

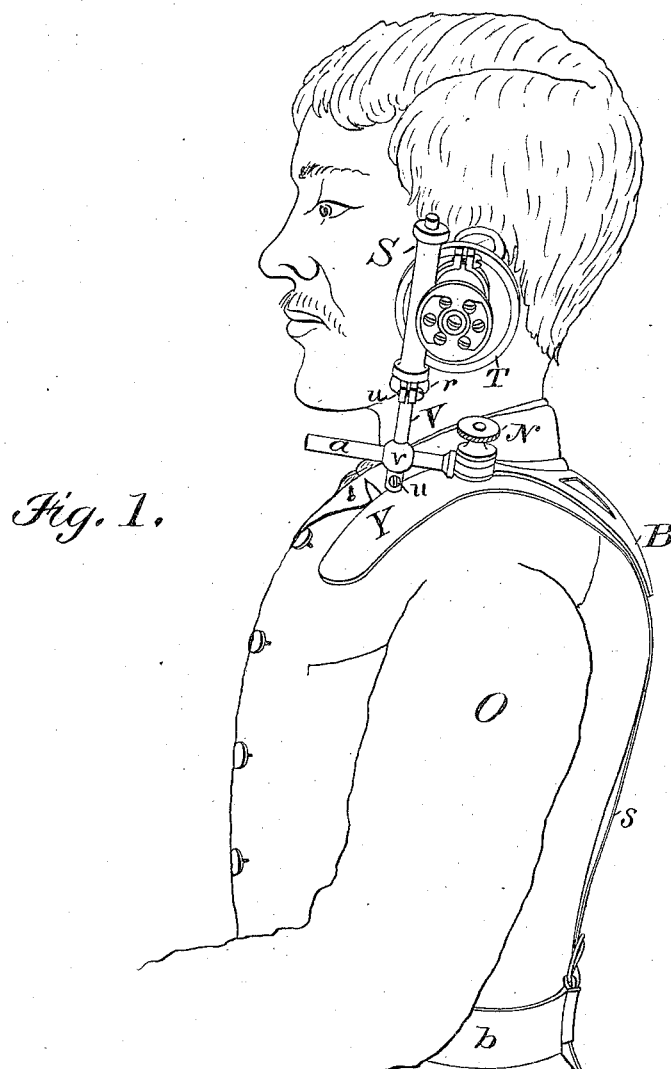
(No Model.)

2 Sheets—Sheet 1.

T. N. VAIL.
TELEPHONE SUPPORT.

No. 306,296.

Patented Oct. 7, 1884.



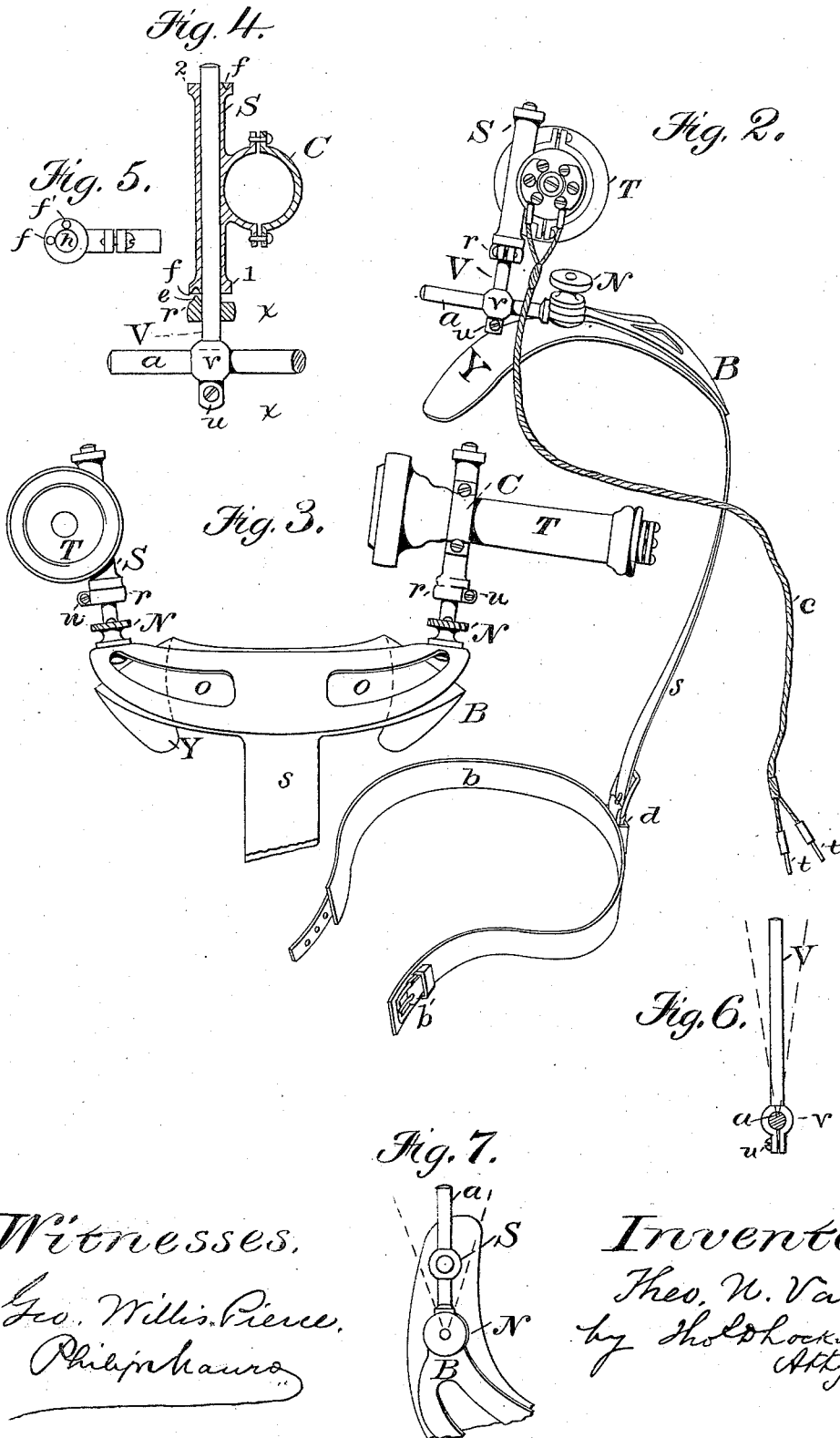
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UNITED STATES PATENT OFFICE.

THEODORE N. VAIL, OF BOSTON, MASSACHUSETTS.

TELEPHONE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 306,296, dated October 7, 1884.

Application filed January 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, THEO. N. VAIL, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Telephone-Supports, of which the following is a specification.

The object of my present invention is to provide a simple and effectual support for a receiving-telephone which shall be easy to wear, and which, when used, will leave the hands of the operator or other person employing the telephones free, whereby any necessary manipulations may be more readily and promptly performed.

It has been found desirable in the actual operation of telephone-exchanges to devise some kind of a portable receiving-operator's telephone capable of being applied to or maintained at the ear independent of any manual action, as by the utilization of such an instrument the exchange operations are greatly expedited. Prior to my invention this desideratum has usually been attempted by attaching the receiving-telephone to the head of the operator, either by a head-dress attachment, or by some arrangement of straps or springs. This has been found productive of great uneasiness to the wearer, inducing headache and other physical ailments, and has, moreover, not generally been found to give practical satisfaction, inasmuch as, to avoid as much as possible the physical annoyance herein referred to, the receiver has necessarily been made very light, and this lightness has too frequently been carried to such an extent as to exercise an adverse influence upon the working power of the instrument, and tends to weaken the reproduced sounds. In view of these facts I have invented a telephone-support adapted to be carried upon the shoulders of the person using the telephone, the said support being secured to the body of said person, and adapted to hold the telephone in a convenient position with respect to the ear, so that by a slight movement of the head the ear may be brought into juxtaposition to the receiving-telephone or withdrawn therefrom. My improved support is furthermore fitted with suitable adjustments, as will be hereinafter specifically described,

whereby the telephone may be adjusted to any person with the greatest ease and perfection imaginable. The advantages attained by its use are, the ability of the wearer to approximate his ear to or withdraw it from the telephone; the ability to transfer the telephone from one side of the head to the other, thus affording a relief to the ear, when desired; the ready adjustability to any person irrespective of physical conformation, and the adaptation to the ordinary receiving-telephone in common use, thus avoiding the necessity of a special form of receiver inseparable from every other form of support.

In pursuance of the foregoing, my invention consists in a yoke-piece of soft metal or other pliable material, fitting over the shoulders and adapted to rest firmly thereon, being also maintained by a suitable strap and buckle extending down the back and attached to a belt encircling the waist of the wearer. The said yoke-piece carries at one or both sides a horizontal rod supporting an upright standard. The telephone itself is held by a clamp fixed to a sleeve which is adapted to slide upon the upright standard. The sleeve is perforated throughout its entire length, and may, therefore, simply by turning it upside down, be transferred from the standard on one side to the standard on the other. Horizontal and vertical adjustments are provided, whereby the telephone may be comfortably arranged in such a manner as to be exactly opposite the apertures of the ear, and at a convenient normal distance therefrom, while the telephone itself, with its supporting-sleeve, may be completely turned round from the ear when it is not to be actually used for some time.

In the accompanying drawings, which form a part of this specification, Figure 1 shows my improved support attached to the operator as in practical use. Fig. 2 is a side view unattached. Fig. 3 is a rear view showing the telephone in position opposite the ear and arranged for listening, and also showing a telephone turned away from the ear. Fig. 4 is a sectional view of the telephone-holding sleeve and clamp; Fig. 5, a view of the end of the telephone-holding sleeve, showing the clutch-holes for maintaining position. Fig. 6 is a

section on the line $x x$ of Fig. 4, to illustrate the rotary adjustment of the vertical standard upon the vertical arm; and Fig. 7 is a top view of one side of the apparatus to show the lateral adjustment.

In the annexed drawings, which represent the way I have chosen to carry out my invention, a yoke-piece, Y , of soft sheet metal or alloy, such as sheet-lead, is riveted to a curved metal plate, B , on which the adjustable portions of the support are fixed. The soft-metal yoke is approximately fitted to the shape of the shoulders, and adapted to rest thereon, as shown in Fig. 1. It is covered with leather, morocco, or other suitable material, so as to present a neat and attractive appearance, and, being soft and pliable, is readily bent to conform to the shoulders of any person. The base-plate B may be of cast metal—such as cast iron or brass—and may be nickel-plated, burnished, or polished. The leather-covered yoke-piece Y , made to conform to the curves of the human body, is continued downward as a strap, s , this terminating in a buckle, d , by which its free end is fastened to a belt, b , adapted, by means of its buckle b' , to be fastened round the waist of the wearer.

It will readily be seen that to attach the telephone-holder to any one it is only necessary to place the yoke over the shoulder, as in Fig. 1, then to press down the sheet-metal ends thereof in front, and to buckle the belt b round the waist.

I will now proceed to describe the telephone attachments and adjustments. Projecting to the front from the two ends of the plate B are the horizontal arms a , one for each side. These, by the pivot-screw and set-nut N , are pivoted to the said ends of the base-plate, and by loosening the nut N may be moved laterally, and, when the desired position is attained, fixed by screwing up the nut. This is more particularly shown in Fig. 7, the dotted lines implying that the arm can be moved in either direction. A vertical standard, V , is, by a swivel-joint, v , and clamping-screw u , fixed upon the horizontal arm a , and has two adjustments, both of which are dependent upon the swivel v —that is, the standard may be moved longitudinally along the arm a to or from the end, and it may be given a rotary adjustment round the arm a as an axis, as indicated in Fig. 6, where a is a cross-section of the horizontal arm, V the vertical standard, and v the swivel-joint, securable by the clamp-screw u . This standard is also provided with a movable supporting-ring, r , which may be slid up and down the standard V , and secured at any desired point by a clamp-screw, u . The ring has at one point of its upper surface, on the inner side, an upwardly-projecting stud, e , as shown in Fig. 4. A sleeve, S , perforated from end to end, and provided at one side with a telephone-holding clasp-ring, C , the inner part of which may be of one piece with the sleeve, is adapted to slide upon

the standard V to an extent limited in its downward direction by the ring r . At each end of the sleeve, as shown in Fig. 5, are two holes, $f f'$, either or both of which are adapted to engage with the stud e of the ring r and hold the sleeve in the position to which it may be turned. The telephone T is held in the holding-clamp C in a manner well understood, and is so arranged that when one of the studs, f , engages with the hole e of the ring r , the ear-piece of the telephone is directed toward the ear, while when the other stud, f' , engages the same hole the telephone is turned and held away from the ear. It is not necessary to provide a sleeve and telephone for each ear, unless it is desired, as the sleeve is reversible; and when it is to be transferred from one side to the other it is only necessary to slide it up from the standard V and turn it upside down before sliding it down onto the standard on the other side, so that if on one side the end 1 is down and rests on the ring r on the other side, the end 2 will be placed downward and will rest on the ring r . This reversal of position is a matter of convenience, and by adopting the practice I am saved the necessity of making a second adjustment, since all that is requisite is to remove the telephone-sleeve and slide on the opposite standard. If it were not for the reversibility, a complete readjustment of all the screws would be necessary.

To affix the telephone in place after attaching the base to the operator, as hereinbefore described, the telephone-sleeve S may be slid over the standard V and round on the said standard until the proper hole f engages with the stud e of the ring r . The said ring r must then be raised or lowered until the ear-piece of the telephone is exactly on a level with the ear of the operator, after which the rotary and lateral adjustments may be varied until the slight inclination of the head of the operator will bring his ear immediately upon the ear-piece of the telephone without any undue strain or unpleasant twist. When this is accomplished, the adjusting-screws may all be set tight, and the telephone is set for the operator. So long as the same operator wears the same telephone no further adjustment is necessary, except to compensate for the natural growth of the subject.

The hereinbefore-described invention thus enables an operator or other person to support constantly a receiving-telephone in immediate proximity to his ear without inconvenience, and without any strain or pressure on the head. It also affords facilities for the adjustment of the said telephone to any person, and its use does not necessarily imply the co-ordinate use of a special form of receiving-telephone, since the ordinary Bell receiving-telephone is well adapted for use with it, and is furthermore the receiver I prefer.

I do not restrict myself to the strap and belt, since many other methods of securing the tel-

ephone-holder to the body or clothing may be adopted.

Having thus fully described my invention, I claim—

5 1. An operator's telephone apparatus consisting of the combination of a telephone, a support therefor adapted to be fixed upon the shoulders of the operator, and having a stand-
10 ard for holding the telephone above the body of the operator, and means for securing the same to the body or clothing of said operator.

2. A support for a receiving-telephone, comprising a base or yoke adapted to be attached to the body or clothing of the user, and an up-
15 right adjustable standard for positively upholding the telephone with its diaphragm in proximity to the ear, substantially as described.

3. An operator's telephone apparatus consisting of the combination, substantially as
20 hereinbefore described, of a telephone, an adjustable support therefor adapted to be fixed upon the shoulders of the operator, and means for securing the same to the person or cloth-
25 ing of the said operator.

4. A telephone-support comprising a base or yoke adapted to be attached to the body or clothing of the user, and a universally-adjust-
30 able telephone-holder, substantially as described.

5. A shoulder-resting telephone-support consisting of a base and yoke-piece therefor, means for fastening the same to the body of

the operator, one or more standards supported by said base, and a telephone-holding clamp
35 and sleeve, the said sleeve being adapted to slide upon the said standards, as and for the purposes described.

6. The combination of a telephone and a support therefor adapted to maintain the said
40 telephone in juxtaposition to the ear of the wearer, and to be attached to the person of the wearer below the head, with rotary vertical and horizontal adjustments.

7. An operator's telephone apparatus consisting of the yoke-piece and base, together
45 with means for fastening the same to the body, a vertical standard provided with lateral and rotary adjustment, a telephone, a telephone-holding clamp and sleeve, and means, as in-
50 dicated, for vertically adjusting the same and for holding the telephones in or out of position, as described.

8. In a telephone-support, the combination of the standard V, the clamp-carrying sleeve
55 S, provided with holes $f f'$, and the interlocking stud e , substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two sub-
60 scribing witnesses, this 17th day of January, 1884.

THEO. N. VAIL.

Witnesses:

THOS. D. LOCKWOOD,
GEO. WILLIS PIERCE.