

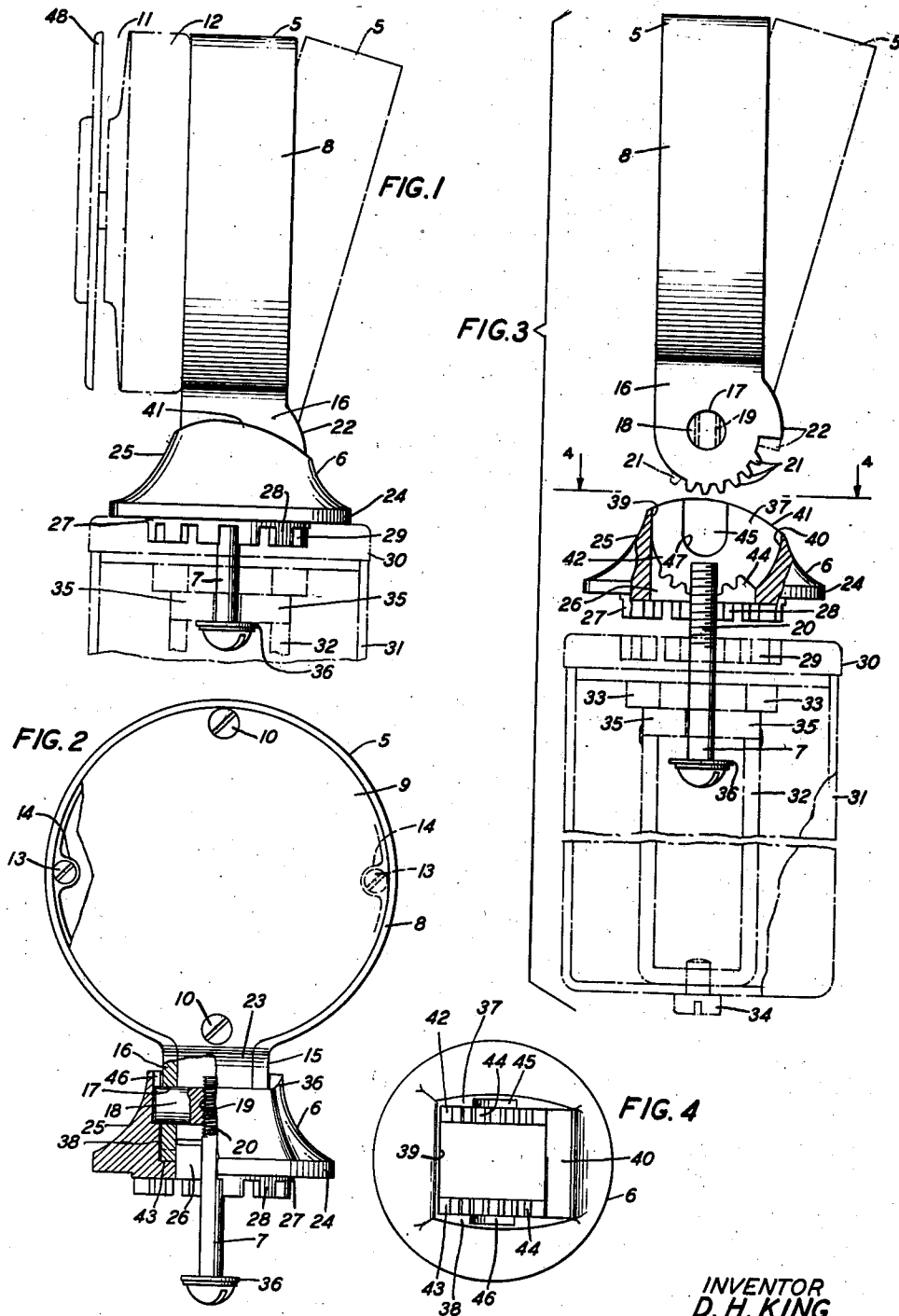
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D. H. KING

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ADJUSTABLE SUPPORT FOR DIAL DEVICES

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INVENTOR
D. H. KING
BY
J. MacDonald
ATTORNEY

UNITED STATES PATENT OFFICE

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ADJUSTABLE SUPPORT FOR DIAL DEVICES

Douglas H. King, Short Hills, N. J., assignor to
Bell Telephone Laboratories, Incorporated, New
York, N. Y., a corporation of New York

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This invention relates to supports for dials and more particularly to adjustable supports for telephone calling dials.

The object of the invention is to provide an adjustable support for a telephone calling dial device which will permit adjustment and holding of the device in a required tilted position for convenient operation of the device by a user of the telephone.

In the drawing:

Fig. 1 is a side elevational view of the support mounted on a portion of the telephone box, the support being shown as supporting the telephone calling dial. Two positions of the support are indicated;

Fig. 2 is a rear view, partly in section, of the support;

Fig. 3 is an exploded view, partly in section, of the support shown in Fig. 1 and with the telephone box shown in dot-dash line; and

Fig. 4 is a top view of a pedestal member of the support taken on the line 4—4 in Fig. 3.

The support comprises a casing 5, a pedestal 6 and a screw 7. The casing 5 is made in the form of a cup comprising a ring member 8 and a removable back wall 9 which is secured to the ring member 8 by means of screws 10. The casing 5 is adapted to receive an assembly of switch contacts and certain other operating parts, not shown, of a calling dial device 11, the base portion 12 of the device 11 being secured to the ring member 8 by means of screws 13 which extend through apertured inwardly extending projections 14 provided on the ring member 8 and into threaded apertures (not shown) in the base portion 12 of the calling dial 11.

The ring member 8 has two downwardly extending disc portions 15 and 16 which are adapted to extend into the pedestal 6, the disc portions 15 and 16 extending in parallel spaced relation and being apertured at 17 to receive a cylindrical shaft 18 which is transversely drilled and tapped at 19 to receive the male threaded end 20 of the screw 7. An arcuate row of teeth 21 is provided on the lower edge of each disc portion 15 and 16 and the disc portions 15 and 16 are enlarged at 22 to limit rotational movement of the casing 5 on the shaft 18. A tail piece 23 which is integral with the back plate 9 extends between the disc portions 15 and 16 and is rearwardly offset from the plane of the rear surface of the main portion of the back plate 9.

The pedestal 6 comprises a lower flange portion 24 and a neck portion 25 and is longitudinally apertured at 26 to permit extension of the screw 55

7 upwardly within the pedestal 6. The lower end of the pedestal 6 is reduced in diameter to provide an integral ring portion 27 which is suitably cut to provide an annular row of teeth 28, the teeth 28 being adapted to mesh with a corresponding row of teeth 29 formed in a cover plate 30 of a telephone box 31. The cover plate 30 is apertured to accommodate the screw 7 and has a U-shaped bracket 32 attached to its lower surface, the bracket 32 extending downwardly within the box 31 and having the upper portions of its legs outwardly flanged at 33 and welded or otherwise secured to the lower surface of the cover plate 30. The lower end of the bracket 32 is drilled and tapped to receive a screw 34 which extends through an aperture provided in the bottom of the box 31 so that the bracket 32 is secured to the bottom of the box 31 and extends upwardly within the box 31. Inwardly extending lugs 35 are provided on the leg portions of the bracket 32 to be engaged by a washer 36 supported on the shank of the screw 7. The neck portion 25 of the pedestal 6 is formed to provide two spaced side walls 37 and 38, a front wall 39 and a curved back wall 40, the front wall 39 being of greater height than the back wall 40 and the side walls 37 and 38 being curved on their upper edge portions as shown at 41 to meet the upper portions of the walls 39 and 40 and thus provide room for backward tilting action of the casing 5. Inwardly extending shoulders 42 and 43 are provided at the lower ends of the respective side walls 37 and 38 and these shoulders 42 and 43 are formed to provide arcuate rows of teeth 44 which are arranged to mesh with the teeth 21 provided on the disc portions 15 and 16 of the casing 5. It will be seen by looking at Figs. 3 and 4 that there is an arcuate row of teeth 44 on the shoulder 42 at the lower end of the wall 37 to mesh with the teeth 21 on the lower edge of the disc portion 15 and that there is also an arcuate row of teeth 44 on the shoulder 43 at the lower end of the wall 38 to mesh with the teeth 21 on the lower edge of the disc portion 16. When the teeth 21 are in mesh with the teeth 44, the casing 5 is held against rotation on the shaft 18. A recess 45 is provided in the inner surface of the side wall 37 to receive one ends of the shaft 18 and a corresponding recess 46 is provided in the inner surface of the side wall 38 to receive the other end of the shaft 18, the lower ends of the recesses 45 and 46 being downwardly curved as shown at 47 to form rests for the shaft 18, the recesses 45 and 46 extending upwardly to

the upper edges of the respective wall members 38 and 38.

The casing 5 is shown in Fig. 1 in full lines as being held in an upright position, the casing 5 having been set in this position and being held against tilting movement by means of the meshed teeth 21 and 44 and the teeth being held in meshed condition by means of the screw 7 and the shaft 18, the screw 7 being set so that washer 36 is pressed against the lower surfaces of the lugs 35 and the shaft 18 being held by means of the screw 7 against the lower curved edges 47 of the recesses 45 and 46. It will be seen by looking at Fig. 1 that the pedestal 6 is held against rotation on the box 31 since the teeth 28 on the pedestal 6 are in mesh with the teeth 29 in the cover plate 30 on the box 31.

When it is found necessary or desirable to change the position of the casing 5 from the full line position to the dot-dash line position, or to any other intermediate position, the change in position may be accomplished by loosening the screw 7 to a sufficient extent to permit lifting of the casing 5 relative to the pedestal 6 and so that the teeth 21 and the teeth 44 are no longer in meshed condition. The casing 5 may then be tilted to the required position and set down again within the pedestal 6 so that the teeth 21 and 44 are again in mesh. When the casing 5 is in the new position and the teeth 21 and 44 are in mesh the screw 7 may then be tightened to retain the parts in the required position. It will be seen, therefore, that the casing 5 may be tilted to several different positions as required to bring the calling dial 11 into convenient position for use by a subscriber, the position being such that it will meet the particular desire of the telephone subscriber. The range of tilting movement of the casing 5 is limited in one direction by means of the enlargement 22 on the discs 15 and 16 which will abut against the rear-most of the teeth 44 and prevent pounding of the casing 5 against the upper edge of the back wall 40 if the subscriber tries to force the casing 5 too far back or lets the casing 5 fall backward while the screw 7 is in a loosened condition. Undue forward tilting of the casing 5 is limited by reason of the greater height of the front wall 39, the top of which would be engaged by the front edges of the disc portions 15 and 16 if the casing 5 were pressed or allowed to fall forward quite appreciably from the upright position shown in full line in Fig. 1.

Rotation of the pedestal 6 on the cover plate 30 may be attained by loosening the screw 7, then lifting the pedestal 6 so that the teeth 28 will be brought out of mesh with the teeth 29 and then rotating the pedestal 6 to a new position. When the pedestal 6 is in the new position and is lowered so that the teeth 28 will be in mesh with the teeth 29, the screw 7 may then be tightened to hold the parts in the new position.

Access may be had to the screw 7 by withdrawing the screw 34 from the bottom of the box 31 and then separating the cover plate 30 from the box 31.

The invention shown and described permits adjustment of the calling dial 11 to various positions required by telephone subscribers. It will be

seen, therefore, that when a subscriber wants to have the calling dial set at a certain angular position for more convenient viewing of the dial and operation of the finger wheel 48, the casing 5 on which the calling dial 11 is supported may be moved and set in such position that the calling dial 11 will be in the particular position required by the subscriber.

What is claimed is:

1. A support for a dial device comprising a casing adapted to hold said device, spaced parallel disc portions on said casing, sets of teeth formed on said disc portions, a pedestal adapted to receive said disc portions, sets of teeth formed in said pedestal adapted to mesh with the teeth on said disc portions, a shaft extending through said disc portions, said casing being rotatably supported on said shaft, supporting means formed in said pedestal adapted to receive and support said shaft and releasable means for holding said shaft in engagement with said supporting means and the teeth on said casing in meshed engagement with the teeth in said pedestal.

2. A support for a dial device comprising a casing adapted to hold said device, spaced parallel disc portions on said casing, sets of teeth formed on the lower edges of said disc portions, a pedestal adapted to receive said disc portions, arcuate rows of teeth formed in said pedestal to mesh with the teeth on said disc portions, a shaft extending through said disc portions, and transversely within said pedestal, said disc portions being rotatably supported on said shaft, cavities formed in said pedestal to receive end portions of said shaft, the lower ends of said cavities serving as supports for said shaft, a screw extending transversely through said shaft, a plate to support said pedestal, a bracket secured to said plate, said screw extending through said bracket, and said screw, shaft and bracket cooperating to releasably hold said casing in engagement with said pedestal and said pedestal in engagement with said plate.

3. A support for a dial device comprising in combination, a casing adapted to support said device, apertured disc portions extending from said casing in parallel spaced relation, sets of teeth formed on the lower edges of said disc portions, a pedestal for said casing, a neck portion on said pedestal hollowed out to accommodate said disc portions, arcuate rows of teeth formed in said pedestal adapted to mesh with the teeth on said disc portions, cavities formed in two opposite side walls of said neck portion, a shaft journaled in said disc portions, said shaft being transversely drilled and tapped and having its end portions supported in said cavities, a toothed ring portion extending downward from the lower portion of said pedestal, a toothed plate adapted to receive said ring portion and serve as a rest for said pedestal, a bracket supported on the lower surface of said plate and a screw extending through said bracket and said plate and into said pedestal, said screw being in threaded engagement with said shaft and serving in cooperation with said bracket and said shaft to releasably hold said casing in toothed engagement with said pedestal and said pedestal in toothed engagement with said plate.

DOUGLAS H. KING.