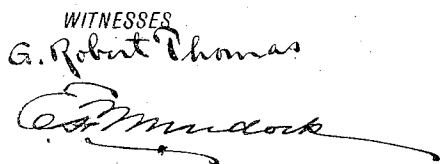


1,047,294.

2 SHEETS—SHEET 1.



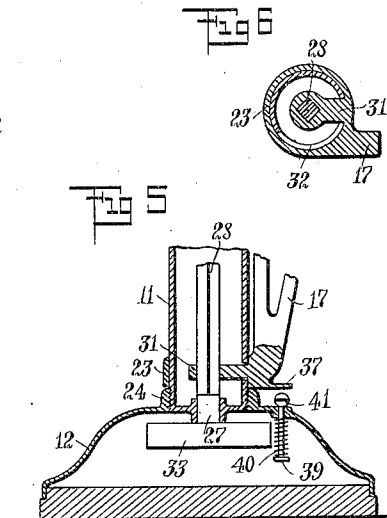
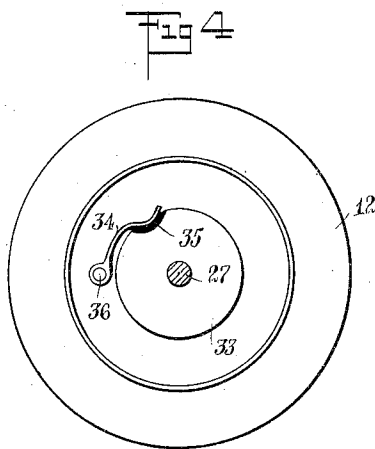
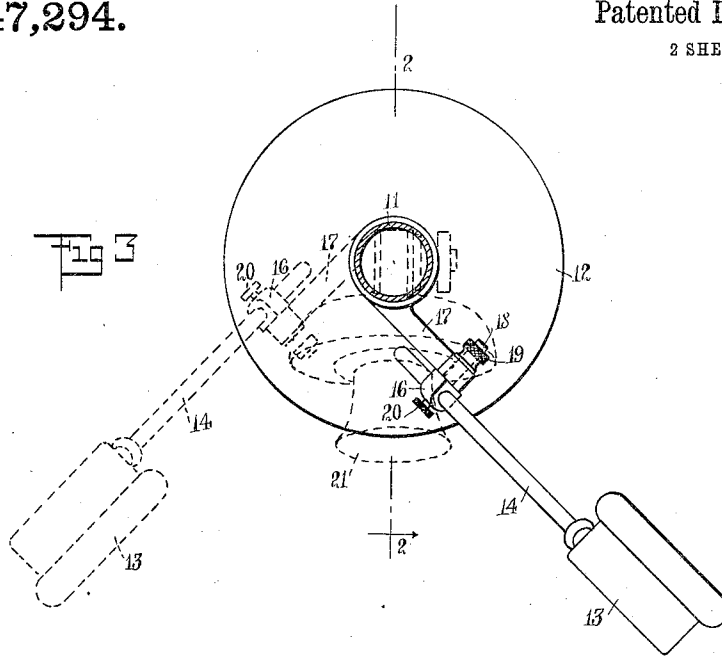
COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

M. M. REYNOLDS.
 TELEPHONE INSTRUMENT.
 APPLICATION FILED SEPT. 1, 1911.

1,047,294.

Patented Dec. 17, 1912.

2 SHEETS—SHEET 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

MARCUS M. REYNOLDS, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN INDEPENDENT TELEPHONE COMPANY, A CORPORATION OF ARIZONA.

TELEPHONE INSTRUMENT.

1,047,294.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed September 1, 1911. Serial No. 647,152.

To all whom it may concern:

Be it known that I, MARCUS M. REYNOLDS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Telephone Instrument, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide an instrument of the character mentioned with supporting means for the receiver to dispense with the need for holding the receiver in the hand of the operator; to provide supporting means for the receiver of a telephone which when moved to service position automatically closes the necessary circuit in the said instrument; to provide means whereby when the use of the instrument is discontinued the circuit is automatically cut out; and to provide means for at will locking the instrument in position to maintain open the line circuit during intervals of suspension of the use of the telephone.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a perspective view of a telephone instrument constructed and arranged in accordance with the present invention; Fig. 2 is a vertical section taken on the line 2—2 in Fig. 3; Fig. 3 is a cross section in plan taken on the line 3—3 in Fig. 1; Fig. 4 is a cross section in plan taken on the line 4—4 in Fig. 2; Fig. 5 is a vertical section of the base of the stand, showing the temporary latch for holding the receiver in position where the use of the telephone is suspended but not cut out; and Fig. 6 is a cross section in plan taken on the line 6—6 in Fig. 2.

In the accompanying drawings the line and instrument connecting wires have been omitted to avoid confusion. This wiring in the present invention is in all essential respects the same as that usually employed.

The form of instrument adopted for the purpose of illustrating the employment of the present invention is that known as a desk stand, wherein the pedestal 11 is mounted upon a wide-spread base 12. The pedestal 11, as illustrated in the accompany-

ing drawings, is unprovided with the slot usually formed for the extension there-through of the lever for hanging the receiver, the ordinary form of receiver and supporting lever therefore being, by this invention, dispensed with.

The receiver 13 employed in connection with the present invention is of the disk type, and is mounted at the end of an extension arm 14, the connection therewith being made by the ball and socket joint 15. Any suitable means for fixing the adjustment of the receiver 13 on the arm 14 at the joint 15 is employed. The arm 14 is slidably mounted in a block 16. The block 16 is pivotally mounted in a bracket 17 having a screw threaded shank 18 whereon is mounted the milled nut 19. When the nut 19 is tightened against the off side of the bracket 17 the block 16 is held rigidly in position on the said bracket.

The arm 14 is slidable in the perforation formed for the purpose in the block 16, and is held in any adjusted position by the set screw 20 which is thread engaged with the block 16. In this manner the arm 14 may be shifted to accommodate the needs of various users of the telephone instrument. The ball and socket joint 15 permits the receiver 13 to adjust itself to the pressure thereof against the ear of the person using the telephone instrument.

In the normal position of the telephone instrument the receiver 13 is held as shown in full lines in Fig. 3 of the drawings. To use the telephone instrument it is necessary to move the receiver 13 to the position shown in dotted lines in said Fig. 3, the transmitter 21 shown in dotted lines in said Fig. 3 remaining stationary while the receiver is moved from the one to the other of the positions shown. It will be noted that in the position shown by dotted lines in said Fig. 3 the mouth of the user of the instrument would be in position to talk directly into the transmitter 21, while the receiver 13 would rest against the left ear of the said user of the instrument.

The bracket 17 is provided with the collars 22 and 23 which are rotatively mounted on the pedestal 11. The bracket 17 is supported upon the collar boss 24 which is struck up from the base 12 and is suitably tapped and threaded to receive the lower end of the said pedestal 11. The pedestal 11 differs

from the usual pedestal in that it is provided with the disk 25 fixedly mounted adjacent the upper end of the said pedestal, and with the bearing 26 at the lower end thereof. The bearing 26 is furnished to receive the rounded section 27 of the squared shaft 28. The shaft 28 is supported within the pedestal 11 by the rounded sections 27 and 29. The shaft 28 is surrounded by the spiral spring 30, which spring is anchored to the said shaft 28 and to the disk 25, as shown best in Fig. 2 of the drawings. The square section of the shaft 28 is extended through the square hole formed in the arm 31, which arm 31, as best seen in Fig. 6 of the drawings, is extended inwardly to the center of the collar 23. This engagement of the shaft 28 with the arm 31 insures the rotation of the collar 23 and bracket 17 connected therewith in unison with the rotation of the shaft 28 by the spring 30. The rotation of the shaft 28 and bracket 17 is arrested by the arm 31 impinging upon one end of the slot 32 formed in the pedestal 11 to receive and limit the movement of the arm 31. Under normal conditions the spring 30 operates to maintain the receiver 13 in the position shown in full lines in Fig. 3. It is against the pressure of the spring 30 that the receiver 13 and parts connected therewith are moved to the position shown in dotted lines in said Fig. 3. In the position shown in dotted lines in said figure, and during the use of the telephone, the pressure of the spring 30 is maintained on the shaft 28 and parts connected therewith to return the same and the receiver 13 to the position shown in full lines in said figure. Thus, when having finished with the use of the telephone instrument, the user moves away from the same, the spring 30 throws the receiver 13 to the position shown in Fig. 3. In doing this the spring 30 also rotates the contact disk 33 out of engagement with the terminal spring 34 and disposes the said disk 33 in the position with relation to the spring 34, as shown in Fig. 4 of the drawings, where it will be observed the insulating pad 35 is mounted on the top of the disk 33 to form a dead spot for the contact end of the spring 34. The spring 34 is suitably mounted upon a post 36 forming a terminal for the line wire. Thus it will be seen that under normal conditions when the instrument is out of service the telephone receiver is automatically moved to discontinue the telephone circuit.

Under certain conditions it is convenient and desirable to place the telephone instrument in position where the circuit is closed and the instrument in used position while the user has finished therewith. For this purpose I have provided at the lower end of the bracket 17 an extension plate 37. In the base 12 I have mounted a small

plunger 39. To normally depress the plunger 39 within the base 12 I have provided a spring 40. The upper end of the plunger 39 is provided with a latch 41 having an overhanging portion adapted to engage and rest upon the plate 37. The disposition of the plunger 39 and plate 37 is such that when in engagement the receiver 13 is in line with the transmitter 21, or in such position relative thereto as to prevent or render awkward the use thereof by the person telephoning.

To place the telephone in suspended position the user lifts the head 41, and under control moves the receiver 13 and bracket 17 until the plate 37 is engaged by the head 41 of the plunger 39. In this position the telephone maintains the telephone circuit. When on resuming the telephonic conversation the user moves the receiver to the position shown in dotted lines in Fig. 3. In order that he may talk directly into the transmitter 21 he removes the plate 37 from engagement with the head 41, thereby permitting the spring 40 to retract the plunger 39 and remove the said head 41. When after completing the telephonic conversation the user now moves away from the instrument, the operation of the spring is as above described.

It will be noted that by the employment of any suitable construction whereby the receiver is arrested in position to interfere with the full employment of the telephone instrument to require its movement to a certain position to thereby release the said latch, provision is made against that form of negligence of the user wherein the telephone is left with a closed circuit after the termination of the employment.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In an instrument of the character described, a transmitter; a vertically disposed pedestal for said transmitter; a receiver; a support for said receiver rotatively mounted on said pedestal and having a contact disk disposed within said pedestal; and a resilient terminal contact to engage said disk to complete the telephone circuit when said support is rotated to place the receiver in service position.

2. In an instrument of the character described, a transmitter; a vertically disposed pedestal for said transmitter; a receiver; a support for said receiver rotatively mounted on said pedestal and having a contact disk disposed within said pedestal; a resilient terminal contact to engage said disk to complete the telephone circuit when said support is rotated to place said receiver in service position; and adjustable means for mounting said receiver on said support.

3. In an instrument of the character de-

scribed, a transmitter; a vertically disposed pedestal for said transmitter; a receiver; a support for said receiver rotatively mounted on said pedestal and having a contact disk disposed within said pedestal; a resilient terminal contact to engage said disk to complete the telephone circuit when said support is rotated to place the receiver in service position; and a spring to rotate said support for said receiver to normally break the telephone electric circuit.

4. In an instrument of the character described, a transmitter; a vertically disposed pedestal for said transmitter; a receiver; a support for said receiver rotatively mounted on said pedestal and having a contact disk disposed within said pedestal; a resilient terminal contact to engage said disk to complete the telephone circuit when said support is rotated to place the receiver in service position; a spring to rotate said support for said receiver to normally break the telephone electric circuit; and manually operative means to arrest said support to hold said receiver in position to interfere with the use of said transmitter.

5. In an instrument of the character described, a transmitter; a vertically disposed pedestal for said transmitter; a receiver; a support for said receiver rotatively mounted on said pedestal and having a contact disk disposed within said pedestal; a resilient

terminal contact to engage said disk to complete the telephone circuit when said support is rotated to place the receiver in service position; a spring to rotate said support for said receiver to normally break the telephone electric circuit; and a spring actuated latch mounted on said pedestal to hold said support in position to interfere with the employment of said transmitter, said latch adapted to release said support when the same is moved to service position.

6. In combination with a pedestal for a telephone transmitter having fixedly mounted therein a terminal of the telephonic circuit, a bracket support for a telephone receiver pivotally mounted concentric with said pedestal to hold said receiver in service position; a terminal for said telephonic circuit adapted to be moved by said bracket support to close said circuit when said receiver is in service position; and yielding means connected with said bracket support to normally hold said receiver out of service position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARCUS M. REYNOLDS.

Witnesses:

E. F. MURDOCK,

PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."