Feb. 11, 1941. G. L. BAKER 2,231,103

LUMINOUS DIAL ATTACHMENT FOR DIAL TELEPHONES

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Fig. 1.

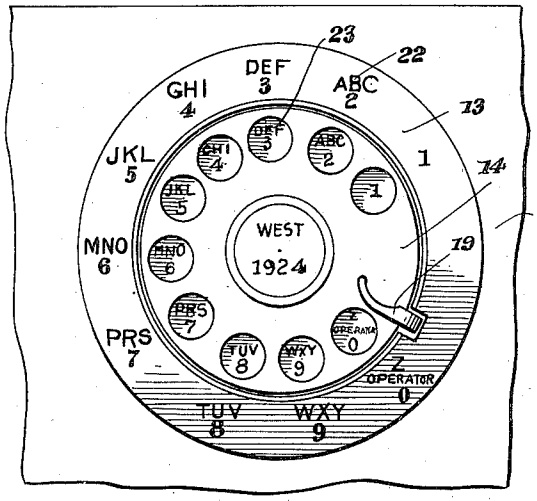


Fig. 4.

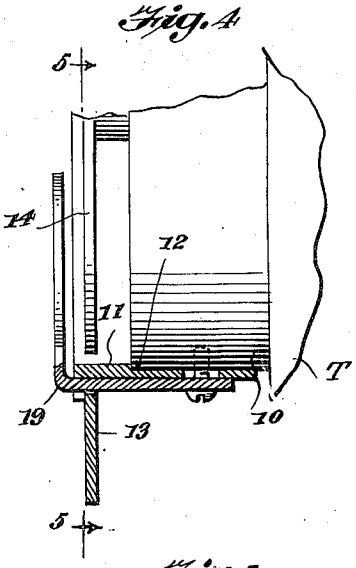


Fig. 2.

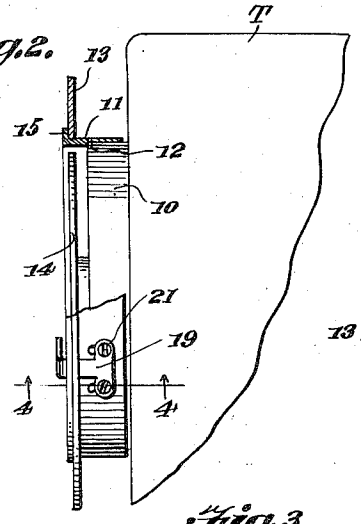


Fig. 6.

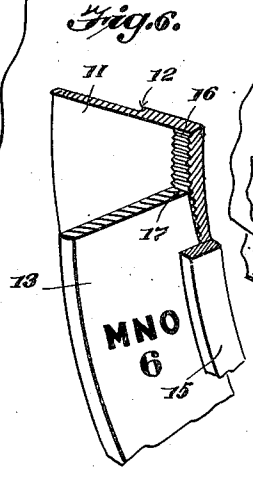


Fig. 5.

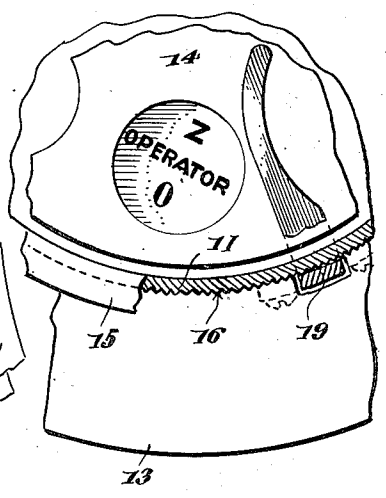
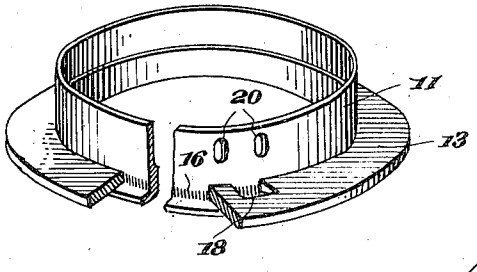


Fig. 3.



Inventor
GILBERT L. BAKER

By Irving R. M. Cathcart
Attorney

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LUMINOUS DIAL ATTACHMENT FOR DIAL TELEPHONES

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Fig. 7.

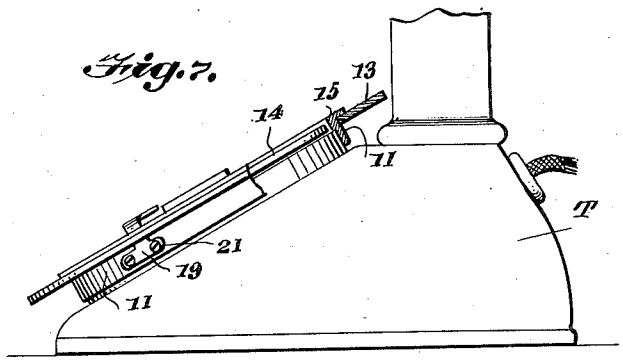


Fig. 12.

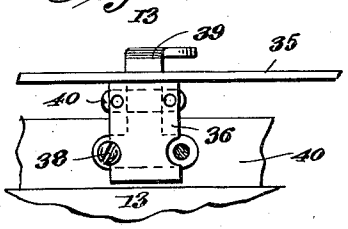


Fig. 13.

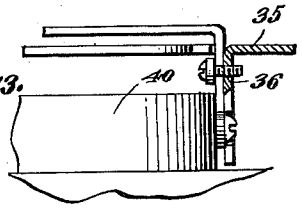


Fig. 8.

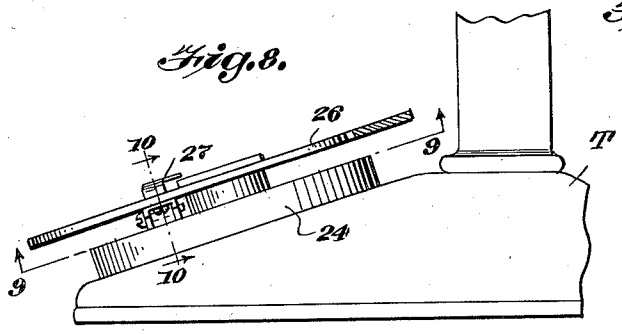


Fig. 14.

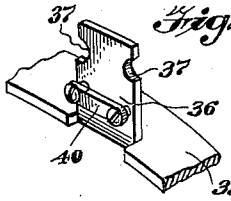


Fig. 9.

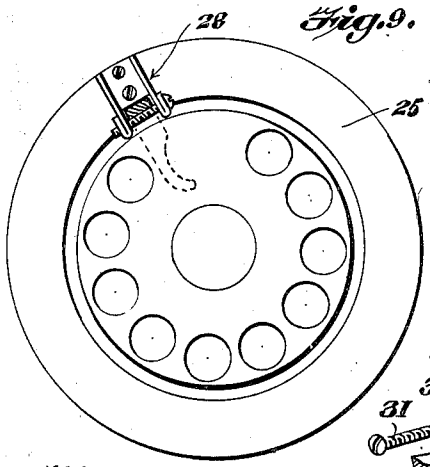


Fig. 15.

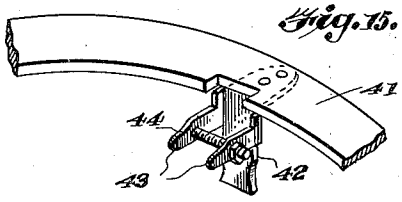


Fig. 16.

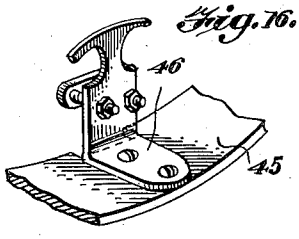


Fig. 11.

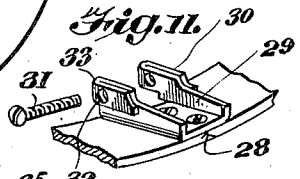
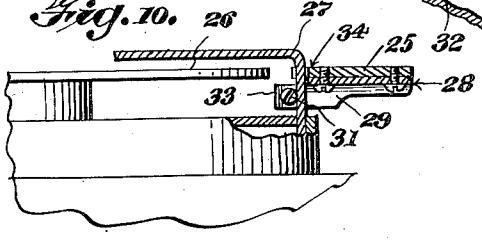


Fig. 10.



Inventor
GILBERT L. BAKER

By Irving K. McCathran

Attorney

Patented Feb. 11, 1941 2,231,103

UNITED STATES PATENT OFFICE

2,231,103

LUMINOUS DIAL ATTACHMENT FOR DIAL TELEPHONES

Gilbert L. Baker, Oakland, Calif.

Application August 14, 1937, Serial No. 159,179

1 Claim. (Cl. 179—90)

This invention relates to luminous dial attachments for dial telephones and the like, and has for one of its objects the production of a simple and efficient means for supporting an attachment having luminous numerals placed thereon, and positioned in proper relative position with apertures of the finger-wheel of the dial of a telephone, whereby the numerals, letters, and other indicating means, may be easily visible in the darkness or subdued light.

A further object of this invention is the production of a simple and efficient attachment for telephone dials which may be easily attached to the conventional telephone dial structure, and which will not require the reconstruction or change of any character in the present conventional dialling arrangement.

A still further object of this invention is the production of a simple and efficient means for locking the numeral carrying ring upon which the numerals are displayed through the medium of luminous material so that the numerals may at all times be held in proper registration with the numerals on the conventional telephone dial.

Other objects and invention of the present invention will appear throughout the following specification and claim.

In the drawings:

Figure 1 is a top plan view of a conventional telephone dial showing my attachment applied thereto;

Figure 2 is a side elevation of the type of structure shown in Figure 1 as applied to a wall telephone, certain portions of the attachment being shown in section;

Figure 3 is an inverted perspective view partly in section illustrating the dial attachment;

Figure 4 is an enlarged transverse sectional view taken on line 4—4 of Figure 2;

Figure 5 is an enlarged fragmentary top plan view of a portion of a telephone dial showing a portion of the attachment secured to the dial housing and illustrating the manner of locking the numeral carrying ring upon the supporting band;

Figure 6 is a fragmentary sectional view through a portion of the numeral carrying ring and supporting band;

Figure 7 is a side elevation of a portion of one type of desk phone showing a dial attachment applied to the dial casing;

Figure 8 is a side elevation of a portion of another type of desk phone showing the attachment supported thereon;

Figure 9 is a section taken on line 9—9 of Figure 8;

Figure 10 is a vertical sectional view taken on line 10—10 of Figure 8;

Figure 11 is an inverted perspective view of a portion of the numeral carrying ring illustrated in Figure 9 and illustrating the type of securing clip employed in this form;

Figure 12 is an edge elevation showing a portion of the numeral carrying ring and illustrating one modified type of securing clip;

Figure 13 is a vertical sectional view taken on line 13—13 of Figure 12;

Figure 14 is a fragmentary inverted perspective view of the numeral carrying ring illustrating the type of securing clip illustrated in Figures 12 and 13;

Figure 15 is a perspective view of the numeral carrying ring illustrating a still further type of securing clip;

Figure 16 is a fragmentary inverted perspective view of the numeral carrying ring illustrating a still further type of securing clip.

By referring to the drawings, it will be seen that T designates the conventional type of telephone, the type shown in Figures 1 and 2 being of the wall type. A dial housing 10 is carried by the telephone T. A supporting band 11 is fitted over the dial housing 10 and is provided with an abutment ledge or shoulder 12 which limits the sliding movement of the band 11 upon the housing 10 so that the numeral carrying ring 13 may extend in the same plane with the conventional dial plate 14. The supporting band 11 is provided with an annular rim 15 against which the numeral carrying ring 13 rests and the band 11 is provided with an annular row of teeth 16 adjacent the flange 15, as shown in detail in Figure 6 for engaging the inner face 17 of the ring 13 and locking the ring 13 in position and against rotation around the band 11. The ring 13 is provided with a notch 18 which fits around the conventional stop hook 19. These teeth 16 by biting into the inner edge 17 of the ring 13 will not only lock the ring 13 in position but will also hold the ring 13 against displacement and in normal contact with the rear face of the flange 15.

In carrying out this invention, I preferably provide apertures 20 in the supporting band 11, as shown in Figure 3, and the conventional stop hook 19 preferably fits upon the outer face of the band 11. The conventional securing screws 21 pass through the hook 19 and the apertures 20 for securing the band 11 as well as the hook 19 firmly upon the dial housing 10.

From the foregoing description it will be seen that a very simple, and economical attachment has been provided for dial telephones, which attachment may be readily placed in position for supporting a luminous dial in conjunction with the conventional dial, the numeral carrying ring 13 having luminous numerals or other indicating means 22 formed upon the face thereof and in radial alignment with the conventional numerals 23 of the conventional dial.

In order that my attachment may be adapted for use in connection with various types of phone equipment, I have provided certain fastening means in the nature of clips which are illustrated in various modified forms in Figures 8 to 16 inclusive. By referring to Figures 8 to 11 inclusive, it will be noted that a dial housing 24 is indicated as carried by the phone T', and a numeral carrying ring 25 is illustrated surrounding the conventional dial plate 26. The conventional stop hook 27 is carried by the dial housing 24 in the usual manner and a specially designed securing clip 28 is secured to the under face of the numeral carrying ring 25. This clip preferably comprises a metallic channel plate having side flanges 29 which are backwardly bent, as at 30, to provide efficient anchoring means for the transverse securing screw 31, the flanges 29 being provided with threaded apertures 32 at their ends for receiving the screw 31. The ends 33 in which the apertures 32 are formed extend beyond the inner periphery of the ring 25, as shown, the ring preferably being notched, as at 34, to receive the hook 27. The inner edge of the notch 34 is adapted to abut against the hook 27 at one side and the screw 31 is adapted to engage the opposite side of the hook 27, as shown in Figure 10, thereby locking the numeral carrying plate 25 in proper position with respect to the dial plate 26.

In Figures 12, 13 and 14, there is shown a further modified type of structure for securing the numeral carrying ring 35 in place, the numeral carrying ring having a downwardly bent tongue 36 which is notched, as at 37, at its sides for fitting over the heads of the screws 38 which anchor the stop hook 39 to the dial housing 40. In this type of structure shown in Figures 12 to 14, the flange 36 is preferably formed integral with the ring 35. A clamping bar 40' is secured to one face of the flange 36 and straddles the stop hook 39, thereby anchoring the plate 35 in position, the notches 37, by fitting over the screws 38, also assisting in bracing the flange 36, as will be obvious.

In Figure 15, I have illustrated a type of numeral carrying plate indicated by the numeral 41 having a right angle clip 42 secured to the under face and being provided with inwardly extending parallel anchoring arms 43 for receiving a securing screw 44, the conventional stop hook being adapted to extend between the plate 42 and the anchoring screw 44 in a manner such as is shown in Figure 9.

In Figure 16 there is shown a slightly further modified form of structure, wherein the numeral carrying ring is indicated by the numeral 45 and supports upon its under face an angle plate 46 of a similar design to the flange 36 shown in Figure 14, substantially the same structure being illustrated with the exception that the plate 46 is a separate plate from the ring 45, whereas in the form shown in Figure 14, the flange 36 is integral with the ring 35.

It should be understood that any suitable luminous material or paint may be used for displaying the numerals 22 upon the numeral carrying ring 13, as well as in the other forms shown, in order to facilitate the use of the dial at night. It is important to note that the numeral carrying ring in each instance, that is to say, in all of the modified forms shown, is arranged concentrically with respect to the conventional telephone dial, is a separate and distinct attachment independent of the dial mechanism, and mounted so as to avoid inconvenience and interference with the conventional dialling mechanism.

Certain detail changes in the mechanical construction and arrangement of parts may be employed without departing from the spirit of the invention, so long as such changes fall within the scope of the appended claim.

Having described the invention, what I claim as new is:

A device of the class described comprising a supporting band adapted to fit around a conventional dial housing of a telephone, means for fixedly securing said band to a conventional dial housing, said band having an abutment edge, said band having an annular row of teeth adjacent the under face of said abutment edge and upon the outer face of the band, a numeral-carrying ring carrying indicia adapted to register with indicia carried by the dial of a telephone, the inner edge of said ring engaging said teeth of said band and said teeth constituting means for holding said ring against rotation upon said band and also providing means for holding said ring against displacement from contacting engagement with said flange, whereby the indicia of the ring will be at all times held in registration with the indicia on the dial of a telephone.

GILBERT L. BAKER.