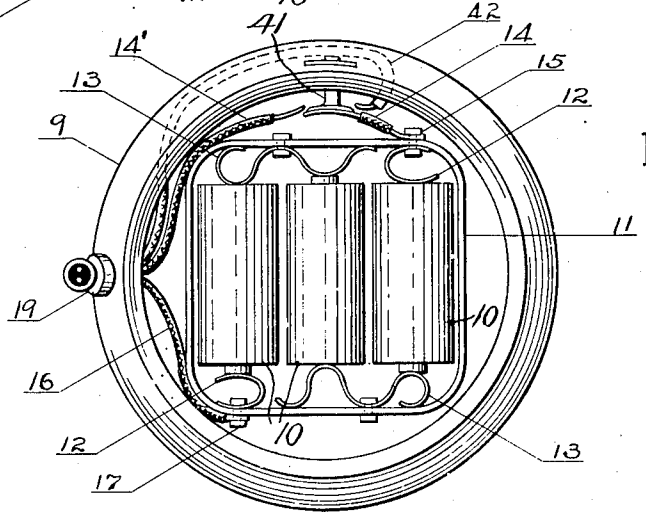


FIG. 2.



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FIG. 3.

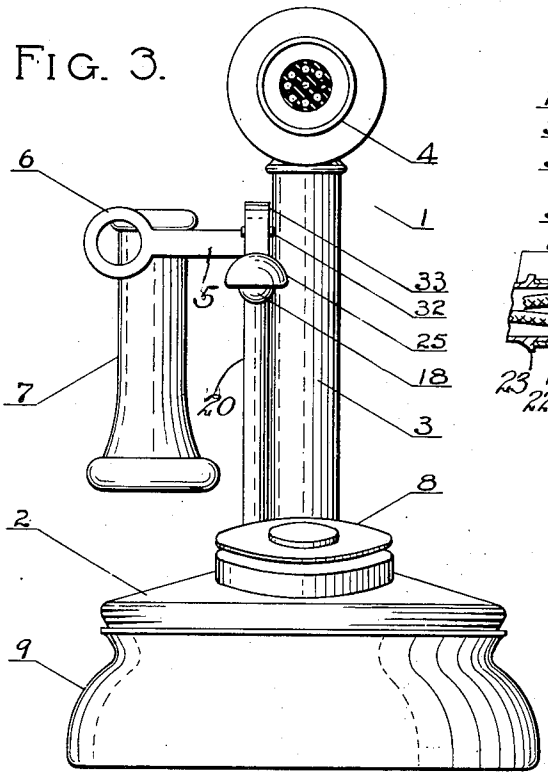
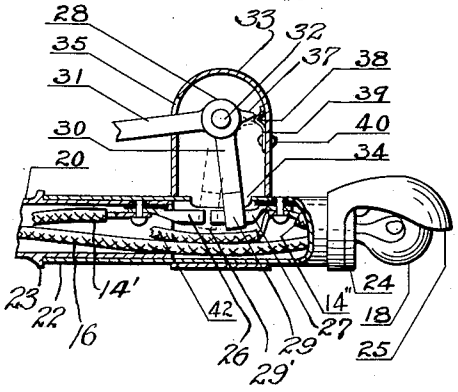


FIG. 4.



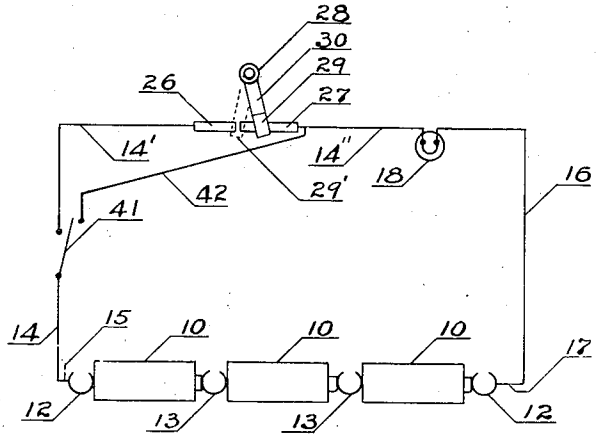


FIG. 5.

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TELEPHONE STAND AND LIGHT

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Application October 29, 1932. Serial No. 640,223

3 Claims. (Cl. 240—2.17)

My invention relates to telephones and more particularly to devices for facilitating their use.

The main object of this invention is to provide a stand for holding a telephone instrument in a fixed position and without said stand or instrument being attached to each other in any way.

Another object is to provide means in connection with said stand for illuminating the dial of the telephone instrument.

Another object is to provide means for automatically closing a switch to illuminate the telephone dial when the receiver is removed from its supporting arm and to automatically open said switch when the receiver is replaced on said arm.

Other objects and advantages of my invention will become apparent from the following description when taken in connection with the accompanying drawings.

In the accompanying drawings wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a side elevation of a dial telephone mounted on my improved stand with its lighting attachment for illuminating the dial. The stand and battery holder are shown in section as is also the receiver arm. The automatic switch is in its "off" position as when the receiver is on the arm, while the dotted lines from the electric light bulb indicate the manner of illuminating the dial when the bulb is lighted.

Fig. 2 is a plan of the stand without light standard and showing the batteries and their connections.

Fig. 3 is a front elevation of the telephone when mounted on my stand.

Fig. 4 is an enlarged sectional view of the automatic lighting switch.

Fig. 5 is a diagrammatic view of the wiring from the battery cells to the electric light through the switches.

Referring to the drawings, 1 denotes in general an automatic or dial telephone of the conventional construction, the same including a base 2 and a body 3 with a transmitter 4 mounted on the upper end thereof. A vertically movable arm 5 projects horizontally from near the top of body 3 and its outer end formed with the usual yoke 6 to support the telephone receiver 7 when the latter is not in use. Directly below the transmitter 4 and mounted on the base 2 is the dial 8 having the usual figures and letters and operable for enabling one person to make the desired telephone connection with another person.

In the form of my invention shown in Fig. 1, I provide a stand 9 circular in shape, open at the top and flaring out to conform to the taper of the base 2 at its sides next to the bottom. When the telephone 1 is then placed on my stand 9 its base 2 wedges into the open flared top of said stand 9 holding and supporting said telephone in a fixed position. No attachments are used to connect the telephone and stand, so with the exception of the contact between the telephone base 2 and the stand 9 they are independent of each other and can be separated by merely lifting the telephone from the stand.

Within the stand 9 I place three dry cells 10 for supplying the electric current, said cells 10 being removably held in position in an insulating frame 11 by means of spring clips 12 and 13. Spring clips 12 are single clips for connecting a cell to its adjacent wire, while spring clips 13 are double clips for connecting the top end of one cell to the adjacent bottom end of another cell as shown in Fig. 2.

The electric circuit from the cells 10 to light the bulb 18 consists of wire 14 attached to connection 15 at one pole of said cells 10 to hand switch 41, wire 14' to automatic switch 28, wire 14'' and from a connection 17 at the other pole of said cells 10 through a wire 16. A second circuit is also provided which is controlled by hand switch 41 to by-pass the automatic switch 28 and light the bulb 18 at the same time the receiver 7 is on arm 5 and holding switch 28 in an "off" position. This second circuit consists of the wire 14, switch 41, wire 42, wire 14'' to bulb 18 and wire 16.

A light standard is composed of an elbow 19 firmly fixed in the stand 9 and into which is fastened a rigid and vertically projecting tube 20 having at its upper end a horizontal portion for supporting the light bulb 18 in a fixed and steady position above the dial 8 so the rays of light 21 (Fig. 1) may fall upon said dial 8. The light standard houses the wires from the stand 9 to the bulb 18. Referring to Fig. 4, 22 is a piece of tubing telescoping over the upper end of tube 20 to a stop 23. 24 is the socket end of 22 for receiving the bulb 18 and holding the reflector 25.

The wire 14' (Fig. 4) has a contact 26 and wire 14'' a contact 27 which are connected by means of an automatic switch 28. Contact piece 29 on the end of, and insulated from, arm 30 of switch 28 makes a wiping contact with 26 and 27 when in the dotted position 29'. Contact 26 is attached to, but insulated from, tube 20

while contact 27 is attached to, but insulated from, the telescoping tube 22.

Switch 28 is in the form of a bell crank with arms 30 and 31 at right angles and pivoted at 32 in the housing 33. The housing 33 is fastened to tube 22 and covers the slot 34 in tube 22 through which the arm 30 projects. Arm 31 projects throgh slot 35 in housing 33 and terminates in a fork 36 to span the telephone arm 5 as shown in Fig. 1. 37 is a finger on switch 28 to engage a projection 38 on spring 39 and hold said switch in the "off" position as shown in Figs. 1 and 4 or in the "on" position with the contacts 26 and 27 connected by the contact 29' and the finger 37 in the dotted 37' position. The spring 39 is fastened at one end to housing 33 by rivet 40 and with projection 38 on the free end.

The action of the spring 39 is to engage the finger 37 by means of the projection 38 and throw or assist in throwing the switch 28 to an "on" or "off" position when said finger has passed over the center of said projection 38 and depending on the strength of spring 39. Said projection 38 also holds said switch 28 in either an "on" or "off" position with the fork 36 spanning the telephone arm 5 but without touching it as shown in Fig. 1.

When the receiver 7 is removed from arm 5, said arm 5 moves upward by means of the usual telephone construction and in so doing contacts with fork 36 to start the movement of switch 28 and carry finger 37 past the center or highest point of projection 38. When said finger 37 has passed the peak of 38, said 38 completes or assists in completing the throwing said switch from an "off" to an "on" position. Replacing receiver 7 on arm 5 reverses the operation of throwing switch 28 from an "on" to an "off" position.

To place the telephone 1 on the stand 9 the telescoping tubing 22 is moved to the right on the upper end of tube 20 to carry the fork 36 away from arm 5 of telephone and after telephone 1 is placed on stand 9 the tubing 22 is moved to the left and the fork 36 is in position shown in Figs. 1 and 4. The slack in wires 16 and 42 allows for this telescoping movement.

The hand switch 41 shown in Fig. 2 extends through the stand 9 and is arranged to be moved in one direction to connect the wires 14, 14' and 14'' from batteries 10 to bulb 18 through automatic switch 28, and in the opposite direction to connect wires 14, 42 and 14'' from batteries 10 to said bulb 18. Switch 41 is ordinarily left in position to connect wires 14 and 14' so the bulb 18 will be automatically lighted by switch 28 on the removal of receiver 7 from arm 5. Then switch 41 can be thrown by hand to connect wires 14 and 42 if the light is needed without removing receiver 7 from arm 5. Or the automatic switch 28 can be thrown out of action and the hand switch 41 used exclusively.

Thus it will be seen that I have provided a stand device for holding a telephone in a fixed position and so its dial can be lighted from said stand without being attached to the telephone instrument or without touching said instrument except as it rests on the stand. And it can be made to automatically light said dial on the removal of the telephone receiver without being attached to said telephone instrument.

The construction, arrangement and relationship of the parts may be varied within the scope of equivalents and the appended claims without departing from the spirit and principle of the invention.

Having thus described the invention what I claim is:

1. A telephone and light supporting means for use with a telephone instrument formed with a base, a body, a receiver and an arm projecting from said body to hold said receiver, comprising a stand with a flared top for fixedly supporting said instrument, a light standard fixed to said stand, a telescoping upper end to said standard, a switch lever in said telescoping end movable into operable position with said receiver arm by said telescoping end, a bulb in said telescoping end, a battery in said stand, circuit means to connect said battery and said bulb through said standard, a manual and an automatic switch in said connecting circuit means, said automatic switch including said lever operable by said receiver arm to start said automatic switch toward an "off" or an "on" position and means whereby said lever and arm are spaced apart on either said "on" or "off" position.

2. A telephone and light supporting means for use with a telephone instrument formed with a base, a body, a receiver and an arm projecting from said body to hold said receiver, comprising a stand for supporting said instrument, a light standard fixed to said stand, a telescoping upper end to said standard, a forked switch lever carried by said telescoping end and movable by said end to a co-operative position with said arm, a bulb in said telescoping end, a battery in said stand, circuit means to connect said battery and said bulb through said standard, an automatic switch in said connecting circuit means, said automatic switch including said forked lever to span and be operated by said arm without contact therewith at the "on" and "off" position of said switch, and means whereby said forked lever is moved away from said arm.

3. A telephone and light supporting means for use with a telephone instrument formed with a base, a body, a receiver and an arm for holding said receiver, comprising a stand for supporting said instrument, a light standard fixed to said stand, a bulb in the upper end of said standard, a battery in said stand, circuit means to connect said battery and said bulb through said standard, a manual and an automatic switch in said circuit means, said circuit means forming two electrical circuits, the first of which contains only the manual switch and the second of which contains both the manual and automatic switches, said automatic switch including a lever with a forked end spaced above and below said receiver holding arm in both its "on" and "off" positions, and operable to its "on" position by removal of said receiver from said arm and operable to its "off" position by replacing said receiver on said arm, said manual switch movable in one direction to close the first circuit only to light said bulb and in the opposite direction to close the second circuit in conjunction with the automatic switch in its "on" position to light said bulb.

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