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1,447,969.

F. DIETRICH.
TELEPHONE HEAD SET.
FILED MAY 12, 1922.

Fig. 1,

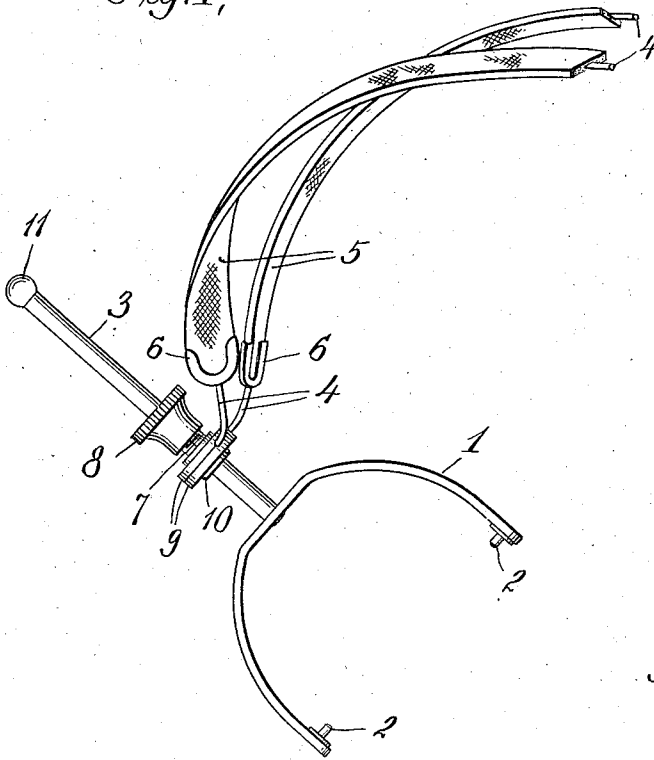


Fig. 2,

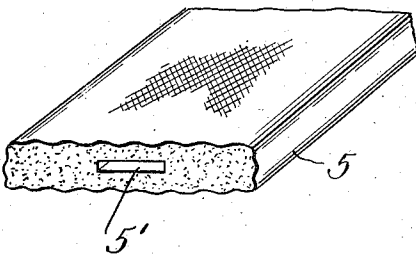
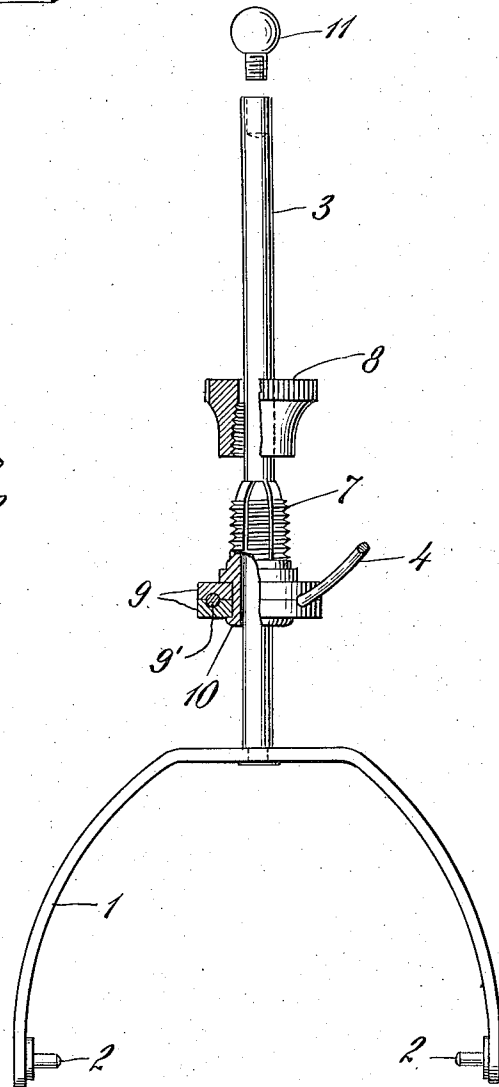


Fig. 3,



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UNITED STATES PATENT OFFICE.

FREDERICK DIETRICH, OF FLUSHING, NEW YORK, ASSIGNOR TO C. BRANDES INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

TELEPHONE HEAD SET.

Application filed May 12, 1922. Serial No. 560,273.

To all whom it may concern:

Be it known that I, FREDERICK DIETRICH, a citizen of the United States, residing at Flushing, in the county of Queens, State of New York, have invented certain new and useful Improvements in Telephone Head Sets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention is directed to improvements in telephone headsets and has among its objects the provision of a device whereby the user of the headset may easily and quickly adjust the receivers to his ears; the provision of a simple but dependable arrangement for securing the aforementioned device to the headband; and an improvement in the padding of the headband by the elimination of seams which practical experience has shown have a tendency to rip open due, it is believed, to the action of perspiration or oil from the hair of the user on the stitching.

One of the principal features of the invention relates to the device before mentioned for adjusting the receivers to the ears of the user. This device is preferably in the form of a collet chuck having a concentric aperture in which a rod forming a part of a receiver supporting member is slidably and rotatably mounted. By means of an adjusting nut having a tapered thread engaging the collet, the latter may be contracted to securely grip the rod, and thus when the receivers are adjusted to the satisfaction of the user he may, by simply turning the adjusting nut, fasten them in that position. This device, as will be seen, engages the rod on practically its complete circumference and its design is such that a powerful gripping action is obtained even with a relatively slight turn of the nut.

Another feature relates to the arrangement for fastening the headband to the adjusting device just referred to and is particularly advantageous in conjunction with that type of adjusting device. This feature, in its preferred form, consists in the use of a pair of washers having grooved adjacent faces between which the ends of the wires forming the frame of the headband are rigidly secured, the wires being seated in

the grooves. Although, as stated, it is preferable to use two washers, this is not at all essential as one of the washers may be dispensed with by making the flange of the collet of sufficient diameter and providing a groove in that. There is, however, a decided economy effected by the use of two washers instead of one due to the larger flange which would have to be provided on the collet if only one washer were used, because that would mean that the collet would have to be turned from a larger size bar.

Still another feature relates to the improvement in the padding of the headband brought about by the elimination of seams. This desirable end is accomplished by the use of what is known in the textile trade as tubular webbing and may be either a woven or knitted fabric in the form of a tube. The webbing is cut to the desired lengths and its ends protected against unravelling by compressing metal tips thereon. It is then slipped over the wires of the headband, suitable apertures being provided in the metal tips for permitting the wires to pass through. Not only is the headband improved by virtue of this feature, but a decided economy in manufacture is thereby effected by reason of the fact that no sewing is required. The appearance of this seamless padding is also much more attractive.

It is thought that the invention will be more readily understood from a detailed description in conjunction with the accompanying drawings, in which,

Fig. 1 is a fragmentary perspective view of a headset, the receiver not being shown;

Fig. 2 is a perspective view showing how the fabric used for padding the headband actually appears; and

Fig. 3 is an elevational view of a receiver supporting member ordinarily called a yoke and a view partly in cross section of the device by which the receivers are adjusted to the ears of the user.

The headset ordinarily comprises two watch case receivers, each of which is pivotally supported in a yoke 1 by means of the studs 2 which are sprung into apertures provided in the receiver casings. The yokes 1 are each riveted or otherwise secured to a round rod 3.

The headband, only a portion of which is shown in Fig. 1, comprises a pair of suitably

bent spring wires 4 and these wires are each padded with a seamless knitted or woven tubular webbing 5. This fabric is so knitted as to provide a tunnel-like opening 5' as shown in Fig. 2. For the purpose of preventing the ends of the paddings 5 unravelling and to improve the general appearance of the headset, the ends of the paddings are provided with metal tips 6 having apertures through which the wires 4 pass.

Each end of the headband is secured to an adjusting device as best shown in Fig. 3.

3. This device somewhat resembles a chuck of the type used in screw machines and comprises a collet 7 having a concentric aperture through which the rod 3 may freely slide. This collet is preferably made of hard brass and its threaded portion is split longitudinally into three or four sectors as clearly illustrated in Fig. 3. The knurled nut 8 has a tapered internal thread for engaging the thread on the collet 7 and in drawing up the nut 8 the collet 7 is contracted and firmly grips the rod 3. For securing the ends of the wires 4 of the headband to the adjusting device, a pair of washers 9, each having a circular groove 9' in one of its faces are assembled on the sleeve 10 which is integral with the collet 7. The ends of the wires 4 are curved to conform to the grooves 9 in which these wires are seated. After the wires 4 have been positioned between the washers 9, the end of the sleeve 10 is upset preferably by a spinning process to tightly grip the washers 9 and the wires 4 therebetween.

To provide against the rod 3 accidentally disengaging itself from the adjusting device, the end of the rod is tapped and a screw 11 having a ball shaped head is threaded into the end of the rod. The ball-headed screw 11 may be inserted and removed with the fingers, no screw driver being required thus facilitating assembly and disassembly for shipping and its shape adds materially to the ornamental appearance of the headset.

While I have described the preferred form of my invention, it is to be understood that the appended claims are not limited to the specific structure shown.

I claim:

1. In a telephone headset, a head band, a spring collet chuck fixedly attached to said head band, a supporting member to which a receiver is adapted to be attached, said supporting member including a rod, said rod extending through said chuck and adapted to be gripped thereby and means for adjusting said chuck for varying its grip on said rod.

2. In a telephone headset, a head band, a split spring collet chuck fixedly attached to said head band, a supporting member to which a receiver is adapted to be attached, said supporting member including a rod, said rod extending through said chuck and adapted to be gripped thereby, and a nut engaging said chuck, said nut being operable for adjusting said chuck for varying its grip on said rod.

3. In a telephone headset, a spring collet chuck having a reduced end portion forming a shoulder, said chuck having a concentric aperture, a pair of washers mounted in super-position on said reduced end portion, one of said washers bearing against said shoulder, the end of said reduced end portion being upset to secure said washers in place, a wire head band having an end portion secured between said washers, a telephone receiver supporting member including a rod, the said rod extending through said aperture in said chuck and adapted to be gripped thereby, and a nut engaging said chuck, said nut being operable for adjusting said chuck for varying its grip on said rod.

4. In a telephone headset, a receiver supporting member including a rod, an adjustable gripping device for frictionally holding said rod, said device including an apertured collet in which said rod may freely slide, said collet having a reduced end portion, a pair of grooved washers on said reduced end portion, a headband secured between said washers and seated in the grooves in said washers, and the end of said reduced portion being upset to securely grip said headband between said washers.

In testimony whereof I affix my signature

FREDERICK DIETRICH