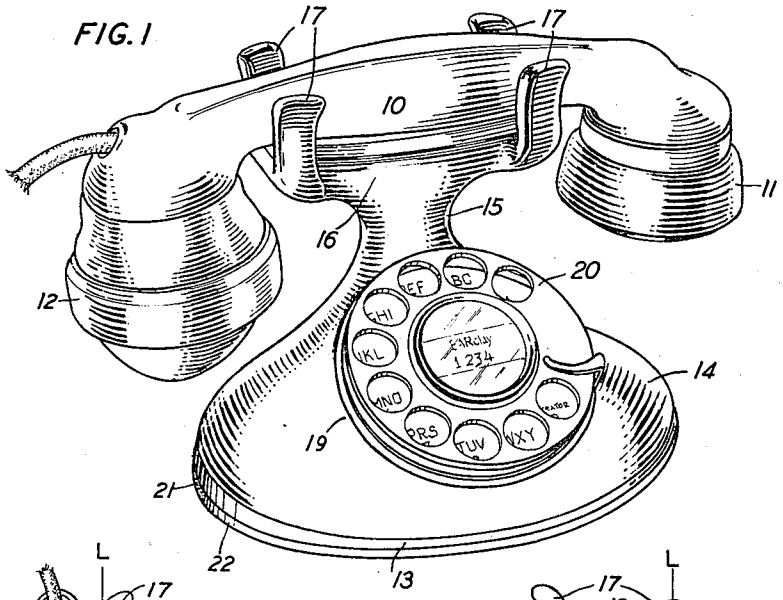
Nov. 5, 1935. W. A. EVANS 2,019,601

TELEPHONE SUBSTATION APPARATUS

Filed Jan. 15, 1935

FIG. 1



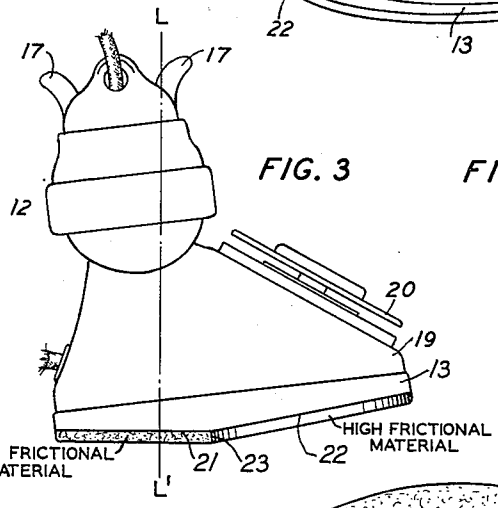


FIG. 3

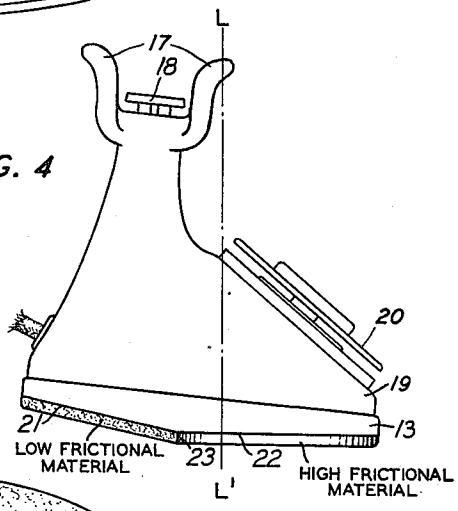
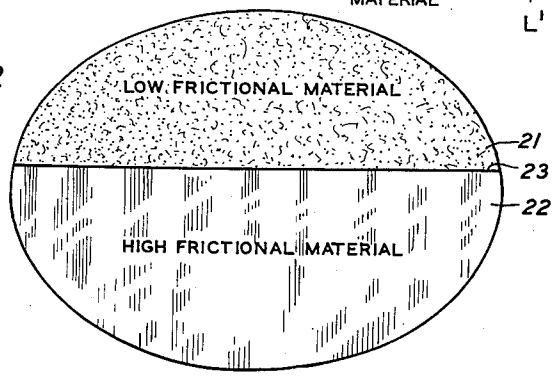


FIG. 4

FIG. 2



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TELEPHONE SUBSTATION APPARATUS

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5 Claims. (Cl. 179—147)

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

Desk sets for automatic systems usually comprise a stand on which a dialing mechanism is mounted. When using a desk set of this type, it has been found that in some instances during the dialing operation, the stand tends to slide along the surface of the desk, table or the like on which it rests. It has been suggested to prevent such sliding by covering the entire base of the desk stand with a high frictional material such as rubber. However, such material holds grit and foreign matter on its surface, which may mar a highly polished surface on which the stand rests and may be moved about when not in use.

One object of this invention is to prevent movement of a telephone desk stand during the dialing operation while allowing facile movement of the desk stand at all other times without damage to the surface on which the desk stand rests.

In one embodiment illustrative of this invention a desk stand for hand telephones comprises a pedestal having a cradle portion for receiving the hand telephone, and a base which is provided with two flat portions disposed at a large obtuse angle to each other and forming a fulcrum about which the desk stand may rock. One portion of the base is covered with a low frictional material, such as felt, and the other portion is covered with a high frictional material, such as soft rubber.

The fulcrum is so located that when the hand telephone is in the cradle of the desk stand, the center of gravity of the desk stand is to one side of the fulcrum and the desk stand rests on the portion of the base covered with the low frictional material. When the hand telephone is removed from the cradle, the center of gravity of the desk stand is on the opposite side of the fulcrum so that the desk stand rocks about the fulcrum and rests on the portion of the base covered with the high frictional material. This latter material prevents sliding of the desk stand during the dialing operation. The low frictional material absorbs any grit or other foreign matter and, therefore, allows movement of the desk stand when the hand telephone is not in use, along the top of the desk, table or the like without any scratching, marring or other damage to the supporting surface.

The invention and the 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 perspective view of a telephone desk set illustrative of one embodiment of this invention;

Fig. 2 is a plan view of the desk set illustrated in Fig. 1, showing portions of the base covered with materials having different frictional characteristics in accordance with this invention;

Figs. 3 and 4 are side elevational views of the desk stand illustrated in Fig. 1, showing the position of the line of the center of gravity with the hand telephone in the cradle and removed from the cradle, respectively.

Referring now to the drawing, the desk set shown therein comprises a desk stand, which may be of the general construction disclosed in Patent 1,508,424, granted September 16, 1924 to George K. Thompson, and a hand telephone including a handle 10, a receiver 11 at one end of the handle, and a transmitter 12 at the other end of the handle. The desk stand comprises a base 13, a pedestal 14 upon the base, a standard 15 upon the pedestal, and a cradle 16 having tines or arms 17, upon the standard and adapted to receive the handle 10 of the hand telephone. Disposed in the cradle 16 is a bar 18 forming a part of a reciprocable plunger for actuating contact members, not shown, within the desk stand. The pedestal 14 has a sloping wall 19 upon which a dialing mechanism 20 is mounted.

When the desk set is used, the hand telephone is removed from the cradle 16 and the dialing mechanism 20 is then operated. During operation of the dialing mechanism, the desk stand tends to slide along the surface upon which it is resting, and such sliding may inconvenience the user of the telephone set. In order to prevent such movement, it has been proposed heretofore, to cover the base 13 with a material, such as soft rubber, having high frictional characteristics. Such material, although effective to prevent slipping of the desk stand, has a decidedly objectionable characteristic in that grit and other foreign matter adhere thereto. This grit and other foreign matter may mar and deface a highly polished surface upon which the desk set may rest, if the desk stand is moved along the surface when the desk set is not being used.

It has been proposed also to cover the base 13 with a material, such as felt or suede, which will absorb grit and other foreign matter and thereby preventing marring of the surface upon which the desk stand rests. However, such material has low frictional characteristics and will not

effectively prevent sliding of the desk stand during the dialing operation.

In accordance with this invention the objectionable characteristics of the high and low frictional materials are circumvented while the desirable features thereof are utilized, so that sliding of the desk stand during the dialing operation is prevented and movement of the desk set, when not in use, is enabled without marring or defacing the surface on which the desk set rests.

To these ends, the base 13 is provided with two flat walls or surfaces 21 and 22 which are disposed at a large obtuse angle to each other and form a fulcrum 23 about which the desk stand may rock. The surface 21 is covered with a material, such as felt or suede, having low frictional characteristics and the surface 22 is covered with a material, such as soft rubber, having high frictional characteristics. The fulcrum 23 is so disposed that, as shown in Fig. 3, when the hand telephone is in the cradle 16, the line L—L' of the center of gravity is to one side of the fulcrum and passes through the surface 21, and when the hand telephone is removed from the cradle, the line of the center of gravity, as shown in Fig. 4, is to the other side of the fulcrum and passes through the surface 22. When the hand telephone is in the cradle 16, the desk set rests upon the surface which is covered with the low frictional material, and may be moved without marring or defacing the surface of the desk, table, or the like upon which the set is supported. When the hand telephone is removed from the cradle 16, the desk stand automatically rocks about the fulcrum 23 so that it rests upon the surface which is covered with the high frictional material, and will not slip during operation of the dialing mechanism 20.

Although a specific embodiment of the invention has been shown and described, it will be understood, of course, that 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 telephone desk stand comprising a base having portions disposed at an angle to each other, and coverings upon said portions, the frictional characteristics of the covering on one portion being different than the frictional characteristics of the covering on another portion.

2. A telephone desk stand comprising a base having two flat portions disposed at a large obtuse angle to each other, a covering of low frictional material upon one of said portions, and a covering of high frictional material upon the other of said portions.

3. A telephone desk stand comprising a base having two portions disposed at an obtuse angle to each other, a covering of felt upon one of said portions, and a covering of soft rubber upon the other of said portions.

4. A desk stand for a hand telephone, comprising a cradle, a base having two portions disposed at an obtuse angle to each other and forming a fulcrum about which the desk stand may rock, a covering of low frictional material on one of said portions and a covering of high frictional material on the other of said portions, said fulcrum being so disposed that when said hand telephone is in said cradle said desk stand rests on said first portion and when said hand telephone is removed from said cradle, said desk stand rocks about said fulcrum and rests upon said second portion.

5. A desk stand for a hand telephone, comprising a cradle, a base having two flat portions disposed at an obtuse angle to each other and forming a fulcrum about which the desk stand may rock, a covering of felt on one of said portions, and a covering of soft rubber on the other of said portions, said fulcrum being so disposed that when said hand telephone is in said cradle, said desk stand rests on said first portion and when said hand telephone is removed from said cradle, said desk stand rocks about said fulcrum and rests upon said second portion.

WILLIAM A. EVANS.