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2,355,464

HANDSET TELEPHONE MOUNTING

Filed June 27, 1942

2 Sheets-Sheet 1

FIG. 2

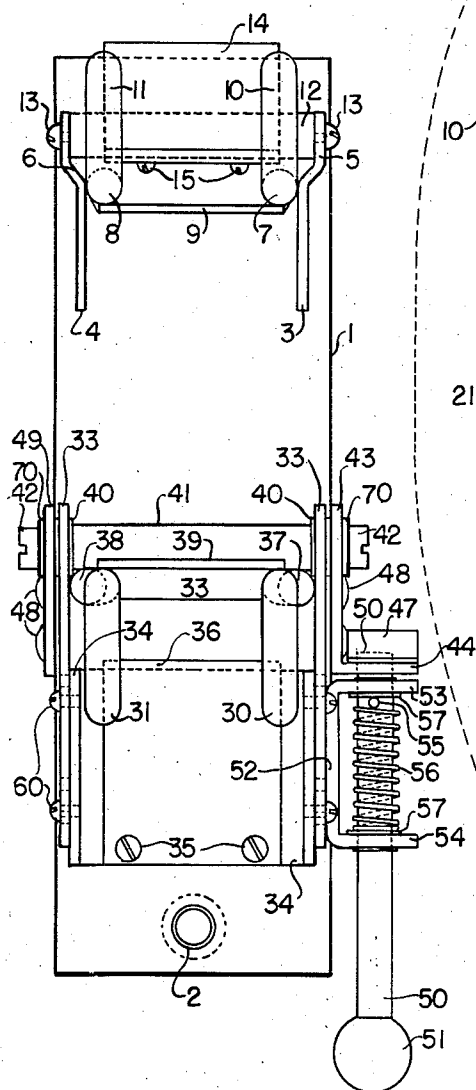
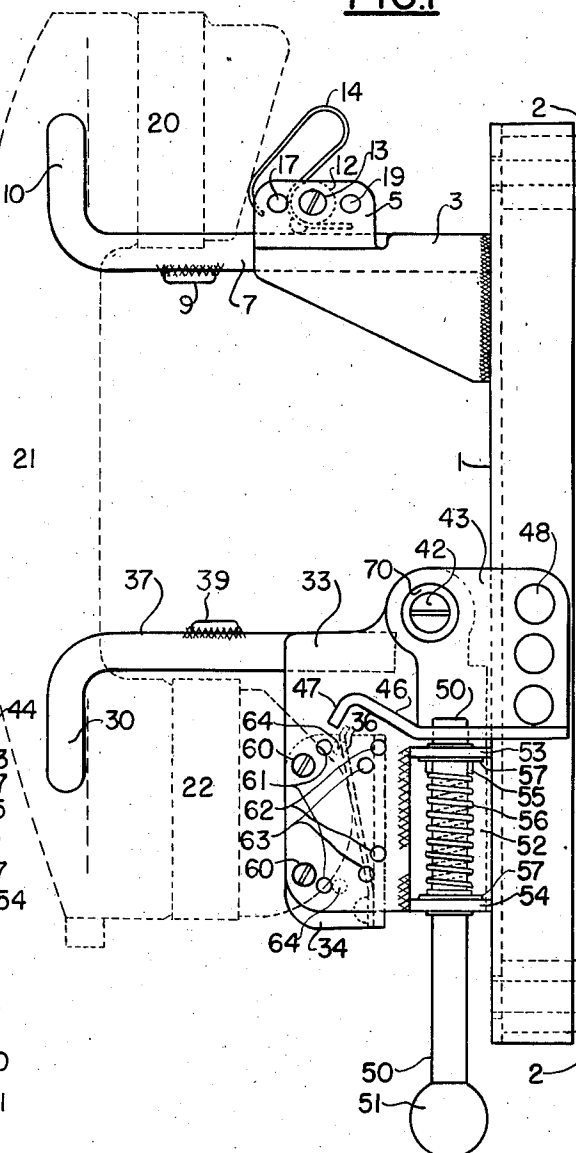


FIG. 1



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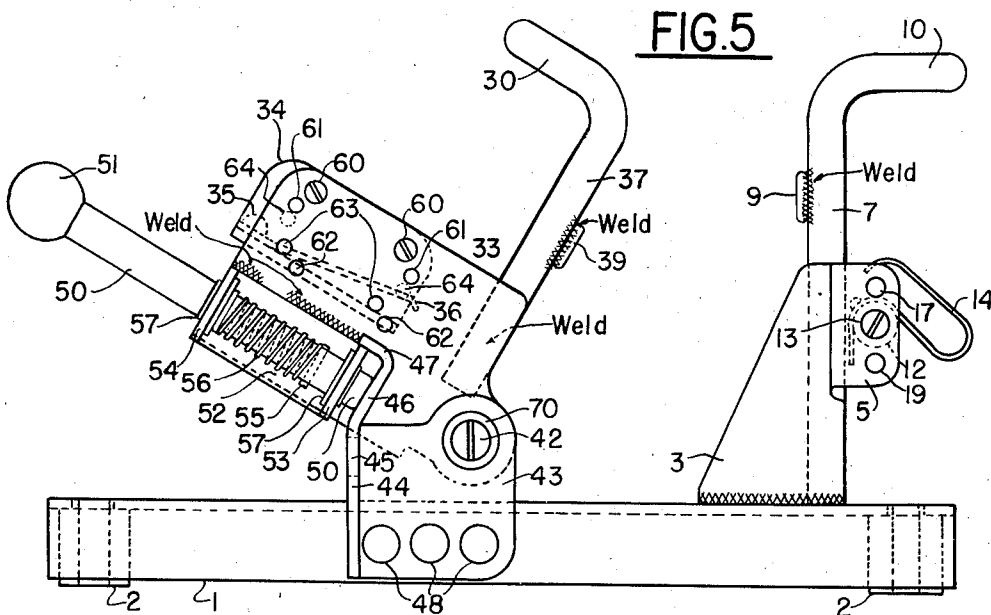
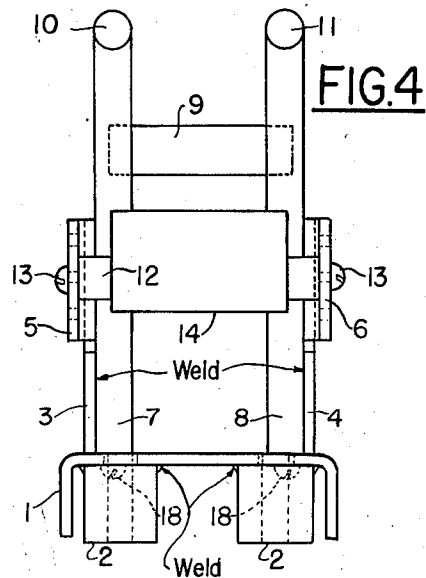
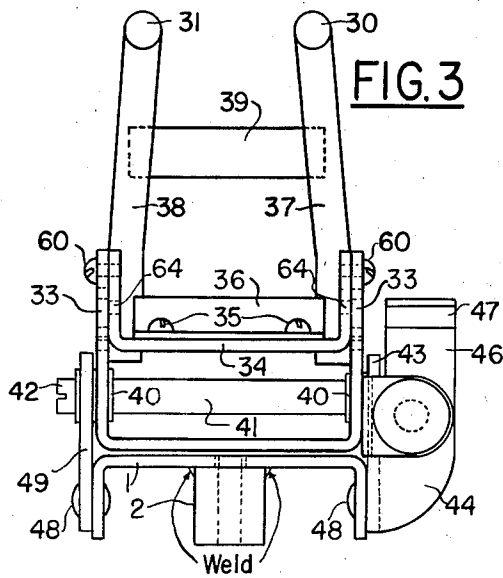
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HANDSET TELEPHONE MOUNTING

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17 Claims. (Cl. 179-146)

This invention relates to mountings for telephonic instruments and more particularly to mountings for handset telephones adapted to be mounted in a vertical position.

One object of the invention is the provision of a mounting arrangement for a handset telephone which will enable easy removal and replacement of the handset from its mounting by the user while preventing displacement therefrom under extreme conditions, such as is encountered on board ship where the telephone set may be subjected to shock, or concussions.

Another object of the invention is the provision of means for manually moving a portion of the mounting means to permit removal of the handset from its mounting by the user.

A further object of the invention is the provision of locking means for positively locking the movable portion of the mounting means to prevent its movement in response to shocks or concussions thereby preventing displacement of the handset until such time as the user performs a definite unlocking manual operation in order to remove the handset from its mounting.

A still further object of the invention is the provision of a universal mounting means which is adjustable to different positions to accommodate several different types of handsets of varying dimensions.

The foregoing objects and others not mentioned will be described hereinafter with reference to the accompanying drawings, in which:

Fig. 1 shows a side view of the mounting for handset telephones, constructed in accordance with the invention and showing, in dotted outline, a handset telephone mounted thereon;

Fig. 2 shows a front view of Fig. 1 without the handset;

Fig. 3 shows a bottom view of Fig. 1;

Fig. 4 shows a top view of Fig. 1; and

Fig. 5 shows a side view of Fig. 1 with the movable portion of the mounting means in its open position to permit removal and replacement of the handset.

Referring now in detail to the drawings, the base 1 comprises an iron channel member having sleeves 2 welded thereto, as shown, for mounting the base in a vertical position. The sleeves 2 have holes provided for screws (not shown) for mounting the base 1 in a vertical position.

A pair of retaining arms 7 and 8 are fastened to the base 1 by means of screws 18, as shown in Fig. 4. These retaining arms extend outwardly in a horizontal direction from base 1 and

include two extensions 10 and 11 which extend upwardly in a vertical direction from the arms 7 and 8. A cross member 9 is welded to the arms 7 and 8 as shown. Side plates 3 and 4 are welded to base 1 and to the arms 7 and 8 to rigidly secure these parts together. The side plates 3 and 4 have outwardly extending portions 5 and 6 upon which the rod 12 and U-shaped spring 14 may be assembled by means of screws 13. The portions 5 and 6 each have 3 holes therein for mounting rod 12 in different positions dependent upon the type of handset being used with this mounting. In accordance with the type of handset shown in dotted outline the rod 12 is mounted in the center hole.

In handsets having smaller outside dimensions for the receiver portion 20 of the handset the rod 12 would be mounted in the holes 17 while the hole 19 would be used when the receiver portion is larger than the one shown. As will be seen in Fig. 1, the U-shaped spring 14 engages the front surface of the receiver portion 20 of the handset and presses the rear outside surface of the receiver portion 20 of the handset against the extensions 10 and 11. It should also be noted that the arms 7 and 8 and their extensions 10 and 11 are separated by a distance greater than the distance through the handle portion 21 of the handset but considerable smaller than the distance through the receiver portion 20 of the handset. The extensions 10 and 11 extend in a direction parallel with the handle and over the outside rear surface of the receiver portion 20 of the handset to permit spring 14 to press the outside rear surfaces of the receiver portion 20 against the extensions 10 and 11.

A side plate 49, shown in Figs. 2 and 3, is riveted by means of rivets 48 to the left-hand side of base 1. Side plate 49 is made of brass and is drilled with a hole to allow the shaft 41 to rotate freely therein. A brass side plate 43 is riveted to the right-hand side of base 1 by means of rivets 48. This side plate is likewise drilled with a hole to allow shaft 41 to rotate freely therein. In addition side plate 43 has a portion 44 bent at right angles to plate 43 and is provided with a hole 45 for locking the rod 50. Portion 46 is an extension of 44 and extends at an angle, as shown, to provide a frictional slide for the end of rod 50 when the rod 50 is removed from the hole 45 in portion 44 and raised upwardly. The curved end 47 is a stop for limiting the extent of movement of the rod 50 in an upwardly direction.

A U-shaped channel member 33 has brass

bushings 40 provided in the outwardly turned side portions near their upper ends to permit shaft 41 to freely rotate therein. A pair of retaining arms 37 and 38 are welded to the side portions of channel member 33 and extend outwardly from base 1 in a horizontal direction as seen in Fig. 1. A cross member 39 is welded to the arms 37 and 38, as shown, to strengthen this assembly. Arms 37 and 38 have extensions 30 and 31 which extend downward in a vertical direction from the arms 37 and 38. It will be noted that the arms 37 and 38 converge toward each other, as shown in Fig. 3, so that the extensions 30 and 31 are separated the same amount of distance as the extensions 10 and 11. The distance between the extensions 30 and 31 is greater than the width of the handle portion 21 of the handset but less than the width, or diameter, of the transmitter portion 22 of the handset so that these extensions engage the outside rear surface of the transmitter portion 22 of the handset. A second U-shaped channel member 34 having a flat spring 35 secured thereto by screws 35 is fastened within the channel member 33. Member 34 is secured to member 33 by means of screws 60 extending through holes in member 33 into tapped holes in member 34 in the position shown best in Figs. 1 and 5.

Additional holes 61, 62 and 63 are provided in the sides of member 33 and additional tapped holes 64 are provided in the sides of the inner member 34 to provide different positions for the inner member 34 with respect to the outer member 33 in accordance with the different types of handsets being used with this mounting. The depth of the transmitter portion 22 from the rear surface portion, shown engaged by extensions 30 and 31, to the front portion, shown engaged by flat spring 35, determines which holes in the members 33 and 34 should be used for the particular handset being used in this mounting. For different types of handsets having less depth than the one shown, the holes 61 and 64 should be used for one type, the holes 63 for another type, and the holes 62 for a still further type. The screws 60 being used in the corresponding holes for the different positions of the inner member 34.

A U-shaped member 52 is welded to the right-hand side of member 33 in the position shown. The turned ends 53 and 54 of member 52 are each provided with brass bushings 57 to provide a slidable fit for the rod 50 which extends through these bushings and into the hole 45 provided in the turned edge 44 of side plate 43. A pin 55 extends through the rod 50 and normally holds the coil spring 56 encircling the rod 50 slightly compressed so that the spring holds the pin 55 against the bushing 54 and the end of rod 50 extends through the hole 45 in the edge 44 of plate 43 in the normal or closed position of lower retaining assembly. A circular knob 51 is provided on the end of rod 50 to enable the user to pull the rod down against spring tension and out of locking hole 45 preparatory to rotating the lower retaining assembly.

A shaft 41 extends through the bushings 40 in the sides of channel member 33 and through holes in the side plates 44 and 49 and are held in place by means of washers 70 and screws 42 secured in tapped holes in the ends of shaft 41. The entire lower retaining assembly, as shown in Fig. 5, is rotatable on shaft 41 only after the rod 50 has been manually withdrawn from the hole 45 of end 44. The lower retaining assembly

is positively locked in its closed position, as shown in Fig. 1, by the rod 50 extending into hole 45 and a manual operation of the rod 50 to further compress spring 56 is necessary before the user can withdraw the end of rod 50 from hole 45 and move the assembly to its open position, as shown in Fig. 5.

In order to replace the handset in its mounting the receiver portion 20 is hooked over the extensions 10 and 11 of the stationary retaining assembly with the front outside surface of the receiver portion engaging the U-shaped spring 14 and the extensions 10 and 11 engaging the outside rear surface of the receiver portion 20. The transmitter portion 22 of the handset is then moved in a radial direction against the flat spring 35 thereby causing downward rotary movement of the entire movable retaining assembly until the rod 50 is aligned opposite the hole 45 whereupon the spring 56 pushes the rod 50 through hole 45 to lock the movable retaining assembly in its closed position.

Any shock, or concussion, cannot displace the handset because the rod 50 and hole 45 positively locks the movable retaining assembly in its closed position and because the extensions 10—11 and 30—31, bars 7 and 39, and members 12 and 34 with their associated springs 14 and 36 prevent sufficient movement of the handset in any direction to displace the same from its mounting.

In order to remove the handset for use, the user must first pull the rod 50 downwardly until the end of rod 50 is withdrawn from hole 45 and then radially rotate the rod 50 and lower movable retaining assembly in an upward direction until the turned end 53 strikes the stop 47. The knob 51 may now be released and the movable retaining assembly is frictionally held in its open position by the spring 56 pressing the end of rod 50 on the sloping portion 46 of side plate 43. The handset may now be removed from its mounting because the extensions 30 and 31 have rotated far enough to permit such removal.

The replacement of the handset automatically actuates the movable retaining assembly to its closed position where it is locked as previously described.

What is claimed is:

1. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of the handset, a pivotal retaining means for engaging and receiving the other end of the handset, and latching means for latching said pivotal retaining means to prevent removal or displacement of said handset from its mounting.

2. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for engaging and receiving one end of the handset, a pivotal retaining means for receiving the other end of the handset, latching means for latching said pivotal retaining means to prevent removal or displacement of said handset from its mounting, and means manually operative to unlatch said latching means and pivot said pivotal retaining means to permit removal of said handset from its mounting.

3. A mounting for handset telephones including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a pivotal retaining means for en-

engaging and receiving the other end of said handset, said pivotal retaining means having an open position for permitting manual removal and replacement of said handset, said pivotal retaining means having a closed position for preventing displacement of said handset from its mounting, and latching means for latching said pivotal retaining means in its closed position.

4. A mounting for handset telephones including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a pivotal retaining means for engaging and receiving the other end of said handset, said pivotal retaining means having an open position for permitting manual removal and replacement of said handset, said pivotal retaining means having a closed position for preventing displacement of said handset from its mounting, latching means for latching said pivotal retaining means in its closed position, and means manually operative to unlatch said latching means and pivot said pivotal retaining means from its closed position to its open position.

5. A mounting for handset telephones including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a pivotal retaining means for engaging and receiving the other end of said handset, said pivotal retaining means having an open position for permitting manual removal and replacement of said handset, said pivotal retaining means having a closed position for preventing displacement of said handset from its mounting, latching means for latching said pivotal retaining means in its closed position, means manually operative to unlatch said latching means and pivot said pivotal retaining means from its closed position to its open position, and means including a spring cooperating with said manually operative means for frictionally maintaining said pivotal retaining means in its open position.

6. A mounting for handset telephones including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a movable retaining means for receiving the other end of said handset, said movable retaining means having an open position for permitting manual removal and replacement of said handset, said movable retaining means having a closed position for preventing displacement of said handset from its mounting, latching means for latching said movable retaining means in its closed position, means manually operative to unlatch said latching means and move said movable retaining means from its closed position to its open position, means including a spring cooperating with said manually operative means for frictionally maintaining said movable retaining means in its open position, said movable retaining means automatically moved to its closed position and said latching means automatically latching said movable retaining means in its closed position in response to the manual replacement of said handset in its mounting.

7. A mounting for handset telephones including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a movable retaining means for receiving the other end of said handset, latching means for latching said movable retaining means to pre-

vent removal or displacement of said handset from its mounting, manual means operative to unlatch said latching means and to move said movable retaining means to permit removal of said handset from its mounting, means for limiting the movement of said movable retaining means, means including a spring cooperating with said manually operative means for frictionally maintaining said movable retaining means in its moved position, and means whereby the manual replacement of said handset in its mounting automatically moves said movable retaining means to its latched position and automatically operates said latching means.

8. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a base, a pair of retaining means spaced on said base between the telephonic instruments of said handset, extensions on said retaining means engaging the outside rear surfaces of said telephonic instruments for retaining said handset in its mounting, and means for pivotally mounting one of said retaining means on said base to permit removal and replacement of said handset.

9. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising retaining means located in between the telephonic instruments of said handset, extensions on said retaining means extending along side said handle and over the outside rear surfaces of said telephonic instruments for retaining said handset in its mounting, and means for movably mounting a portion of said retaining means and its extensions to permit removal and replacement of said handset in its mounting.

10. A mounting for handset telephones including a handle, a receiver at one end of said handle, and a transmitter at the other end of said handle, comprising a pair of retaining means for engaging both the rear and front surfaces of the receiver and transmitter portions of the handset to maintain the handset in place, and means for pivotally mounting one of said retaining means to permit removal and replacement of said handset.

11. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a base, a stationary retaining means for receiving one end of said handset, said stationary retaining means including a horizontal portion extending outwardly from said base and a vertical portion extending upwardly from said horizontal portion, said vertical portion for engaging the rear outside surfaces of one of said telephonic instruments at said one end, and a movable retaining means for receiving the other end of said handset, said movable retaining means including a horizontal portion extending outwardly from said base and a vertical portion extending downwardly from said horizontal portion, said downwardly extending vertical portion for engaging the rear outside surfaces of the other of said telephonic instruments at said other end.

12. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a base, a stationary retaining means for receiving one end of said handset, said stationary retaining means including a horizontal portion extending outwardly from said base and a vertical portion extending upwardly from said horizontal por-

tion, said vertical portion for engaging the rear outside surfaces of one of said telephonic instruments at said one end, a movable retaining means for receiving the other end of said handset, said movable retaining means including a horizontal portion extending outwardly from said base and a vertical portion extending downwardly from said horizontal portion, said downwardly extending vertical portion for engaging the rear outside surfaces of the other of said telephonic instruments at said other end, and means for pivotally mounting said movable retaining means on said base.

13. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a base, a stationary retaining means for receiving one end of said handset, said stationary retaining means including a horizontal portion extending outwardly from said base and a vertical portion extending upwardly from said horizontal portion, said vertical portion for engaging the rear outside surfaces of one of said telephonic instruments at said one end, a movable retaining means for receiving the other end of said handset, said movable retaining means including a horizontal portion extending outwardly from said base and a vertical portion extending downwardly from said horizontal portion, said downwardly extending vertical portion for engaging the rear outside surfaces of the other of said telephonic instruments at said other end, means for pivotally mounting said movable retaining means on said base, and means for locking said movable retaining means against movement.

14. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, said stationary retaining means including a pair of parallel arms for engaging the outside rear surface of one of said telephonic instruments at one of said ends and resilient means engaging the outside front surface of said one telephonic instrument to resiliently hold said one telephonic instrument in engagement with said parallel arms, and a movable retaining means for receiving the other end of said handset, said movable retaining means including a pair of parallel arms for engaging the outside rear surface of the other of said telephonic instruments at the other of said ends and resilient means engaging the outside front surface of said other telephonic instrument to resiliently hold said other telephonic instrument in engagement with said latter parallel arms.

15. In a mounting for a handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, said stationary retaining means including a pair of parallel arms for engaging the outside rear surface of one of said telephonic instruments at one of said ends and resilient means

engaging the outside front surface of said one telephonic instrument to resiliently hold said one telephonic instrument in engagement with said parallel arms, a movable retaining means for receiving the other end of said handset, said movable retaining means including a pair of parallel arms for engaging the outside rear surface of the other of said telephonic instruments at the other of said ends and resilient means engaging the outside front surface of said other telephonic instrument to resiliently hold said other telephonic instrument in engagement with said latter parallel arms, and means for latching said movable retaining means to prevent removal or displacement of said handset from its mounting.

16. A mounting for handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a movable retaining means for receiving the other end of said handset, said movable retaining means having an open position for permitting manual removal and replacement of said handset, said movable retaining means having a closed position for preventing displacement of said handset from its mounting; and latching means comprising a manually movable rod slidably secured to said movable retaining means, a stationary plate having a flat surface and a hole for latching said rod, and a spring cooperating with said rod for sliding said rod through said hole in said plate to latch said movable retaining means in its closed position and for pressing said rod against said flat surface of said plate to frictionally maintain said movable retaining means in its open position.

17. A mounting for handset telephone including a handle and telephonic instruments at opposite ends of said handle, comprising a stationary retaining means for receiving one end of said handset, a movable retaining means for receiving the other end of said handset, said movable retaining means having an open position for permitting manual removal and replacement of said handset, said movable retaining means having a closed position for preventing displacement of said handset from its mounting; latching means comprising a manually movable rod slidably secured to said movable retaining means, a stationary plate having a flat surface and a hole for latching said rod, and a spring cooperating with said rod for sliding said rod through said hole in said plate to latch said movable retaining means in its closed position and for pressing said rod against said flat surface of said plate to frictionally maintain said movable retaining means in its open position, and means whereby the manual replacement of said handset in its mounting automatically moves said movable retaining means from its open position to its closed position and automatically operates said latching means to latch said movable retaining means in its closed position.

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