Sept. 9, 1952 O. A. CUNNINGHAM 2,610,262

TELEPHONE LIGHT MOUNTING

Filed Feb. 23, 1949

Fig. 1.

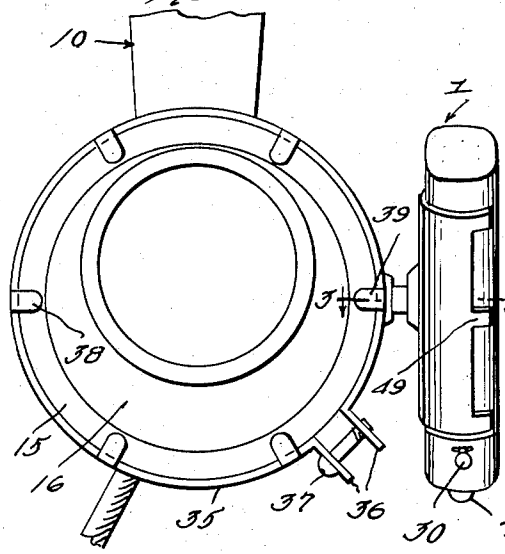


Fig. 2.

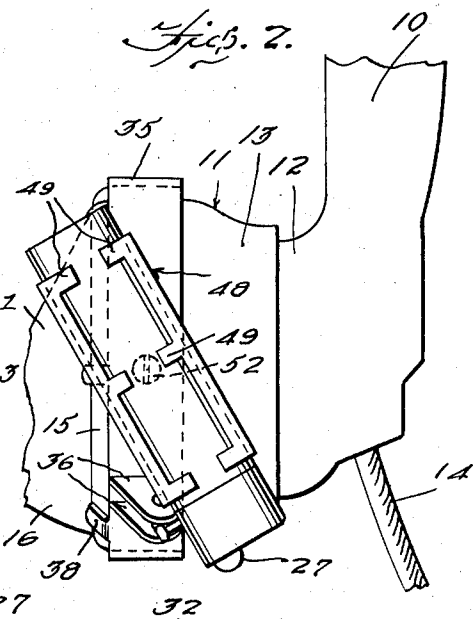


Fig. 4.

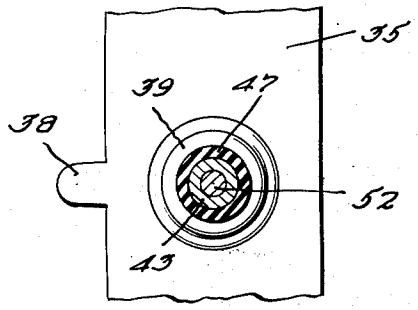


Fig. 6.

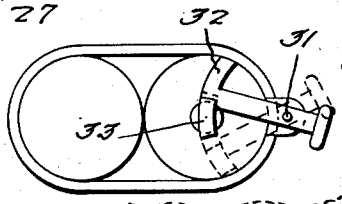


Fig. 3.

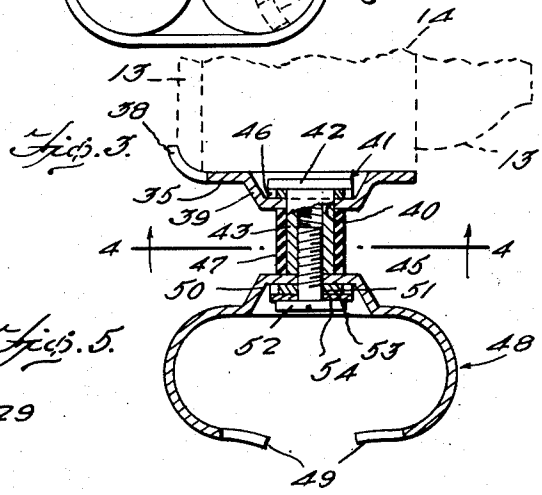
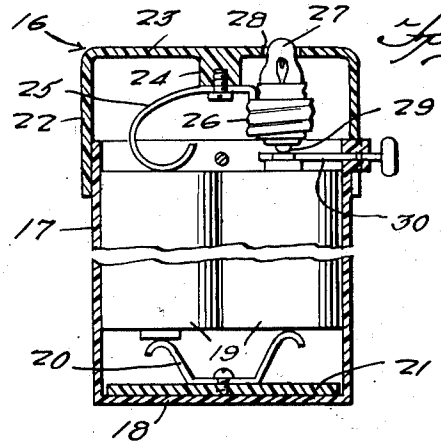


Fig. 5.



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TELEPHONE LIGHT MOUNTING

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4 Claims. (Cl. 179—178)

1

This invention relates to a mounting device for securing a light, such as a flashlight, to a telephone, and more particularly to a mounting device for securing such a light to one end of a combined telephone receiver and mouthpiece structure.

It is among the objects of the invention to provide a mounting device for securing a flashlight to one end, and particularly the mouthpiece end, of a combined mouthpiece and receiver structure of that type of telephone usually designated a "French" type telephone, which mounting device is easy to apply to the telephone mouthpiece structure, and firmly embraces such structure to securely attach a flashlight thereto and resiliently engages the flashlight, so that the flashlight can be easily removed and replaced when necessary or desired, which provides for limited movement of adjustment between the telephone mouthpiece and the flashlight, which holds the flashlight relative to the mouthpiece in position such that the receiver and mouthpiece combination is not materially unbalanced or caused to turn or tilt on the telephone cradle, and which is simple and durable in construction, economical to manufacture, and neat and attractive in appearance.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing, wherein:

Figure 1 is a front elevation of a fragmentary portion of a telephone receiver and mouthpiece combination showing the mouthpiece end of the combination with a flashlight mounted on the mouthpiece by a mounting device illustrative of the invention;

Figure 2 is a side elevation of the mouthpiece, flashlight and flashlight mounting device illustrated in Figure 1;

Figure 3 is a transverse cross-section on a somewhat enlarged scale of the mounting device taken substantially on the line 3—3 of Figure 1;

Figure 4 is a cross-section on the line 4—4 of Figure 3;

Figure 5 is a longitudinal, medial cross-section of a flashlight of suitable construction for the purposes of the invention; and

Figure 6 is a top plan view of the flashlight illustrated in Figure 5 with the cap and light bulb removed to illustrate the flashlight switch.

With continued reference to the drawing, the combined receiver and mouthpiece structure of the telephone, as fragmentarily illustrated, includes a handle 10 upon one end of which is mounted the receiver, not illustrated, and upon

2

the other end of which is mounted the mouthpiece, generally indicated at 11.

The mouthpiece-receiving end of the handle 10 is turned substantially at right angles to the handle, as indicated at 12, and provided with external screw threads upon which is threaded a substantially cylindrical mouthpiece housing 13, which is also provided near its outer end with external screw threads. The telephone cord 14 extends through an opening in the mouthpiece end of the handle 10, and a mouthpiece cover is secured on the outer end of the housing 13. This cover includes an internally screw-threaded, annular ring 15, and a curved shield 16 marginally secured to the ring 15 and overlying a portion of the outer end of the mouthpiece.

As the telephone mouthpiece is of well-known construction, a further description thereof is considered unnecessary for the purposes of the present disclosure.

The flashlight illustrated, which may also be of conventional construction, comprises an elongated casing 17 of somewhat elliptical cross-sectional shape and having an open end and an end wall 18 closing its opposite end. This casing may be formed of any suitable material, such as hard rubber, synthetic resin plastic, or metal, and is of a size and shape to receive two conventional flashlight battery cells 19 therein, these cells being disposed in reversed, end-to-end relationship, so that the center terminal of one cell is adjacent the end wall 18, and the center terminal of the other cell is adjacent the open end of the casing.

A U-shaped spring 20 is secured to the inner side of the end wall 18 substantially at the center of the latter and bears at one end against the center terminal of the corresponding battery cell, and at its opposite end against the bottom of the other battery cell to electrically inter-connect the two cells at their ends adjacent the end wall 18, a bottom plate 21 of electrically insulated material being interposed between the spring 20 and the end wall 18, if considered necessary or desirable. A hollow cap 22 is received on the casing 17 at the open end of the latter and has one open end receiving the open end of the casing, and an end wall 23 at its opposite end. A boss 24 projects inwardly from the end wall 23 of the cap near the center of the end wall, and a leaf spring 25 is secured to the end of this boss and bears at one end upon the bottom end of the battery cell 19, the center contact of which contacts the spring 20. At its opposite end the leaf spring 25 carries a bulb socket 26 and a lamp bulb 27

threaded into the socket 26, extending through an opening 28 in the cap end wall 23, and has its center terminal 29 disposed in alignment with the center terminal of the battery cell 19, the end of which engages the spring 20.

A switch lever 30 extends through a slot in the side wall of the casing 17 adjacent the open end of the casing, and is pivotally connected to the casing by pivot pin 31. This switch has on its end within the casing an arcuate bar 32, one end of which is formed of electrically insulative material, as indicated at 33, and the opposite end of which is formed of electrically conductive material.

When the switch lever is in the operative position illustrated in Figure 6, the body of electrically insulative material is interposed between the center terminal 29 of the lamp bulb and the adjacent battery cell center terminal, so that the lamp illuminating circuit is interrupted, and when the switch is moved to the operative position indicated in dotted lines in Figure 6, the electrically conductive portion of the bar 32 is interposed between the center terminal of the bulb and the adjacent battery terminal, so that a lamp-illuminating circuit is completed for the lamp bulb 27.

While a suitable flashlight has been illustrated and described in detail, it is to be understood that the invention is not limited to the particular flashlight so illustrated and described, but that various types of flashlights may be used, without in any way exceeding the scope of the invention. The flashlight used should be of small size and of sufficiently light weight so that it does not interfere with the normal use of the telephone nor unbalance the receiver mouthpiece combination portion of the telephone, or cause such combination to tilt on the supporting cradle.

The flashlight mounting device comprises a split ring 35 of thin, resilient material, such as steel, having a circumferential length substantially equal to the circumference of the annular portion 15 of the mouthpiece cover. This ring has at its ends respective apertured lugs 36 which project radially outwardly of the ring, and are somewhat spaced apart when the ring operatively surrounds the annular portion of the mouthpiece cover, and a ring contracting screw 37 extends through these lugs and is threadedly engaged with one of them to contract the ring onto the mouthpiece cover. Spaced-apart tongues 38 extend inwardly from one edge of the ring 35 to engage the edge of the annular portion 15 of the mouthpiece cover and firmly secure the ring on the cover against accidental displacement. Intermediate its ends the ring is provided with a raised area 39 having a central aperture 40 and a bolt, generally indicated at 41, has its head 42 disposed in the raised area 39 of the ring and its stem 43 extending through the aperture 40 and provided with a screw-threaded bore 45. Preferably a corrugated spring washer or lock washer 46 is interposed between the bolt head 42 and the inner surface of the ring 35 surrounding the aperture 40.

A cylindrical spacing sleeve 47 is coterminous with the outer end of the bolt shank 43.

A flashlight clip, generally indicated at 48, having a length somewhat less than the length of the flashlight and a cross-sectional shape, substantially the same as the cross-sectional shape of the flashlight, is provided with spaced-apart, opposed spring arms 49 to resiliently engage a flashlight and retain the flashlight in the clip.

At a location opposite the spring arms 49 the clip is provided with a raised area 50 which is adapted to bear against the outer ends of the bolt shank 43 and spacer sleeve 47, and is provided with a central aperture 51 somewhat smaller than the aperture 40 in the raised area of the ring 35. A screw 52 extends through the aperture 51 in the raised area 50 of the battery clip and is threaded into the bore of the bolt shank 43 to rigidly secure the clip 48 to the ring 35. If desired, a lock washer 53 is interposed between the head of the screw 52 and the adjacent surface of the raised portion 50 of the clip surrounding the aperture 51, and a thin bearing washer 54 may be interposed between the head of the screw and the lock washer 53 to facilitate tightening the screw into the bore of the bolt 41.

With this arrangement the ring 35 can be adjusted circumferentially of the mouthpiece cover and firmly locked in adjusted position and the battery clip 48 can be rotationally adjusted relative to the ring and also held in adjusted position against accidental movement.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. In combination with a telephone mouthpiece and receiver combination including a mouthpiece housing of circular shape having an open end, a curved shield overlying the open end of said housing and a cover including an annular ring portion threaded onto said housing at the open end of the latter and marginally engaging said shield, a flashlight assembly comprising a split circular band embracingly engaging the ring portion of said cover and having an aperture therein and a raised portion surrounding said aperture, a resilient clip having an aperture therein and a raised portion surrounding the aperture therein, the raised portions of said band and said clip being convexly opposed, a fastener extending through the apertures in said and said clip pivotally connecting the latter to the former, a spacing sleeve surrounding said fastener between said raised portions and maintaining said clip spaced from said band, and a flashlight supported in said clip.

2. In combination with a telephone mouthpiece and receiver combination including a mouthpiece housing of circular shape having an open end, a curved shield overlying the open end of said housing and a cover including an annular ring portion threaded onto said housing at the open end of the latter and marginally engaging said cover, a flashlight assembly comprising a split circular band embracingly engaging the ring portion of said cover and having an aperture therein and a raised portion surrounding said aperture, a resilient clip having an aperture therein and a raised portion surrounding the aperture therein, the raised portions of said band and said clip being convexly opposed, a bolt extending through the apertures in said band and said clip and having its head disposed in one of said raised portions and having a screw-threaded bore in its other end, a screw threaded into the

bore in said bolt and having its head disposed in the other of said raised portions, a spacing sleeve surrounding said bolt between said raised portions and maintaining said clip spaced from said band while said bolt and said screw provide a pivotal connection therebetween, and a flashlight supported in said clip.

3. In combination with a telephone mouthpiece and receiver combination including a mouthpiece housing of circular shape having an open end, a curved shield overlying the open end of said housing and a cover including an annular ring portion threaded onto said housing at the open end of the latter and marginally engaging said shield, a flashlight assembly comprising a split circular band embracingly engaging the ring portion of said cover and having an aperture therein and a raised portion surrounding said aperture, tongues on said band at spaced apart locations therearound projecting inwardly from said band and engaging under the ring portion of said cover, a resilient clip having an aperture therein and a raised portion surrounding the aperture therein, the raised portions of said band and said clip being convexly opposed, a bolt extending through the apertures in said band and said clip and having its head received in one of said raised portions, said bolt having a screw-threaded bore in the end thereof remote from said head, a screw threaded into the screw-

threaded bore in said bolt and having its head received in the other of said raised portions, a spacing sleeve surrounding said bolt between said raised portions and maintaining said clip spaced from said band, and a flashlight supported in said clip.

4. In combination with a unitary telephone mouthpiece and receiver assembly including a mouthpiece housing of substantially circular cross-sectional shape having an open end, a curved shield overlying the open end of said housing and a cover including a ring portion threaded onto said housing at the open end thereof and marginally engaging said shield, a flashlight assembly comprising a resilient band embracingly engaging the ring portion of said cover, a resilient clip, means pivotally connecting said clip to said band, and a flashlight supported in said clip.

ORVILLE A. CUNNINGHAM.

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