

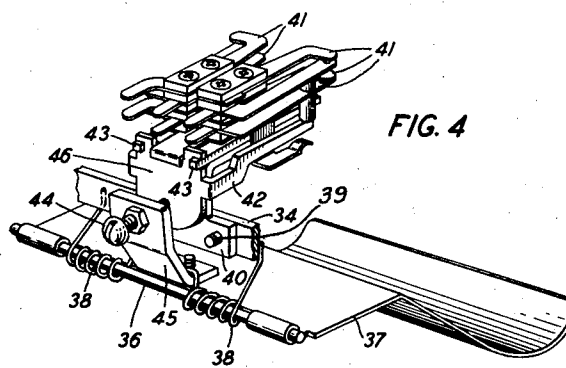
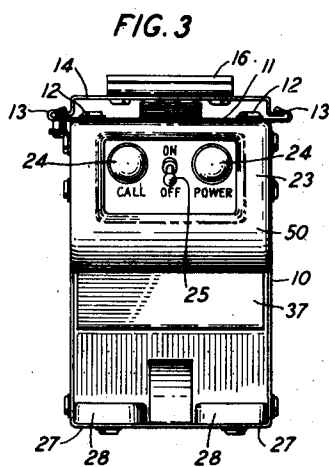
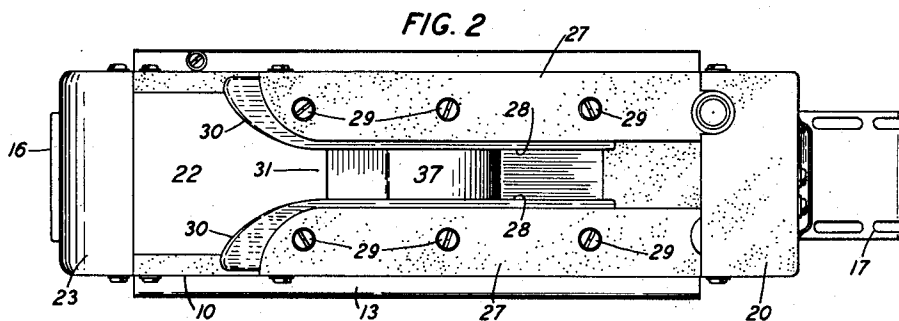
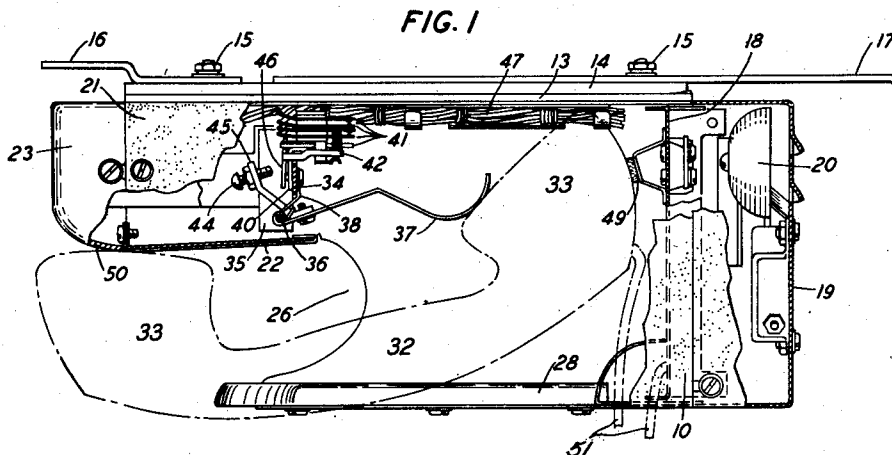
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TELEPHONE SUBSTATION APPARATUS

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TELEPHONE SUBSTATION APPARATUS

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1

This invention relates to telephone substation apparatus and more particularly to mountings for hand telephones, especially suitable for use in mobile equipment, for example in motor vehicles.

One general object of this invention is to improve hand telephone mountings particularly adapted for use in mobile equipment.

More specifically, objects of this invention are to facilitate and insure the placement of the hand telephone on the mounting in proper position to effect operation of the circuit controlling members, to prevent accidental dislodgment of the telephone, to protect the hand telephone when not in use and to simplify the construction of the mounting.

In one illustrative embodiment of this invention, a mounting for a hand telephone comprises a housing adapted to be supported below the dashboard of a motor vehicle, the housing having circuit controlling members supported therein and defining a chamber into which a hand telephone may be inserted longitudinally.

In accordance with one feature of this invention, the housing is provided with rails defining a guide for accommodating the handle of the hand telephone and effective upon insertion of the hand telephone into the housing to automatically position one of the telephone instrument housing portions upon the handle in operative relation with the circuit controlling members.

In accordance with another feature of this invention, the circuit controlling mechanism comprises a plurality of contact springs and a pivoted actuating member therefor adapted to engage one of the instrument enclosing portions of the hand telephone, and means are provided in association with the actuating member for urging it firmly against this portion thereby to hold the hand telephone securely in place when it is inserted into the mounting.

The invention and the above noted and other features thereof will be understood more clearly and fully from the following detailed description with reference to the accompanying drawing in which:

Fig. 1 is a side view partly in section and partly broken away of a hand telephone mounting illustrative of one embodiment of this invention, a hand telephone being shown in broken outline in position on the mounting;

Figs. 2 and 3 are bottom and front views respectively of the mounting; and

Fig. 4 is a perspective view of the contact spring assembly and the spring actuating sys-

2

tem included in the mounting shown in Fig. 1.

Referring now to the drawing, the mounting therein illustrated comprises a housing, for example of sheet metal, including a body portion 10 to the top of which a plate 11 is affixed as by screws 12. The plate 11, as shown clearly in Fig. 3, is provided with bent-over parallel side flanges 13 defining channels for slidably receiving a mounting plate 14. The latter has secured thereto, as by bolts 15, a pair of mounting brackets 16 and 17, through the agency of which the mounting may be supported horizontally as in Fig. 1, below the dashboard of a motor vehicle.

Extending across the body portion 10 adjacent the rear end thereof is a plate 18 upon which electrical terminals, not shown, are secured. The rear of the housing 10 is closed by a cover member 19 in and by which substation instrumentalities, such as a ringer 20, are supported.

The housing includes also a forwardly extending or overhanging portion 21, closed at its bottom by a plate 22 and at its front by a cap or cover 23, and defining a chamber wherein signal or indicator lamps 24 and a control switch 25 are mounted. The sides of the body 10 adjacent and below the overhanging portion 21 are cut away as indicated at 26 for reasons which will appear presently.

The bottom of the housing is defined in part by a pair of flanges 27 to which parallel rails 28, for example of hard rubber or a phenolic condensation product, are secured as by screws 29. The rails 28 are smoothly rounded at their outer end portions, as indicated at 30, and define a guide or channel 31 for accommodating the handle 32 of a hand telephone. The latter is provided at its ends with housing portions 33 in which the receiver and transmitter are enclosed. The channel 31 also serves as a guide for the telephone cord 34 extending from the hand telephone so that when the hand telephone is placed in the mounting, the cord slides to the rear of the mounting and, thus, is held out of the way.

Extending transversely of the overhanging portion 21 adjacent the inner end thereof and affixed to the side walls of the housing is a U-shaped bracket 35 having side arm extensions 36, only one of which is shown, between which a shaft or axle 37 is supported. The shaft or axle 37 carries an actuating member or rocker plate 38 which, as indicated in Fig. 1, is adapted to be engaged by the transmitter end of the hand telephone. A double coil spring 39 is associated with the bracket 35 and rocker plate 38 and is

biased to urge the rocker plate toward and into firm contact with the hand telephone.

The bracket 34 has secured thereto, as by screws 39, a T-sharped arm or support 40 upon which a contact spring assembly is mounted. This assembly includes a plurality of contact springs 41 and an actuating arm 42 therefor, the arm 42 being pivoted upon fixed rigid fingers 43 and having a portion 46 positioned to be engaged by an adjustable screw 44 carried by a finger piece 45 secured to the rocker plate 37 and movable therewith. The portion 46 of the actuating arm partly overlies the support 40 so that rocking of the arm 42 in the counter-clockwise direction is limited and overstressing of the contact springs 41 is prevented.

Connection between the contact springs 41, the switch 25 and indicator lamps 24 and the terminals upon the plate 18 is established by a multi-conductor cable 47.

Mounted upon the plate 18 is a resilient buffer 49 which, as illustrated in Fig. 1, is positioned to be engaged by the transmitter end of the hand telephone and serves as a stop to prevent insertion of the hand telephone to a position beyond that for which the rocker plate 37 remains in engagement with the transmitter end of the hand telephone.

When the hand telephone is inserted into the housing, the handle is engaged by the guide rails 28 and is positioned and guided thereby automatically so that the transmitter end engages the rocker plate 37 and slides into engagement with the buffer 49 while the face of the receiver end slides over the rounded portion 50 of the cap or cover 23. The rocker plate 37 is thus rocked and the contact springs 41 are actuated. As has been noted heretofore, the spring 38 urges the plate into firm engagement with the hand telephone so that the latter is locked against the guide rails 28 and the buffer 49. This locking prevents dislodgment of the hand telephone even though the mounting is subjected to severe shocks and jars such as occur in the operation of motor vehicles. Further, it will be noted that the hand telephone is substantially enclosed when in place on the mounting and thus is protected.

When it is desired to use the hand telephone, the receiver end may be grasped readily because of the cut-out portions 26, and the telephone may be withdrawn, being guided by the rails 28. The rocker arm 37 rocks clockwise so that the screw 44 engages the portion 46 and the contacts 41 are operated.

Although a specific embodiment of the invention has been shown and described, it will be understood that it is but illustrative and that various modifications may be made therein without departing from the scope and spirit of this invention as defined in the appended claims.

What is claimed is:

1. A mounting for a hand telephone having a handle and a pair of spaced telephone instruments thereon, said mounting comprising a housing having a base portion and a wall provided with an aperture adjacent said base portion into which the hand telephone is insertable lengthwise, a pair of parallel members on said base portion, extending longitudinally thereof from adjacent said opening and spaced to define a guide for accommodating the handle of the hand telephone, circuit controlling means in said housing, actuating means for said circuit controlling means including a pivotally mounted operating member

opposite said guide, projecting into the space into which the hand telephone is insertable and positioned to be engaged by one of the telephone instruments, and resilient means separate from said circuit controlling and actuating means for holding the hand telephone against said parallel members.

2. A mounting for a hand telephone having a handle and a pair of telephone instruments mounted at opposite ends of the handle, said mounting comprising a housing having a base portion and an opening adjacent said base portion through which the hand telephone is insertable lengthwise into said housing, a pair of parallel rails on said base portion defining a guide extending parallel to said portion from adjacent said opening, for slidably accommodating the handle of the hand telephone, a plate member extending transversely of said housing opposite said guide, pivotally mounted and positioned to be engaged by one end portion of the hand telephone, circuit controlling means actuable by said plate member, means for holding the hand telephone against said rails including resilient means separate from said circuit controlling means and coupled to said plate member, and stop means within said housing positioned to be engaged by said end portion and to prevent disengagement of said portion from said plate member upon insertion of said hand telephone into said housing.

3. A mounting for a hand telephone having a handle and telephone instruments at the ends of the handle, the mounting comprising a housing having a base portion, side walls, an opening adjacent said base portion through which the hand telephone is insertable lengthwise into the housing and a front portion overhanging said opening and said base portion, a pair of rails upon said base portion defining a guide for accommodating the handle of the hand telephone, means within said housing for limiting insertion of the hand telephone beyond the point where the outer end of the hand telephone is below said overhanging portion, contact springs within said housing, means for actuating said springs comprising a plate pivotally mounted adjacent the inner end of said overhanging portion and positioned opposite said guide to be engaged by the hand telephone, and means including a helical spring coupled to said plate for holding the hand telephone against said rails.

4. A mounting for a hand telephone having a handle and a pair of spaced telephone instruments thereon, said mounting comprising a housing having a base portion and a wall provided with an aperture adjacent said base portion into which the hand telephone is insertable lengthwise, and a pair of parallel members on said base portion, substantially coextensive therewith, extending longitudinally thereof from adjacent said opening, and spaced to define a guide for accommodating the handle of the hand telephone.

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