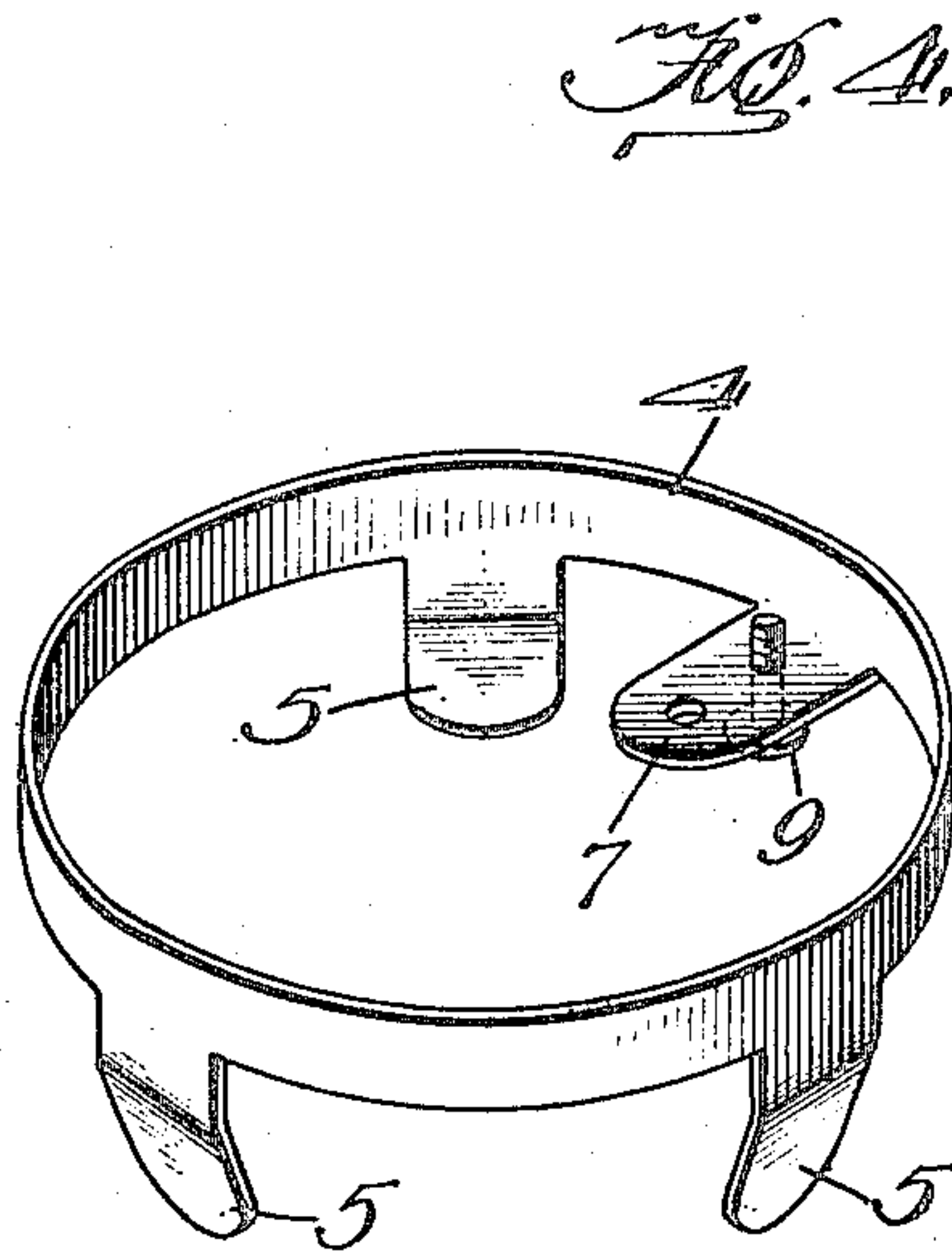
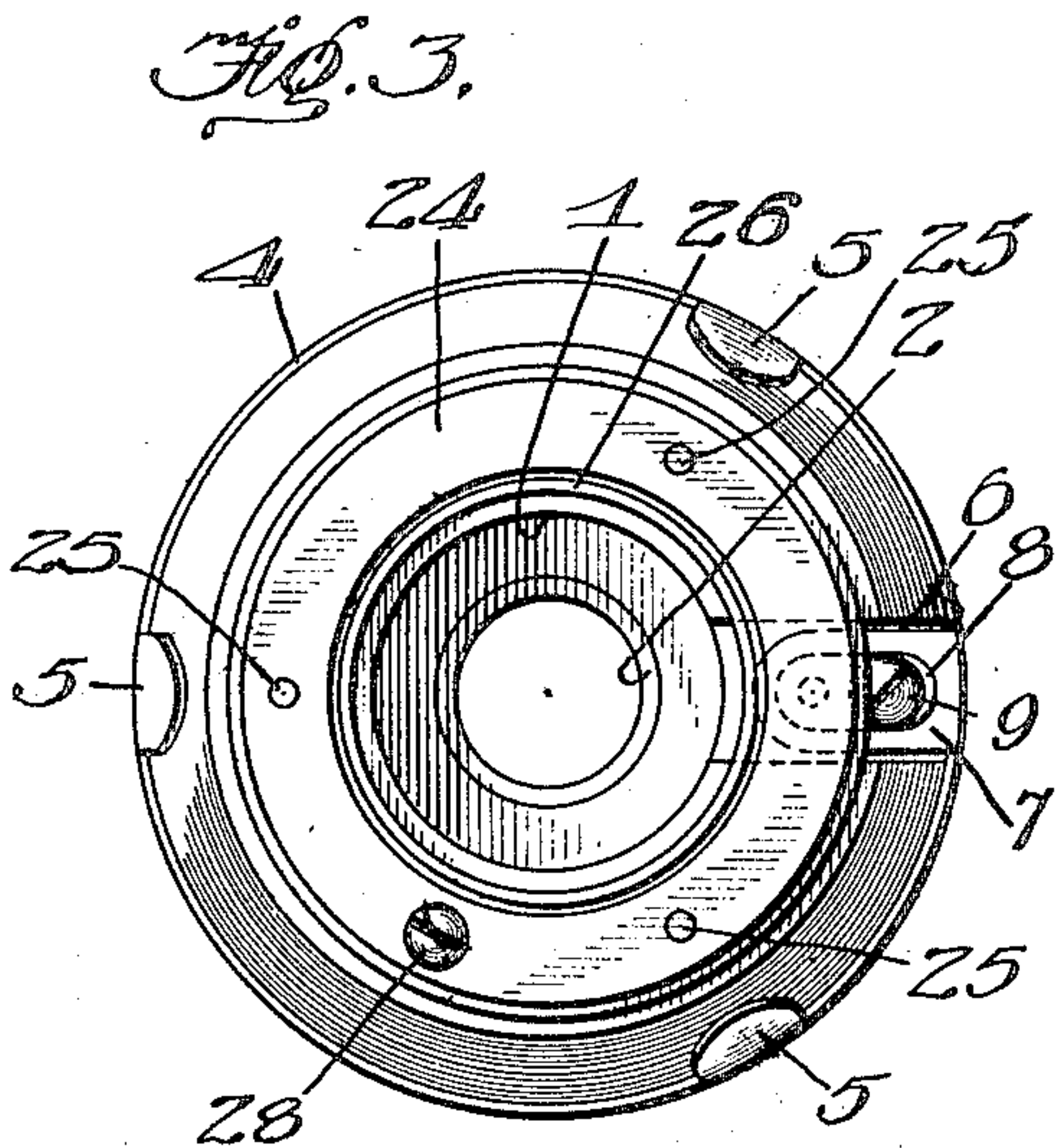
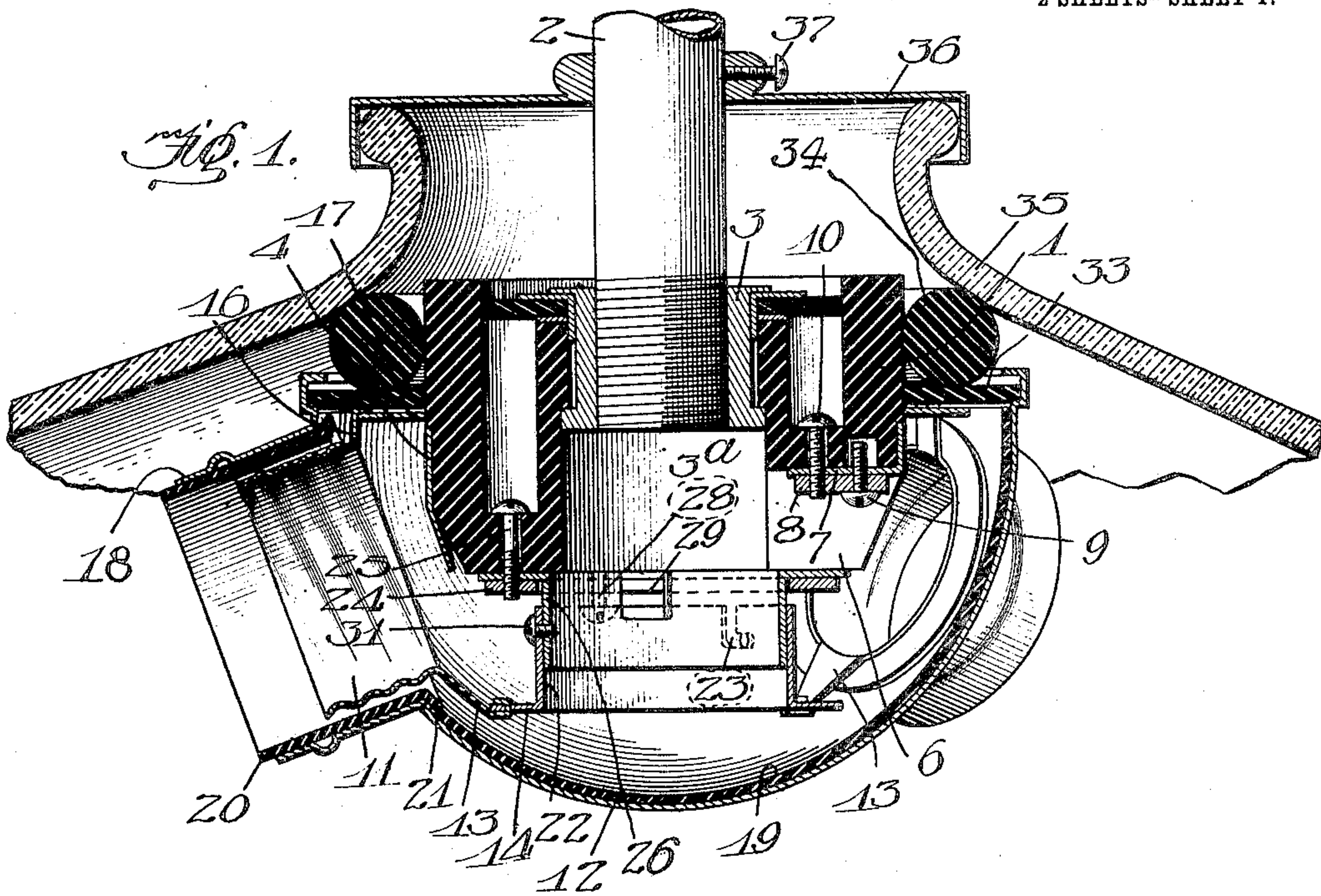


R. B. BENJAMIN.
PLURAL LAMP SOCKET.
APPLICATION FILED OCT. 1, 1907.

950,713.

Patented Mar. 1, 1910.

2 SHEETS—SHEET 1.



Witnesses:
Robert H. Weir
C. L. Hopkins

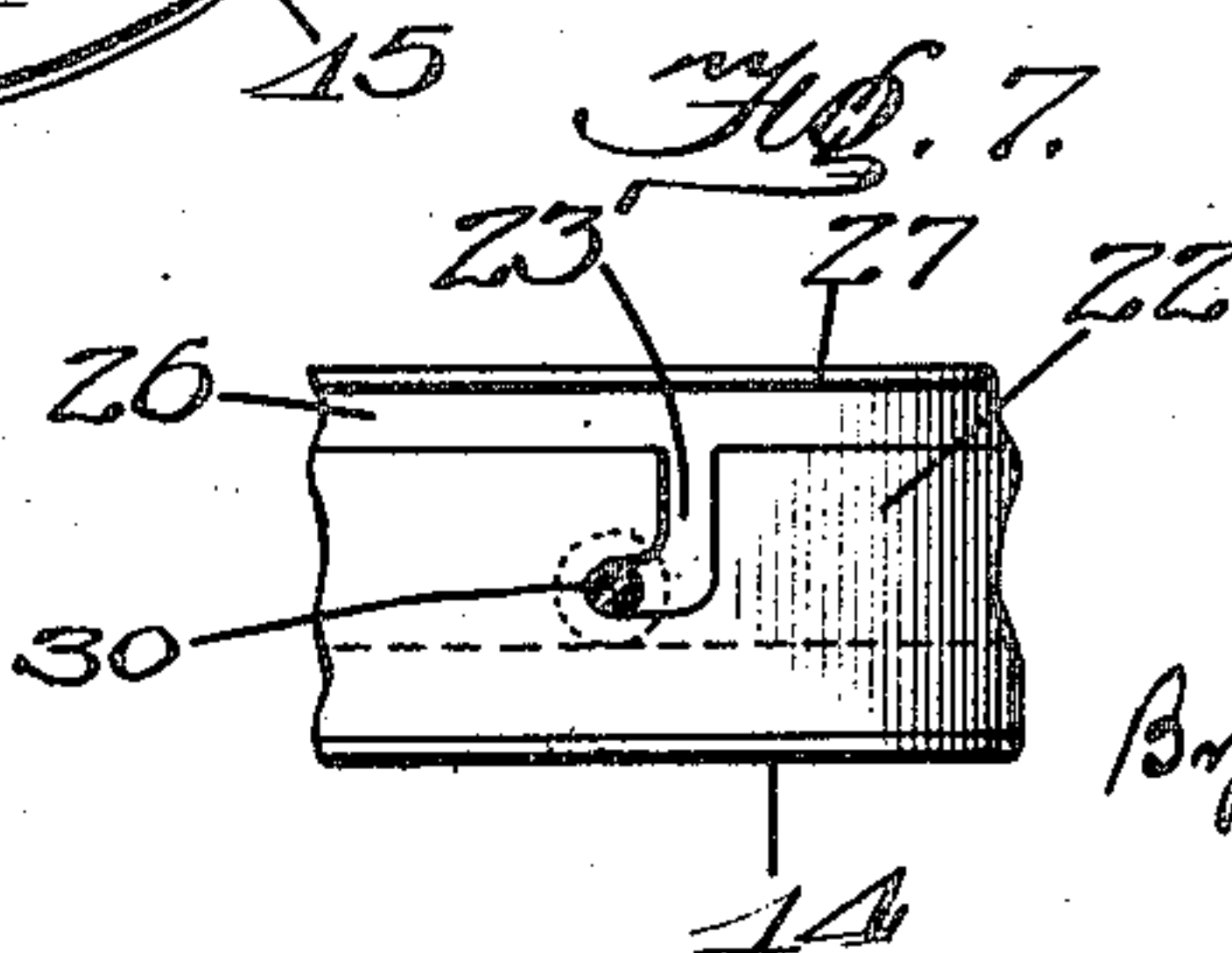
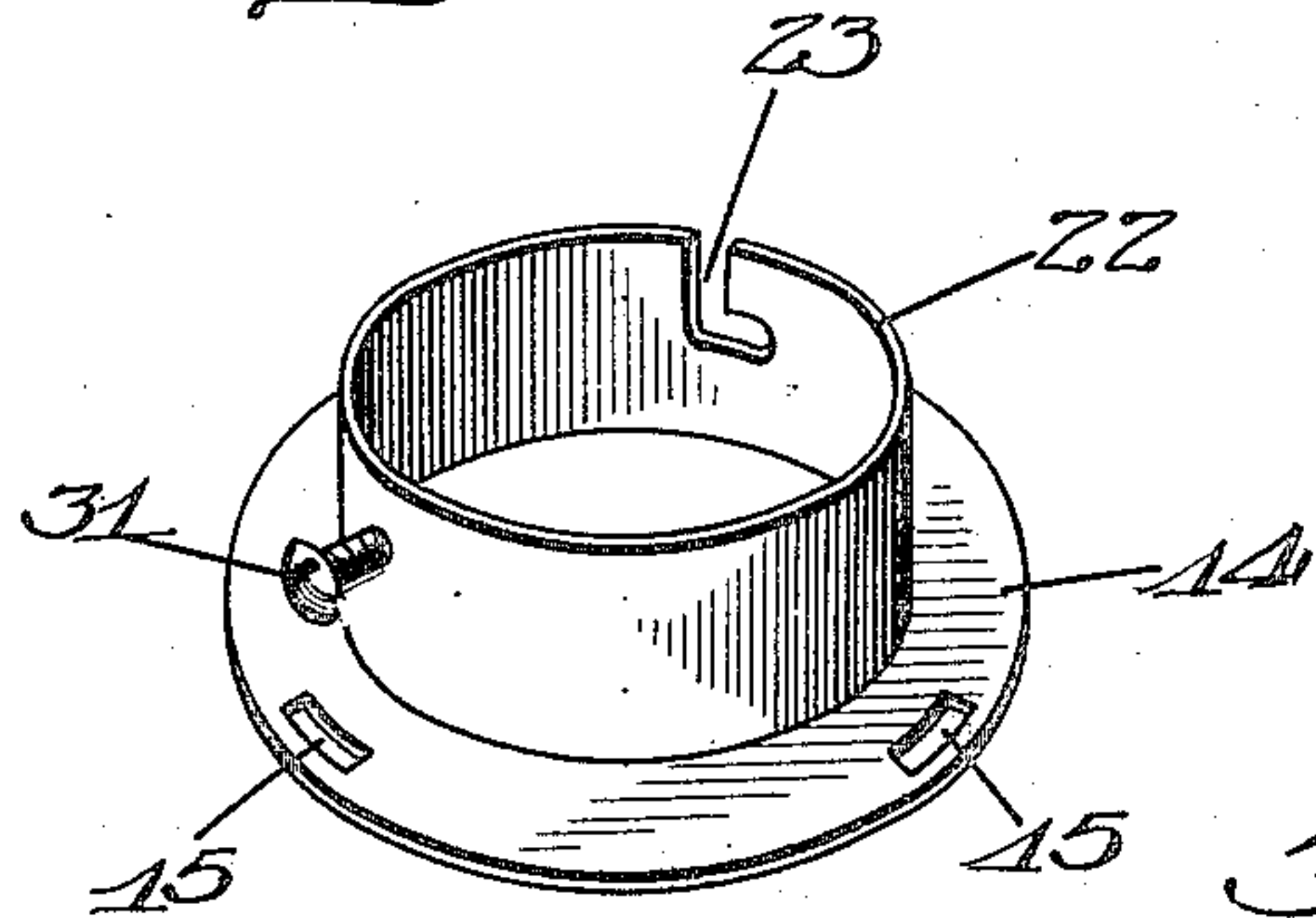
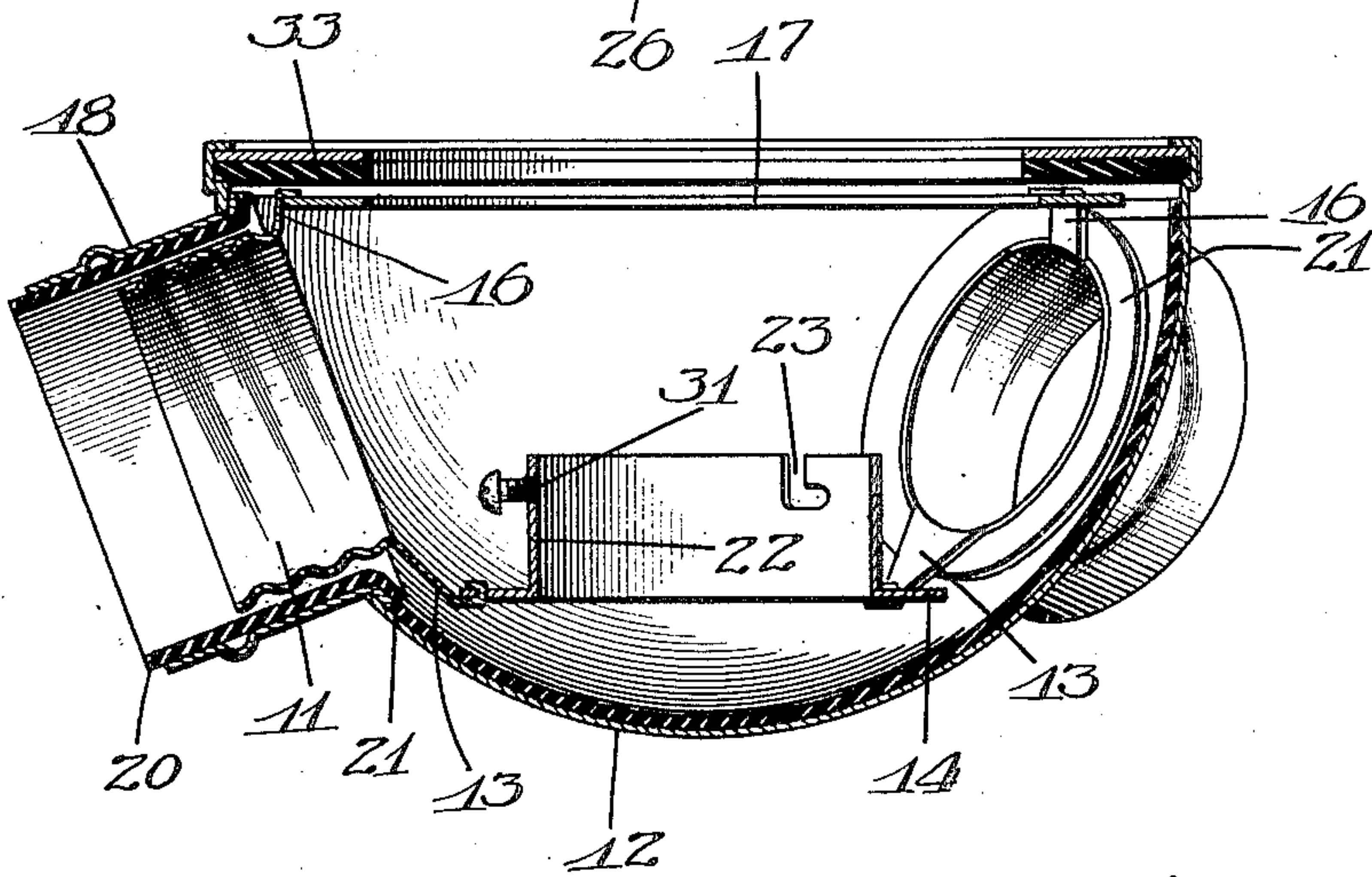
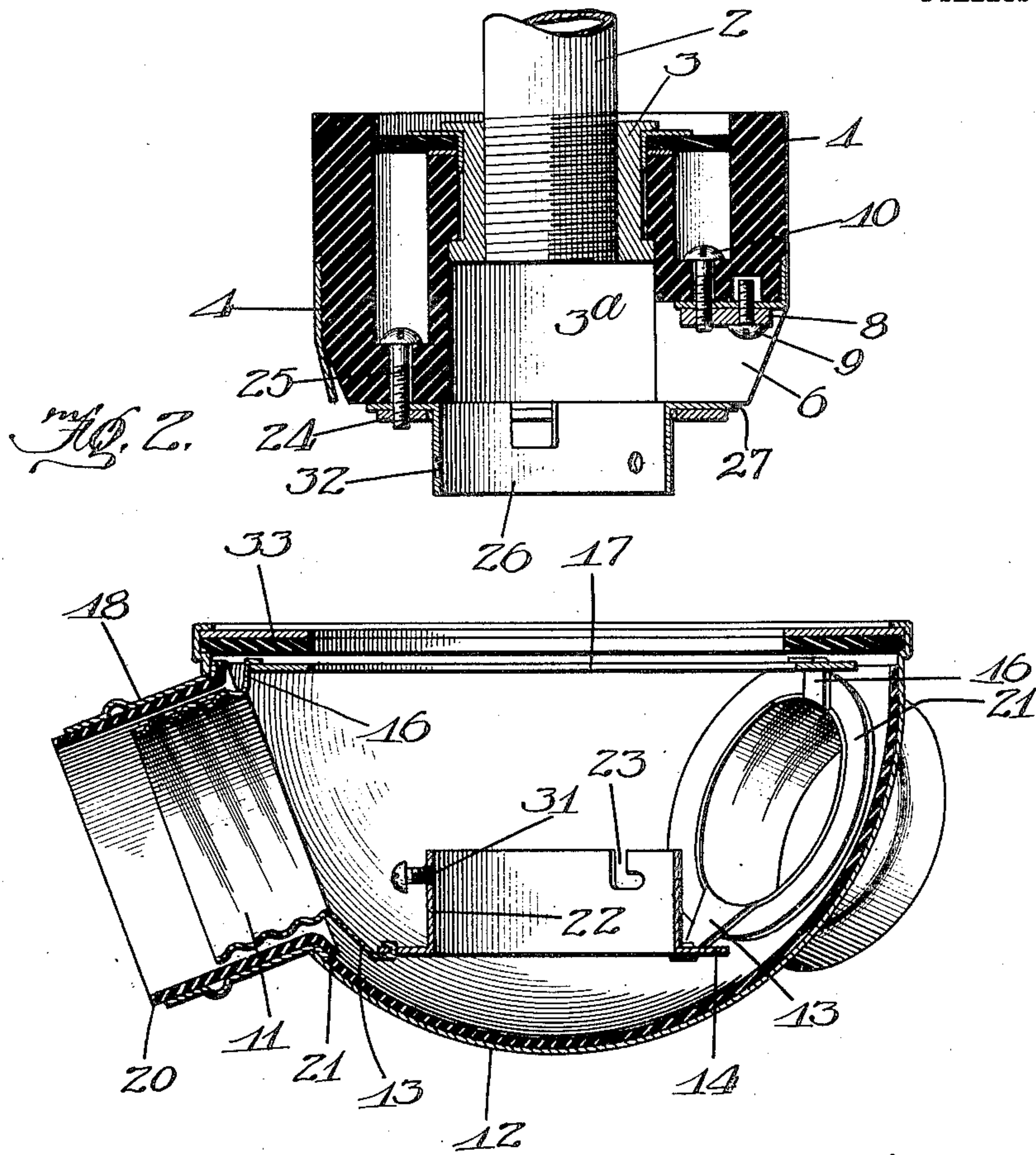
Inventor:
R. B. Benjamin
By Jones, Addington & Ames
attys.

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2 SHEETS—SHEET 2.



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C. L. Hopkins

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Rexben B. Benjamin
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UNITED STATES PATENT OFFICE.

REUBEN B. BENJAMIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO BENJAMIN ELECTRIC MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PLURAL LAMP-SOCKET.

950,713.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Original application filed October 17, 1904, Serial No. 228,891. Divided and this application filed October 1, 1907. Serial No. 395,342.

To all whom it may concern:

Be it known that I, REUBEN B. BENJAMIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Plural Lamp-Sockets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to improvements in plural lamp sockets, and has for one of its objects the provision of a device of this class which is so constructed that when used with a shade the same may be removed without disturbing the electrical connections of the device.

Another object of the invention is to provide a plural lamp socket which has a comparatively small body portion.

A still further object of my invention is the provision of improved means for supporting the body portion—consisting of the casing and the lamp-holders—in position, and for connecting the lamps in circuit.

The device shown and described is shown as an alternative form in my co-pending application, Serial No. 228,891, filed October 17, 1904, (of which this application is a division) and is now made the subject of a separate application for the purpose of patenting the features of this form of the device which are not common to it and the other forms shown in the above mentioned application.

In the accompanying drawings, in which like reference numerals indicate the same parts throughout, Figure 1 is a diametrical sectional view of the device; Fig. 2 is a view similar to Fig. 1, but shows the body portion of the device separated from the supporting base; Fig. 3 is a bottom plan view of the base with the body portion of the device separated therefrom; Fig. 4 is a perspective view of a contact ring employed in the device; Figs. 5 and 6 show in perspective the two parts respectively of a separable connecting means employed for securing the base and body portion of the device together and for establishing electrical communication between the outer contacts of the lamp-holders and one of the binding-screws of the device; and Fig. 7 is a broken elevational detail view showing a portion of the bayonet-joint

connection between the parts illustrated in Figs. 5 and 6.

In the several figures of the drawings, 1 is an insulating base, formed of porcelain or other suitable insulating material. A pipe 2, forming a support or conduit, is provided with a threaded end adapted to screw into a suitable bushing 3, secured in a central opening 3^a in the porcelain base 1. If desired the base 1 may be secured directly to a ceiling or wall without the employment of the pipe 2.

Surrounding the base 1 is a conducting ring 4 having downwardly-extending and inwardly-inclined lugs 5, serving as contacts for engaging the center terminals of the lamps carried by the device. These lugs will be as many in number as the number of lamps, being shown herein as three in number. The base 1 is formed with a recess 6 into which extends an inwardly-bent lug 7 formed on the ring 4. A plate 8, carrying a binding-screw 9, is arranged in the recess 6 and clamps between itself and the base 1 the inwardly-extending lug 7. A screw 10 holds these parts securely in position. In wiring up the device the leads will be brought down through the pipe 2 and one of these leads will be led into the recess 6 to the binding-screw 9, electrical connection being thus made with the center terminals of the lamps through the ring 4 and center contacts carried thereby.

The screw-threaded lamp-receiving shells 11 are carried by and removable with the outer casing 12 and are electrically connected together as well as mechanically secured in position by means of lugs or tongues 13 extending to a ring 14, the ends of these tongues being inserted into openings 15 in this ring and bent over, being also further secured by soldering if desired. Extending upwardly from each of the socket shells 11 is another tongue 16, these tongues being all secured to a ring 17 which may or may not, as desired, be made of conducting material.

The casing 12 is formed with openings corresponding in number to the number of lamps to be carried by the device, and surrounding each of these openings is a shell or sleeve 18 soldered or otherwise secured to the casing. The lamp-receiving socket-shells 11 project into these sleeves 18 and

are protected and inclosed thereby. By this construction it is possible to employ a much smaller casing than is the case where the casing is made large enough to inclose the entire lamp-receiving shell. This feature of the small casing is further made possible by the employment of a small insulating base. The small size of this base also lends thereto other advantages which will be explained in this specification.

The casing 12 is provided with an insulating lining 19, formed of fiber or similar material. Each of the lamp-receiving shells 11 is insulated from its corresponding sleeve 18 by a fiber ring 20, having its inner end 21 expanded or flanged to prevent the withdrawal of the lining from the sleeve.

The ring 14, to which are mechanically connected all of the sockets 11, is provided with an upwardly-extending portion 22 having an L-shaped notch 23 forming one of the members of a bayonet-joint. Carried upon the lower side of the base 1, and secured thereto by a plate 24 and screws 25, is a ring 26 (shown in perspective in Fig. 6) carrying means for engaging in the notch 23 of the ring 22. The plate 24, between which and the base 1 is clamped the outwardly-flanged edge 27 of the ring 26, carries a binding-screw 28 to which is secured the other lead, an opening 29 being provided in the ring 26 for the passage therethrough of this lead to the binding-screw.

When the body portion of the device, consisting of the casing 12, lamp-receivers 11 and engaging ring 22, is put up into place, the ring 22 telescopes over the ring 26. As the ring is electrically connected with the binding-screw 28, electrical communication is established between the lamp-receivers 11 and this binding-screw when the body portion of the device is thus put up into place. The ring 26 is provided with an inwardly-projecting pin 30 which is made to enter the L-shaped notch 23 of the ring 22 by rotating the body of the device. This pin 30 thus forms the second part of the bayonet connection between the rings 22 and 26. Mechanical connection being thus made between the body portion of the device and the base, the body portion is firmly supported in position with the outer lamp-engaging contacts electrically connected with the leads. When the lamps are inserted into the holders, they will engage the center contacts, which are electrically connected with the other binding-screw, and the circuit is completed through these lamps.

To prevent backward rotation of the body portion and consequent unlocking of the bayonet connection, the telescoping ring 22 is provided with a screw 31 which is adapted to enter an opening 32 in the ring 26 after the parts are in position. This screw

may be readily reached with a screw-driver through the socket 11 and when screwed into the opening 32 effectively prevents backward rotation of the parts.

Disposed within the upper portion of the casing, and above the plate 17, is an insulating ring 33 which surrounds the insulating base 1 when the body portion of the device is put up into place. Resting upon this ring 33 is a rubber ring 34 of circular cross-section, and upon this ring rests the shade 35. The resilient ring 34 absorbs vibration and shocks which might otherwise destroy the shade, which is usually of fragile material. A suitable shade-holder 36, secured to the pipe 2 by a screw 37, centers the shade 35 in proper position over the body of the device.

By the use of my invention I am enabled to employ a contact-carrying base of sufficiently small diameter to permit the same to pass through the shade when the latter is put up in position or removed from such position. The plate 33, extending inwardly from the upper edge of the casing to the side of the base, centers the casing with relation to said base and obviates the necessity of employing the usual large base engaging the outer edge of the casing.

It will be seen that the body portion of the device, comprising the casing and the lamp-holders, may be readily removed so as to permit the shade to be taken down, or for any other purpose, without disturbing the connections between the leads and the binding-screws of the device.

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

1. A multiple socket for incandescent electric lamps, comprising an insulating base carrying a contact piece for making electrical connection with each lamp, a body portion provided with a plurality of lamp-holding devices, and telescoping means for detachably securing the base and body portion together, said means also completing the electrical circuit with each lamp.
2. A multiple socket for incandescent electric lamps, comprising an insulating base provided with means for connection with supply leads, a body portion concealing said means and arranged to support the lamps in position, and means detachably securing the base and body portion together, said means also bringing the lamps into electrical communication with the supply leads.
3. In a multiple socket for electric lamps, the combination of an insulating base carrying lamp-engaging contacts, terminals carried by the base for making connection with supply leads, a body portion carrying the lamps and concealing said terminals, and interengaging means carried by the base and body portion respectively and adapted, when

engaged with each other, to simultaneously secure the base and body portion together and complete through itself the electrical circuit.

5 4. In a plural lamp socket, the combination with an insulating base and contacts carried thereby, of a casing provided with a plurality of cylindrical projections extending therefrom and each adapted to receive
10 a lamp base, means for holding said lamps therein in position to engage said contacts, other contacts carried by said casing, and telescoping means carried by said base and casing respectively for connecting said last-
15 named contacts with one of the leads.

5. In a plural lamp socket, the combination with a casing comprising a substantially hemispherical shell having a plurality of openings and a sleeve surrounding each of
20 said openings and fixed to said casing, of a lamp-receiving shell disposed within each of said sleeves, said shells being supported by said casing and having each a tongue, a plate to which said tongues are secured, binding-
25 screws carried by the base, and means for making electrical connection between one of said binding-screws and said plate, said means also supporting said casing and the lamps carried thereby in proper position
30 relative to the base.

6. In a plural lamp socket, the combination of a base, lamp-engaging contacts car-

ried thereby, binding terminals also carried thereby, a body portion carrying the lamps and arranged to cover said binding terminals and made removable to afford access to
35 said terminals, and means for detachably securing the base and body portion together, said means serving also to complete the electrical circuit.
40

7. In a multiple socket, the combination of a base, binding terminals carried thereby, a body portion arranged to carry the lamps and normally concealing said binding
45 terminals, and means for detachably securing said body portion in position, said means serving also to complete the electrical circuit through the lamps.

8. In a multiple socket for electric lamps, the combination of a base, binding terminals
50 carried thereby, a body portion arranged to carry the lamps and normally concealing said binding terminals, and means for mechanically securing said body portion to said base, said means serving also to complete
55 the electrical circuit through the lamps.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

REUBEN B. BENJAMIN.

Witnesses:

W. C. MARGESON,

ROBERT LEWIS AMES.