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DESK TELEPHONE SET

Filed Oct. 29, 1930

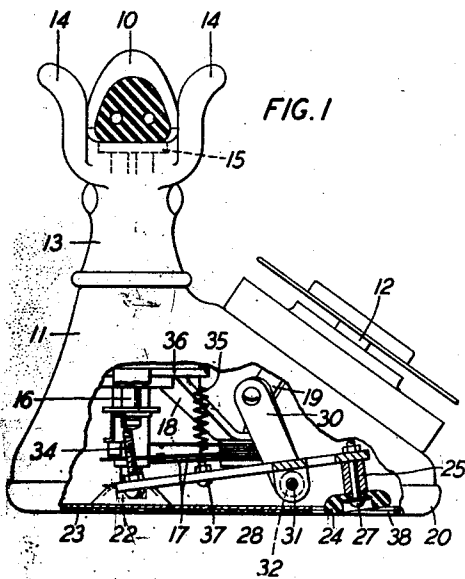


FIG. 1

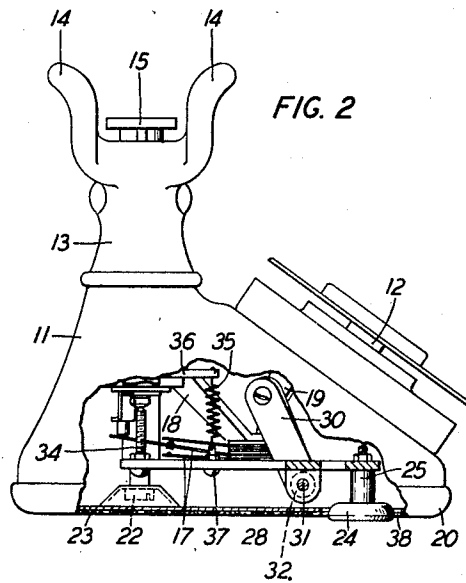
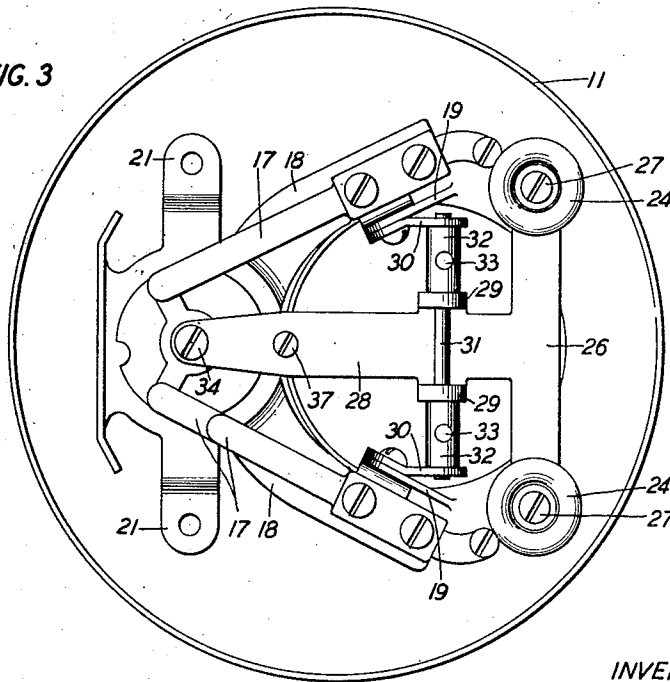


FIG. 2

FIG. 3



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DESK TELEPHONE SET

Application filed October 29, 1930. Serial No. 491,829.

This invention relates to telephone substitution apparatus and more particularly to telephone desk sets for automatic systems.

Desk sets for automatic systems usually comprise a movable stand on which a dialing mechanism is mounted. When using a desk set of this type it has been found that during the dialing operation the movable stand tends to slide over the surface of the desk, table or the like on which it rests and thereby causes inconvenience to the telephone user. In fact, it is often necessary to hold the stand with one hand while dialing with the other.

An object of this invention is to prevent slipping of the movable stand during the dialing operation while allowing easy movement of the desk set at all other times.

This object is attained in accordance with this invention by providing a plurality of friction members in the base of the telephone desk set. The members are mounted on one end of a lever and when the desk set is not in use the lever is tilted so that the friction members are withdrawn into the base and out of contact with the surface on which the telephone set rests. However, when the receiver or hand telephone is removed from the stand, the lever is automatically released until the friction members engage the supporting surface and prevent slipping of the stand during the subsequent dialing operation. When the receiver or hand telephone is replaced on the stand, the friction members are disengaged from the supporting surface and the telephone set may be moved at will to any desired position on the supporting surface.

The features of the invention will be more clearly understood from the following detailed description with reference to the accompanying drawings.

Fig. 1 is a view in elevation of a telephone desk set made in accordance with this invention with a portion of the desk stand broken away to show the assembly of the automatic friction device and the position of the friction members when the hand telephone, a cross section of which is shown, is at rest on the cradle of the desk stand;

Fig. 2 is a similar view of the desk stand with a portion broken away to show the posi-

tion of the friction members when the hand telephone is removed from the cradle of the desk stand; and

Fig. 3 is a bottom view of the telephone desk stand with the base plate removed showing the automatic friction device of this invention.

Referring now to the drawings, the telephone desk set comprises a hand telephone 10, shown in cross section in Fig. 1, and a desk stand. The desk stand, the essential elements of which are shown more clearly in U. S. Patent 1,508,424 issued September 16, 1924, to George R. Thompson, comprises a hollow pedestal 11 upon which a dialing mechanism 12 is mounted, a tubular standard 13, and a cradle, having a plurality of upwardly and outwardly flared tines 14, in which the hand telephone 10 rests when the telephone desk set is not in use. A plunger comprising a flat horizontal bar 15 lying between the tines 14 and a spindle 16 adapted to reciprocate in the tubular standard 13 actuates contact springs 17 mounted on the arms 18 of a pyramidal frame. This frame is rigidly supported within the pedestal 11 on inwardly extending lugs 19 integral with the pedestal 11. A base plate 20 is affixed to arms 21 of the pyramidal frame by bolts 22 and is provided with a covering 23 of felt or similar material to prevent marring of the surface of the desk, table or the like on which the desk stand rests.

When the desk set is used the hand telephone 10 is removed from the cradle and the dialing mechanism 12 is manipulated by the subscriber to call the desired number. During this dialing operation the horizontal component of the pressure applied to the dialing mechanism is often sufficient to cause the desk stand to slide across the surface on which it rests and thereby inconvenience the person using the desk set.

This objectionable movement of the desk stand is substantially prevented in accordance with this invention by providing a plurality of friction members or feet 24, of rubber or similar material, which are caused to engage the surface on which the desk stand rests whenever the hand telephone is removed from

the cradle. The friction feet 24 are affixed, together with tubular spacers 25, to the ends of a flat bar 26 by bolts 27. The bar 26 is formed integral with and at right angles to a flat bar 28 to form a T shaped lever. The bar 28 is provided with integral apertured lugs 29 disposed parallel to apertured arms or flanges 30 rigidly attached to the lugs 19. A rigid metallic rod 31 passes through the lugs 29, the flanges 30 and tubular sleeves 32 affixed to the rod 31 by set screws 33, and thereby provides a fulcrum about which the lever, comprising the bars 26 and 28, may rock. The free end of the bar 28 is provided with an adjustable screw 34 which engages the lower end of the spindle 16. A helical tension spring 35 is attached at one end to a projecting arm 36 integral with the pyramidal frame within the pedestal 11 and at its other end is attached to the flat bar 28 by a bolt 37.

When the hand telephone 10 is in the cradle, as shown in Fig. 1, the plunger is depressed and the lower end thereof engages the set screw 34 thereby holding the friction feet 24 adjacent the apertures 38 in the base plate 20 out of engagement with the surface on which the desk stand rests. The desk stand may therefore be easily moved over the surface on which it rests to any desired position. When the hand telephone is removed from the cradle, as shown in Fig. 2, the plunger rises within the standard 13 and the helical spring 35 rocks the lever about the rod 31 so that the friction feet 24 are projected through the apertures 38 in the base plate 20 and caused to engage the surface upon which the desk stand rests. During the subsequent dialing operation the feet 24 grip the surface on which the desk stand rests and prevent any slipping of the desk stand over the surface. When the hand telephone 10 is replaced upon the cradle, the feet 24 are lifted out of engagement with the supporting surface to the inoperative position as shown in Fig. 1. The desk set may again be easily moved to any desired place on the desk, table or the like on which it rests.

Although in the specific embodiment illustrated the invention is incorporated in a desk set embodying a hand telephone, it is equally applicable to a desk set of the type in which a receiver is supported on a hook switch pivoted on a standard rigidly supporting a telephone transmitter. It is to be understood that any number of friction feet may be used and that many modifications may be made in this invention without departing from the scope thereof as defined in the appended claims.

What is claimed is:

1. A telephone desk set comprising a hand telephone, a desk stand therefor adapted to rest on a substantially horizontal surface, and means automatically operable only when

said hand telephone is removed from said desk stand for preventing sliding movement of said desk stand over said surface.

2. A telephone desk set comprising a pedestal adapted to rest on a substantially horizontal surface, switching mechanism mounted within said pedestal, dialing means mounted on said pedestal, and means controllable by said switching mechanism for preventing sliding movement of said pedestal on said horizontal surface when said dialing means is operated.

3. The combination with a hand telephone of a support therefor comprising a base adapted to rest on a substantially horizontal surface, a standard mounted on said base, a cradle member on said standard for seating the hand telephone, a plunger reciprocable in said standard, and friction means controllable by said plunger for engaging said surface when said hand telephone is removed from said cradle.

4. A telephone desk set comprising a hand telephone, a desk stand therefor adapted to rest on a substantially horizontal surface, means operable when said hand telephone is removed from said desk stand for preventing sliding movement of said desk stand over said surface, and means operable when said hand telephone is replaced on said desk stand to render said first mentioned means inoperative.

5. A telephone desk set comprising a pedestal adapted to rest on a substantially horizontal surface, dialing mechanism on said pedestal, means operable to prevent sliding movement of said pedestal on said surface when said dialing mechanism is operated, and means for rendering said first mentioned means inoperative.

6. A telephone desk stand comprising a pedestal adapted to rest on a substantially horizontal surface, a standard on said pedestal, a plunger reciprocable in said standard, a lever having one end in engagement with said plunger, and friction means for engaging said surface mounted on the other end of said lever.

7. A telephone desk stand comprising a pedestal adapted to rest on a substantially horizontal surface, a standard on said pedestal, a plunger reciprocable in said standard, a lever having one end in engagement with said plunger, friction means mounted on the other end of said lever and means for causing said friction means to engage said surface when said plunger is in its raised position.

8. A telephone desk stand comprising a pedestal, a base plate for said pedestal having a plurality of apertures therein, a standard on said pedestal, a plunger reciprocable in said standard, a lever fulcrumed within said pedestal and having one end in engagement with said plunger, and friction feet

mounted on said lever and disposed adjacent said apertures.

9. A telephone desk set comprising a pedestal adapted to rest on a substantially horizontal surface, a base plate for said pedestal having a plurality of apertures therein, a standard on said pedestal, a plunger reciprocable in said standard, a lever fulcrumed within said pedestal and having one end in engagement with said plunger, a plurality of friction members mounted on said lever and disposed adjacent said apertures, and means for causing said friction members to project through said apertures and engage said surface.

10. In combination with a hand telephone, a desk stand therefor adapted to rest on a substantially plane surface, a lever within said desk stand, friction means mounted on said lever and normally out of contact with said surface, and means engaging said lever and operable when the hand telephone is removed from the desk stand to cause said friction means to engage said surface.

11. A telephone desk set comprising a hand telephone, a stand therefor adapted to rest on a surface, a lever within said stand, friction members attached to said lever, and reciprocating means engaged by said hand telephone for automatically tilting said lever in opposite directions to cause engagement or release of said friction members with the surface.

12. In combination with a hand telephone, a desk stand therefor comprising a pedestal adapted to rest on a substantially horizontal surface, a base plate for said pedestal having a plurality of apertures therein, a standard on said pedestal, a plunger reciprocable in said standard, a lever in said pedestal fulcrumed intermediate its end and having one end in engagement with said plunger, friction means mounted on the other end of said lever and disposed adjacent said apertures, tension means for tilting said lever when said hand telephone is removed from said desk stand to cause said friction means to engage said surface, and means for disengaging said friction means from said surface when said hand telephone is reassociated with said desk stand.

In witness whereof, I hereunto subscribe my name this 27th day of October, 1930.

IRVING L. HOPKINS.