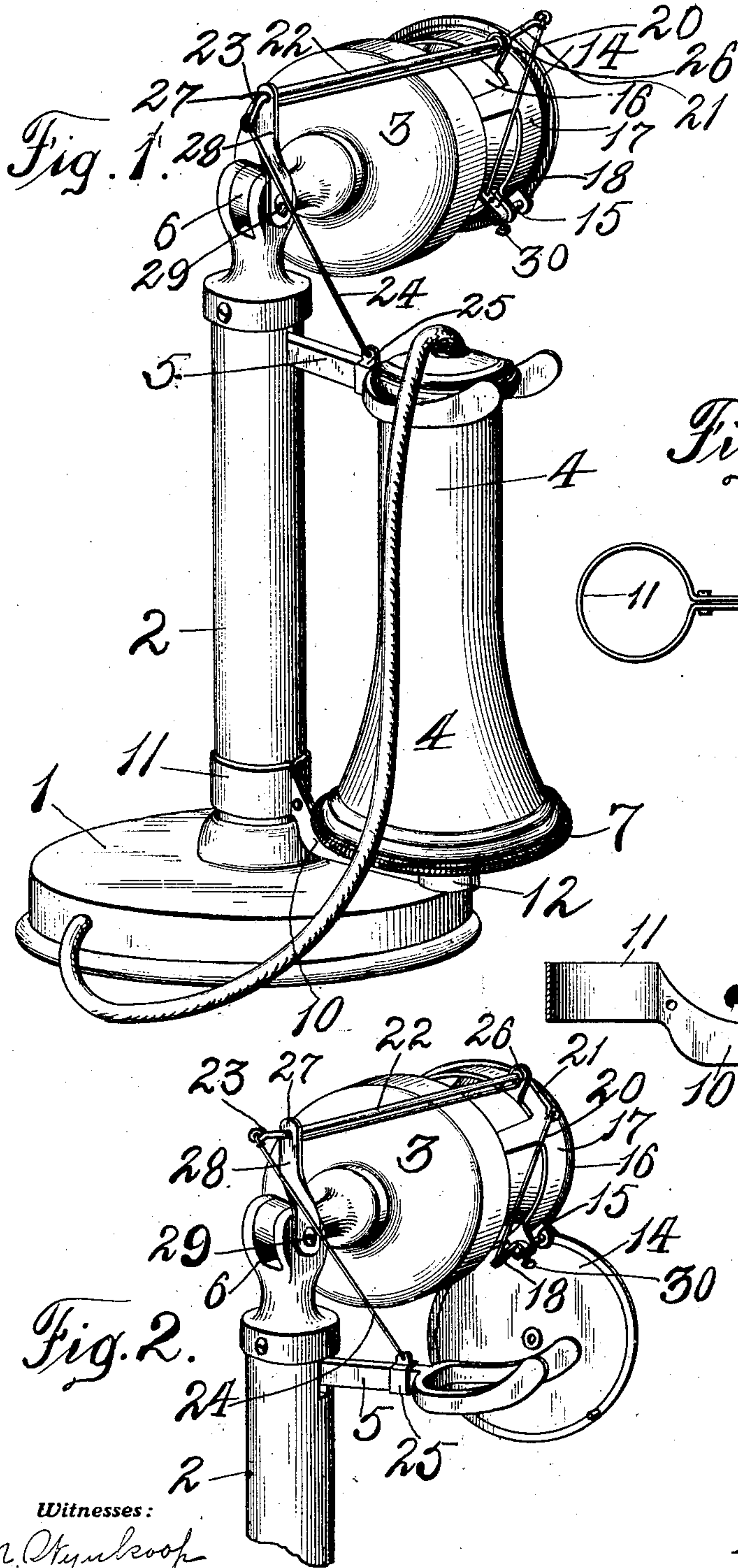


No. 829,812.

PATENTED AUG. 28, 1906.

N. J. TUBBS.  
TELEPHONE DISINFECTOR.  
APPLICATION FILED MAY 8, 1905.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

NELSON J. TUBBS, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF ONE-FOURTH TO HARDIN COLLINGS, ONE-EIGHTH TO FRANK C. CARPENTER, AND ONE-EIGHTH TO WALTER F. JONES, OF LOUISVILLE, KENTUCKY.

## TELEPHONE-DISINFECTOR.

No. 829,812.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed May 8, 1905. Serial No. 259,461.

*To all whom it may concern:*

Be it known that I, NELSON J. TUBBS, a citizen of the United States, residing in Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Telephone-Disinfectors, of which the following is a specification.

The present invention relates to a means for supplying chemical disinfectants to the parts of telephones.

One object of the present invention is to provide a means whereby the receiver of a telephone may be disinfected.

Another object is to so construct and arrange the disinfecting means that it will maintain effective relation with the parts to be disinfected while the telephone is not in use.

Another object is to so construct the disinfecting means that it will close the cavity of the receiving instrument while not in use and will present the disinfectant thereto, as well as to the surrounding parts, at such time.

A further object is to so construct the device that it may be readily applied to any existing instrument and thereafter removed therefrom without in any way disfiguring the instrument, so that a subscriber to a telephone system can apply the disinfecting device independently, if desired.

Other objects are to produce a simple, neat, and effective construction for the accomplishment of the various functions of the invention.

With these several objects in view my invention consists in certain novel means and features of construction hereinafter fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a desk-telephone to which my invention is applied by way of illustration, though not limited in its application to this type of telephone. Fig. 2 is a similar view of the upper portion of a telephone with the receiver removed, the switch-lever raised, and the disinfecting device automatically removed from the transmitter. Fig. 3 is a sectional view of the receiver-disinfecting means, and Fig. 4 is a plan view of the bracket which supports the receiver-disinfecting means.

1 represents the base, 2 the standard, 3

the transmitter, 4 the receiver, and 5 the switch-lever, of a telephone of known construction wherein the switch-lever 5 automatically rises on the removal of the receiver to close the telephone-circuit. The transmitter of the telephone is usually supported by a hinging joint, such as 6, either directly, as in a movable or desk telephone, or indirectly through an arm, as in a wall or cabinet telephone.

The importance of disinfecting the receiver of a telephone has not generally been recognized.

One feature of my present invention consists in providing a disinfecting device for the receiver, for which purpose I provide a cup 7, located in such position that when the receiver is returned to the switch-arm that part which comes in contact with the ear will be in close proximity to or resting upon the cup. This cup may contain a suitable absorbent or other vehicle 8 for the disinfecting medium and is preferably provided with a covering 9 of gauze, while the cup is supported on an arm 10, having a collar 11, which embraces the standard 2 and is connected to the cup by a slotted base 12, which receives the arms of the bracket 10, and a bolt 13, which clamps the arms to the cup. This construction is simple and effective and provides for attachment to any ordinary desk-telephone and permits vertical adjustment to bring the cup 7 in proper relation to the receiver. Obviously if the cup is to be held in similar relation to the receiver of a wall-telephone a different form of bracket 10 may readily be provided and attached to the instrument in any suitable way.

To disinfect the transmitter, a cap 14 may be provided, which may likewise carry an absorbent or other vehicle for disinfectants and which is movable to a position over the transmitter when the instrument is not in use and from such position to a position where it will offer no obstruction when the instrument is in use. This movement is preferably a swinging movement on a pintle 15, parallel to the axis of the transmitter, since this movement avoids liability of the cap striking the user in its movement. Pintle 15 is preferably supported on the mouthpiece 16 by a frame 17, easily slipped over the conical mouthpiece when the latter is un-



screwed from the transmitter. This provides for mounting the disinfecting device on the transmitter and for readily removing it therefrom without injuring the instrument.

5 To operate the disinfectant-cap automatically, pintle 15 has a crank-arm 18, connected by the rod or other connection 20 to an arm 21 of a rock-shaft 22, whose other end has a crank-arm 23, which receives move-  
10 ment through connection 24 from the switch-lever 5. If the pintle 15 is in a position which will cause the cap 14 to gravitate from its position in front of the receiver, connections 20 and 24 may obviously be flexible connections,  
15 as their control will then simply be exercised to return the cap through tension on these connections. If, however, the pintle 15 is otherwise located, these connections may be rigid, so that they may impart movement to the  
20 cap in both directions. Connection 24 is secured to lever 5 by a strap 25, readily removable, and rock-shaft 22 has its bearings at 26 on the frame 17 and at 27 in an arm 28, which projects upwardly from the screw-pin 29 of  
25 hinge 6. By means of the arm 28, secured as described, a fixed relation between the bearings 26 and 27 is maintained even though the transmitter be adjusted vertically on its hinge 6. At the same time the arc in which the  
30 upper end of arm 28 moves is so small as to not seriously change the distance between crank 23 and lever 5 or require change in adjustment of the parts when the transmitter is raised or lowered between ordinary limits.  
35 If, however, adjustment is needed in the connections, this may readily be made by shifting one of the parts—such, for instance, as the crank-arm 18—which may for this purpose be secured to pintle 15 by a set-screw 30, or if  
40 the connections 20 and 24 are of flexible material they may readily be taken up—as, for instance, by having a sliding knot at one point.

No invention *per se* is claimed for the transmitter-disinfecting device, the object of the  
45 invention merely being to provide an improved disinfecting means for the telephone-receiver.

It will be seen that by my improvements the receiver is provided with means for closing the cavity thereof while not in use, thus  
50 preventing the admission of dust and largely

confining the evaporation of the disinfectant to the cavity, and thereby rendering the disinfecting more complete.

While I have herein shown certain specific  
55 details of construction by reason of the application of my invention to that form of a telephone selected for purposes of illustration, I desire it to be understood that I do not thereby limit the scope of my invention to this particular construction or to use upon this particular type of instrument, as it is obvious that by suitable changes in these minor features of constructions the parts may be adapted to instruments of different design.  
60

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

1. In combination with a telephone and its receiver-hook, a disinfector comprising a  
70 cup containing a chemical disinfectant and adapted to receive the telephone-receiver; said cup being mounted in vertical alinement with the receiver-hook.

2. In combination with a telephone and  
75 its receiver-hook, a disinfector comprising a cup containing a chemical disinfectant and adapted to receive the telephone-receiver to close the cavity of the receiver; said cup being adjustably mounted in vertical alinement  
80 with the receiver-hook.

3. In a telephone-disinfector, the combination of the cup for disinfectant, adapted to receive the receiver, an arm supporting the cup and a clamp adapted to secure said arm  
85 to a telephone.

4. In a telephone-disinfector, the combination of the cup having the slotted base, the supporting-arm entering said slot, and the bolt clamping the arm to the cup.  
90

5. In combination with a telephone and the switch-arm moving under the weight of the receiver, a disinfecting device located beneath the switch-arm in position to receive the end of the receiver after it is placed upon  
95 the switch-arm.

The foregoing specification signed at Louisville, Kentucky, this 22d day of April, 1905.

NELSON J. TUBBS.

In presence of—

BARTLETT WELEY,  
LAWRENCE S. LEOPOLD.