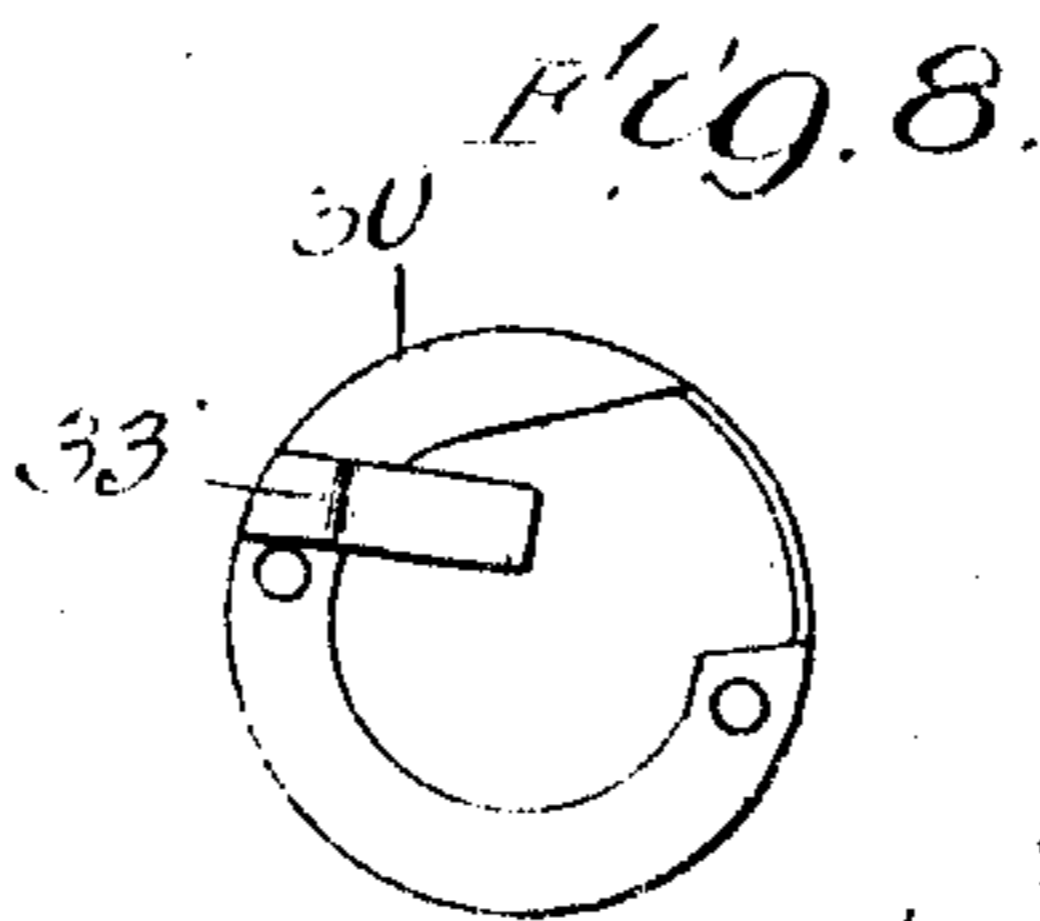
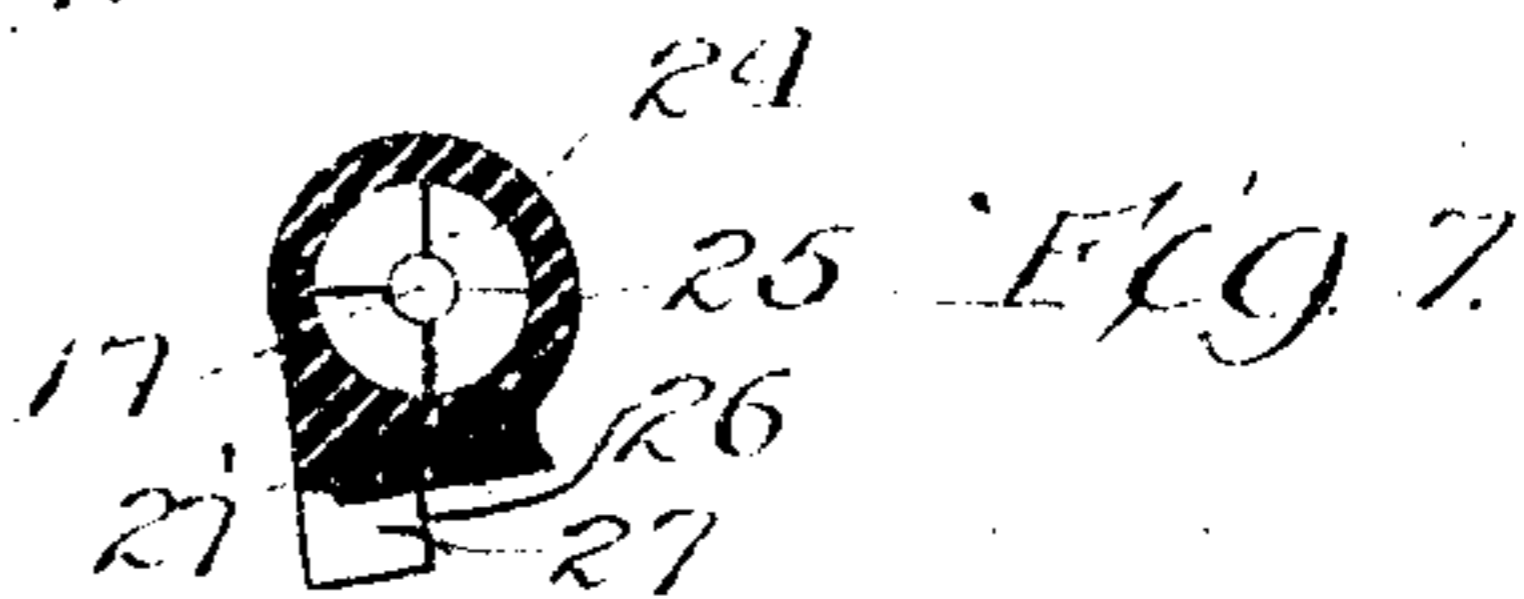
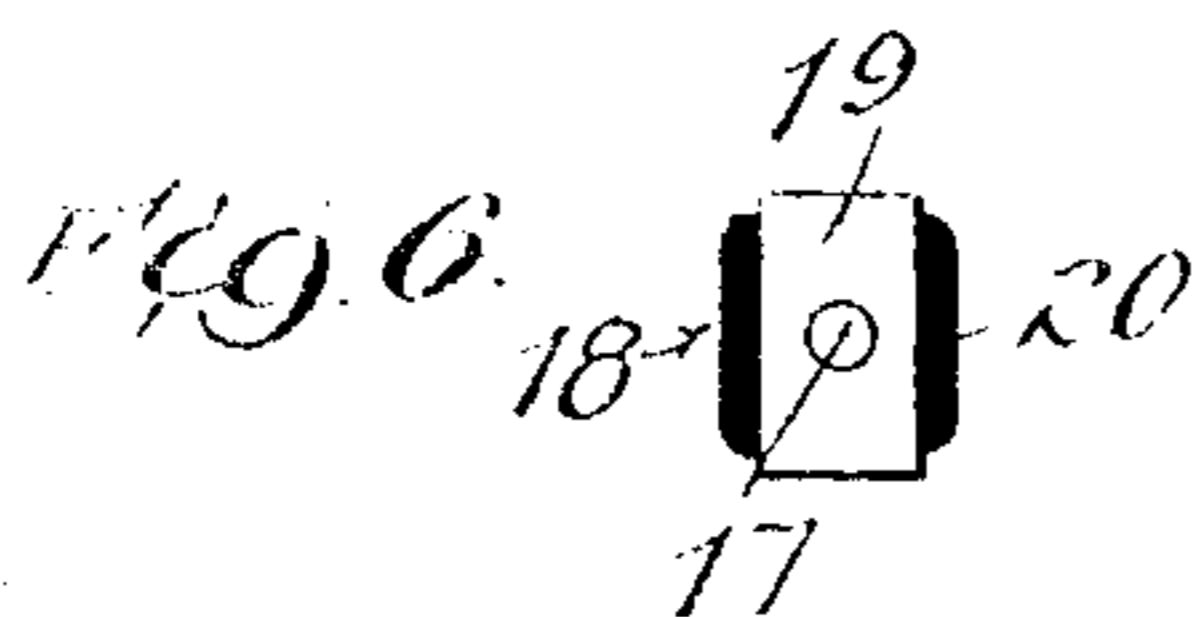
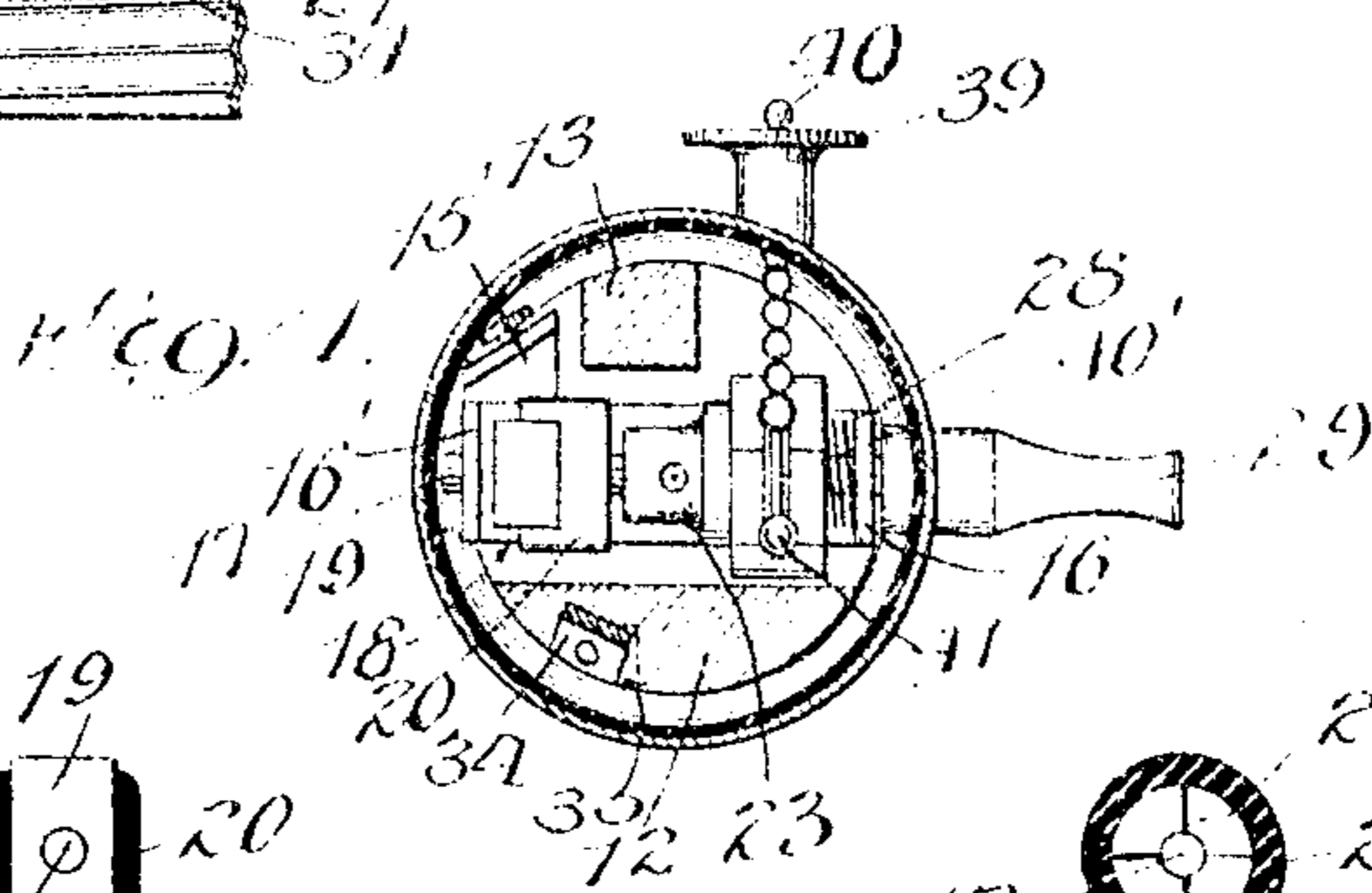
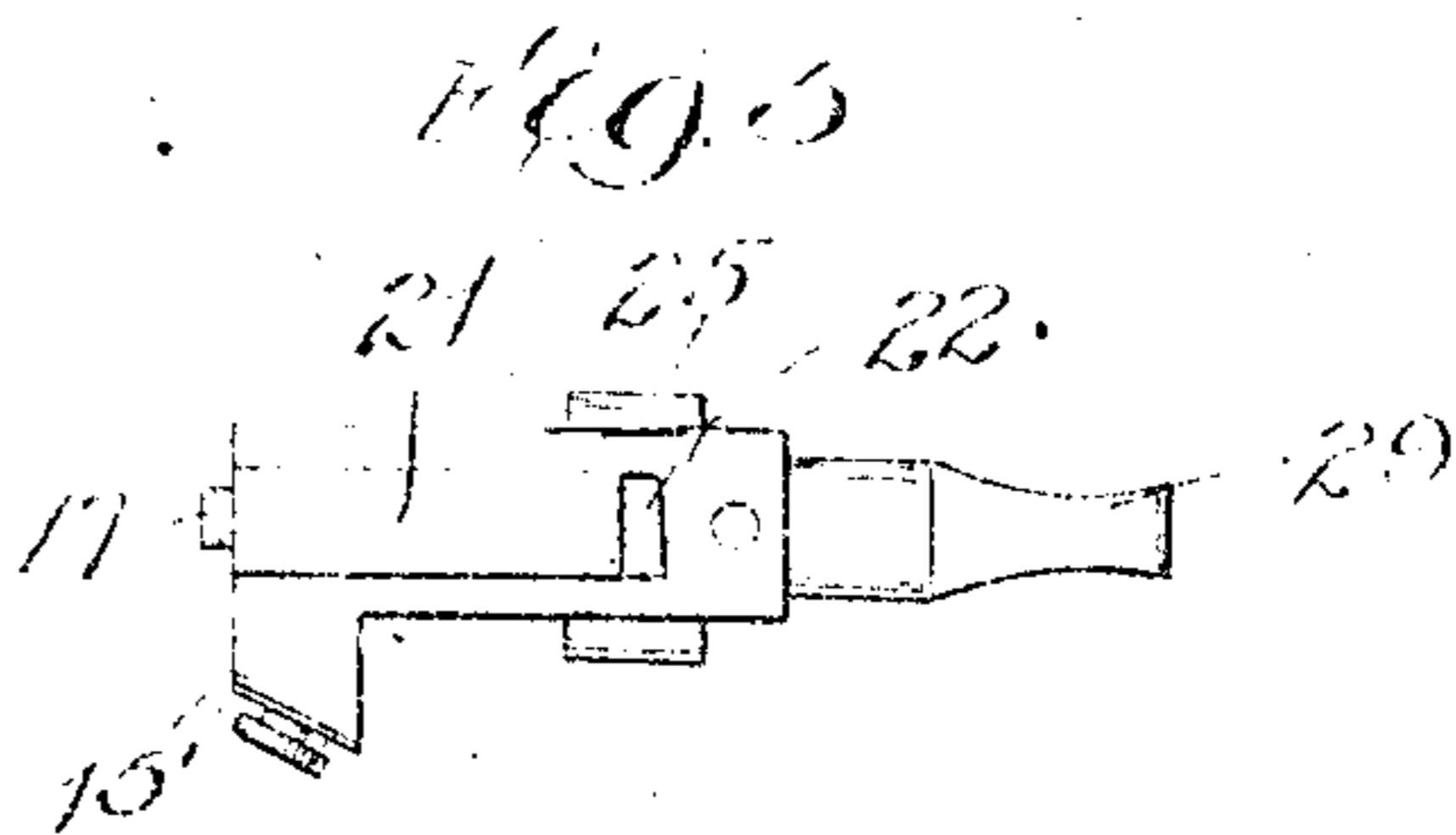
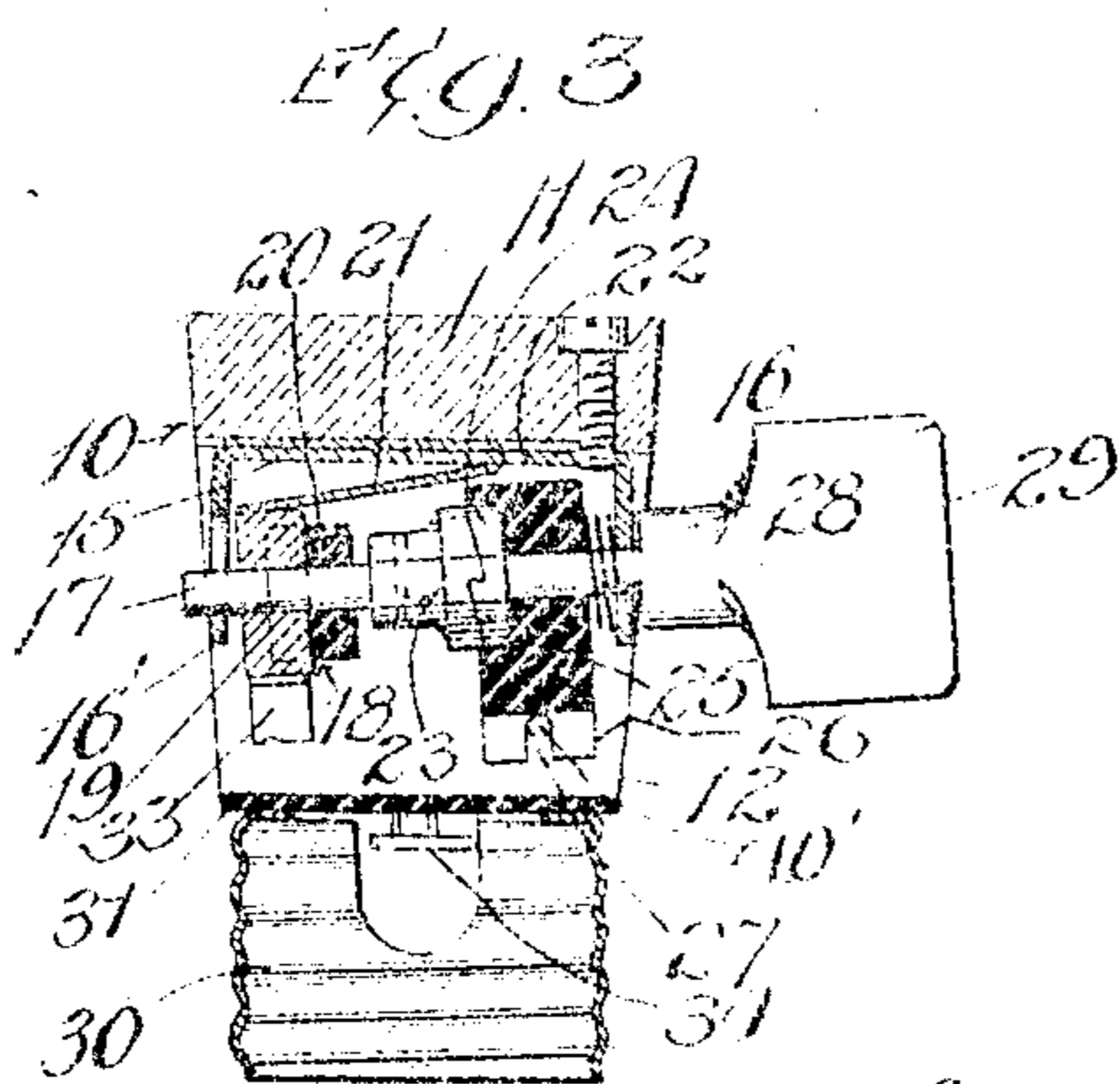
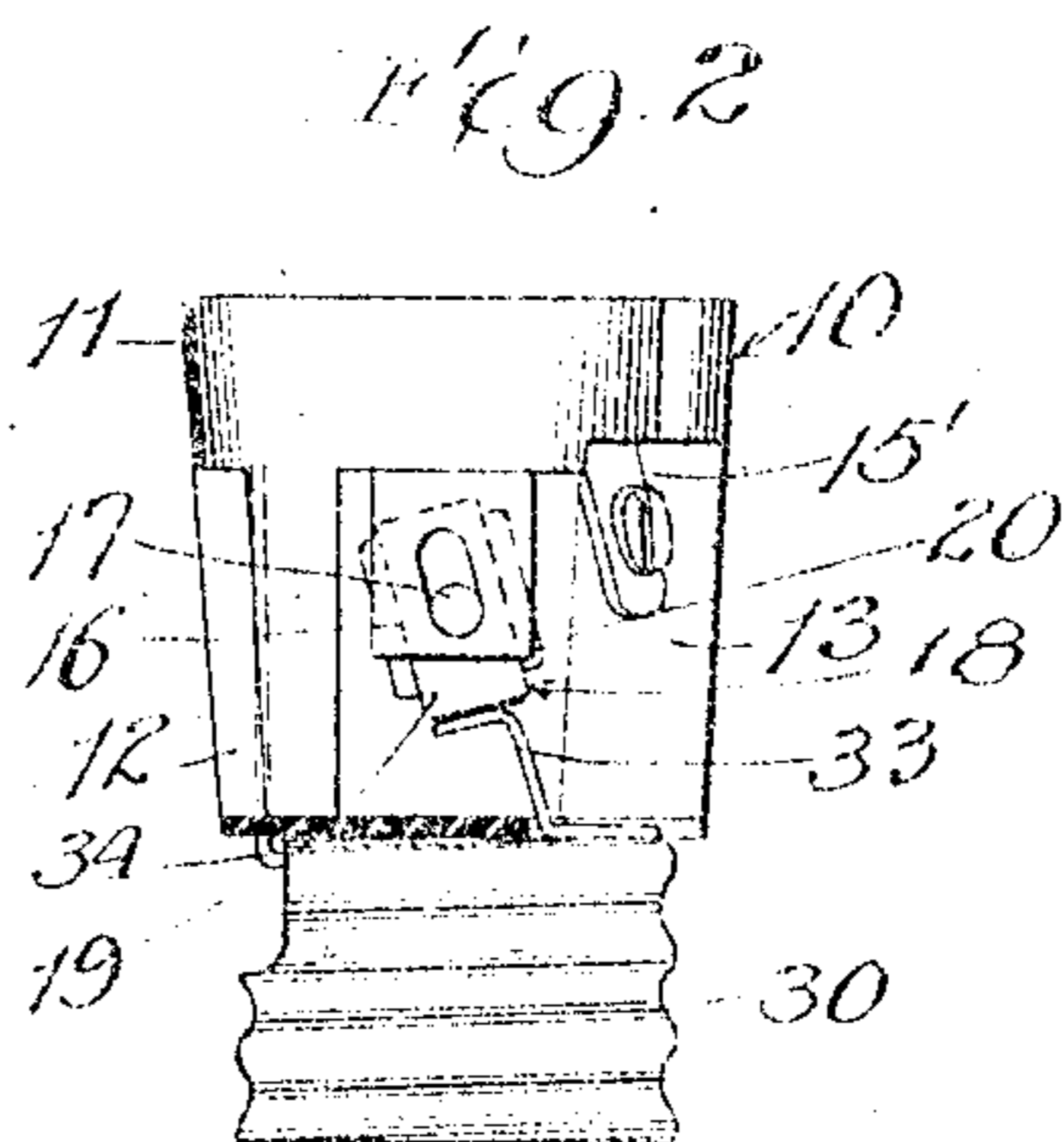
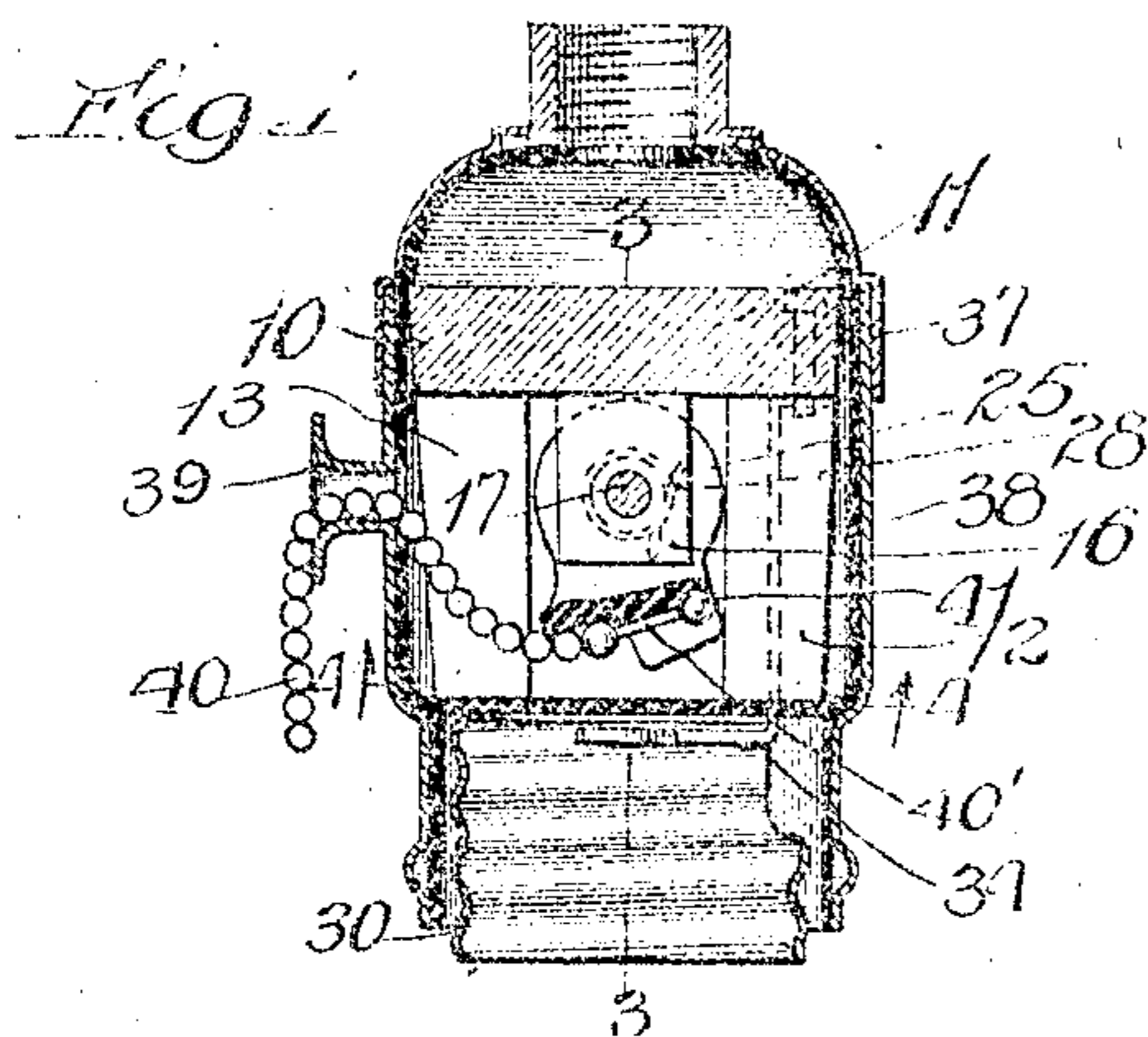


No. 892,721.

PATENTED JULY 7, 1908.

J. H. HANSON.
ELECTRIC LAMP SOCKET.
APPLICATION FILED JUNE 3, 1907.



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UNITED STATES PATENT OFFICE.

JOHN H. HANSON, OF CHICAGO, ILLINOIS.

ELECTRIC-LAMP SOCKET.

No. 892,721.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed June 3, 1907. Serial No. 376,960.

To all whom it may concern:

Be it known that I, JOHN H. HANSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric-Lamp Sockets, of which the following is a specification.

My invention relates to improvements in electric lamp sockets, and more particularly to pull sockets of the general character described in my Patent No. 847,939, dated March 19th, 1907.

One of the salient objects of my invention is to provide a pull socket wherein the pull cord or chain may be metallic, and is completely insulated from contact with any part to be energized of the socket structure.

A further object of my invention is to provide a generally improved structure of the character described.

In the drawing, wherein I have illustrated a practical embodiment of my invention: Figure 1 is a sectional view through the casing, with parts of the socket structure in elevation. Fig. 2 is an opposite elevation of the socket structure with the casing removed. Fig. 3 is a central section on line 3—3 of Fig. 1. Fig. 4 is a transverse section on line 4—4 of Fig. 1, and, Figs. 5, 6, 7 and 8 are details. Throughout the views like numerals of reference refer always to like parts.

In the drawing 10 indicates an insulating base preferably of porcelain, providing preferably a disk-like head 11, from which projects a segmental rear wall 12, and a front post 13, the latter separated from and arranged generally at right angles to the rear wall 12 near the median line intersecting the latter. Thus there are provided on the under face of head 11 two free areas, each terminating in part at the perimeter of the head 11, and bounded in part by the front face of rear wall 12 and by opposite side faces of the front wall 13, such areas being connected by the opening between post 13 and wall 12, as best shown in Fig. 4.

To the disk 11 is secured the metallic yoke 15, extending transversely of the disk between the wall 12 and post 13, provided with an offset terminal 15', and having its opposite extremities downturned to form bearing members 16, 16' provided with bearing apertures for the reception of the actuating shaft 17. Said shaft 17 carries adjacent the

bearing 16' a squared contact head 18 comprising an oblong metallic member 19 and an insulating block 20, of porcelain or the like. The insulating block 20 is of width preferably slightly less than the length of contact member 19, and is provided with a recess in its face, wherein the contact member 19 is seated to protrude slightly from opposite sides of the insulation. Thus the contact head 18 is substantially a square presenting two insulating faces and two connected metallic faces. A spring 21 is provided to bear upon the contact head 18, such spring being preferably in the form of a leaf, passing through an aperture 22 in the yoke 15, and having its fixed end secured between said yoke and the disk part 11 of the insulating base.

To the central portion of the shaft 17 is secured a four-toothed ratchet member 23, with which coacts a relatively movable ratchet member 24 fitted in and carried by an insulating carrier member 25, preferably made of porcelain and loosely mounted on the actuating shaft 17 for axial and rotary movement, and arranged on the opposite side of wall 13 from contact head 18. The member 25 is provided on its under side with a cord attaching projection 26, having made therein a groove 27, at one side enlarged as at 27', the enlargement being at the rear of the groove 27 with respect to the direction of operative motion of the projection.

28 indicates a coiled spring interposed between the carrier 25 and the bearing part 16 of the yoke, at one end secured to said yoke part and at its opposite end secured to the carrier, said spring tending always to turn the carrier rotarily in such direction as to bring its depending projection 26 into normal position in contact with the rear wall 12 of the insulating base, and to press the carrier and ratchet member 24 inward toward the ratchet member 23 for engagement with the latter.

If desired the shaft 17 may terminate just beyond the bearing member 16, or it may extend therebeyond and be provided with a turning handle 29 if preferred.

30 indicates a threaded socket mounted upon the lower end of the insulating base, and having its upper end substantially covered by a plate 31 of insulating material, such as fiber, preferably of such thickness as

to be relatively stiff or rigid, such plate covering the entire portion of the socket 30 which lies below the carrier 25. The socket 30 has connected thereto a spring 33, arranged for constant contact with the lower side of the contact head 18, and the center contact 34 is provided in insulated relation to the shell, and extends up through a groove 35 in the rear wall 12 of the insulating base, to a suitable terminal 36.

37 indicates a casing, or shell, of any suitable construction, interiorly insulated as by a sheet of insulating material 38, extending throughout its entire periphery. Said shell is provided at a suitable point with a suitable outwardly flaring throat 39, arranged approximately at right angles to the axis of the shaft 17 in alinement with the slot 27 in carrier 25.

40 indicates the pull cord, which is preferably of metallic material for good wearing qualities, and is illustrated as a well known form of ball and link chain, said pull cord 40 passing through the throat 39 and having an end link 40', provided at its extremity with a ball enlargement 41 seated in the slot 27 and enlargement 27'.

It will be observed with respect to the electric condition of the pull cord 40 that it is completely insulated from possible contact with any part to be electrically charged, by the insulating carrier 25 and disk 11 above, the front post 13, on the one side, and the rear wall 12 on another side, the insulating sheet 38 throughout the remaining walls of the area on the same side of post 13 as the pull cord, and the insulating plate 31 below. As the shell 38 is thoroughly insulated from the electrically energized parts the passage of the metallic pull cord through the throat 39 imparts no electrical charge thereto.

The operation of the device constructed in accordance with my present invention is as follows: Normally the carrier 25 stands with its projection 26 engaging the rear wall 12 of the insulating base, and ratchet member 24 engaging the ratchet member 23. When the cord 40 is pulled the carrier 24 has its projection 26 drawn forwardly and through the coaction of the ratchet members 24 and 23 the shaft 17 is given a quarter turn, so imparting a quarter revolution to the contact head 18. The provision of the square head with alternate faces of conducting and insulating material maintains approximately the same resistance to the pull in any position and positively prevents accidental completion of circuit when the head is in "off" position.

Having thus described my invention, what

I claim and desire to secure by Letters Patent, of the United States, is:

1. In a pull socket, an integral insulating base comprising a disk, a rear wall and a front post separated from the rear wall; an actuating shaft extending between said wall and said post, a contact head on the shaft on one side of the post; a ratchet fixed on the shaft; a coacting ratchet, and an insulating carrier therefor on the opposite side of said post, an insulated socket below the post and rear wall, an insulated casing surrounding the base, and provided with an orifice, and a metallic pull cord connected with the ratchet carrier and extending through said orifice.

2. In a pull socket, an insulating base comprising a disk, a rear wall and a front post separated from the rear wall, an actuating shaft extending between said wall and post, a contact head mounted on the shaft on one side of the post, a clutch member movable with the head, an insulating carrier on the other side of the post, an operating clutch member carried by the carrier for rotating the co-acting clutch member, an insulated socket below the post and rear wall, an insulated casing surrounding the base and provided with an orifice, and a pull cord connected with the insulating carrier extending through said orifice.

3. In a pull socket, an integral insulating base having a projecting rear wall, a shaft approximately parallel to said rear wall, a contact head upon said shaft, coacting ratchet members one fixed to and the other loose on the shaft, an insulating carrier for the loose ratchet member having a projecting portion, a spring normally maintaining said projecting portion in contact with the rear wall, to positively position the movable ratchet in proper normal position; and a pull cord connected to the insulating carrier.

4. In a device of the character described, an insulating base, a transverse shaft, a contact mounted for rotation with the shaft comprising an oblong conductive member, and a rectangular insulating member, recessed to receive the conductive member, to overlie the longer sides of said conductive member and leave exposed its shorter sides, a ratchet operatively associated with said head, a coacting actuating ratchet, and a cord connected with said actuating ratchet, and arranged when pulled to rotate said ratchet member.

In testimony whereof I hereunto set my hand in the presence of two witnesses.

JOHN H. HANSON.

In the presence of—

GEO. T. MAY, Jr.,

MARY F. ALLEN.