June 8, 1948. L. L. SATZ 2,442,988

LIGHT ATTACHMENT FOR TELEPHONES

Filed March 4, 1946

FIG. 1.

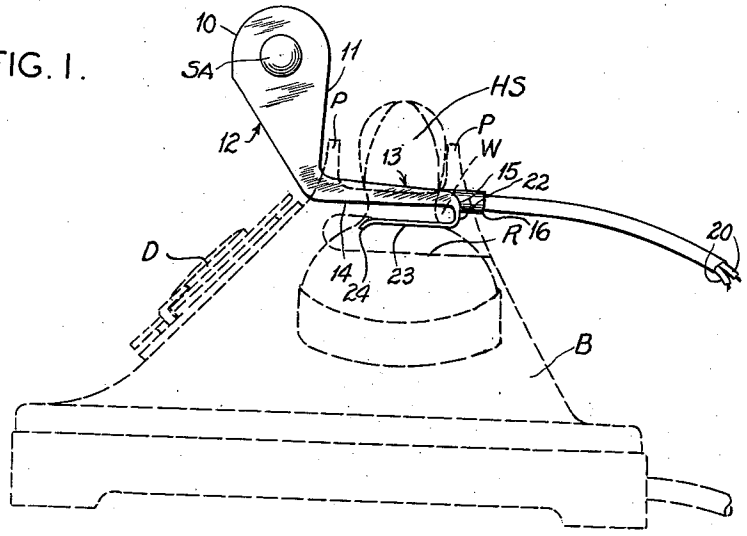



FIG. 2.

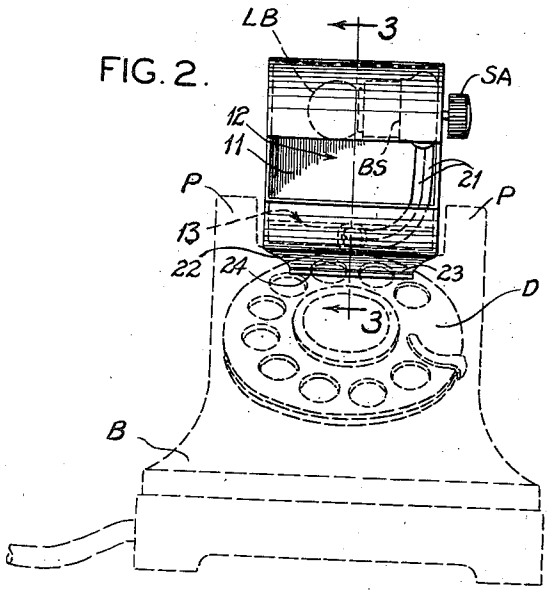



FIG. 3.

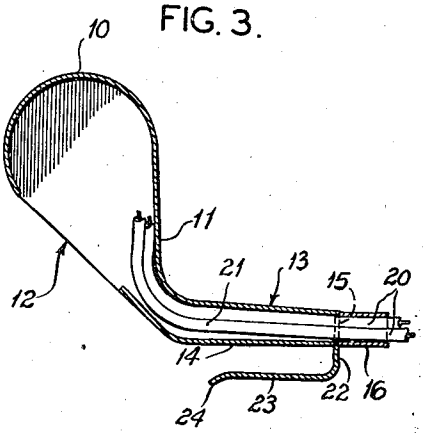
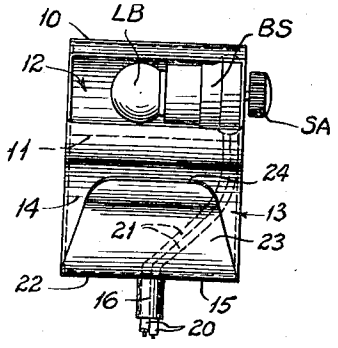



FIG. 4.




INVENTOR
LOUIS L. SATZ

BY
Robert B. Terry
ATTORNEY

Patented June 8, 1948

2,442,988

# UNITED STATES PATENT OFFICE

2,442,988

## LIGHT ATTACHMENT FOR TELEPHONES

Louis L. Satz, University City, Mo., assignor to The Phon-O-Lite Corporation, St. Louis, Mo., a corporation of Missouri

Application March 4, 1946, Serial No. 651,746

3 Claims. (Cl. 240—2.17)

1

This invention relates to improvements in light attachment for telephones, and more particularly to an attachment best suited for use with desk-type dial instruments, for the general purpose of providing an illuminant in the immediate region of the dial.

There have heretofore been suggested certain types of lighting attachments for phones, to facilitate dial operations and reduce possibilities of error therein. As far as is known, however, such attachments possess one or more of several serious disadvantages, among the more important of which may be mentioned the complications and costs incident to control of the light circuit through switching means associated with and, in some cases, disposed internally of the telephone instrument. This is obviously undesirable because of the necessity of added wiring, and the liability to electrical difficulties and interference with telephone circuits. Other attachments, heretofore suggested for this purpose, involve screw type clamps and other supporting and fastening accessories which are bound to mar, penetrate, abrade or otherwise partly impair the phone instrument. Although there prevail other minor objections to such older devices, it is a major and general objective of the present improvements to obviate the disadvantages above noted, and to attain a phone light attachment which is incapable of abrading or marring the phone instrument in any way, and which may be applied to or removed from the instrument without any tools, and by anyone, irrespective of his possible lack of experience or skill.

A further and important object of the invention is attained in a light fixture for attachment to phones, which is self-retaining in an optimum position of use, by virtue of a unique simplified clamp-on arrangement.

An additional object of importance is attained in a compact, light weight, easily fabricated attachment for the purpose noted, and which provides an advantageous disposition of lighting conductors or lead wires, whereby to avoid any possibility of fouling by the lighting conductors, of the usual conductors appurtenant to the telephone.

Yet another objective provision embodied in the presently illustrated example, consists in an improved body or bracket of the light attachment, and its juxtaposition to the cradle of a handset phone, whereby the bracket serves as a camming device or guide for the handset as same is lowered in place onto the cradle.

A general and important objective is attained

2

in a novel assembly of telephone light attachment which is of clean lines, attractive in appearance and characterized by an absence of projections, ledges, corners and the like, and which may readily be fabricated, without expensive tooling equipment, entirely from stock or readily obtainable materials.

The foregoing and numerous other objectives will more clearly appear from the following detailed description of a selected embodiment of the invention, particularly when considered in connection with the accompanying drawing, in which:

Fig. 1 is a side elevation of a desk type telephone with which the attachment is utilized;

Fig. 2 is a front elevation of the assembly;

Fig. 3 is a longitudinal median section in a vertical plane, showing the attachment in approximately full scale, and as viewed along line 3—3 of Fig. 2, and

Fig. 4 is a front elevation looking somewhat upwardly and forwardly into the hood or reflector portion of the attachment, shown separately from the phone.

Referring now by characters of reference to the drawing, the attachment in preferred form is illustrated and is particularly adapted for use on telephones of so-called desk type prevalently in use, and is intended for the primary purpose of illuminating the dial and dial regions thereof, so as to facilitate the dialing operation and to minimize errors therein. Figs. 1 and 2 show in dotted lines a base structure B and a handset HS, the handset normally reposing as shown, on the cradle located at the upper portion of the base. The front of the telephone base B is provided with a sloping surface on which is mounted for ready accessibility, the dial assembly generally indicated at D. In phones of this type the body B is provided with a finger recess for lifting the base, the approximate location of this recess being indicated at R in Fig. 1, and above which and just below the cradle, is a horizontal wall or deck portion W.

The cradle portion of the instrument may be taken as including the usual four upstanding lugs or posts P, a pair of these being located in line at each end of the cradle, and serving to position the grip portion of the handset HS therebetween. Each pair of end posts P are connected by a bridge, and the two bridges penetrated by normally depressed switch plungers (not shown). The foregoing description is introduced to render presently more meaningful the structure of the phone, but the elements thus far described obvi-

ously form of themselves no part of the present improvements.

Proceeding now to a description of the attachment per se, this consists preferably of what is virtually a one piece structure, although largely fabricated of sheet stock, for example, brass, which may be plated, if desired, for appearance. It is distinctly contemplated, however, to form the body of the attachment of certain of the synthetic resins or plastics, for example, any of the suitable injection-moulded compounds now available to the trade for comparable purposes For brevity, the example illustrated will be described as formed of sheet metal.

At the uppermost and forward end of the attachment, as will best appear from Figs. 1 and 3, is a substantially semi-cylindrical hood or reflector portion **10**, the length of which is preferably about the diameter of the significant portion of the dial D. The hood is supported by an integral tubular body portion **11**, which extends downwardly and rearwardly of the hood, and which is provided with an opening **12**, through which, as will appear, light is reflected directly downwardly upon the dial D. The portion **11**, as will now have appeared, is of a gradually diminishing rectangular cross section, and merges into and is angularly connected with a distinctly flattened tubular continuance thereof indicated at **13**. Thus, in lateral aspect the relation of parts **13** and **11** is such as to present a so-called gooseneck styling.

It will have appeared that the portion **13** is fully enclosed by substantial planar top and bottom walls, the latter indicated at **14**, and is provided with a substantially planar rear wall **15**, centrally of which, and of a diameter about equal to the depth of portion **13**, is an outlet thimble **16**, through which extend the lighting conductors or lead wires **20**. This provision of the thimble **16** and the noted location thereof, are preferred so as definitely to direct the conductors **20** distinctly rearwardly of the cradle portion of the phone, and substantially centrally away from the base B. The design is such as to prevent fouling of the usual phone conductors extending rearwardly of the lower portion of the base and endwise of the handset. It is obvious, of course, that conductors **20** may be collectively embraced and constitute parts of a single duplex cord, as shown by Fig. 1.

The illuminant or light bulb LB is preferably located about midway of the internal length of the reflector hood **10** and is carried by a suitable base, preferably for compactness and best appearance, also mounted internally of hood **10**, and by preference, being of a type including a built-in snap switch mechanism, the base and switch structure being generally indicated at BS, and provided with a switch actuating member SA projecting externally of the hood. The base and switch structure are preferably supported by one end wall of hood **10**, these ends being preferably circular.

The conductors **20** are preferably extended through an auxiliary internal conduit **21**, which extends from the base end of the hood **10** in a generally downward direction, thence horizontally traversing the portion **13** and may, if desired, extend outwardly through the outlet tube or thimble **16**.

The presently preferred provision for clampingly supporting the attachment on a phone of the type described, is the result of a number of experiments to arrive at a provision for this



purpose which cannot in any way mar, abrade, penetrate or disfigure the plastic material of the base B. This result has been admirably attained by utilizing the bottom wall **14** as one element of a jaw type clamp. The metal of the bottom of portion **13** is bent downward to form a flange **22**, projecting a distance approximating the depth of the deck portion of the body underlying the cradle and overlying the recess R. This metal is then extended forwardly to form the opposite jaw of the clamp shown at **23**, and terminates in a free, somewhat downturned end **24**. At least one of the jaw portions **23** or **14**, preferably **23**, is of a tempered or resilient nature, so that the jaws may be yieldably displaced apart when the device is applied to the phone, as will later be described, and yet will serve clampingly to engage the deck portion and retain the attachment firmly in position.

It is greatly preferred to form the attachment, particularly the body thereof, of a substantially uniform width. It is particularly desired so to form the portion **13** that it will substantially fill the space between the posts P of the cradle, which thus serve definitely to fix the transverse position of the attachment in relation to the phone, and definitely to assure alignment thereof, in cooperation with the clamp constituted by elements **23—14**.

The manner of application and usage of the attachment is thought to have been fully apparent from the foregoing description of its elements, but it may be briefly noted that the device may be easily applied by anyone, without tools, merely by lifting the handset HS, positioning the attachment somewhat rearwardly of the cradle, then moving it horizontally and forwardly so that the opposite jaws of the clamp **23—14** receive therebetween the deck portion W just below the cradle. The final position of usage of the device will be definitely determined by abutment of the rear deck margin, by the bight **22** being the flange of the clamp. Removal of the attachment is, now obviously effected merely by again lifting the handset and sliding the attachment rearwardly and horizontally, to an extent sufficient to cause the jaws **14** and **22** to be disengaged from the deck above the finger recess normally provided for lifting the base of the phone.

The conductors **20** will of course be connected to some standard type of plug insertable in a usual electric outlet. Upon being thus connected, and the attachment in place, it is merely necessary to actuate the light switch through member SA when dial illumination is desired.

Although the invention has been described by making reference to a single preferred embodiment, the detail of description is to be understood solely in an illustrative, rather than in any limiting sense, numerous variants being possible within the scope of the claims hereunto appended.

I claim as my invention:

1. A dial-illuminating attachment for telephones of desk type having a handset cradle and a base recess below the cradle, the attachment consisting of a jaw clamp arranged to embrace the base portion above the recess, the clamp including one jaw adapted to extend into the recess and a companion jaw carrying a tubular portion extended upwardly and forwardly of the cradle, a reflector hood at the outermost end of the tubular portion, an electric illuminant in the hood, and conductors extending from the illuminant

through the tubular portion and rearwardly from the base in a zone rearwardly of the cradle.

2. A dial-illuminating attachment for telephones of desk type having a handset cradle and a base below the cradle, the base having a lifting recess immediately below the cradle, the attachment consisting of a jaw clamp arranged to embrace the upper wall of the base immediately above the lifting recess, the clamp comprising two spaced, resiliently related jaws characterized by smooth, wide substantially planar gripping surfaces, one such jaw normally extending into the lifting recess, the other jaw carrying a tubular portion extended upwardly and forwardly of the cradle, a reflector hood at the outermost end of the tubular portion, an electric illuminant in the hood, the tubular portion being of a length to extend transversely of and to traverse the cradle beneath the handset when in repose, and conductors extending from the illuminant through the tubular portion and rearwardly of the base.

3. A dial lighting attachment for use with a telephone of desk type which is characterized by a base and handset, includes a handset cradle on top of the base and is provided with a finger recess for lifting the base, which recess is located just below the cradle, the attachment including a substantially semi-cylindrical hood and constituting an enclosing hood and reflector, an electric illuminant in and shrouded by the hood, a base or socket for the illuminant carried by one end of the reflector, a switch including an actuating portion extended outwardly of the reflector, a tubular body constituting a virtually integral continuation of the hood, the body being of a substantially rectangular cross section and of diminishing sectional area rearwardly of the hood, the body continuing in a substantially shallow tubular portion at an angle to that portion



just back of the hood, said shallow portion being of a width substantially equal to the distance between the base projections identified with the cradle, the lowermost wall of said shallow portion being integrally continued beyond said shallow body portion to form a downturned flange, thence continued in a direction forwardly of the phone base and about parallel to the bottom of said shallow portion whereby to form therewith a clamp for the attachment adapted releasably to grip that portion of the base of the phone immediately above the lifting recess and immediately below the cradle, an auxiliary tube internally of the tubular body, and extended through the rearmost part of said shallow body portion and constituting an outlet thimble, and conductors extended from the illuminant base and switch through the auxiliary tube and outlet thimble, thence outwardly of the attachment in a zone distinctly rearwardly of the cradle and handset of a phone with which the attachment is utilized.

LOUIS L. SATZ.


## REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 1,799,742 | Gilreath et al. | Apr. 7, 1931 |
| 1,945,956 | Rowell | Feb. 6, 1934 |
| 1,961,474 | Baum | June 5, 1934 |
| 2,016,310 | Baum | Oct. 8, 1935 |
| 2,247,591 | Sundee | July 1, 1941 |
| 2,259,148 | Burkhart | Oct. 14, 1941 |

FOREIGN PATENTS

| Number | Country | Date |
|---|---|---|
| 49,551 | France | Jan. 28, 1939 |