

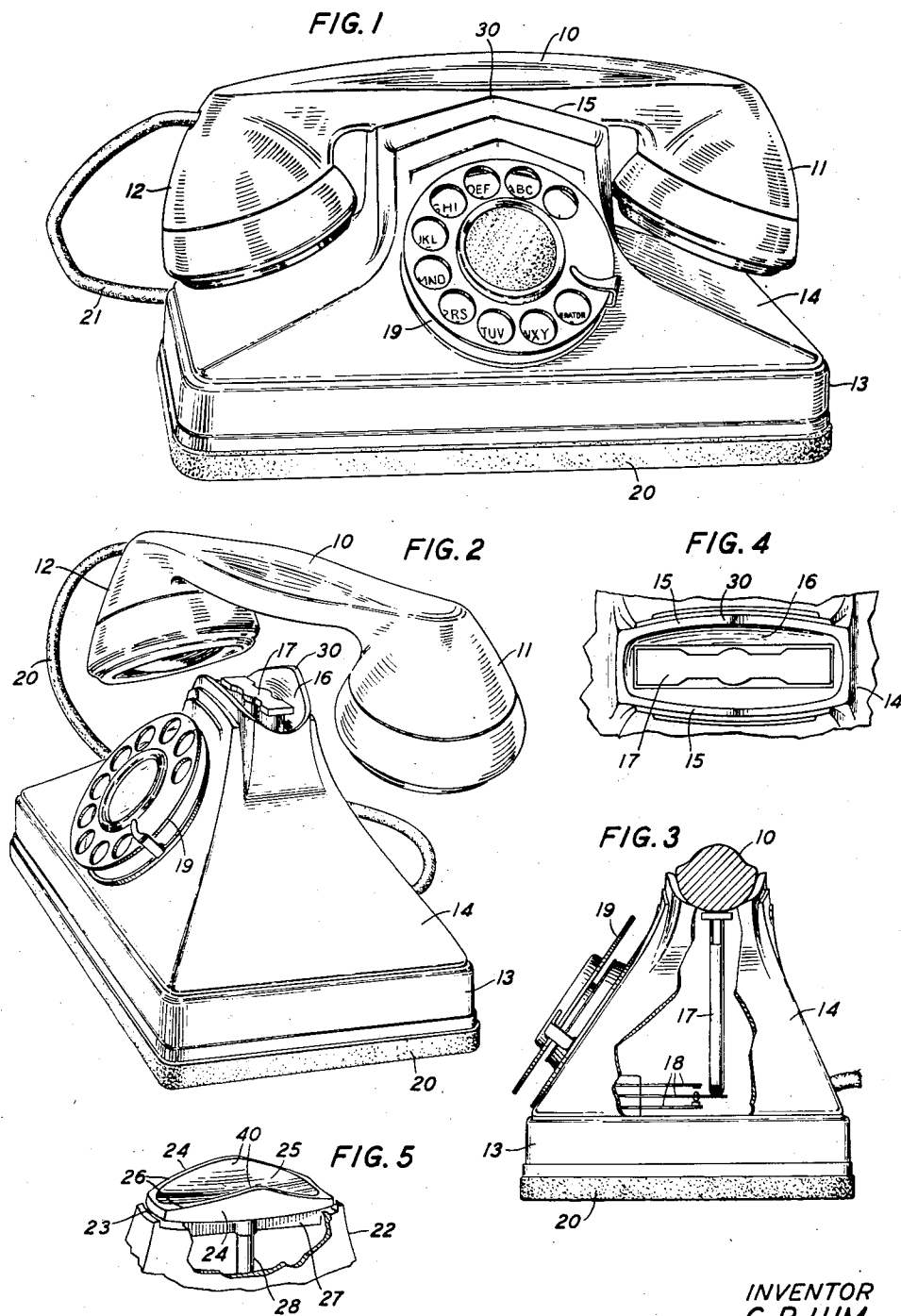
July 3, 1934.

G. R. LUM

1,965,423

TELEPHONE SUBSTATION APPARATUS

Filed May 19, 1932



UNITED STATES PATENT OFFICE

1,965,423

TELEPHONE SUBSTATION APPARATUS

George R. Lum, New York, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 19, 1932, Serial No. 612,204

10 Claims. (Cl. 179—100)

This invention relates to telephone substation apparatus and more particularly to desk stands for hand telephones.

One object of this invention is to simplify the construction and to facilitate the manufacture of desk stands for hand telephones in large quantities and at relatively low cost.

Another object of this invention is to insure the proper seating of a hand telephone on a desk stand therefor, substantially irrespective of the angle at or manner in which the hand telephone is placed upon the desk stand.

In accordance with one feature of this invention, the desk stand comprises a single piece molding or casting including a base portion, a pedestal portion and a channelled or recessed portion at the top of said pedestal portion adapted to accommodate the handle of a hand telephone.

In accordance with another feature of this invention, the upper portion of the desk stand, which defines the seat for accommodating the handle of a hand telephone is so formed that the hand telephone will automatically rotate and properly seat itself on the desk stand irrespective of the angle at or manner in which the hand telephone is placed thereupon.

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

Fig. 1 is a front view in perspective of a telephone desk set including a desk stand constructed in accordance with this invention;

Fig. 2 is an end view in perspective of the telephone desk set shown in Fig. 1, with the hand telephone removed from the desk stand;

Fig. 3 is a side elevational view of the telephone desk set of Fig. 1 partly in cross-section to illustrate the conformity of the handle of the hand telephone with the channelled portion of the desk stand, and partly broken away to show the switching mechanism within the desk stand;

Fig. 4 is a fragmentary top view of the pedestal of the desk stand; and

Fig. 5 is a fragmentary perspective view of another embodiment of this invention.

Referring now to the drawing, the telephone desk set shown comprises a hand telephone including a handle portion 10, a receiver 11 at one end of the handle portion, and a transmitter 12 at the other end of the handle portion. The desk stand comprises a base 13 and a pedestal 14 which terminates in a channelled portion 16 each side wall of which is higher intermediate the ends

than at the ends of the channel. The bottom or base and the ends of the channelled portion are preferably curved. The channel accommodates the handle portion 10 of the hand telephone. The channelled portion 16 and the handle portion 10 resting therein are preferably formed with closely conforming surfaces as shown more clearly in Fig. 3, so that the hand telephone will be securely seated when placed upon the desk stand.

A T-shaped plunger 17 is disposed within a recess in the channel-shaped portion 16 and extends into the pedestal 14 substantially as described in Patent 1,508,424 granted September 16, 1924 to G. K. Thompson, to actuate contact members 18 within the pedestal, when the hand telephone is placed upon the desk stand.

All of the exterior surfaces of the desk stand are preferably tapered in the same direction so that the stand may be cast or molded in a single piece and may be withdrawn as a unit from a mold. This enables the expeditious manufacture of desk sets in large quantities at a relatively low cost.

The walls 15 each terminate in a slightly rounded apex 30 and the walls slope gradually toward the ends of the top portion of the pedestal.

In the specific construction illustrated in the drawing, for example, the hand telephone will automatically rotate and seat itself with the handle portion 10 in the recess 16, when the hand telephone is placed upon the pedestal with its longitudinal axis at substantially 90° to the longitudinal axis of the recess. The same action results, of course, for angles of placement less than 90°. The construction therefore insures the actuation of the plunger 17 and of the associated line contacts 18 within the pedestal, substantially irrespective of the angle at or manner in which the hand telephone is placed upon the pedestal of the desk stand.

A dialing mechanism 19 may be mounted upon the pedestal 14 as shown.

The base 13 of the desk stand may be covered with a layer 20 of felt or the like to prevent marring of the surface upon which the desk set is placed. The felt may be sprayed with a solution of rubber or the like to increase the friction between the base 13 and the surface upon which the desk set rests and thereby to prevent sliding of the desk stand when the dialing mechanism 19 is operated.

The receiver and transmitter of the hand telephone may be electrically associated with appa-

ratus within the desk stand by a flexible conductor cord 21.

In another embodiment of this invention shown in Fig. 5, the pedestal portion 22 of the desk stand is formed at its upper end with a recess 23. A plunger member is disposed in the recess 23 and includes side wall portions 24 having a recess 25 for accommodating the handle of a hand telephone. The side walls 24 likewise terminate in slightly rounded apices 40 and said walls likewise slope toward their ends so that the hand telephone will automatically rotate and seat itself in the recess 25.

The plunger is provided with a rib 27 which is disposed in a guide-way in the pedestal 22, and is also provided with an extension 28 projecting into the pedestal 22 to actuate suitable contact members.

Modifications may, of course, be made in the specific embodiments shown and described without departing from the spirit and scope of this invention as defined in the appended claims.

What is claimed is:

1. A casing for a mounting for hand telephones, comprising a base portion and a pedestal portion integral therewith, said pedestal portion having a channel adapted to accommodate the handle of a hand telephone, the top edges of the walls of said channel sloping from the center to the ends of the walls, all of the external vertical surfaces of said base and pedestal portions tapering in the same direction whereby the casing may be withdrawn from a mold as a single unit.

2. A casing for a desk stand for hand telephones, comprising a polygonal base portion and a pyramidal pedestal portion arising from said base portion and integral therewith, said pedestal portion having a channel in its upper end bounded by continuous portions of opposite walls of said pedestal portion and adapted to accommodate the handle of a hand telephone, all of the external vertical surfaces of said casing tapering in the same direction so that said casing may be withdrawn from a mold as a single unit.

3. A support for a hand telephone, comprising a member having an elongated channel extending across the top thereof and adapted to accommodate the handle of said telephone, the portions of said member bounding said channel being adapted to be engaged by said handle and being of such configuration that said telephone will automatically seat itself with its handle in said channel substantially irrespective of the angle at which said telephone is placed upon the support.

4. A support for a hand telephone, comprising oppositely disposed wall portions terminating in inverted substantially V-shaped edges, the inner surfaces of said wall portions conforming in configuration to the handle of said telephone to form a seat for said handle.

5. A mounting for hand telephones, comprising a base, a pedestal having an elongated channel extending across the top thereof for accommodating the handle of a hand telephone, the portions of said pedestal bounding said channel being adapted to be engaged by said handle and being so formed that a hand telephone will automatically seat itself with its handle in said channel substantially irrespective of the posi-

tion in which the hand telephone is placed upon said portions of said pedestal.

6. A desk stand for hand telephones, comprising a base portion and a pedestal portion arising therefrom, said pedestal portion having a recess at the upper end thereof adapted to seat the handle of a hand telephone, two opposite walls of said pedestal adjacent said recess being higher from the base portion intermediate the ends than at the ends, contact members within said pedestal, and a plunger for actuating said contact members extending into said recess.

7. A telephone desk stand for hand telephones, comprising a casing including a base, a pedestal arising from said base and integral therewith, said pedestal having a recess at one end thereof for accommodating the handle of a hand telephone, all of the external vertical surfaces of said casing tapering in the same direction, the portions of said pedestal bounding said recess being so formed that a hand telephone will automatically seat itself with its handle in said recess substantially irrespective of the position in which the hand telephone is placed upon said portions of said pedestal, contact members within said casing, and a plunger member for actuating said contact members, extending into said recess.

8. In combination, a hand telephone including a handle, receiver and transmitter elements at opposite ends of said handle, and a desk stand including a base, a pedestal on said base having a recess for seating the handle of said telephone, said handle and said recess having closely conforming surfaces, the portions of said pedestal bounding said recess being formed so that said hand telephone will automatically rotate itself to seat said handle in said recess substantially irrespective of the position in which said handle is placed upon said portions of said pedestal, contact members within said pedestal, and a plunger for actuating said contact members having a portion within said recess to be engaged by said handle.

9. In combination, a hand telephone including a handle, receiver and transmitter units at opposite ends of said handle, and a desk stand comprising a casing including a polygonal base portion, a pyramidal pedestal portion arising from said base portion, said pedestal portion having a recess at the upper end for accommodating said handle, said recess conforming closely to the portion of the handle to be disposed therein, the portions of said pedestal adjacent said recess terminating in a pair of elongated shoulders the side walls of which slope from the center to the ends, contact members within said casing, and a plunger for actuating said contact members extending into said recess.

10. A support for hand telephones, including a base, a pedestal upon said base, and a plunger member upon said pedestal, including opposed wall portions bounding an elongated channel for accommodating the handle of a hand telephone, the upper edges and inner surfaces of said wall portions being of such configuration that said hand telephone will automatically rotate to a position in line with the longitudinal axis of said channel and seat itself in said channel substantially irrespective of the angle at which the hand telephone is placed upon said plunger.

GEORGE R. LUM.