

Jan. 10, 1933.

N. BLOUNT

1,894,016

TELEPHONE DESK SET

Filed April 30, 1930

Fig. 1.

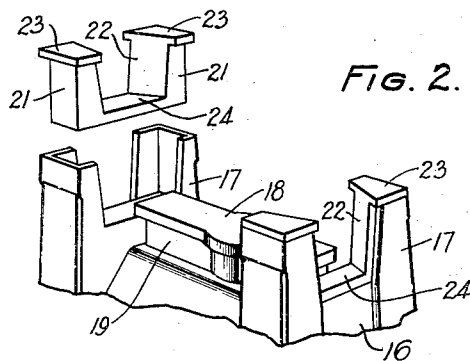
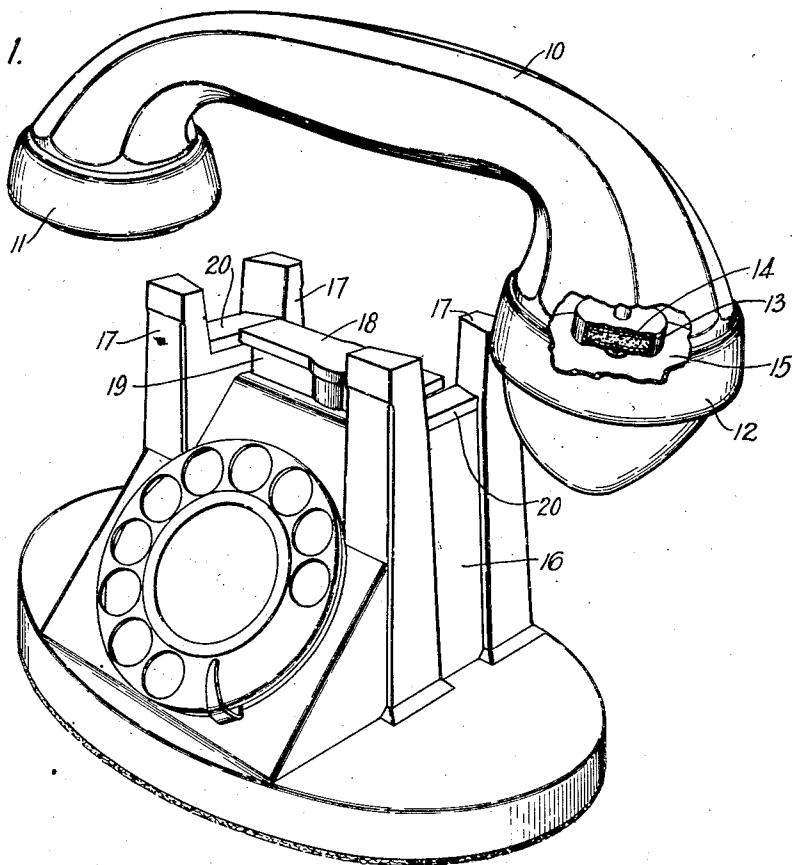


Fig. 2.

INVENTOR
N. BLOUNT
BY
Walter C. Kiesel
ATTORNEY

UNITED STATES PATENT OFFICE

NELSON BLOUNT, OF MAPLEWOOD, NEW JERSEY, ASSIGNOR TO BELL TELEPHONE LABORATORIES, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

TELEPHONE DESK SET

Application filed April 30, 1930. Serial No. 448,507.

This invention relates to telephone desk sets of the type comprising a hand telephone and a desk stand for supporting the telephone.

In the usual design of desk sets the hand telephone is supported in a cradle on the desk stand and actuates a plunger type switch for connecting or disconnecting the telephone with the line. The transmission efficiency of such sets is dependent largely upon the condition of the surface of the carbon granules in the resistance varying element actuated by the diaphragm in the transmitter and also upon the distribution and association of the carbon granules.

In placing the telephone upon the desk stand the line connection is not broken until the plunger has been entirely depressed and it has been found that jarring of the carbon granules occurring when the telephone is placed upon the stand, results in arcing between the granules and a marring or damaging of the surface of said granules. This causes aging of the carbon and an increase in the resistance element of the transmitter with a consequent decrease in the transmission efficiency of the telephone. It has been found further that in placing the telephone upon the desk stand the carbon granules are agitated and redistributed in the enclosing chamber so that they become closely packed and thereby further impair the efficiency of the transmitter.

An object of this invention is to improve the transmission efficiency and prolong the operating life of hand telephone sets.

In accordance with this invention excessive agitation of the carbon granules is prevented when the telephone is placed on the stand by providing the cradle with cushioning members or units of resilient material. In one embodiment of this invention blocks of soft rubber are mounted on the base portion of the cradle and these blocks are engaged by the telephone to decrease the shock to the transmitter element and the subsequent agitation and displacement of the carbon granules. The resilient members also function as cushions to eliminate distracting noises and prevent breakage and disfiguration of the

hand telephone when it is placed upon the desk stand.

Furthermore the cushioning of the cradle support materially reduces mutual friction between the carbon granules so that the aging thereof is decelerated and the life of the telephone is extended.

In another embodiment of this invention U-shaped inserts of soft rubber are fitted into close fitting grooves in the tines of the cradle support.

The invention may be fully understood from the following detailed description with reference to the accompanying drawing in which

Fig. 1 is a perspective view showing a telephone desk set made in accordance with this invention with a portion of the hand telephone broken away to show the granulated carbon resistance element of the transmitter, and the cushion inserts for the cradle portion of the desk stand, and

Fig. 2 is a partial view in perspective of another embodiment of this invention showing one of the U shaped cushions removed from the desk set.

Referring to the drawing, 10 is a hand telephone having a receiver 11 and a transmitter 12 containing a variable resistance element 13 comprising loosely arranged comminuted carbon 14 responsive to vibrations of the diaphragm 15. The desk stand for the telephone 10 comprises a hollow pedestal 16 having thereon four integral columns 17 which form the tines of a supporting cradle for the telephone 10. A plunger having a flat horizontal portion 18 on which the handle of the telephone 10 rests and a body portion 19 at right angles to the horizontal portion 18 which is movable in an aperture in the top of the pedestal 16 is adapted to move vertically in the pedestal 16 and actuate electrical contacts (not shown) within the pedestal as shown more completely in U. S. Patent 1,508,424, September 16, 1924 to G. K. Thompson.

In accordance with this invention the jarring of the hand telephone and the resultant deleterious effects upon the carbon granules are substantially eliminated by providing the

cradle support with flat trapezoidal cushions 20, of resilient material, such as sponge rubber, felt, or the like, suitably attached, for example by cement, to the top of the pedestal 16 and disposed between the upright columns 17.

In this arrangement when the hand telephone 10 is placed upon the stand it engages the flat portion 18 of the plunger and depresses the plunger thereby actuating the line contacts and is in turn engaged and supported by the resilient cushions 20 which act as shock absorbers to prevent jarring of the comminuted carbon 14 in the transmitter. This assembly also protects the surface of the handle of the telephone against marring and disfiguration, and eliminates objectionable noises caused by the contact of the telephone and the desk stand.

In another embodiment of the invention illustrated in Fig. 2 the portions of the columns 17 which serve as the tines of the cradle support for the telephone 10 are formed with recesses wherein the cushion members are seated. The cushions are of soft rubber or similar resilient material and comprise two upright stems 21 of dimensions to fit snugly in the recesses in the columns 17 and having a beveled inner face 22, flat top pieces 23 which fit over the tops of the columns 17, and a shank 24 between the stems 21. The complete cushion is cemented or otherwise suitably fastened in place. This construction materially increases the mass and effective surface of the cushions and protects the telephone 10 adequately on all sides when it is placed upon the stand.

Although in the embodiments shown the cushioning members are of soft rubber or a like material it is to be understood that other resilient members, as for example coiled or bowed leaf springs may be utilized without departing from the scope of this invention as set forth in the appended claims.

What is claimed is:

1. A telephone desk stand comprising a pedestal, a cradle for supporting a hand telephone including a carbon granule transmitter, and U-shaped resilient cushioning members between the tines of said cradle, the stems of said members being fitted in recesses in said tines.

2. In combination, a hand telephone including a handle, a receiver element mounted at one end of said handle, and a transmitter element containing carbon granules, mounted at the other end of said handle, a support including a plurality of channel shaped tines disposed in pairs and oppositely directed to form a cradle for receiving the handle of the hand telephone, and a plurality of resilient U-shaped members, disposed one between each pair of tines and having arms seated in the channels in said tines for cushioning said hand telephone to substantially prevent agi-

tation of the carbon granules when said hand telephone is placed upon said support, whereby aging of the carbon granules is decelerated.

In witness whereof, I hereunto subscribe my name this 28th day of April, 1930.

NELSON BLOUNT.

75

80

85

90

95

100

105

110

115

120

125

130