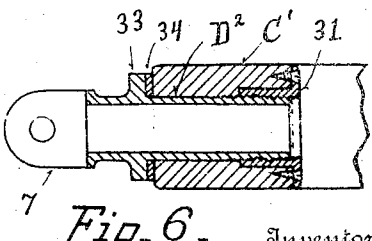
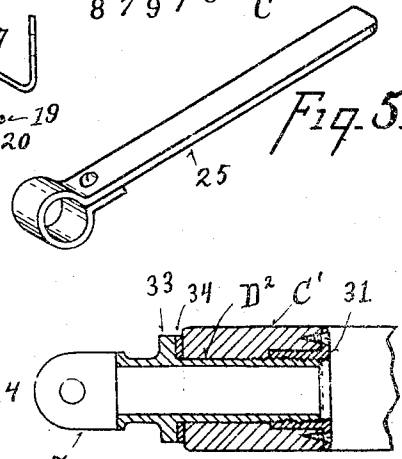
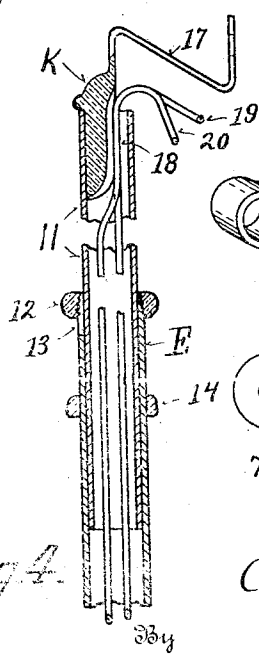
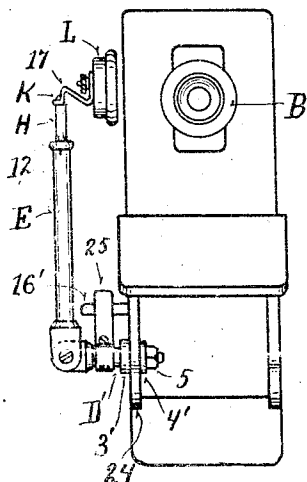
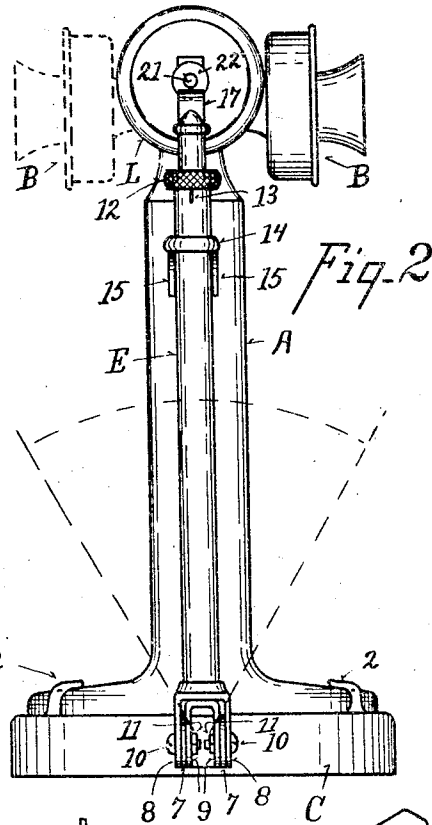
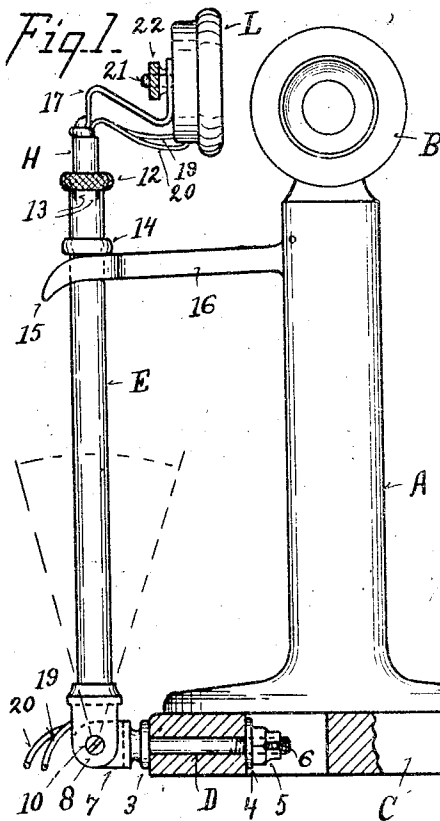


C. F. DOLLE.
TELEPHONE APPARATUS.
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1,036,809.

Patented Aug. 27, 1912



Witnesses

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Fig. 4.

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UNITED STATES PATENT OFFICE.

CHARLES F. DOLLE, OF CINCINNATI, OHIO.

TELEPHONE APPARATUS.

1,036,809.

Specification of Letters Patent.

Patented Aug. 27, 1912.

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To all whom it may concern:

Be it known that I, CHARLES F. DOLLE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Telephone Apparatus, of which the following is a specification.

My invention relates to improvements in telephone apparatus.

One of its objects is to provide improved means to connect and support a telephone receiver with reference to the transmitter and its base to permit the operator to freely use both hands, and to prevent tiring the operator by holding the receiver for a long period.

Another object is to provide for the adjustment of the receiver to any position desired by the operator and for holding the receiver in such adjusted positions.

Another object is to provide a yielding support for the receiver.

Another object is to provide for holding the receiver by hand in the usual manner when desired.

My invention further consists in certain details of form, combination and arrangement, all of which will be fully set forth in the description of the accompanying drawings, in which:

Figure 1 is a front elevation of a desk type of telephone embodying my improvements. Fig. 2 is a side elevation of the same. Fig. 3 is a front elevation of a wall type of telephone embodying my improvements. Fig. 4 is a sectional detail of a portion of the receiver support. Fig. 5 is a perspective view of a switch actuating lever for the wall type of telephone, detached. Fig. 6 is a detail of a modification.

The accompanying drawings represent the preferred embodiment of my invention.

A represents the usual standard of a desk telephone, to the upper end of which is pivotally attached a telephone transmitter B adjustable to either the position shown in full line or to the position shown in dotted line. The mechanism supporting the receiver may be pivotally attached directly to the base A, but I preferably provide a separate member C secured by hooks 2 or other means to the under face of the base A. A member D is rotatably attached to member C and is provided with a collar 3 and washer 4 which by means of a castellated

nut 5 and cotter pin 6 can be adjusted to secure any desired tension of the collar 3 and washer 4 upon member C, so that member D will not turn too freely with reference to member C, and will remain in any position to which it may be adjusted. The projecting portion of member D is divided into two flat forks 7, which are embraced between the outer forks 8 of member E and the inner forks 9 of said member E. Screws 10 pass through said forks 7, 8, and 9 and nuts 11 serve to clamp said forks so as to press their meeting faces together and thus secure any desired tension to provide for the pivotal adjustment of member E with reference to member D, and to insure member E remaining in its adjusted position. The body of member E is tubular, and at its upper end it is externally tapered and threaded, and provided with a nut 12. The upper end of member E is also provided with three or four longitudinal slots 13, which enables the internal diameter of the upper end of member E to be reduced to less than the diameter of the body portion of member E, due to the compressing action of the nut 12. Member E is also provided with a rigidly attached collar 14, which is adapted when the instrument is not in use to engage the forked ends 15 of the switch lever 16, which serves to break the telephone circuit.

A tubular member H is fitted closely within the body of member E, and is adapted to telescope to any desired extent within the member E, and to turn or move rotatably within said member E. The adjustment of the nut 12 permits the slotted upper end of member E to close in upon and frictionally engage the exterior of member H to secure the desired tension and to provide for the adjustment of and retention of member H in its adjusted positions. A member K having a thin spring or flexible arm 17 is telescopically fitted to the upper end of member H, and is provided with a recess 18 for the passage of the wires 19 20 to be connected to the receiver, said wires passing up through the center of members E and H. A telephone receiver L preferably of the watch case type is preferably employed and connected to the free end of the flexible arm 17 by means of a screw 21 and nut 22. The flexible arm 17 provides for the receiver being held with a comparatively firm but yielding tension against the ear of the operator without liability of forcing the several

adjustable and tensioned members out of their adjusted positions, and provides for continuously holding the receiver to the ear notwithstanding the movements of the operator in talking or taking notes. The member H may also if desired be lifted entirely clear of member E and held by hand with the receiver to the ear if desired, the wires 19 and 20 feeding up through the member E to permit such use of the member H. The several adjustments capable of being made between the member C and the receiver permit the receiver to be placed in any desired position, and at any desired angle within reasonable range of the transmitter, and thus provides for satisfying the individual requirements of any one who may desire to use the telephone.

In operation the member E is first moved to disengage the collar 14 and body of member E from the forked arms of the switch lever 16, the member D then turns relative to member C to move the receiver toward the operator, the member H being drawn out from member E to lengthen the receiver support, until the receiver is at the right distance and angle from the transmitter, to attain which the member H may be turned pivotally within the member E, and the member E adjusted pivotally with reference to member D. The operator then presses his ear against the receiver to put more or less tension on the flexible arm 17, which is adapted to yield without disturbing the previous adjustment of the members D, E, H. When the operator is through with the telephone the member H may be pushed back into member E or not, and the member E returned to engage the forks of the switch lever.

In the modification Fig. 3 the member D' is preferably inserted through a hole in one of the side plates of the battery box and the collar 3' and washer 4' clamped upon said side plate 24 to secure the desired tension for member D'. The member D' also carries a projecting arm 25, which depending upon the movements of the member D' is adapted to engage and disengage the usual switch lever 16'. The other members of Fig. 3 are mounted and operated as heretofore described. The receiver of Figs. 1 and 2 is adapted to be applied to either the left or right ear by reversing the position of the transmitter as indicated in full and dotted line in Fig. 2, while the receiver of Fig. 3 is adapted to be used right handedly either by extending the member D' across to the opposite side of the battery box and attaching the member E on the right side; or by detaching the member H and holding it in the hand.

In the modification Fig. 6 C' corresponds to member C of Figs. 1 and 2. D² corresponds to member D and is threaded to en-

gage a sleeve 31 attached by screws to member C'. A split or spring washer 34 is preferably interposed between the member C' and the collar 33 to maintain a uniform tension.

The mechanism herein described and illustrated is capable of considerable modification without departing from the principle of my invention.

Having described my invention, what I claim is;

1. In a telephone, receiver supporting mechanism comprising a member rotatably supported relative to the transmitter, two members, the first of which is pivotally attached at one end to said first named member and the second of which is telescopically adjustable relative to the first of said two members, a flexible member carried by the second of said two members, a telephone receiver supported near the free end of said flexible member, and means carried by one of said receiver supporting members to engage and throw a switch lever.

2. In a telephone, receiver supporting mechanism comprising a member rotatably adjustable upon a substantially horizontal axis relative to the transmitter, two members telescopically and rotatably adjustable relative to each other, the first of said telescopic members being pivotally attached at one end to said first named member, a flexible member carried by the second of said telescopic members and yieldingly supporting a receiver, and means carried by one of said receiver supporting members to engage and throw a switch lever.

3. In a telephone, receiver supporting mechanism comprising a member rotatably adjustable upon a substantially horizontal axis relative to the transmitter, two tubular members telescopically and rotatably adjustable relative to each other, one of said tubular members being pivotally attached at one end to said first named member, a flexible member carried by the opposite of said telescopic members and yieldingly supporting a receiver, and mechanism carried by one of said receiver supporting members to engage and throw a switch lever.

4. In a telephone, receiver supporting mechanism comprising a member rotatably supported upon a substantially horizontal axis relative to the telephone base and having its projecting end forked, a tubular member forked at one end and adapted to engage the forked ends of said first named member, mechanism to adjustably lock the forked ends of said members into frictional engagement to tension the movements of said tubular member, a tubular member adapted to telescope relative to said first named tubular member, a flexible member carried by said last named tubular member and yieldingly supporting a receiver, and

means carried by one of said receiver supporting members to engage and operate a switch lever.

5 In a telephone, receiver supporting mechanism comprising a member rotatably adjustable upon a substantially horizontal axis relative to the telephone base, a tubular member pivotally attached at one end to said first named member, a second tubular member telescopically and rotatably adjustable within said first tubular member, said tubular members forming a housing and conduit for the electrical wires leading to the receiver, a flexible member carried by said second tubular member, a receiver carried near the free end of said flexible member, and means carried by said receiver supporting members to engage and operate a switch member.

20 6. In a telephone, receiver supporting mechanism comprising a base plate detachably connected to the telephone base, a member rotatably adjustable relative to said detachable base plate, two members telescopically adjustable upon a substantially horizontal axis relative to each other, one of said telescopic members being pivotally attached at one end to said first named rotatably supported member, a receiver carried at the free end of the opposite of said telescopic members, and means carried by one of said receiver supporting members to engage and operate a switch lever.

35 7. In a telephone, receiver supporting mechanism comprising a base plate detachably connected to the transmitter base, a member pivotally adjustable upon a sub-

stantially horizontal axis relative to said detachable base plate and provided with adjustable means to tension its movements, two tubular members telescopically adjustable relative to each other and forming a conduit for the electrical wires leading to the receiver, one of said telescopic members being pivotally attached at one end to said first named pivotally supported member, a receiver carried at the free end of the opposite of said telescopic members, and means carried by one of said receiver supporting members to engage and operate a switch lever. 40 45 50

8. In a telephone, receiver supporting mechanism comprising a member rotatably supported upon a substantially horizontal axis relative to the telephone base and provided with adjustable means to tension its movements, a tubular member pivotally attached at one end to said first named member, a tubular member adapted to telescope relative to said first named tubular member and adjustable rotatably relative to said first named pivotal member, means to tension the relative movements of said tubular members, a flexible member carried by said telescopic tubular member and yieldingly supporting a telephone receiver, and means carried by one of said receiver supporting members to engage and operate a switch lever. 55 60 65

In testimony whereof I have affixed my signature in presence of two witnesses.

CHARLES F. DOLLE.

Witnesses:

C. W. MILES,

E. W. McCALLESTER.