Sept. 8, 1925. 1,552,593

H. P. CHILDRESS

ATTACHMENT FOR HEAD SETS

Filed Dec. 8, 1923

Fig. 1.

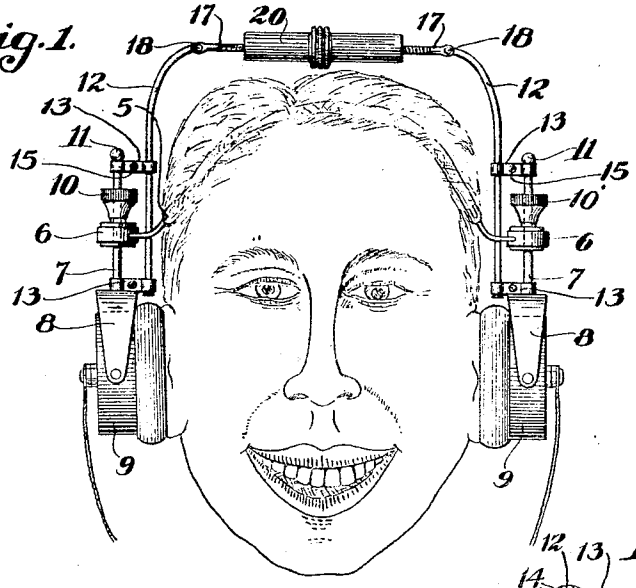


Fig. 3.

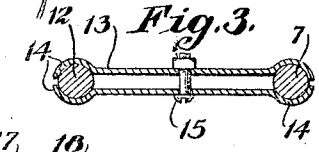


Fig. 2.

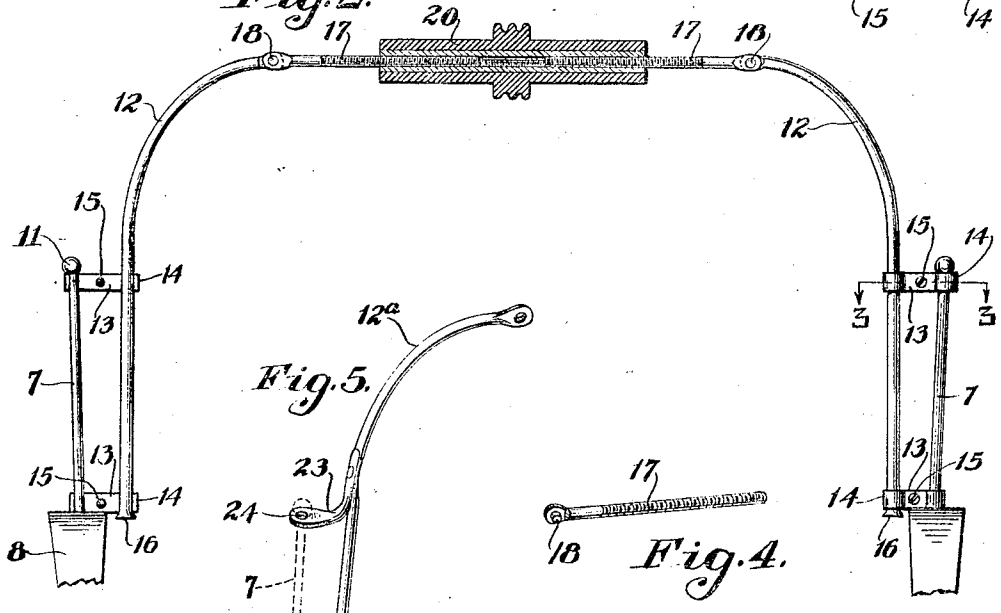


Fig. 5.

Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR HEAD SETS.

Application filed December 8, 1923. Serial No. 679,370.

To all whom it may concern:

Be it known that I, HENDERSON P. CHILDRESS, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Attachment for Head Sets, of which the following is a specification.

This invention relates to an attachment for head sets such as are used by telephone operators, and also in connection with radio receiving instruments to support the receivers against the ears of the person receiving the message.

In devices of this kind, the head band frequently causes the receivers to exert considerable pressure on the ears, so that the continued use thereof becomes painful. Then too, a head band which fits the head of one person may not fit that of another, and in the case of radio receivers, which are frequently used by a great number of different persons, it becomes particularly desirable to have some means of quickly adjusting the normal width of the head band and adapting it to different persons.

The general object of the present invention is to provide a practical device, which may be easily manipulated to adjust the receivers for use under different conditions, and relieve the pressure on the ears without removing the device from the head. The invention is in the nature of an attachment, which may be applied to any of the usual types of head sets in a few moments even by an inexperienced person.

The present invention is related to my application No. 639,871, filed May 18, 1923, and is generic to the construction therein shown.

The principles of the invention will be best understood from the following detailed description, in which reference is made to the accompanying drawing showing the preferred construction of the invention.

In the drawing:

Figure 1 is a front elevation of a head set having my invention attached thereto.

Figure 2 is a vertical sectional view taken longitudinally of the attachment.

Figure 3 is a detail sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a detail perspective view of one of the threaded stems by means of which the adjustment of the device is affected.

Figure 5 is a detail perspective view showing a modified form of the attaching member.

The invention, as shown, is applied to an ordinary head set, which includes a band 5 adapted to embrace the upper portion of the head, and terminating in collars 6 in which the stems 7 are mounted for vertical adjustment. These stems are formed with yokes 8 at their lower ends, in which are mounted the respective receivers 9. Each of the stems 7 is held in its position of adjustment by a lock nut 10, and usually a small knob 11 is threaded to the upper end of the stem to prevent the same from being entirely separated from the head band.

The attachment includes a pair of oppositely curved attaching members 12, each having suitable means of attachment to the corresponding receiver stem 7 at each side of the collar 6. In the form shown in Figures 1, 2 and 3, the members 7 and 12 are secured together by means of clamps, each of which includes a pair of spaced transverse strips 13 spanning the members 7 and 12, and having opposed concave portions 14 adapted to grip the respective members 7 and 12 between them. A small bolt 15, or equivalent means may be provided for securing the clamp. The lower end of the member 12 may be upset, as shown at 16, so as to prevent the clamps from slipping off.

The upper inner ends of the members 12 have inwardly extending threaded stems 17 pivotally connected thereto. Any form of pivotal connection may be used, that herein shown consisting of a pin 18 extending from the end of the stem 17, through an eye in the end of the member 12, and having its end upset to form a permanent connection. The threaded portions of the stems 17 are connected by a turnbuckle 20 for adjusting them to and from each other.

In the modification shown in Figure 5, the attaching member 12^a has its lower end turned laterally to form a horizontally disposed ear 21, which is perforated, as at 20, to receive the stem 7. A second ear 23 is attached to the member 12^a by riveting or welding, and is spaced vertically above the ear 21 and parallel thereto, and is also provided with a perforation 24 for receiving the upper portion of the stem 7.

The attachment in the form shown in Figures 1, 2 and 3 is very easily attached to

the head set merely by applying the clamps 13 at the upper and lower ends of the stems 7, with the lower clamp immediately above the opposite end 16 of the member 12. In attaching the device in the form shown in Figure 5, it is only necessary to remove the knob 11 and lock nut 10, whereupon the stem 7 may be withdrawn from the collar 6 and inserted through the eye 22. Then the head band is put back on the stem with the two parts of the band straddling the upright portion of the member 12^a, after which the lock nut is put on and the stem inserted through the eye 24 and the knob 11 again threaded onto the end of the stem. The ears 21 and 23 are suitably spaced so as to form a comparatively snug fit against the yoke 8 and the knob 11, respectively, so that the attachment has comparatively little vertical play.

When it is desired to relieve the pressure on the ears, the turnbuckle 20 is turned so as to draw the upper ends of the members 12 inwardly. This draws the outer ends of the stems 7 inwardly, and the stems rock with the collars 6 to flex the terminal portions of the head band, which act as fulcrums, and the lower portions of the stems 7 and the receivers, are thus moved outwardly away from the ears. If the receivers are too far away from the ears, they may be easily adjusted inwardly by a rotation of the turnbuckle in the opposite direction.

From the foregoing description it will be seen that the invention is simple in its construction, and may be manufactured at a small expense. It may be sold separately as an attachment, and may be installed on any head set without the least difficulty. It is efficient in its results and relieves the disagreeable pressure against the ears, thus insuring a maximum degree of comfort in the use of the instrument.

While I have shown the detailed construction of one form in which the invention may be carried out, it is to be understood that this is merely illustrative, and that various modifications may be made in the form and construction of the various parts, as well as in their arrangement, without departing from the salient features of the invention as set forth in the claims.

What is claimed is:

1. An attachment for a head set having a band for resting on and embracing the head and terminating in collars in which receiver stems are supported, said attachment comprising a pair of members having means for detachably engaging said stems, and means for simultaneously moving said members toward and away from each other to rock said stems in opposite directions and thereby vary the distance between the receivers.

2. An attachment for a head set having a band for resting on and embracing the head and terminating in collars in which receiver stems are supported, said attachment comprising a pair of members having means for engaging the receiver supporting stems, and means for rocking said members together with the stems and collars simultaneously in opposite directions to adjust the receivers to and from the ears.

3. An attachment for a head set having a band for resting on and embracing the head and terminating in collars in which receiver stems are supported, said attachment comprising a pair of members having means for engaging said stems at spaced points above and below said collars, and means for rocking said members to adjust the receivers toward and away from the ears.

4. An attachment for a head set having a head band terminating at its ends in collars in which receiver stems are supported, said attachment comprising a pair of members having spaced perforated ears adapted to receive said stems respectively above and below said collars, and means for rocking said members to adjust the receivers about said collars as fulcrums.

5. An attachment for a head set having a band for resting on and embracing the head and terminating in collars in which receiver stems are supported, said attachment comprising a pair of members having spaced perforated ears adapted to receive said stems at opposite sides of the collars, and threaded means connected with the respective members and operable to rock the same to adjust the receiver stems angularly to vary the distance between the receivers.

6. An attachment for a head set having a band for resting on and embracing the head and terminating in collars in which receiver stems are supported, said attachment comprising a pair of members engaging the receiver supporting stems at spaced points, and threaded means connected with the respective members and operable to rock the same and thereby rock the receiver stems about said collars as fulcrums to adjust the receivers toward and away from the ears.

7. The combination with a head set comprising a head band, stems mounted for vertical adjustment in the ends of the band, and receivers supported by the stems, of an attachment having means independent of the band for connecting the stems and adjustable to spread the receivers to relieve the pressure upon the ears.

8. The combination with a head set including a head band, stems mounted for vertical adjustment in the ends of the band, and receivers supported by the stems, of an attachment having means independent of the band for connecting the stems and adjustable to rock the stems about their connections with the head band as fulcrums.

9. The combination with a head set in-

cluding a head band, stems mounted for vertical adjustment in the ends of the band, and receivers supported by the stems, of an attachment comprising a pair of members having means independent of the band for engaging the receiver supporting stems at spaced points, threaded stems pivotally connected with the respective members, and threaded means cooperating with said threaded stems for rocking said members to adjust said receiver supporting elements about their connections with the head band as fulcrums.

10. An attachment for a head set having a head band with receiver supporting stems mounted in the ends thereof, said attachment comprising a pair of members, each having a pair of laterally extending perforated ears parallel to and spaced from each other and adapted to receive the receiver supporting stem on opposite sides of its connection with the head band, threaded stems pivotally connected with the respective members, and a turnbuckle operatively connected with said threaded stems.

11. A head support of the character described comprising a head band, stems mounted in the ends thereof for supporting the receivers, and means connecting the stems independent of the head band and operable to rock said stems simultaneously in opposite directions about their points of connection to the ends of the head band, to move the receivers toward and away from each other.

12. A head support of the character described comprising a head band, stems mounted for vertical adjustment in the ends of the band, and means independent of the head band for rocking the stems about their connections with the head band to adjust the relative angular relation thereof.

13. A head support of the character described comprising a flexible head band, stems mounted in the ends thereof for supporting the receivers, and means independent of the head band for simultaneously rocking the stems in opposite directions and flexing the band to move the receivers toward or away from each other.

14. A head support of the character described comprising a head band, stems mounted in the ends thereof for supporting the receivers, and means connecting the stems independently of the head band and including two members connected by a turnbuckle operable to rock the stems simultaneously in opposite directions to vary the distance between the receivers.

15. The combination with a head set, comprising a head band and stems mounted in the ends thereof for supporting the receivers, of an attachment comprising spaced members adapted to embrace the head, clamps for removably securing said members to the corresponding receiver stems at each side of their connection with the head band, and means to move the upper ends of said members toward or away from each other to adjust the receivers toward or away from the ears.

16. An attachment for a head set, comprising a pair of opposed members provided with connections for detachably engaging the receiver stems on the head set, the upper portions of said members being curved inwardly and having pivoted ends which are threaded right and left respectively, and a turnbuckle cooperating with said ends and adjustable to move the receivers of the head set away from the ears of the operator to relieve the pressure thereon.

17. An attachment for a head set, comprising a pair of members having curved portions, means for detachably securing said members to the receiver stems of the head set with the curved portions in opposed relation to each other and adapted to overhang the head of the operator independently of the head band of the head set, end portions pivoted to the ends of the curved portions and threaded right and left respectively, and a turnbuckle connected with the threaded ends and adjustable to relieve the pressure on the ears of the operator.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.

HENDERSON P. CHILDRESS.