

A. W. LYDA & E. C. ROBINSON.
DISINFECTANT DEVICE FOR TELEPHONES.
APPLICATION FILED MAR. 19, 1909.

950,937.

Patented Mar. 1, 1910.
3 SHEETS—SHEET 1.

Fig. 1.

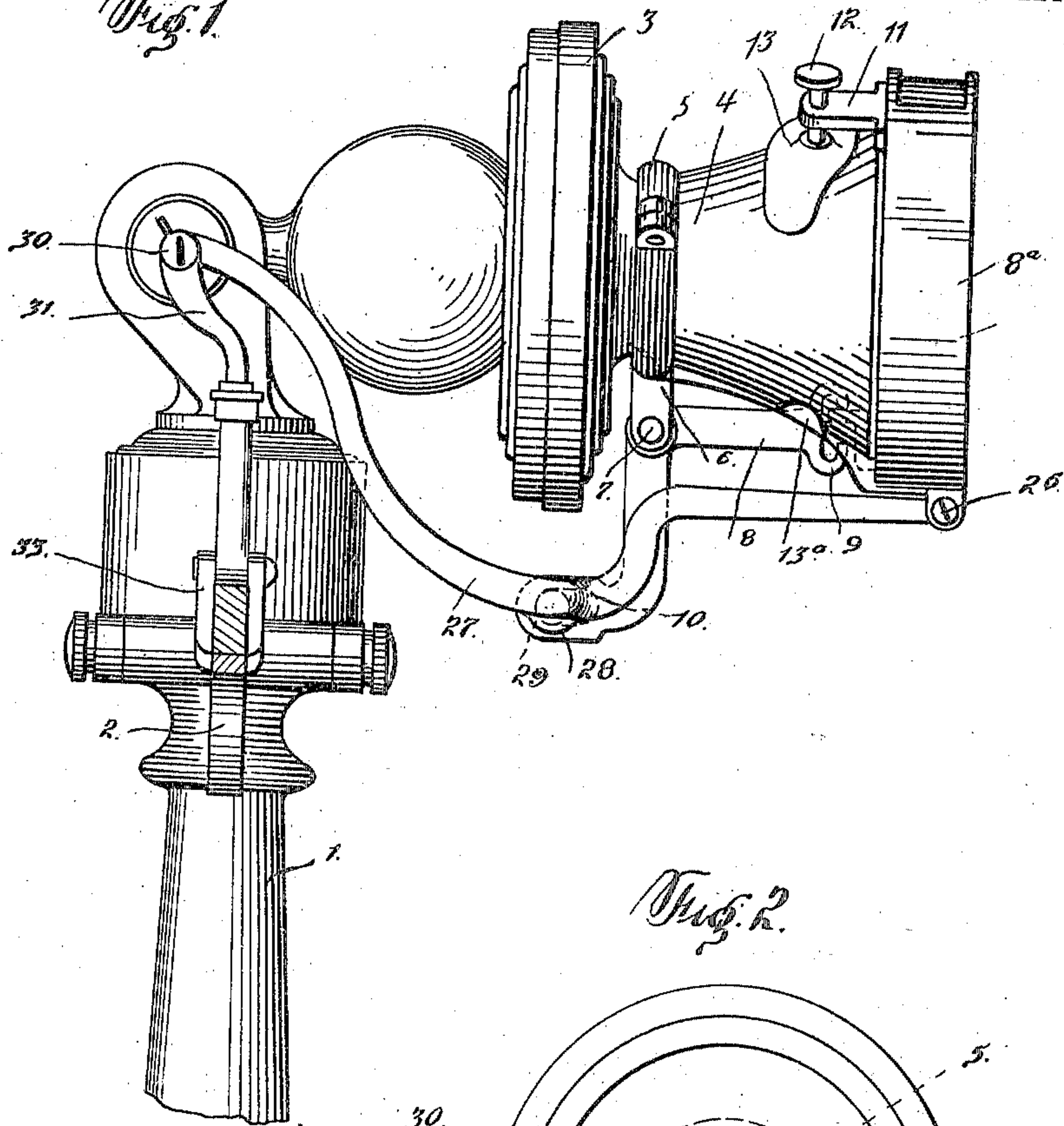
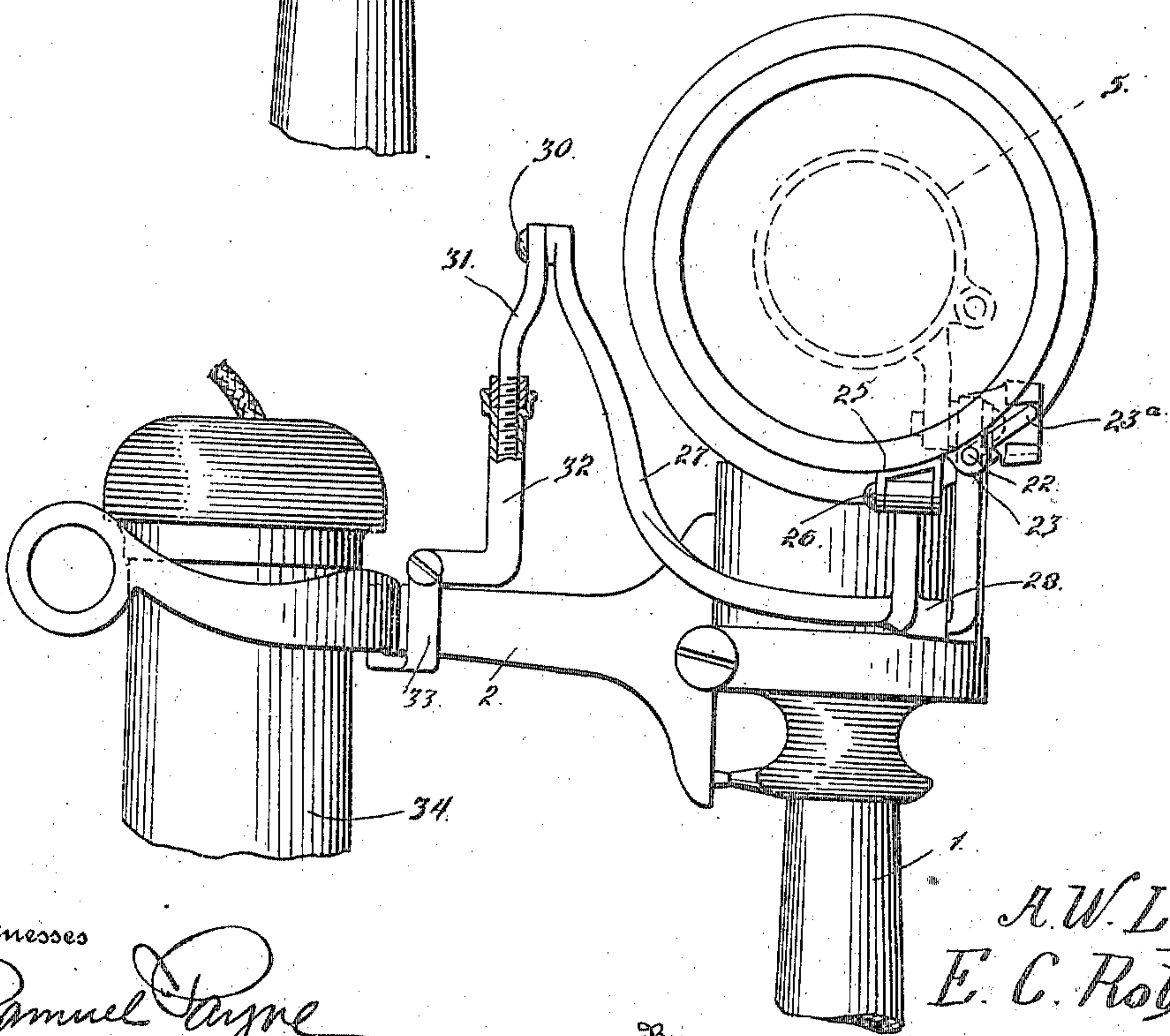


Fig. 2.



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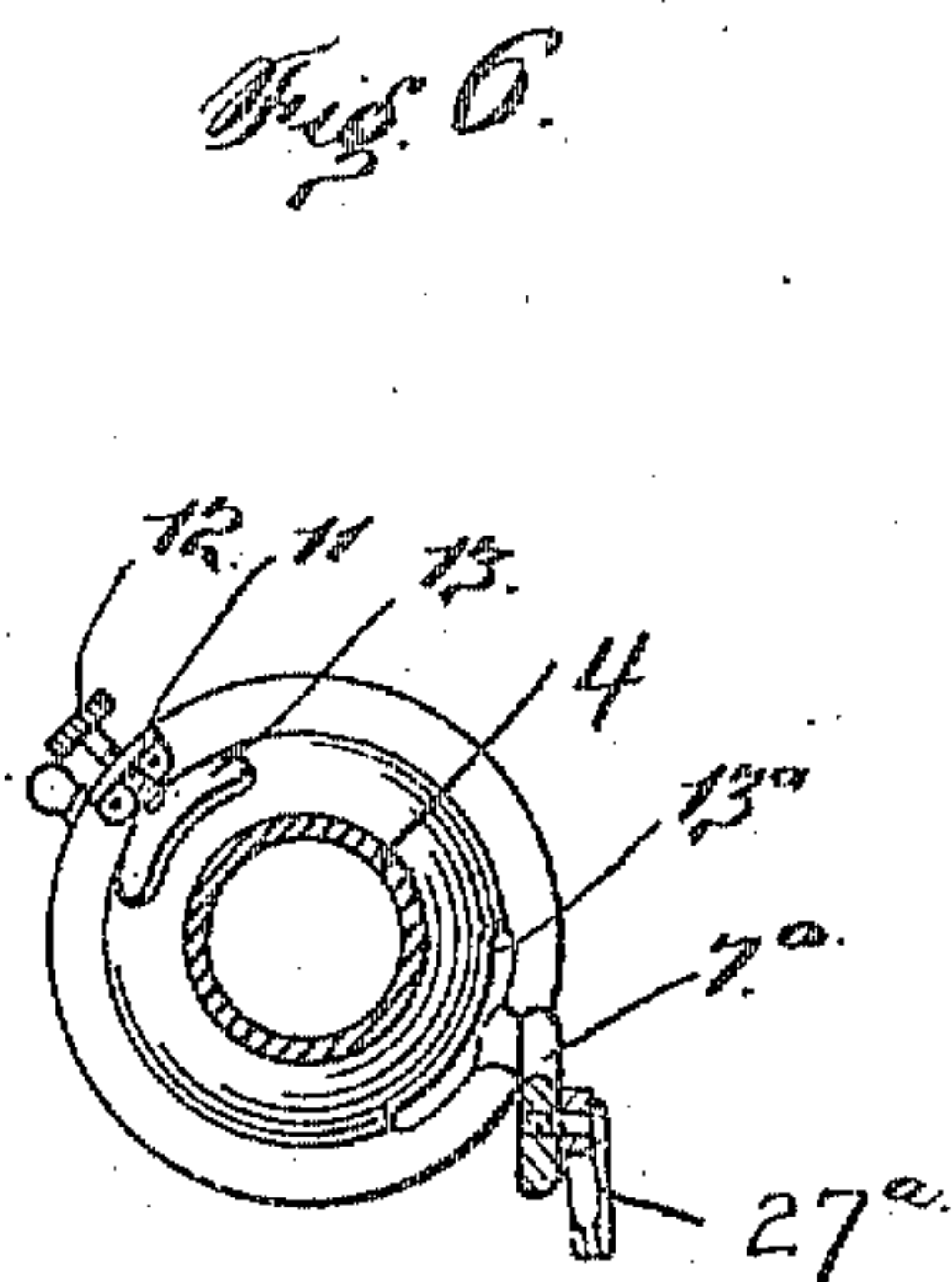
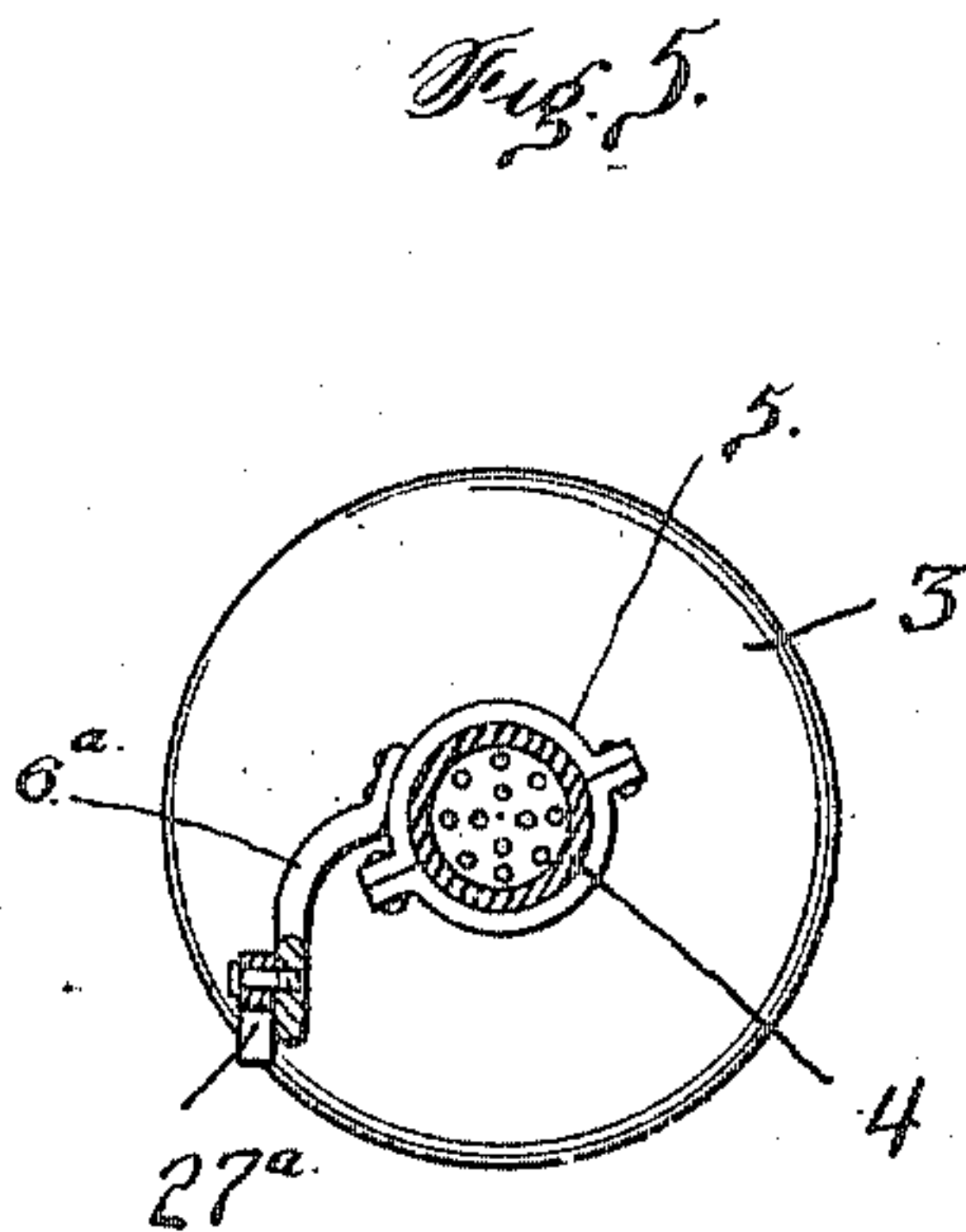
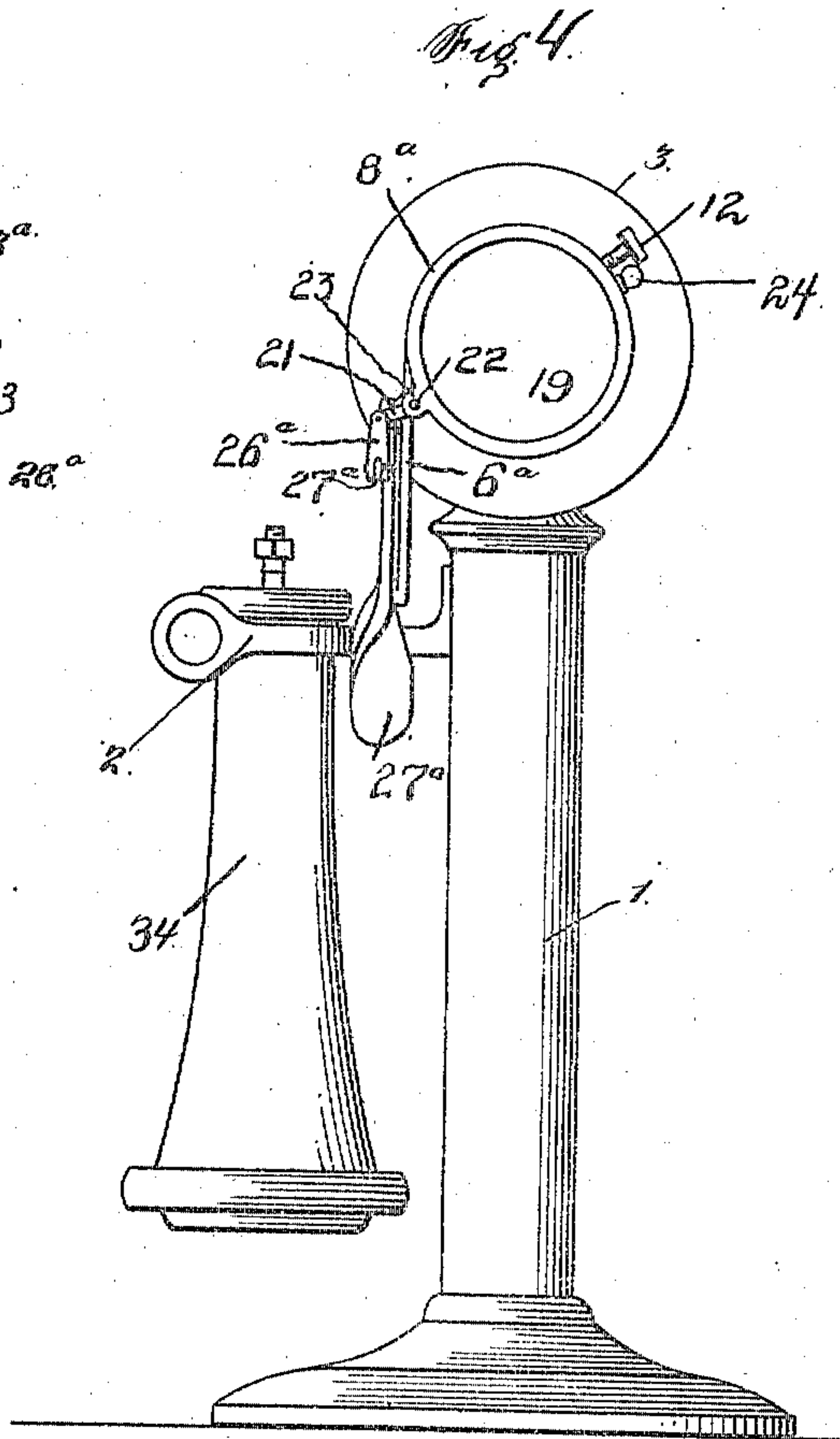
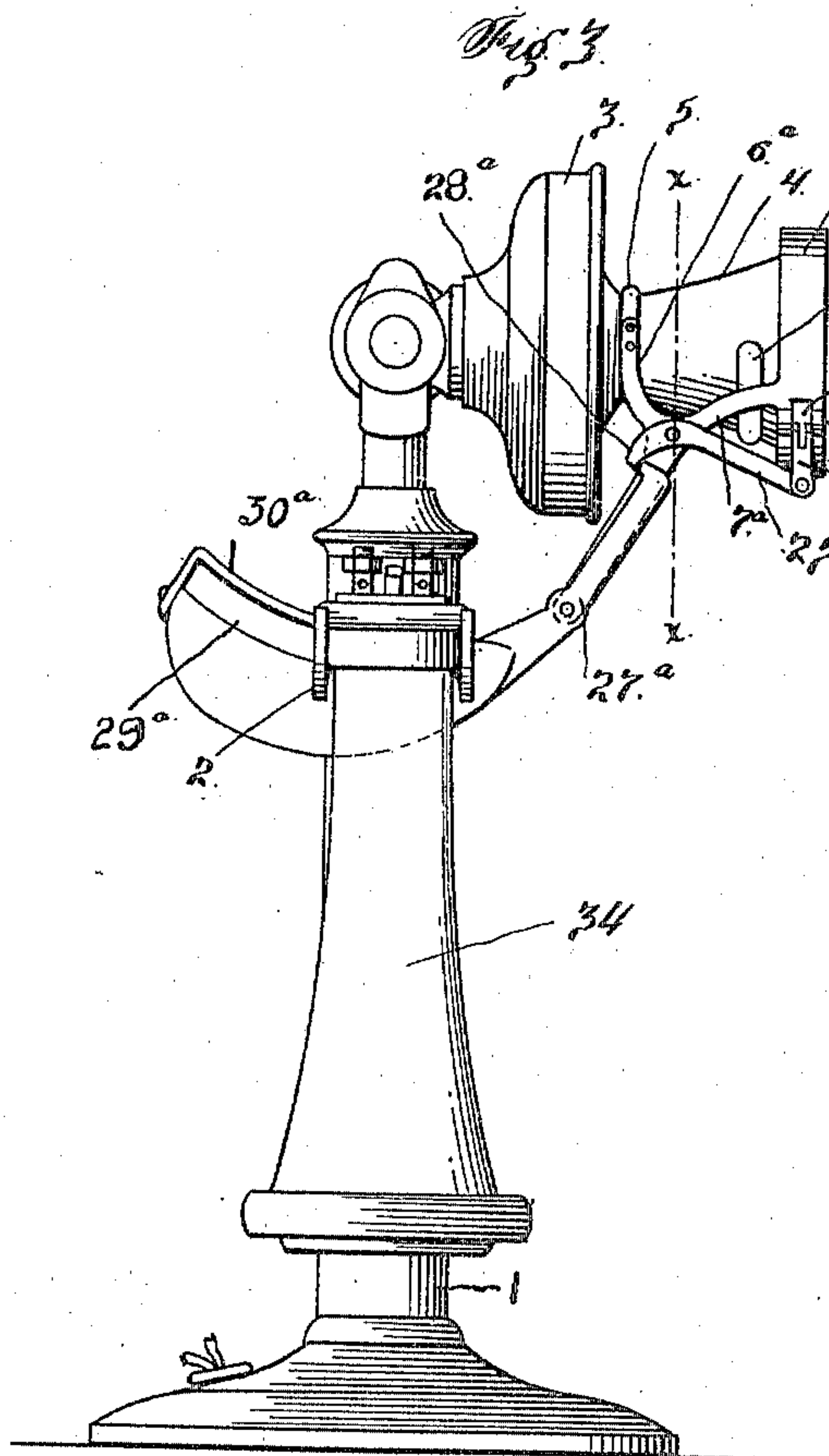
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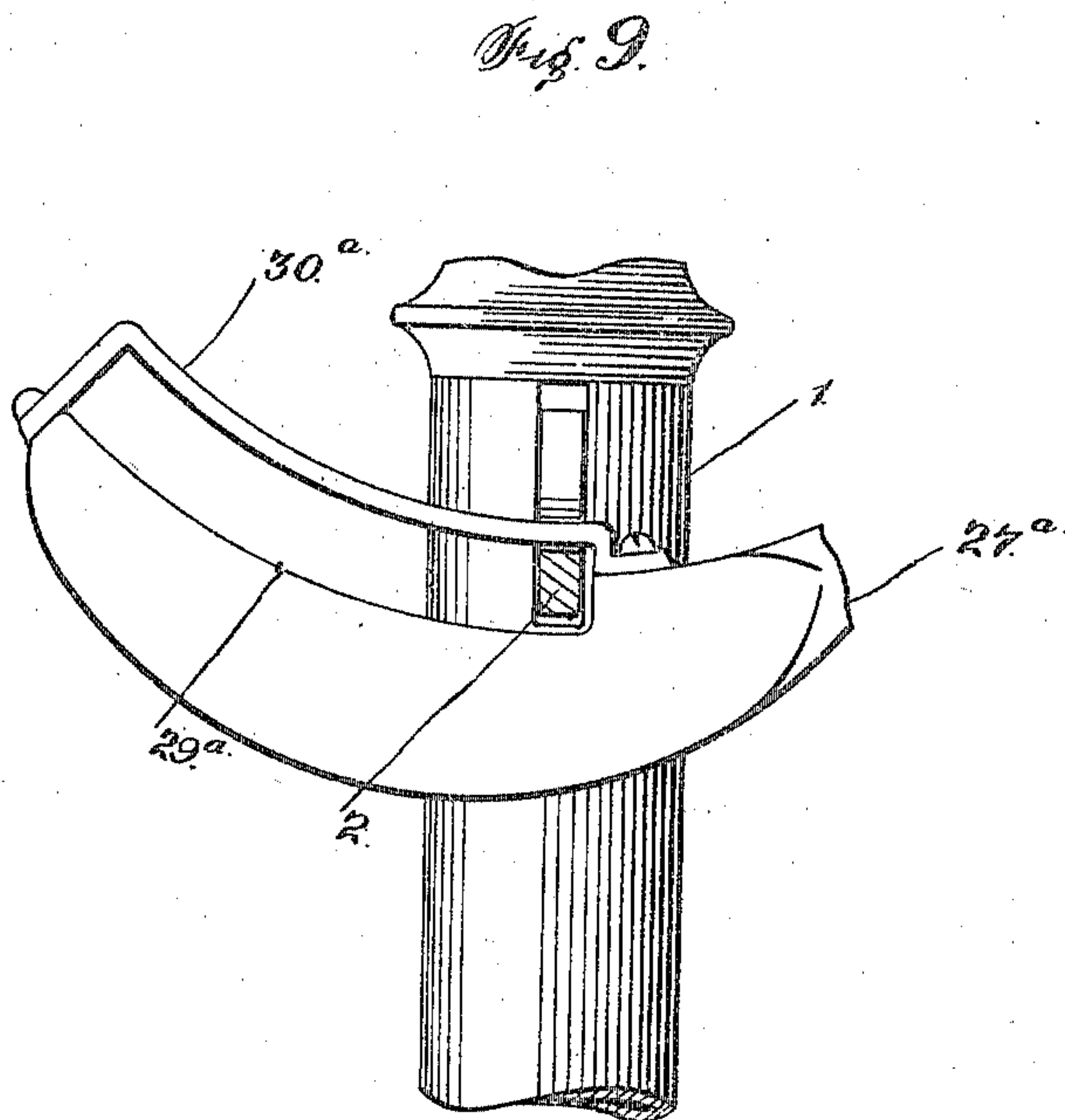
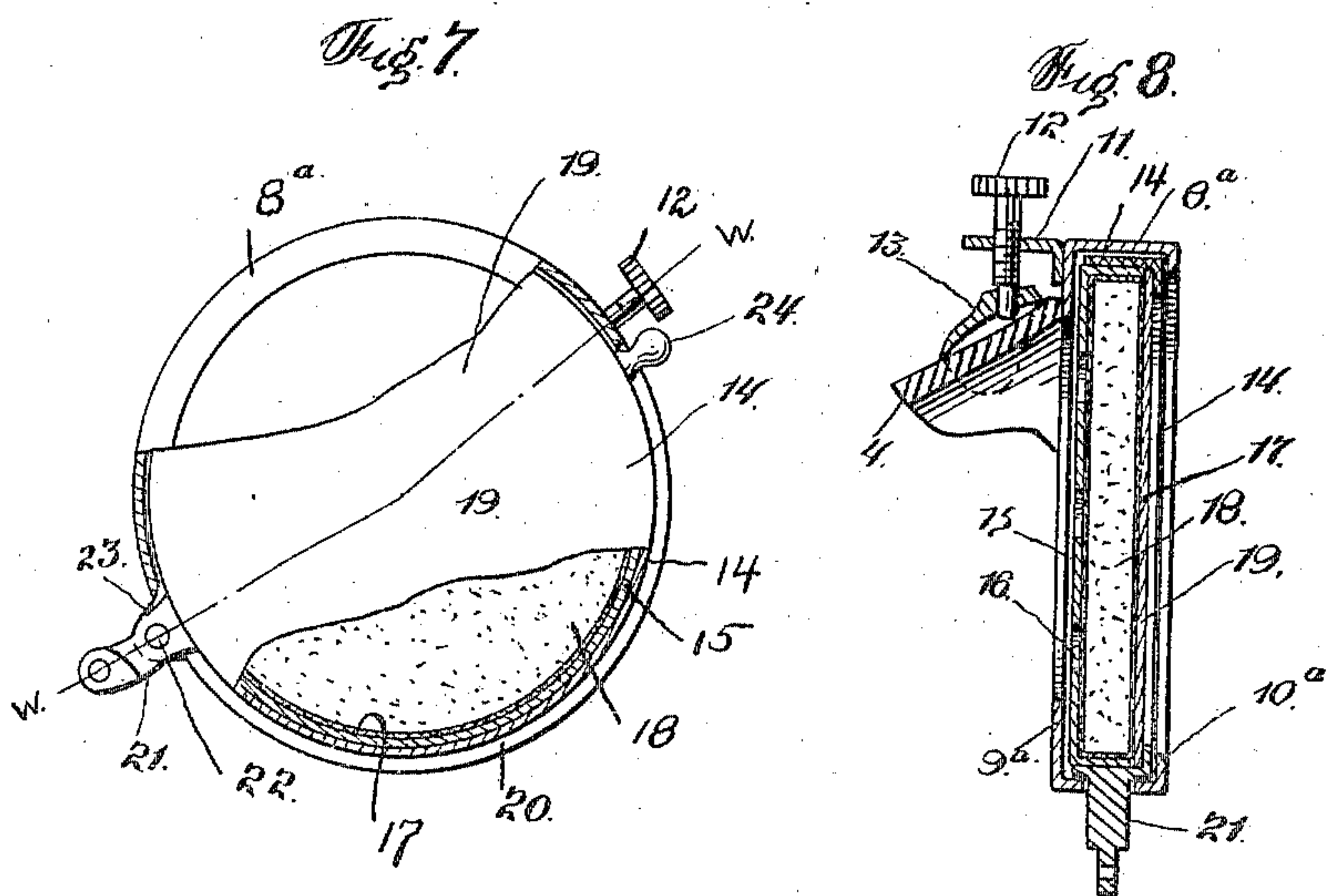
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

ARTHUR W. LYDA, OF NEW CASTLE, PENNSYLVANIA, AND ELMER C. ROBINSON, OF
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DISINFECTANT DEVICE FOR TELEPHONES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ARTHUR W. LYDA and ELMER C. ROBINSON, citizens of the United States of America, residing at (1) New Castle and (2) Lowellville, in the counties of (1) Lawrence and (2) Mahoning and States of (1) Pennsylvania and (2) Ohio, have invented certain new and useful Improvements in Disinfectant Devices for Telephones, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to disinfecting devices for telephones, and the invention has for its object to provide a novel disinfecting device for the transmitter of a telephone, which will normally maintain the transmitter in a closed condition, whereby the interior of the transmitter will be thoroughly disinfected and maintained in a sanitary condition.

A further object of the invention is to attach a disinfecting device to the mouthpiece of a telephone for normally closing the transmitter, said device being automatically moved to one side of the mouthpiece, when the telephone is to be used, the automatic movement of said device being accomplished by removing the telephone receiver from its supporting hook or arm.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be presently described and then claimed.

In the drawings, Figure 1 is a side elevation of a portion of a telephone equipped with our disinfecting device, Fig. 2 is a front elevation of the same, Fig. 3 is a side elevation of a telephone showing a modified form of our disinfecting device, Fig. 4 is a front elevation of the same, Fig. 5 is a cross sectional view of the telephone mouthpiece taken on the line X—X of Fig. 3 looking toward the transmitter and illustrating the supporting bracket of the device, Fig. 6 is a similar view taken on the line X—X of Fig. 3 looking toward the device, Fig. 7 is a front elevation of the disinfectant holder of the device partly broken away and partly in section, Fig. 8 is a cross sectional view taken on the line W—W of Fig. 7, Fig. 9 is a detail side elevation of a part of the

modified form of device shown in Figs. 3 to 6.

The reference numeral 1 designates a portion of the standard of a desk telephone, having adjacent to the upper end thereof the usual bifurcated receiver supporting hook or arm 2.

3 designates a diaphragm casing adjustably connected to the upper end of the standard 1, said diaphragm case supporting the usual funnel shaped mouthpiece 4.

5 designates a metallic two-part clamp adapted to embrace the neck of the mouthpiece 4, said clamp having a hanger 6 to which is pivotally connected, as at 7, an angular arm 8, the horizontal portion of said arm having the end thereof provided with a vertical C-shaped holding member 9, while the vertical portion of said arm has its free end bent rearwardly in a plane parallel with the horizontal portion of said arm and provided with a slot 10.

Mounted upon the end of the mouthpiece 4, is a cylindrical casing 8^a, which is preferably made of metal and is channel-shaped in cross section, the rear annular flange 9^a of said casing being of a greater depth than the front annular flange 10^a.

11 designates a bracket carried by the flange 9^a of the casing 8^a, and adjustably mounted in the bracket 11 is a set screw 12 for holding a clamping member 13 in engagement with the mouthpiece 4, said clamping member together with the clamp 5 and a clamping member 13^a carried by the casing 8^a constituting the means for retaining the attachment in engagement with the telephone.

14 designates an annular disinfectant holder of a less diameter than the casing 8^a and adapted to loosely fit in said casing. In the holder 14 is arranged an annular box 15 having the rear side thereof provided with a plurality of apertures 16. The box 15 is adapted to support an annular bag 17 containing a disinfectant 18. The front side 19 of the box 15 is detachable, whereby the disinfectant bag 17 can be easily placed within said box.

In order that the holder 14 can be placed in the casing 8^a, the periphery of said casing is provided with a slot 20, and protruding through said slot is a radially disposed apertured extension 21 of the holder 14,

said extension—in the preferred form—being fixed upon a pivot pin 22 journaled in the lugs 23, carried by the casing 8^a. The pivot pin 22 is provided with a rearwardly
 5 extending crank 23^a, adapted to engage in the C-shaped holding member 9. By pushing downwardly upon the horizontal portion of the pivoted arm 8, the crank 23^a is moved and given sufficient impetus to swing
 10 the holder 14 out of the casing 8^a, immediately upon the holder 14 passing over the pivoted pin 22, said holder assumes an open position by gravity, the opening movement of the holder being limited by the
 15 crank 23^a being confined within the C-shaped member 9. To permit of the holder being manually returned to the casing 8^a, said holder opposite the extension 21 is provided with a knob 24 protruding through
 20 the slot 20 of said casing.

25 25 designates a bearing carried by the periphery of the casing 8^a, and pivotally mounted in said bearing by a screw 26 is a rearwardly extending curved actuating lever
 27, said lever having a portion of its length extending parallel with the rear end of the arm 8 and having an enlargement 28 supporting a revoluble roller 29 engaging in the slot 10 of the arm 8. The rear end of the
 30 lever 27 is pivotally connected, by a screw 30 to a curved upright 31 adjustably mounted in a standard 32 secured to the arm 2 by a clamp 33.

With the receiver 34 of the telephone upon
 35 the arm 2 and the holder 14 in a closed position, the rear end of the lever 27 is pivotally held in longitudinal alinement with the pivot of the diaphragm casing 3, whereby the transmitter can be raised or lowered
 40 to any desired angle.

The weight of the receiver 34 upon the arm 2 retains the arm 8 in the position shown in Figs. 1 and 2; the crank 23^a of the pin 22 engaging the upper end of the
 45 member 9. The crank 23^a exerts no pressure upon the upper end of the member as the weight of the holder 14 retains the same within the casing 8^a, this being accomplished by pivoting the holder 14 to one
 50 side of said casing. When the receiver 34 is removed from the arm 2, the rear end of the lever 27 is raised, and as said lever is loosely connected to the arm 8, said arm will be tilted causing the member 9 to press upon
 55 the crank 23 until the holder 14 is swung over the pin 22. The holder then assumes an open position by gravity and is limited in its opening movement by the lower end of the member 9.

60 When the receiver 34 is replaced upon the arm 2, the arm 8 is again moved and the lower end of the member 9 thereof elevates the crank 23^a, and after the holder has been carried to a proper elevation, said holder
 65 closes by gravity.

In Figs. 3 to 6 inclusive and in Fig. 9, are illustrated certain modifications, particularly in connection with the disinfectant holder moving mechanism.

The hanger 6 of the clamp 5 is provided
 70 with a depending Y-shaped supporting bracket 6^a, one leg 7^a of which extends forwardly of the mouthpiece 4 and is connected to the cylindrical casing 8^a.

In lieu of providing the pin 22 with the
 75 crank 23^a, the extension 21 of the holder is pivotally connected by a link 26^a to an arm 25^a, said arm being pivotally connected to the bracket 6^a at the juncture of the leg 7^a with the remainder of the bracket.
 80

27^a designates an actuating lever pivotally connected to the lower end of the Y-shaped bracket 6^a, the upper end of said lever engaging the depending curved end
 85 28^a of the arm 25^a. The opposite end of the lever 27^a extends under the switch arm 2 and is cut away, as at 29^a and provided with a curved member 30^a bridging the cut away portion of the lever 27^a.

The weight of the receiver 34 upon the
 90 arm 2 retains the upper end of the lever 27^a in engagement with the arm 25^a thereby preventing the disinfectant holder within the casing 8^a from moving out of said casing by gravity. It is therefore apparent that when
 95 the receiver 34 is moved, releasing the switch arm 2, that said arm will raise the lower end of the lever 27^a by reason of said arm contacting with the curved member 30^a. This movement of the lever 27^a is further
 100 facilitated by the weight of the disinfectant holder 14 which is pivoted relative to the casing 8^a, whereby the holder will descend by gravity.

With the disinfectant holder in a lowered
 105 position, the arm 25^a is retained in engagement with the upper end of the lever 27^a; when the receiver 34 is replaced upon the switch arm 2, the disinfectant holder will be returned to its normal position. The
 110 fumes or odors liberated by the disinfectant 18, while not disagreeable to a person using the telephone, are of sufficient strength to impregnate all foreign matter within the transmitter and destroy germs and bacteria
 115 that may accumulate therein.

The attachment in its entirety is made of light and durable material, nickel plated to harmonize with the metallic fittings of the
 120 telephone.

Having now described our invention what we claim as new, is:—

1. The combination with the mouthpiece and receiver arm of a telephone, of a disinfectant holder movably supported in front
 125 of said mouthpiece and adapted to open and close by gravity, and a pivoted lever in connection with said telephone and actuated by said receiver arm to give said holder sufficient impetus to move.
 130

2. The combination with the mouthpiece and receiver arm of a telephone, of a disinfectant holder movably supported in front of said mouthpiece and adapted to open and close by gravity, a pivoted arm carried by said mouthpiece, and a pivoted lever in connection with said arm and the said receiver arm for giving said holder sufficient impetus to move.

3. The combination with the mouthpiece and receiver arm of a telephone, of a disinfectant holder movably supported relative to the mouthpiece of the telephone and adapted to open and close by gravity, a pivoted arm carried by said mouthpiece, a C-shaped member carried by said arm for controlling the movement of said holder, and a pivoted lever connecting with said arm and adapted to be actuated by said receiver arm for imparting sufficient impetus to said holder to move by gravity.

4. The combination with the mouthpiece and receiver arm of a telephone, of a disinfectant holder movably supported relative to said mouthpiece, and adapted to open and close by gravity, a pivoted arm carried by said mouthpiece for giving said holder sufficient impetus to move by gravity, a pivoted lever loosely connected to said arm, and an adjustable upright actuated by said receiver arm for moving said lever and the pivoted arm of said mouthpiece.

5. The combination with the mouthpiece and receiver arm of a telephone, of a bracket carried by said mouthpiece, a slotted casing carried by said bracket, a disinfectant holder pivotally connected to said casing, an arm pivotally connected to said bracket for moving said holder, and a lever pivotally connected to said bracket for engaging said arm and adapted to be held by said receiver arm for retaining said holder within said casing.

6. In a disinfectant device for telephones, the combination with a mouthpiece and a receiver arm, of a bracket carried by said mouthpiece, a casing carried by said bracket and adapted to be clamped to said mouthpiece, a movable disinfectant holder pivotally connected to said casing and adapted to swing out of said casing, an arm pivotally

connected to said bracket for moving said holder, a lever pivotally connected to said bracket and adapted to be engaged by said receiver arm for holding said lever in engagement with said arm and the disinfectant holder within said casing.

7. In a disinfectant device for telephones, the combination with the mouthpiece and the receiver arm of the telephone, of a bracket supported by said mouthpiece, a cylindrical casing carried by said bracket and adapted to be clamped to said mouthpiece, a holder carried by said casing and adapted to move out of said casing, an apertured box arranged in said holder, a disinfectant arranged in said box, an arm pivotally connected to said bracket for moving said holder, a lever pivotally connected to said bracket and contacting with said arm, a curved member secured to said lever and engaging said receiver arm for holding said lever in engagement with said arm, and said holder within said casing.

8. The combination with a telephone, the receiver arm thereof, and a mouthpiece, of a clamp carried by said mouthpiece, a bracket secured to said clamp, a cylindrical casing carried by said bracket, said casing having a slot formed therein, a holder pivotally connected to said casing, and adapted to extend therein, an apertured box arranged within said holder, a disinfectant bag arranged within said box, an arm pivotally carried by said bracket, a link connecting said arm with said holder, a lever pivotally connected to said bracket and adapted to engage said arm, said lever extending beneath said receiver arm, a curved member carried by said lever and adapted to be engaged by said receiver arm for tilting said lever and releasing said arm to allow said holder to swing out of said casing, and means for connecting said casing to the forward end of said mouthpiece.

In testimony whereof we affix our signatures in the presence of two witnesses.

ARTHUR W. LYDA.
ELMER C. ROBINSON.

Witnesses:

MAX H. SROLOVITZ,
A. J. TRIGG.