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L. H. VAN DYKE
TELEPHONE HANDSET SUPPORT

3,025,360

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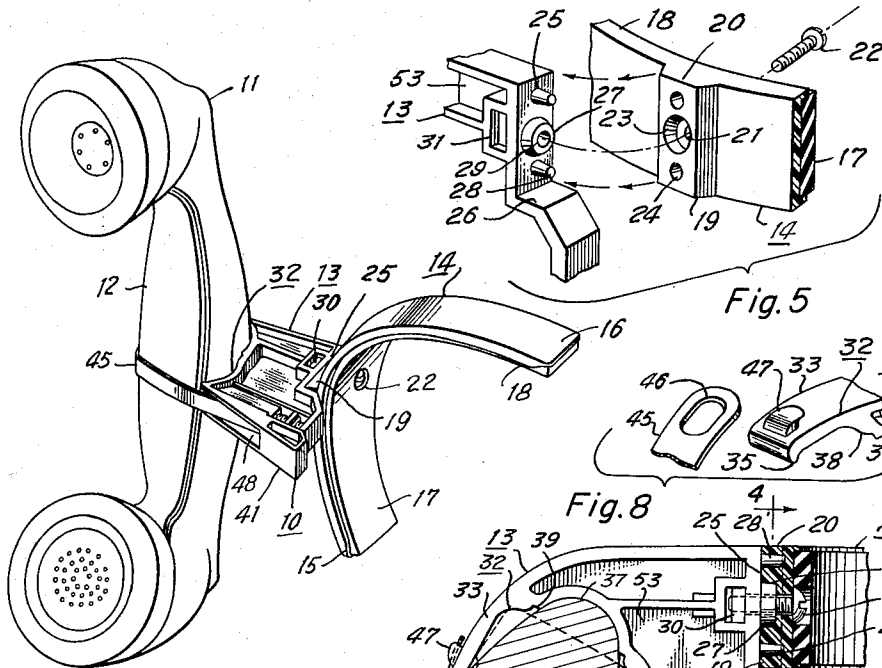


Fig. 1

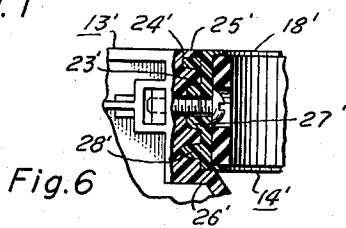


Fig. 6

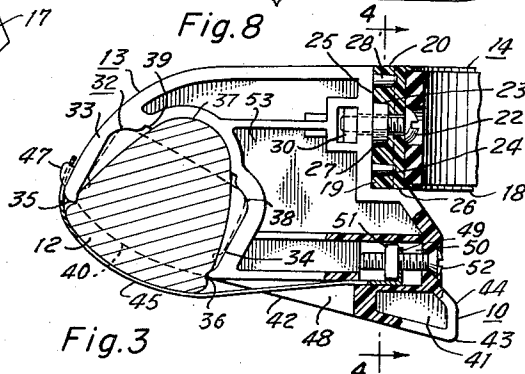


Fig. 3

Fig. 8

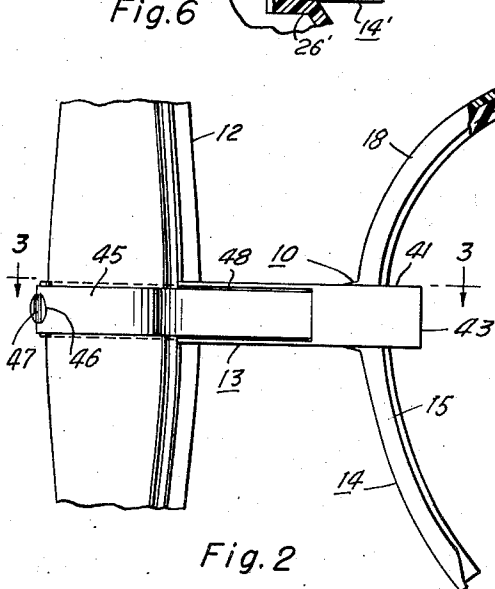


Fig. 2

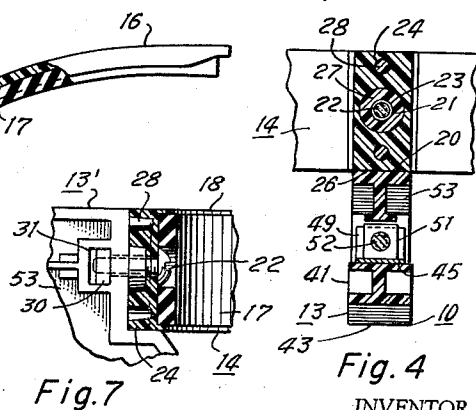


Fig. 7

Fig. 4

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This invention relates to new and useful improvements in telephone handset supports.

One object of the invention is to provide an improved support for a telephone handset having a member for attaching a shoulder rest to the handset in such manner that the support can be readily converted for resting on either shoulder and use with either ear.

Another object of the invention is to provide an improved telephone handset support having a shoulder rest and coacting attachment member fastened thereto for movement between left and right hand positions, the member and rest having coacting shoulders and means for holding the shoulders in engagement in either position of said member to rigidly connect the rest and member against relative movement.

A further object of the invention is to provide an improved telephone handset support, of the character described, wherein the attachment member has an extension for engagement with the hollow of a user's shoulder and coacting with the shoulder rest to prevent displacement of the support as well as facilitate the correct positioning of said support on the shoulder.

Still another object of the invention is to provide an improved telephone handset support, of the character described, wherein the attachment member has a socket and a coacting strap for adjustable clamping engagement with the handle of the handset to permit the comfortable supporting of said handset in proper relation to the ear and mouth of the user, the configuration of the socket being arranged to accommodate handles of different contour.

A construction designed to carry out the invention will be hereinafter described, together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing, wherein examples of the invention are shown, and wherein:

FIG. 1 is a perspective view of a support, constructed in accordance with the invention, mounted on a telephone handset,

FIG. 2 is an enlarged, end elevational view, partly in section, of the support and a portion of the handset,

FIG. 3 is a side elevational view, partly in section and taken on the line 3-3 of FIG. 2,

FIG. 4 is a cross-sectional view, taken on the line 4-4 of FIG. 3,

FIG. 5 is an exploded, perspective view of a portion of the support, showing the connection between its shoulder rest and attachment member,

FIG. 6 is a cross-sectional view, similar to FIG. 3, showing a modified connection between the member and rest,

FIG. 7 is a view, similar to FIG. 6, showing another modified connection, and

FIG. 8 is an exploded perspective view showing the detachable connection of the strap to one of the jaws of the socket.

This application is a continuation-in-part of my co-pending application, Serial No. 672,283, filed July 16, 1957, now abandoned.

In the drawing, the numeral 10 designates a support for a conventional telephone handset 11 having the usual handle 12. The support 10 includes a body or member 13 for attachment to the handle 12 of the handset 11 and a shoulder rest 14 which is in the form of an arced

or curved cradle member having legs 15 and 16 for overlying the front and back portions of the shoulder of a user. Preferably, the attachment member 13 and shoulder rest 14 are formed of plastic or other material capable of being molded. A coextensive pad 17, of soft rubber or other suitable cushioning material, overlies and is secured to the inner, curved surface of the shoulder rest between longitudinal, marginal flanges or ribs 18. For connecting the rest 14 to the attachment member 13, a flat rectangular boss or oblong projection 19 is formed on the outer surface of said rest intermediate its ends and more closely adjacent its front leg 15. The boss 19 is of greater length than width and has upright end surfaces or shoulders 20 perpendicular to its outer or upper, flat surface and an alinement or substantially flush with the outer surfaces of the ribs 18 (FIGS. 3-5) which are perpendicular to the outer, curved surface of the rest. An opening 21 extends transversely through the medial portion of the boss and rest for receiving a screw 22 and the outer portion of the opening is enlarged in diameter to provide a cylindrical recess or socket 23 (FIG. 5). A cylindrical recess or socket 24, of smaller diameter and greater depth than the recess 23, is formed in each end portion of the boss 19 medially between said recess 23 and each end surface 20. The recesses are tapered and have their axes disposed in a common plane extending longitudinally of the boss.

For coacting with the boss 19, a pair of flat surfaces or shoulders 25 and 26 are formed on a margin of the attachment member 13 and extend at a right angle to each other. The longer shoulder 25 is complementary to the outer, flat surface of the boss and has a projection or protuberance 27 and elements or pins 28 complementary to and adapted to engage within the recesses 23 and 24 of the boss. An axial opening 29 extends through the protuberance 27 and its shoulder for receiving the screw 22 and permitting connection thereof to a nut 30 disposed within a recess or slot 31 extending transversely of and communicating with the inner end of the opening (FIG. 3). The shorter shoulder 26 extends outwardly from the inner end of the shoulder 25 for flush engagement by one of the end surfaces 20 of the boss (FIG. 4), preferably, being of slightly greater height so as to project beyond said boss. This engagement coacts with the sockets 23 and 24, protuberance 27 and pins 28 to positively hold the rest 14 against movement relative to the member 13 when the screw 22 is in tight engagement with the nut 30. Since the recesses, protuberance and pins are spaced equally from one another and the ends of the boss 19 and shoulder 25 and have their axes alined, the rest is reversible relative to the attachment member to permit positioning of the support upon either shoulder for use with either ear. Upon loosening of the screw, the rest and member may be separated sufficiently to withdraw the pins 28 from the recesses 24 whereby said rest may be turned 180° to dispose the outer end surface of the boss adjacent the shoulder 26.

Due to the flush engagement between the shoulder 26 and one of the end surfaces 20 of the boss 19, only one of the pins 28 is required to hold the member 13 and rest 14 against relative movement and one of said pins may be eliminated as shown in FIG. 7. Of course, both recesses 24 are necessary to permit reversal of the rest. As shown by the numerals 23' and 24' in FIG. 6, the recesses may be formed in the attachment member 13' for receiving the protuberance 27' and pins 28' which project from the outer, curved surface of the shoulder rest 14'. The boss 19 is omitted and the coacting shoulder 25' of the member 13' is increased in thickness to provide sufficient material for the formation of the recesses. As shown by the numeral 26', the shorter shoulder is

reduced in height and is adapted to bear against either one of the longitudinal margins and ribs 18' of the rest which function in the same manner as the end surfaces 20 of the omitted boss 19. With the exception of the foregoing, the member 13' and rest 14' may be identical to the member 13 and rest 14.

For adjustable, clamping engagement with the handle 12 of the telephone handset 11, the attachment member includes an open-ended socket or saddle 32 formed by a pair of coacting, spaced elements or jaws 33 and 34 which extend at an acute angle to the shoulder 25 (FIG. 3). The jaws 33 and 34 are substantially parallel and have their outer ends terminating in inwardly-directed, opposed projections or lips 35 and 36. An arcuate bottom or curved bight portion 37 is provided at the inner end of the saddle 32 between the jaws and is connected to each jaw by an arch portion 38 which has reverse curves and a transverse shoulder 39 adjacent the bight portion. The handset handle 12 is adapted to be confined in the saddle in engagement with the projections 35 and 36 and bight portion 37. The configuration of the saddle is adapted to accommodate handles of different contours. For example, as shown by the broken lines 40, the handle may be substantially rectangular in cross-section and be engaged by the arch portions 38 and parallel portions of the jaws as well as the projections.

The jaw 33 forms a portion of the margin of the member 13 and is relatively thin so as to be more flexible or resilient than the jaw 34 which is disposed within said member and extends inwardly from its margin (FIG. 3). A substantially triangular arm or extension 41 of the member is disposed between the shoulder 26 and the jaw 34 and has a margin 42 extending at an obtuse angle to said jaw from its projection 36. The arm 41 projects beyond the shoulder 26, terminating in an apex 43 which is connected to said shoulder by a stepped margin 44 having portions extending parallel to the shoulder 25. As shown most clearly in FIGS. 1 and 2, the arm projects transversely of the legs 15 and 16 of the rest 14 and is adapted to coact therewith to provide a three-point support. Due to its projection, the arm engages the hollow of a user's shoulder when the rest legs are engaged with the front and back of the shoulder.

For coacting with the saddle 32 to confine the handle of a telephone handset therein, a band or strap 45, of spring steel or other flexible material, overlies the outer ends of the jaws 33 and 34 so as to close the outer end of said saddle. As shown most clearly in FIG. 8, an opening 46 is formed in one end of the strap 45 for engagement with a hook element or projection 47 on the outer surface of the jaw 33. The strap extends beyond the other jaw 34 through a longitudinal groove or recess 48 in the margin 42 of the arm 41 and has its opposite end 49 apertured and bent inwardly upon itself at a right angle. An elongated opening or slot 50 is formed in the arm in parallel relation to the shoulder 26 and has its inner end communicating with the inner end of the groove 48 for receiving the strap 45 with its apertured end 49 extending transversely of the slot. The strap end is movably confined by an underlying nut 51 upon a screw 52 which projects inwardly through the arm margin 44 into the slot 50 to permit the strap to be loosened and tightened. The inner end of the screw 52 bears against the bottom of the slot whereby the strap end 49 and nut 51 are moved longitudinally of said slot upon rotation of said screw. Since the jaw 33 is flexible, it is pulled inwardly toward the jaw 34 when the strap 45 is tightened by outward movement of the nut 51. As shown by the numeral 53, the attachment member is of recessed construction to lighten its weight and reduce the amount of required material.

In order to mount the support 10 upon a telephone handset, the screw 52 is rotated to move the nut 51 inwardly of the slot 50 and loosen the strap 45 sufficiently to permit disengagement of its opening 46 from the hook 47. The handle 12 of the handset 11 is positioned with-

in the saddle 32 of the attachment member 13 and the strap is re-engaged with the hook in overlying relation to said handle. Upon rotation of the screw, the strap is tightened to clamp the handle in the saddle and urge the flexible jaw 33 toward the jaw 34. The shoulder rest 14 is disposed with its front leg 15 extending toward the transmitter end of the handset, the illustrated position being for use with the right ear and shoulder. For converting the support for use with the left ear and shoulder, the member and rest are reversed so as to extend in the opposite direction relative to the handset. It is only necessary to loosen the strap 45 in order to permit reversing or inverting of the attachment member and one end of said strap remains fastened to said member during the manipulation of the support. Since it is designed to fit the shoulder, the rest 14 must be reversed when the support is converted for use with the left ear and shoulder. As explained, the screw 22 is loosened to permit sufficient separation of the boss 19 from the shoulder 25 for the withdrawal of the pins 28 from the recesses 24. The rest is turned 180° relative to the member to position the outer end surface 20 of the boss contiguous the shoulder 26 for engagement therewith. Upon tightening of the screw, the support is ready for use. It is noted that the configuration of the saddle 32 and its flexible jaw 33 permits adjustment of the support longitudinally of the handset so that said handset may be comfortably positioned in proper relation to the ear and mouth of the user.

The foregoing description of the invention is explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What I claim and desire to secure by Letters Patent is:

1. A telephone handset support including a shoulder rest, a member adapted to be attached to the handset, the member having a pair of external surfaces in angular relation to each other, the rest having a pair of external surfaces complementary to and for engagement with the surfaces of said member, said rest having a third external surface complementary to and in opposed relation to one of its pair of surfaces for selective engagement with the complementary surface of said member whereby said rest may be reversed relative to said member, the opposed surfaces of said rest extending in angular relation to its other surface, and fastening means extending through the other surfaces of said member and rest.

2. A telephone handset support as set forth in claim 1 including means substantially parallel to the fastening means for connecting the other surfaces of the member and rest and holding one of the opposed surfaces of the rest in engagement with the complementary surface of said member.

3. A telephone handset support as set forth in claim 1 wherein the connecting means includes a projection on one surface and a coacting recess in the other surface.

4. A telephone handset support including a shoulder rest, an attachment member for connection with the handset, the rest and member having complementary abutting external surfaces, an external shoulder on the member in angular relation to its abutting surface, said rest having a pair of opposed external surfaces complementary to each other and in angular relation to its abutting surface for selective engagement with the shoulder, and fastening means extending through the medial portions of the abutting surfaces of said member and rest so as to permit reversal thereof relative to each other.

5. A telephone handset support as set forth in claim 4 including a projection on one of the abutting surfaces, and a recess for the projection in the other abutting surface and coacting with the fastening means to hold one of the opposed surfaces of the rest in engagement with the shoulder.

6. A telephone handset support including a shoulder rest, a projection on the rest having an oblong

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surface and opposed end surfaces complementary to each other and in angular relation to the oblong surface, a member attachable to the handset and having an external surface complementary to and for engagement with the oblong surface of the projection, an external shoulder on the member in angular relation to its surface for selective engagement by one of the end surfaces of said projection whereby the rest and member are reversible relative to each other, and a fastener extending through the oblong surfaces of said member and projection.

7. A telephone handset support as set forth in claim 6 including coacting connecting means on the oblong surfaces of the member and projection for holding one of the end surfaces of said projection in engagement with the shoulder.

8. A telephone handset support including a shoulder rest, an attachment member having a saddle for receiving the handle of the handset, the saddle being formed by a substantially rigid jaw and a more flexible jaw, a flexible strap spanning the outer ends of the jaws and having one of its ends detachably connected to the flexible jaw, the other end of the strap being angular and extending laterally beyond the substantially rigid jaw, the member having a recess for slidably receiving the angular end of said

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strap, a nut slidable in the recess for bearing against said angular strap end, and a screw extending longitudinally of said recess and threaded through the nut, the screw having its inner end bearing against the bottom of said recess for tightening said strap to clamp the handset handle in said saddle.

9. A telephone handset support as set forth in claim 8 wherein the member has an arm extending laterally from its substantially rigid jaw and the shoulder rest for engagement with the hollow of the shoulder of a user when said rest is mounted thereon, the recess being formed in the arm.

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