W. I. MILLER.

TELEPHONE SUPPORT.

APPLICATION FILED MAR. 31, 1919.

1,336,253.

Patented Apr. 6, 1920.

2 SHEETS—SHEET 1.

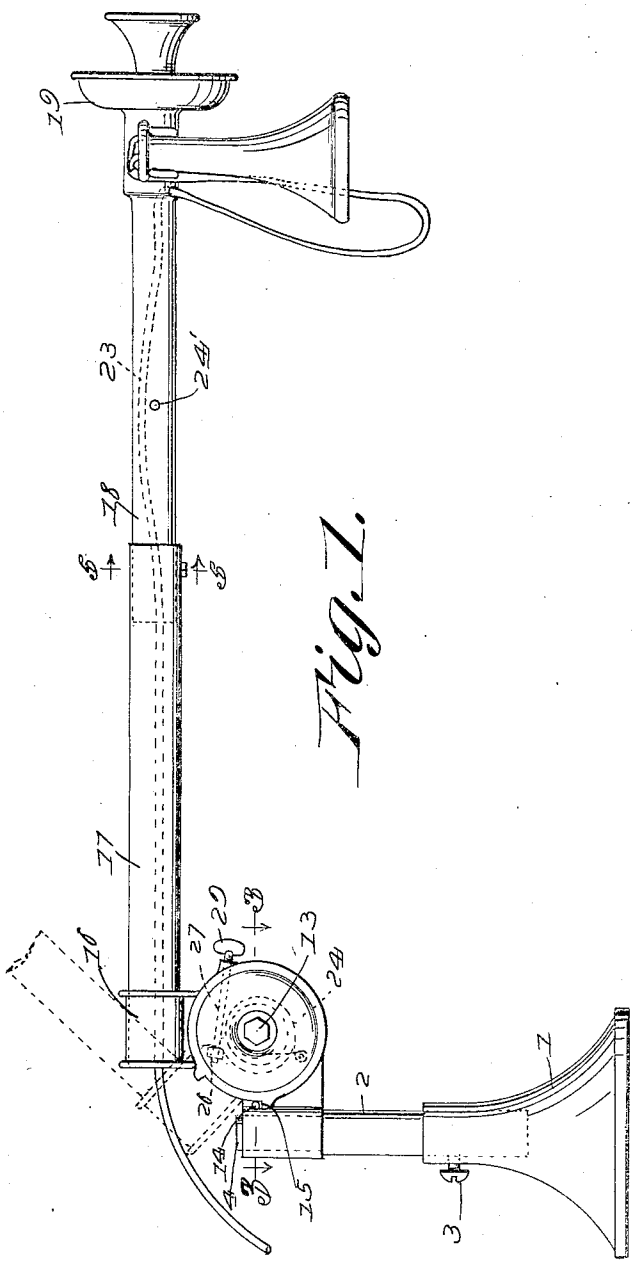


Fig. 1.

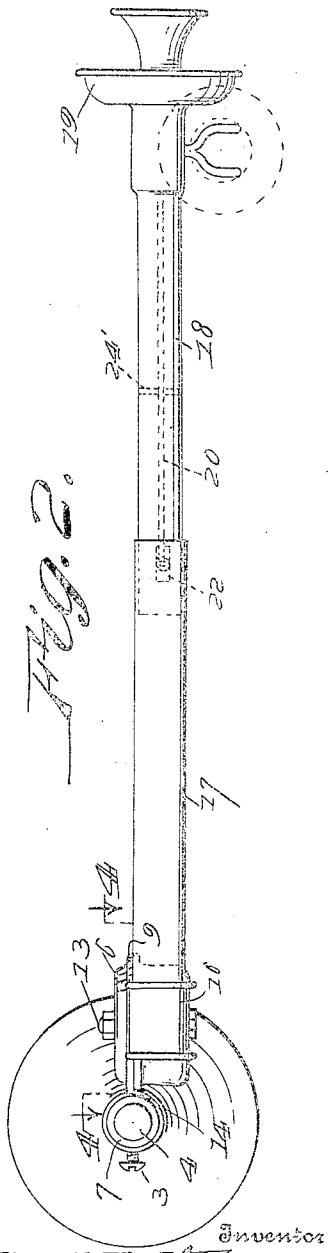


Fig. 2.

Inventor

W. I. Miller,

By Albert Talbot

Attorney

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2 SHEETS—SHEET 2.

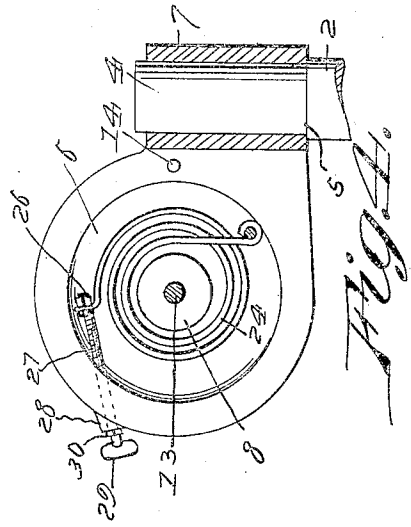


Fig. 4.

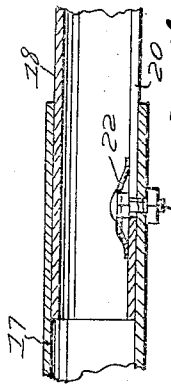


Fig. 6.

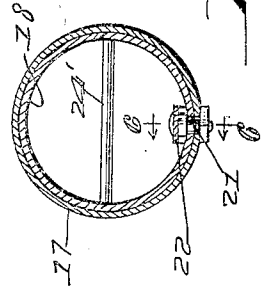


Fig. 5.

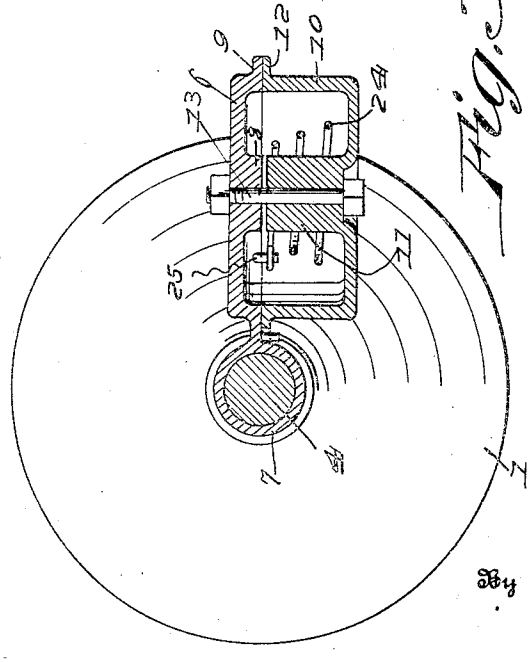


Fig. 3.

Inventor

W. I. Miller,

By E. Thurne Talbert

Attorney

UNITED STATES PATENT OFFICE.

WILLIS I. MILLER, OF CLEVELAND, OHIO.

TELEPHONE-SUPPORT.

1,336,253. Specification of Letters Patent. Patented Apr. 6, 1920.

Application filed March 31, 1919. Serial No. 286,429.

To all whom it may concern:

Be it known that I, WILLIS I. MILLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Telephone-Supports, of which the following is a specification.

The object of the invention is to provide a new and novel form of telephone support or stand, the device being capable of winding movement; having means for elevating or lowering the mouth-piece of the phone to conveniently position the latter for talking; and having means permitting it to be extended or to be reduced in length, so that the mouth-piece of the phone may be positioned conveniently to suit the user without making it necessary for him to change his position.

A further object of the invention is to provide a device of this character which is simple in construction, durable and effective in operation and inexpensive to manufacture.

Other and further objects appear in the following description wherein the invention is set forth in detail.

To the construction in which it is illustrated and described, the invention is not to be restricted. The right is reserved to make such changes or alterations as the actual reduction to practice may suggest, in so far as such changes or alterations are compatible in spirit with the annexed claims.

The same numerals of reference designate the same part throughout the several figures of the drawing, wherein:

Figure 1 is a view in side elevation of the improved device.

Fig. 2 is a top plan view of the structure in Fig. 1.

Fig. 3 is a section on the line 3—3 of Fig. 1.

Fig. 4 is a section on the line 4—4 of Fig. 2.

Fig. 5 is a section on the line 5—5 of Fig. 1.

Fig. 6 is a section on the line 6—6 of Fig. 5.

Referring to the drawings, the invention is shown as comprising a base or pedestal 1, which in the present instance is intended to be made of very heavy material, or else light material weighted so that the center of gravity may be found in the pedestal. Obviously other forms of pedestal may be provided in which screws will be used to attach them to a support or base. The pedestal 1 is preferably of the substantial frusto-conical shape shown, a socket being formed in the upper end for the reception of the stud 2, the latter being vertically adjusted in the pedestal but secured in position after adjustment by a set screw 3. The upper end of the stud is reduced as indicated at 4, thus providing a shoulder 5. This so that there might be mounted on the stud the plate 6 which is preferably of circular shape and formed with the tangentially disposed sleeve portion 7 which surrounds the reduced portion of the stud 2 and seats on the shoulder 5 thereof. The shoulder 5 forming a thrust bearing for the sleeve, the latter is permitted to turn angularly on the reduced portion 4. Thus the plate 6 may be swung into different angular positions with reference to the stud. The plate 6 is formed with a central boss 8 and with an annular flange 9, the face of the boss and the face of the flange lying in the same plane.

The plate 6 forms one of the sections of a unique pivotal point provided in the improved device, the other section of which is in the form of a casing 10 formed with a central hub 11 and with an annular flange 12. The inner face of the hub 11 is slightly within the corresponding face of the flange 12 and the casing and the plate are assembled by means of a bolt 13 which passes through a hole formed centrally through the hub 11 and through a corresponding hole formed through the boss 8. The plate 6 adjacent its sleeve member 7 carries a pin 14, the flange 12 of the casing being formed with two spaced readily projecting lugs 15, either of which will abut the pin as the casing is turned angularly with respect to the plate, as it may be because of the pivotal connection between the two, provided by the bolt 13. The bolt 13 is designed to hold the casing in the plate in contact just sufficient to permit free movement of the one with respect to the other.

The casing 10 is formed with a tangen-

tially disposed sleeve portion 16 in which there is received one end of a tubular member 17, the opposite end of which has telescoped therein a second tubular member 18 at whose outer extremity and housed within which there is the telephone mechanism generally designated 19. The tubular member 18 is formed with a longitudinal slot 20 through which there passes a bolt 21, the latter also passing through a hole formed in the tubular member 17 adjacent the end which the tubular member 18 enters. This bolt interior to the tubular member 18 carries a flat spring 22 which spans the bolt and has its free ends lying against the inner face of the tubular member 18 on opposite sides of the bolt. The bolt passing through the slot 20 serves to secure the tubular member 18 in the tubular member 17 but the slot 20 permits longitudinal movement of the member 18 with respect to the member 17. The former may therefore be telescoped in the latter or may be drawn out to an extended position, the length of the slot defining the limits of movement of the tubular member 18 and the flat spring 22 providing the necessary frictional resistance to prevent its telescoping too freely.

The electrical conducting wire 23 enters the tubular member 17 where it is mounted in the sleeve member 16 and passes through the two tubular members to connect with the telephone mechanism 19, a transversely disposed pin 24 being provided in the tubular member 18 so that the conducting wires 23 which pass over it may be held out of contact with the head of the bolt 22.

Since the tubular member 18 is telescopically connected with the tubular member 17, this supporting arm for the phone apparatus is longitudinally extensible or reducible in length as desired. Because of the pivotal connection between the arm and the stud 2 provided by the sleeve 7 loosely engaging the reduced portion 4, the arm may have its position changed angularly in a horizontal plane.

In order to offset the weight of the phone mechanism supporting the arm consisting of the members 17 and 18, a spring 24 is carried within the casing 10. This is preferably a spiral spring and is disposed in surrounding relation to the hub 11, one end of the spring being formed with an appropriate eye which connects with a pin 25 carried by the plate 6. The other extremity of the spring connects with an internally threaded socket member 26 which is engaged by a screw 27, the latter being tangentially disposed with reference to the casing and passing loosely through an eye formed in a boss 28 carried thereby. The screw 26′ terminates in a thumb piece 29 and its shank carries a shoulder 30 which bears against the outer face of the boss 28. Obviously as the screw is turned, the socket 26 advances toward the head screw or toward the extremity thereof, this operation obviously increasing the torsion on the spring 24, and since the spring is so coiled around the hub that it tends to raise the arm comprising the tubular members 17 and 18, the adjustment of the screw can be effected so that the arm will be raised immediately a force tending to lower it is removed, such as a force exerted by the hand in pulling the mouthpiece down into convenient position for the mouth. The spring can also be adjusted so that the arm may normally maintain a horizontal position and the contact between the hub and boss and flanges of the casing and plate may be adjusted to effect enough frictional resistance between the two to maintain the arm in any desired position in which it may be placed.

From the foregoing description and the accompanying drawings, it is believed that a clear enough understanding is to be had to render further description unnecessary.

The invention having been described, what is claimed as new and useful is:

1. A telephone support comprising an arm, a plate having means for connecting the same to a support, the said plate being formed with a central boss and with an annular flange, a casing connected with said arm and dimensioned according to the plate, the said casing having a central hub and an annular flange, the hub bearing against the boss of the plate and the flange against the flange of the plate, and a pivot stud passing through the hub of the casing and through the boss of the plate.

2. A telephone support comprising an arm, a plate having means for connecting the same to a support, the said plate being formed with a central boss and with an annular flange, a casing connected with said arm and dimensioned according to the plate, the said casing having a central hub and an annular flange, the hub bearing against the boss of the plate and the flange against the flange of the plate, a pivot stud passing through the hub of the casing and through the boss of the plate, and a spiral spring in surrounding relation to the hub and having one end connected with the plate and the other end connected with the casing for the purpose specified.

3. A telephone support comprising an arm, a plate having means for connecting the same to a support, the said plate being formed with a central boss and with an annular flange, a casing connected with said arm and dimensioned according to the plate, the said casing having a central hub and an annular flange, the hub bearing against the boss of the plate and the flange against the

flange of the plate, a pivot stud passing through the hub of the casing and through the boss of the plate, a spiral spring in surrounding relation to the hub and having one end connected with the plate, a substantially tangentially disposed adjusting screw carried by the casing, and an internally threaded socket element carried by the screw and with which the remaining end of the spring connects, so that the activity of the spring may be varied for the purpose specified.

In testimony whereof I affix my signature.

WILLIS I. MILLER.