L. ROSENWALD & J. H. R. ANTHONY.

ANTISEPTIC ATTACHMENT FOR TELEPHONE MOUTHPIECES.

APPLICATION FILED SEPT. 16, 1909.

951,844.

Patented Mar. 15, 1910.

Fig. 1.

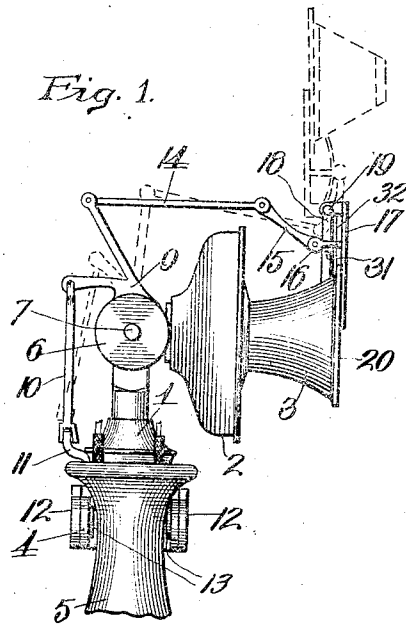


Fig. 2.

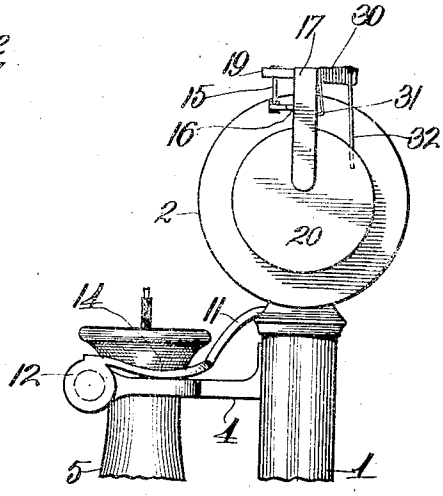


Fig. 3.

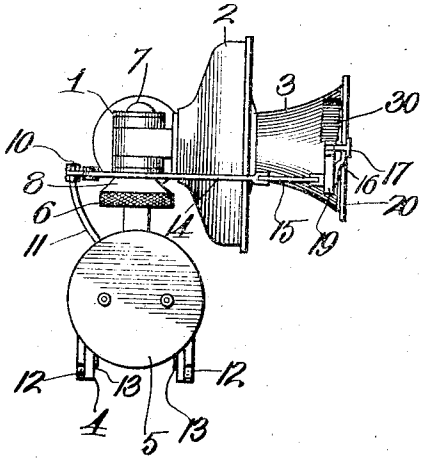


Fig. 4.

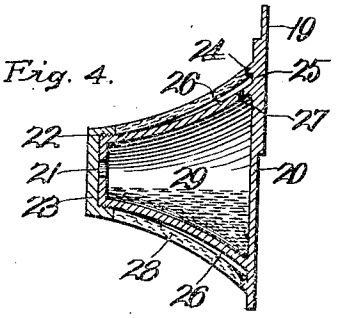
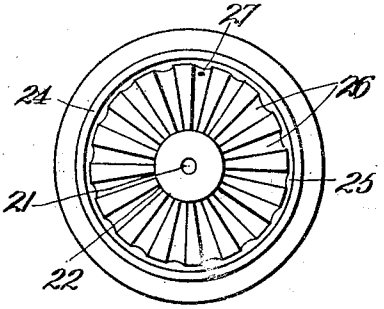


Fig. 5.



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UNITED STATES PATENT OFFICE.

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ANTISEPTIC ATTACHMENT FOR TELEPHONE-MOUTHPIECES.

951,844. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed September 16, 1909. Serial No. 518,116.

To all whom it may concern:

Be it known that we, LUCIAN ROSENWALD and JOHN H. R. ANTHONY, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, and Kansas City, Wyandotte county, State of Kansas, have invented certain new and useful Improvements in Antiseptic Attachments for Telephone-Mouthpieces, of which the following is a specification.

This invention relates to antiseptic attachments for telephones and more especially for telephone mouthpieces, and our object is to produce an attachment of this character which automatically engages or withdraws from the mouthpiece accordingly as the receiver is upon or removed from the hook.

A further object is to produce an attachment of this character which, when disengaged from the mouthpiece, is not affected by vibratory movement of the telephone hook.

A further object is to produce an attachment embodying a mouthpiece plug containing liquid antiseptic and an absorbent material to which such liquid antiseptic has access only when the plug is disengaged from the mouthpiece, that is to say while the telephone is in use.

With these general objects in view and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which;

Figure 1, is a side elevation of the upper part of a desk telephone set equipped with an antiseptic attachment embodying our invention. Fig. 2, is a front view of the same. Fig. 3, is a top plan view of the same. Fig. 4, is a full-size central vertical section of the plug of the attachment. Fig. 5, is a face view of the same, with parts omitted.

In the said drawing in which like reference characters identify corresponding parts, 1 is the standard or upright of a telephone set provided with the usual pivoted transmitter 2 equipped with the usual mouthpiece 3 and the pivoted hook 4 for the support of the receiver 5 all of these parts being of ordinary and well known construction.

6 indicates the usual clamping nut engaging the pivot bolt 7 for the purpose of securing the transmitter and hence the mouthpiece at the desired angle, and pivoted for free movement on the reduced portion 8 of said nut is a bell-crank lever 9 connected pivotally by a link 10 with the rear end of a substantially Y-shaped lever 11, the outer ends of the arms of said lever having depending heads 12 having cylindrical pivot-studs 13 pivotally engaging the outer ends of the arms of the hook 4, the said arms of the lever 11 being disposed above the arms of the hook and of curved form in side view to provide depressions in their upper sides so as to be capable of receiving and supporting the receiver without danger of accidental dislodgment of the same, the weight of the receiver being adapted to be transmitted by said lever to the overlying hook to depress the same in the customary manner.

14 is a link pivotally connecting the bell-crank lever with a fulcrum-link 15 pivotally connected to an arm or pin 16 projecting from a swing-arm 17 pivotally mounted on a standard 18 rigid with and projecting upward from the mouthpiece, the pivot 19 of said swing-arm projecting laterally as shown in Figs. 2 and 3, for a purpose which hereinafter appears.

Secured rigidly to the swing-arm and cast integral with the same as shown most clearly in Fig. 4 is a hollow truncated cone-shaped plug 20 having an opening 21 in its smaller end through which a liquid antiseptic is adapted to be supplied and externally threaded at such end at 22 for the reception of a screw-cap 23 whereby said cap shall close the opening with a liquid-tight relation. The base or larger end of the plug is provided at its side adjacent to the cap with a circular flange 24 concentric with and spaced from the body-portion of the plug so as to form a circular channel 25, and said body-portion is formed externally with channels 26 communicating with the circular channel 25 and tapering toward the threaded end of the plug, the body-portion being provided with a drain-hole 27 connecting the interior of the plug with the larger end of one of said tapering channels 26.

28 is a cone-shaped envelop or wrapper upon the body-portion of the hollow cone and bridging its channels 26 and bearing

at its opposite end against flange 24 and the cap 23 and held reliably in position by the latter.

The cone described normally fits snugly in the mouthpiece with its absorbent envelop or wrapper in engagement with the inner side of the mouthpiece and when in such position the drain-hole 27 is disposed upwardly and as a result it is impossible for the liquid antiseptic 29 to escape from said drain-hole. When the telephone is in use the plug occupies substantially the position shown by dotted lines Fig. 1—which position is inverted with respect to Fig. 4—so that the liquid is free to seep slowly through the drain-hole which is of exceedingly minute size, into the communicating channel 26 from which it flows into the lower part of the circular channel 25 and onto the lower part of the absorbent envelop or wrapper which takes up such liquid as fast as it flows and by capillary attraction distributes it substantially uniformly.

For the purpose of automatically swinging the plug from operative to inoperative position when the receiver is removed from its support we preferably employ a spring, in this instance a torsion spring 30 mounted on one end of pivot pin 19 and having one of its ends 31 secured to standard 18 and its other end 32 pressing against the base of the plug, so that when the receiver is removed said spring shall swing the plug from its operative position shown in full lines, to its inoperative position shown in dotted lines, it being noticed that in this action the fulcrum-link 15 is swung upward and forward below pin 19 to a position forward of the same and that the rear end of the Y-shaped lever is raised by upward movement imparted to link 10, the telephone hook of course swinging upward as usual, at the same moment.

When in the position described the telephone may be used, and if central's attention is desired the telephone hook may be vibrated vertically without affecting the plug, as the link 10 will swing back and forth upon the bell-crank lever 9 to accommodate the up and down movement of the lever 11. When the conversation is ended the receiver is slipped into the forked end and upon the arms 14 of lever 11, its weight being sufficient to overcome the resistance of spring 30 and swing the plug down into the mouthpiece and also effect the depression of the hook. The slight downward movement of the lever 11 and hook 4 would be insufficient to swing the plug through an arc of the desired extent if it were not for the fact that the link 15 fulcrums on pivot pin 19 in the first part of such movement and thus swings the plug from the position shown in dotted lines nearly to its closed position in a small fraction of the downward movement of hook 4. After the plug has made the greater part of its movement and is about to enter the mouthpiece link 15 passes out of engagement with pivot pin and moves bodily rearward until the plug is completely inserted in the mouthpiece and the hook 4 has completed its downward movement.

From the above description it will be apparent that we have produced an antiseptic attachment for telephone mouthpieces embodying the advantages enumerated as desirable in the statement of the object of the invention and which is susceptible of modification in various particulars without departing from the spirit and scope or sacrificing any of the advantages of the appended claims.

Having thus described the invention what we claim as new and desire to secure by Letters-Patent, is:

1. The combination with a telephone, of a plug bearing a pivotal relation to the mouthpiece of the telephone, a lever bearing a pivotal relation to the free end of the telephone hook and adapted as a support for the receiver, means for yieldingly holding the plug withdrawn from the receiver, and means whereby downward movement of the telephone hook and said lever shall overcome the resistance of said yielding means and cause said plug to enter and fit snugly in the said mouthpiece.

2. The combination with a telephone, of a plug bearing a pivotal relation to the mouthpiece of the telephone, a lever bearing a pivotal relation to the free end of the telephone hook and adapted as a support for the receiver, means for yieldingly holding the plug withdrawn from the receiver, a pivoted bell-crank lever, a link pivotally connecting one arm of said bell-crank lever with the first-named lever, and connections between the other arm of said bell-crank lever and said plug for transmitting motion from the plug to the bell-crank lever and vice versa.

3. The combination with a telephone, of a plug bearing a pivotal relation to the mouthpiece of the telephone, a lever bearing a pivotal relation to the free end of the telephone hook and adapted as a support for the receiver, a spring for yieldingly holding the plug withdrawn from the mouthpiece, and means whereby the downward movement of the telephone hook and said lever shall overcome the resistance of said yielding means and cause said plug to enter and fit snugly in the said mouthpiece.

4. The combination with a telephone, of a plug bearing a pivotal relation to the mouthpiece of the telephone, a lever bearing a pivotal relation to the free end of the telephone hook and adapted as a support for the receiver, a spring for yieldingly holding

the plug withdrawn from the mouthpiece, a pivoted bell-crank lever, a link pivotally connecting one arm of said bell-crank lever with the first-named lever and said plug for transmitting motion from the plug to the bell-crank lever and vice versa.

5. The combination with a telephone, a post above and bearing a rigid relation to the mouthpiece, a pivot pin carried by said post and projecting laterally therefrom, a plug to enter and withdraw from the mouthpiece and pivoted on said pin, a link pivotally connected to said plug and adapted at times to fulcrum on the laterally projecting pivot pin, a bell-crank lever bearing a pivoted relation to the telephone, a link pivotally connecting said lever with said fulcrum link, a link pivotally connected to said bell-crank lever, a forked lever pivoted at one end to the last-named link and at the other end to the forked end of the telephone hook, and yielding means for swinging the plug out of and above the mouthpiece and for causing the fulcrum link to engage said pivot pin and through the links and bell-crank lever to swing the rear end of said forked lever upward.

6. The combination with a telephone, a post above and bearing a rigid relation to the mouthpiece, a pivot pin carried by said post and projecting laterally therefrom, a plug to enter and withdraw from the mouthpiece and pivoted on said pin, a link pivotally connected to said plug and adapted at times to fulcrum on the laterally projecting pivot pin, a bell-crank lever bearing a pivoted relation to the telephone, a link pivotally connecting said lever with said fulcrum link, a link pivotally connected to said bell-crank lever, a forked lever pivoted at one end to the last-named link and at the other end to the forked end of the telephone hook, the arms of the forked lever having depressions in their upper sides as a reliable support for the telephone receiver, and yielding means for swinging the plug out of and above the mouthpiece and for causing the fulcrum link to engage said pivot pin and through the links and bell-crank lever to swing the rear end of said forked lever upward.

7. In an antiseptic attachment for telephone mouthpieces, a hollow plug of conical form having an opening in its smaller end, upwardly-tapering external channels, a channel connecting the lower ends of said upwardly-tapering channels and a drain-hole connecting one of said tapering channels with the interior of the plug, a cap closing the said opening in the plug with a liquid-tight relation, and an absorbent wrapper around the body portion of the plug between the cap and the base of the plug and bridging the tapering channels thereof.

8. In an antiseptic attachment for telephone mouthpieces, a hollow plug of conical form having an opening in its smaller end, upwardly-tapering external channels, a channel connecting the lower ends of said upwardly-tapering channels and a drain-hole connecting one of said tapering channels with the interior of the plug, a cap closing the said opening in the plug with a liquid-tight relation, and an absorbent wrapper around the body portion of the plug between the cap and the base of the plug and bridging the tapering channels thereof, in combination with a telephone, means supporting the plug in pivotal relation to the mouthpiece so that the latter may swing into and out of the mouthpiece, yielding means for withdrawing the plug from the mouthpiece, means for supporting the receiver of the telephone, and suitable connections between the last-named means and the mouthpiece whereby, when said supporting means carries the mouthpiece it shall be caused by the weight of the receiver to move and overcome the resistance of said yielding means, and swing the plug into the mouthpiece.

In testimony whereof we affix our signatures, in the presence of two witnesses.

LUCIAN ROSENWALD.
JOHN H. R. ANTHONY.

Witnesses:
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