

No. 883,777.

PATENTED APR. 7, 1908.

R. B. BENJAMIN.
CLUSTER LAMP SOCKET.

APPLICATION FILED APR. 14, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

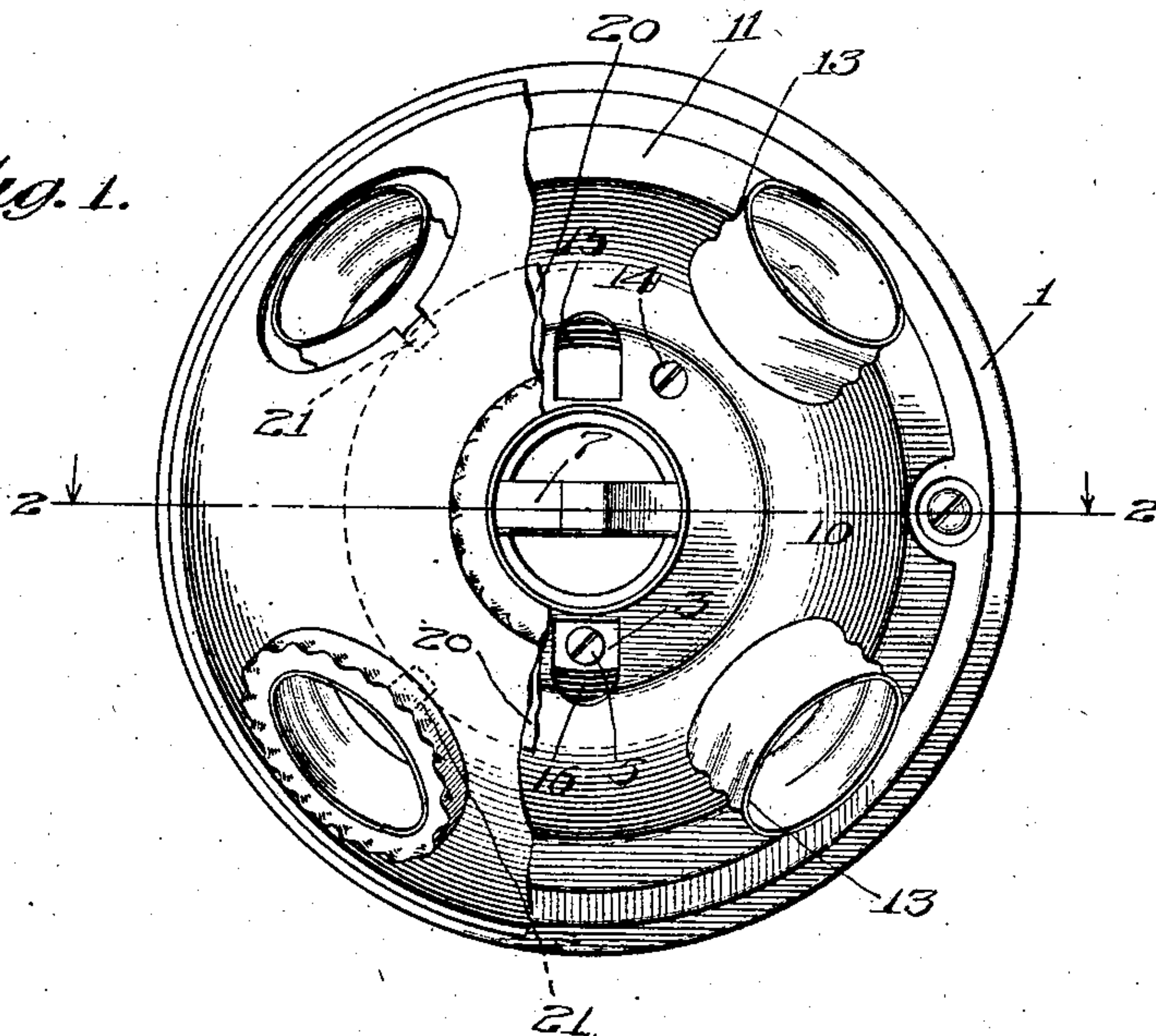


Fig. 2.

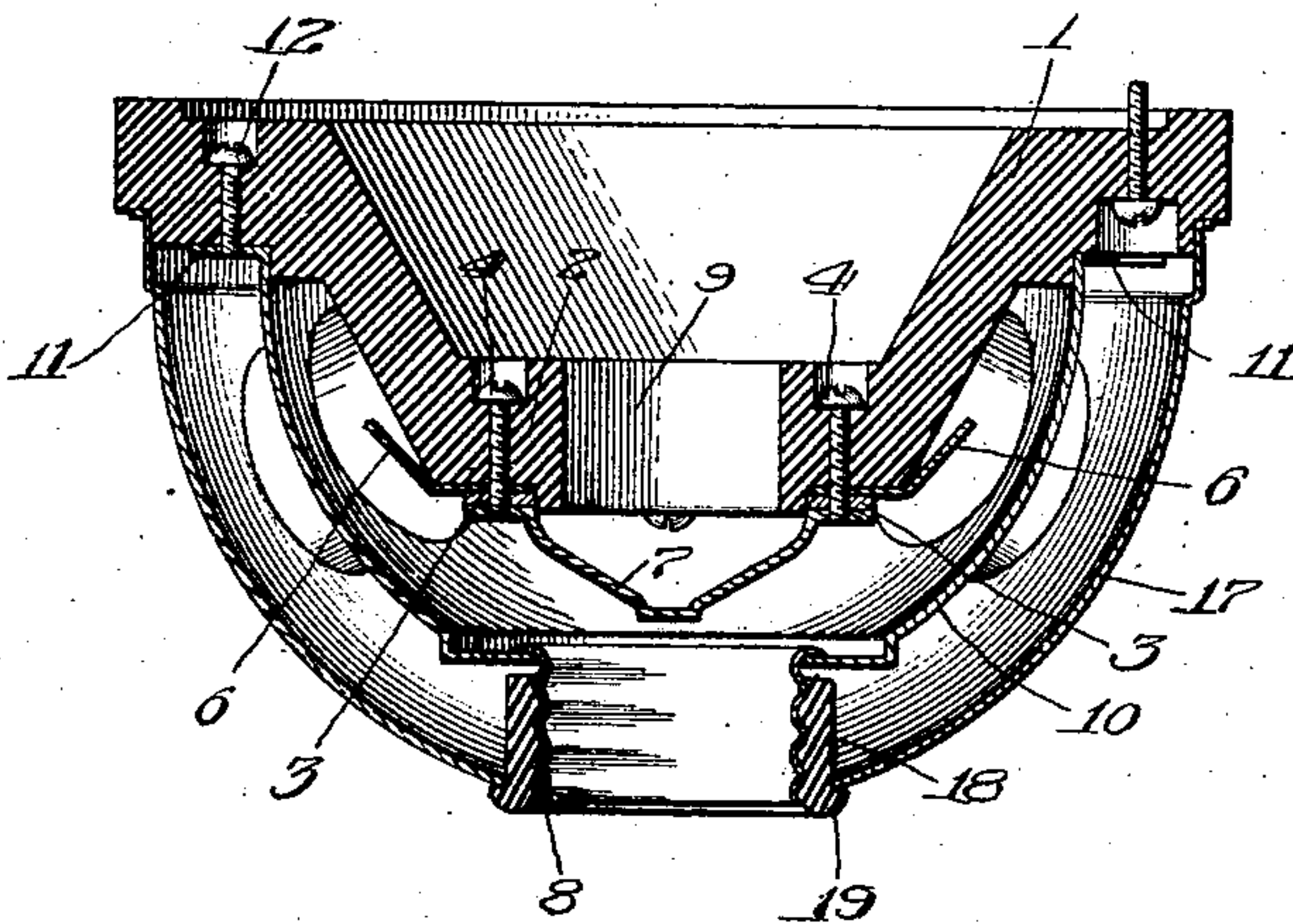
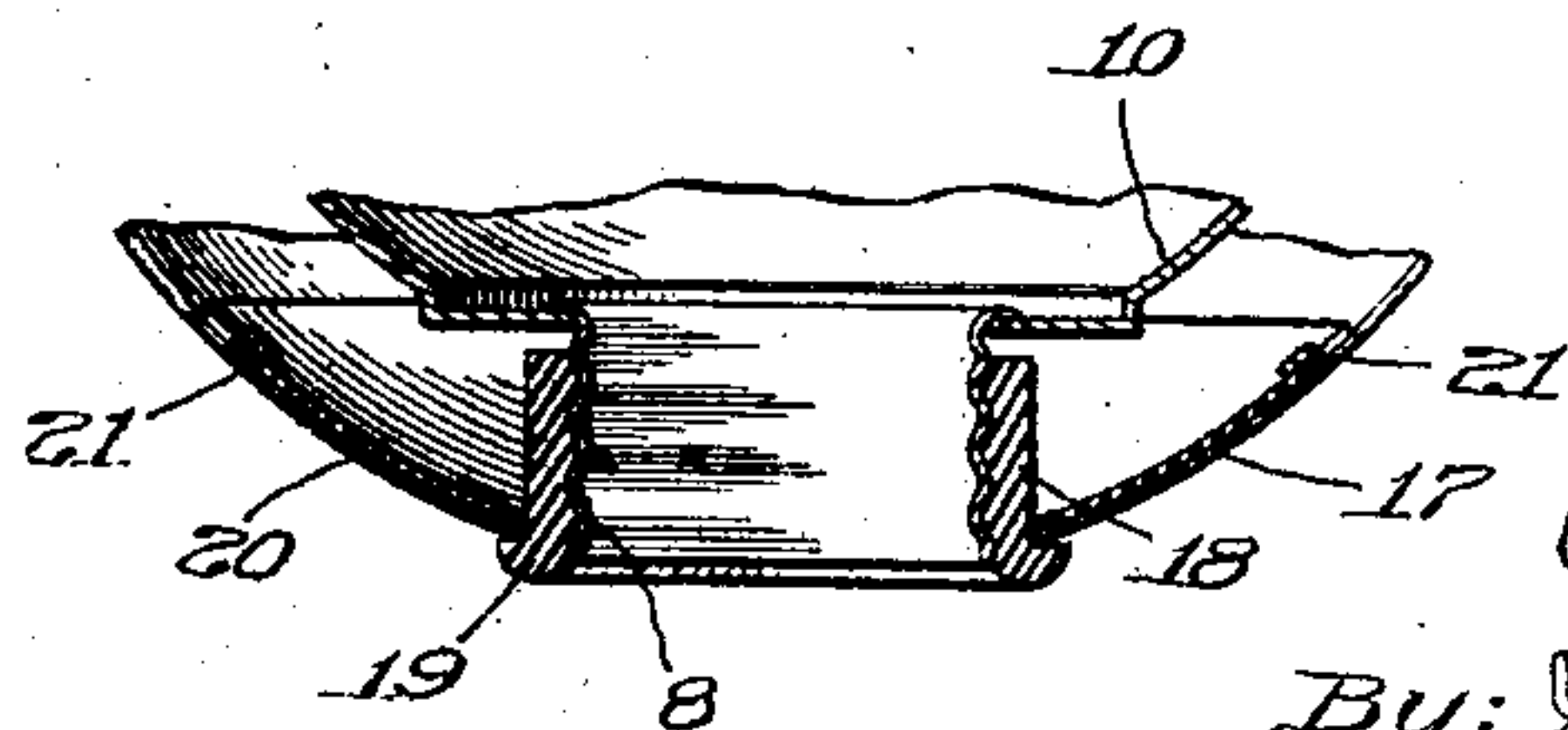


Fig. 3.



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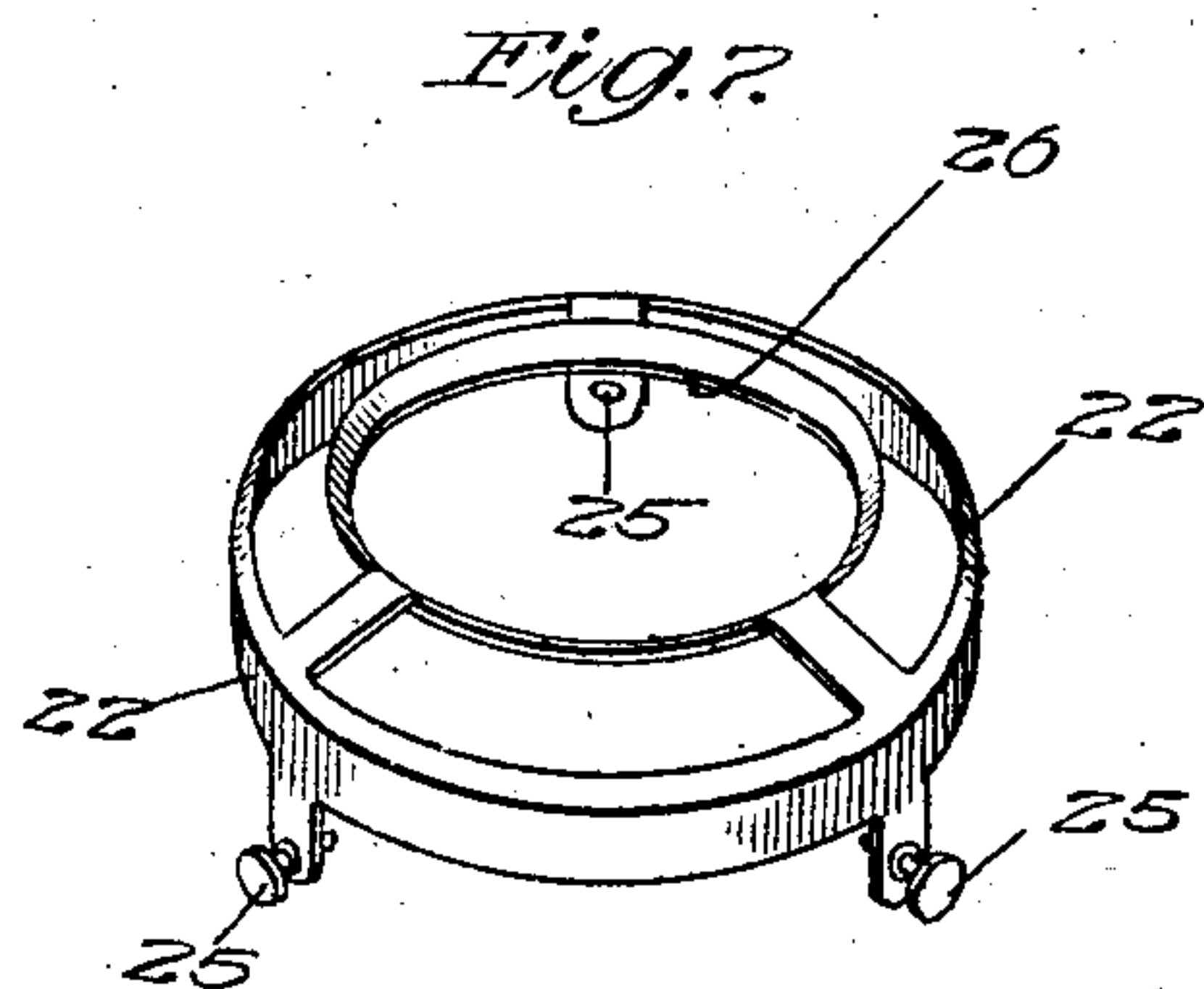
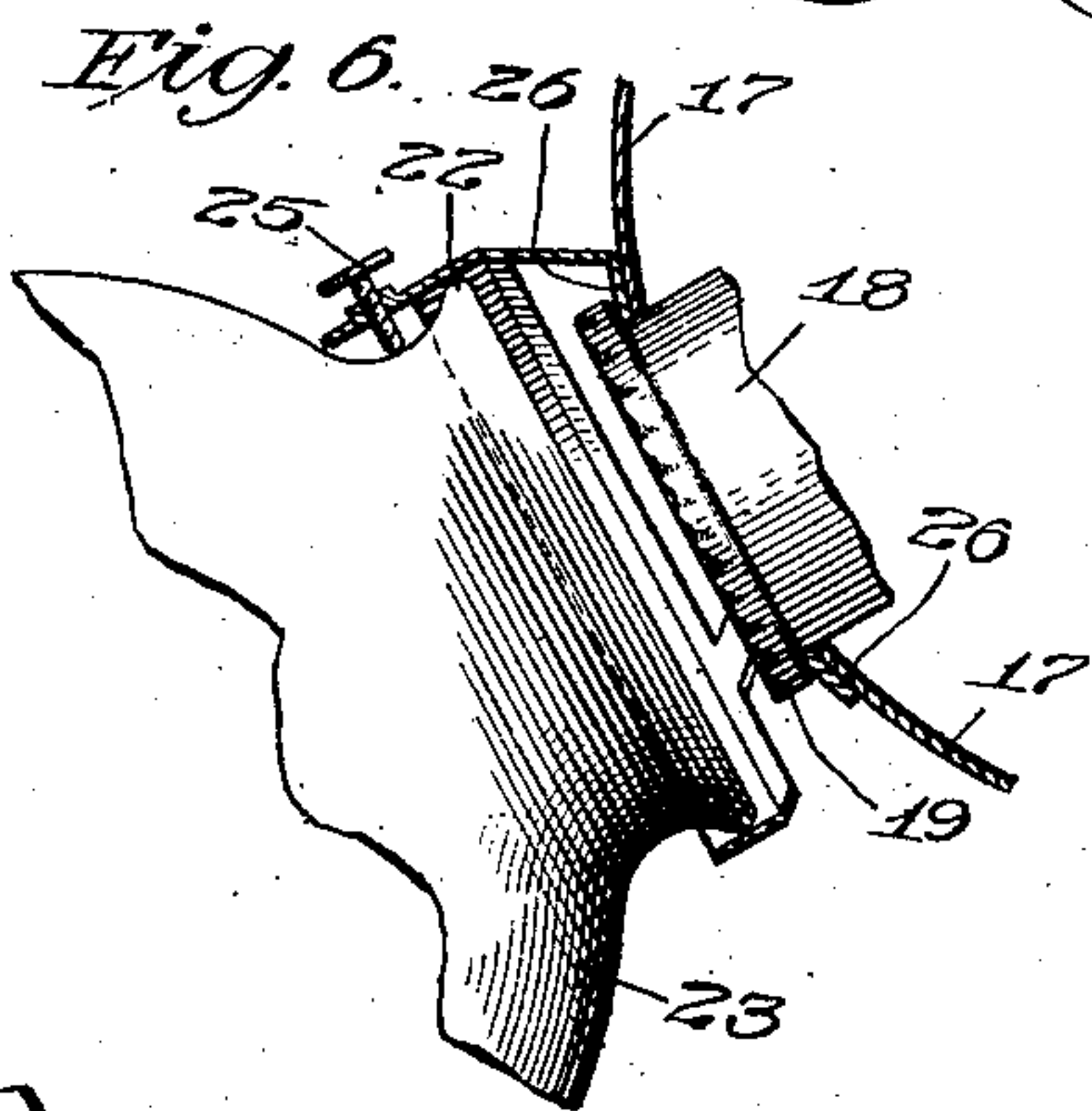
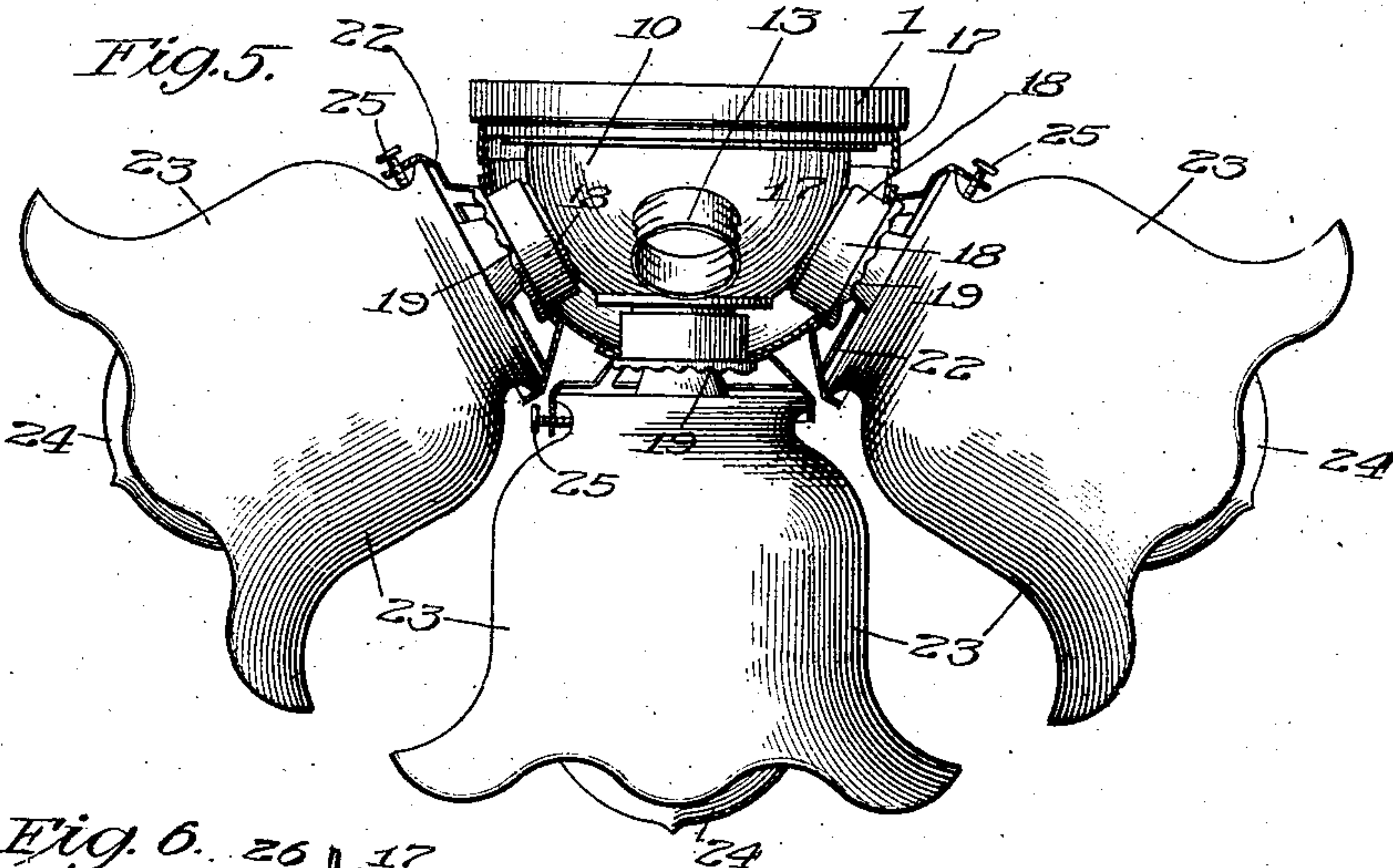
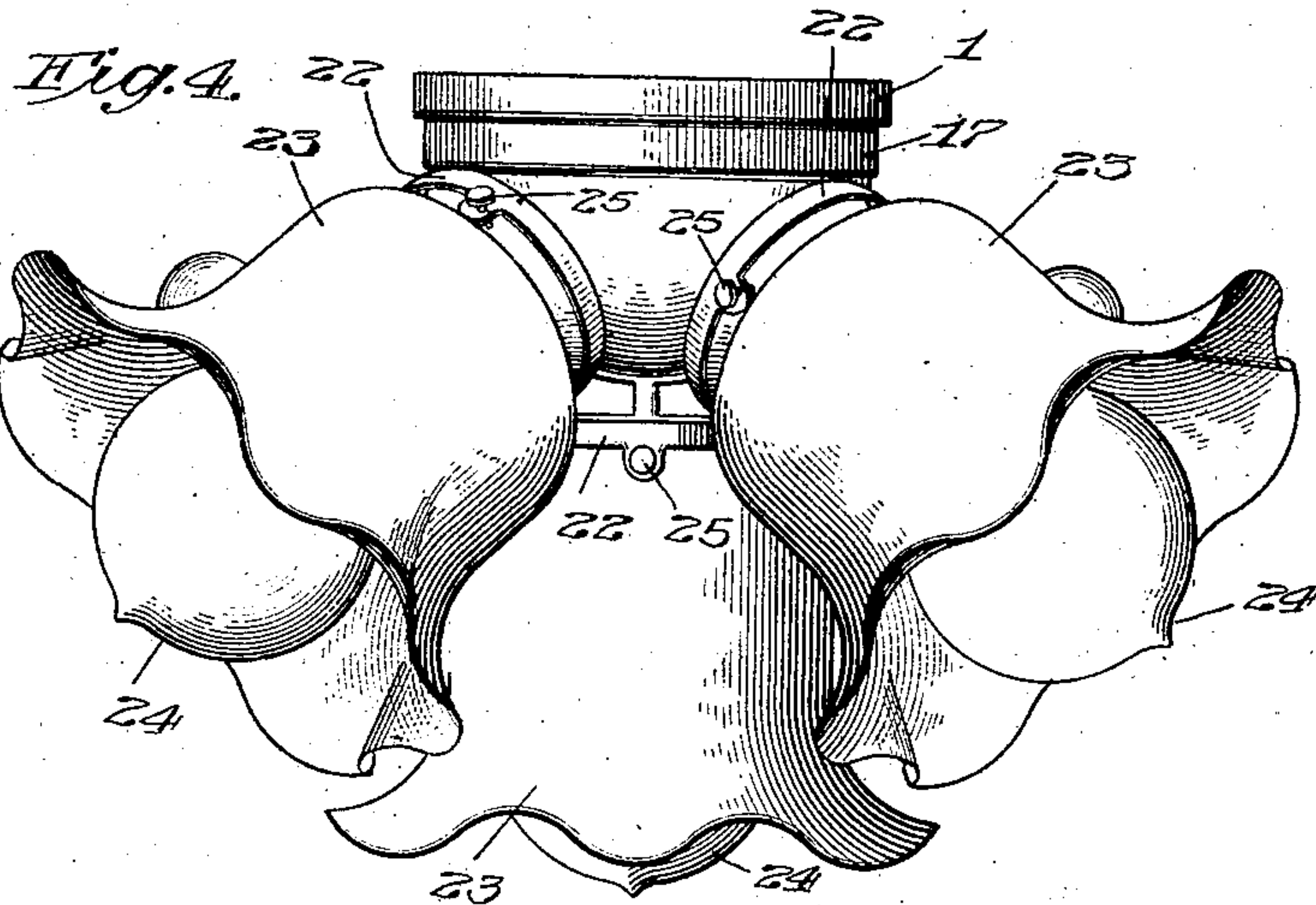
Attorneys:

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2 SHEETS—SHEET 2.



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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.

CLUSTER-LAMP SOCKET.

No. 883,777.

Specification of Letters Patent.

Patented April 7, 1908.

Application filed April 14, 1904. Serial No. 203,180.

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 Cluster-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 cluster lamp sockets, and has for its object means for mechanically securing, and electrically connecting in circuit, a plurality of incandescent lamps. The invention further consists in a novel arrangement of the lamps.

I have illustrated one embodiment of my invention in the accompanying drawing in which like reference characters indicate like parts in the several figures, and in which:

Figure 1 is a plan view of my improved socket, showing a portion of the inclosing shell broken away to reveal the interior of the socket; Fig. 2 is a sectional view on the line 2—2 of Fig. 1; and, Fig. 3 is a detail view showing the insulating lining for the casing; Fig. 4 is a side elevation of my improved socket showing shades for the lamps; Fig. 5 is a side elevation showing shades for the lamps with the inclosing casing in section. Figs. 6 and 7 are detail views of the shade holder and the method of attaching the shades in position.

In the preferred embodiment of my invention, I preferably provide a suitable insulating base 1, of porcelain or other such insulating material, having formed thereon a centrally disposed hollow cylindrical projection 2, upon which is mounted a contact ring 3, which may be held in any suitable manner, as by the screws 4, 4, extending through the base. At any convenient point upon the ring a binding screw 5, is provided, whereby one of the leading-in wires may be readily connected to the ring. Concentrically arranged upon the central projection 2 of the base are center lamp contacts 6, 6, which are held in position by being clamped between the ring 3 and the base. In this manner these center contacts are suitably held in position, and are also in electrical connection with the ring 3. A contact 7 for a centrally arranged lamp is also supported from the portion 2 of the base by the screws 4, 4. This contact is preferably in the form of an arch-

shaped strip of metal, the outer ends of which are connected by the screws 4, 4, with the ring 3. An aperture 9 is formed in the base 1, whereby the leading-in wires may be readily passed through the base and connected to the binding posts for the lamp socket.

A substantially hemi-spherical contact plate 10 is also carried by the base 1, having formed thereon a flange 11, into which are adapted to be secured screws 12 which pass through the base 1. This contact plate has formed in the side walls thereof concentrically arranged openings registering with the center lamp contacts 6. Secured to the contact plate opposite these openings are threaded lamp receiving shells 13, which form the ring contacts for the lamps. A centrally disposed opening is formed in the bottom of the contact plate 10, and opposite said opening is secured a threaded lamp receiving shell 8 adapted to receive and hold in position a centrally disposed lamp. By this arrangement of lamp-supporting means and contacts, a series of lamps may be arranged concentrically and radially and held in an oblique position, and a centrally-disposed lamp may be supported axially with respect to the circularly-arranged lamps.

A binding screw 14 is carried upon the underside of the contact plate 10, an aperture 15 being formed in the plate through which a leading-in wire is adapted to pass and be connected with the binding screw. A similar aperture 16 is also formed in the contact plate 10, whereby access to the binding screw 5 may be readily obtained.

An inclosing casing or cover 17 preferably having the form of a hemi-sphere is adapted to inclose the parts thus described, and is provided with openings therein which register with the lamp receiving shells 8 and 13, to accommodate the lamp bases. Insulating bushings 18 are adapted to screw upon the threaded lamp receiving shells, and are disposed between the walls of the openings, and said shells, whereby the same are suitably insulated from each other. These bushings also serve to hold the casing in position, an outwardly extending shoulder or flange 19 being formed on said bushings to engage the casing and aid in maintaining the same in a rigid position.

In order that all danger of short circuiting of the parts may be obviated, the lower portion of the cover 17, which is generally the

most exposed portion, and where the danger of short circuiting is greatest, is lined with an insulating material 20, preferably formed of fiber or other non-conducting material.

5 This lining is arranged between the lower portion of the cover 17, and the lower end of the contact plate 10, at which point is located the binding screw 14, and is preferably secured in position within the casing by turning back a small portion 21 sheared out of the casing near the openings therein. By this arrangement, the lining is held in position against displacement, and the turned back portion of the casing is hidden from
10 view by the flanges 19 of the bushings 18 whereby the exterior of the casing does not present a damaged appearance.

Suitable shade holders 22 for supporting lamp shades 23 for the lamps 24 are secured
20 upon the exterior of the inclosing casing or cover 17. The shades may be secured in the shade holders in any desired manner, as by thumb screws 25, and the holders are provided with an annular ring 26 which is
25 adapted to fit between the flange 19 of the threaded insulating bushings and the casing, whereby the shade holder will be secured in position, and may be readily attached and detached from the socket.

30 While certain details of construction have been shown and described, it will be understood that I do not wish to limit myself to the exact construction shown, as there are numerous changes which may be made without departing from the spirit of my invention.

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

40 1. A plural lamp-holding device comprising, in combination, a base, a lamp-receiving socket disposed to support a lamp in a line passing through the axis of said base, a center contact carried by said base for said
45 socket, a series of sockets extending radially from said base and each disposed to sustain a lamp in an oblique position relatively to said base, a center contact carried by said base for each of said last-named sockets, and an outer
50 casing provided with an opening opposite each of said sockets.

2. A plural lamp-holding device comprising, in combination, a base, a lamp-holding device disposed to support a lamp in axial relation to said base, contacts for said lamp-holding device, a series of lamp-holding devices extending radially from said base and each arranged to sustain a lamp in an oblique position relatively to said base, contacts carried by said base for each of said last-named
60 sockets, and an inclosing casing provided with an opening opposite each of said sockets.

3. A plural lamp-holding device comprising
65 ing, in combination, a base, a lamp-receiving

socket disposed to support a lamp in axial relation to said base, a center contact carried by said base for said socket, a series of sockets extending radially from said base and each disposed to sustain a lamp in an oblique
70 position relatively to said base, a center contact carried by said base for each of said last-named sockets, a binding-screw in permanent electrical connection with all of said sockets, a binding-screw in permanent electrical connection with all of said center contacts, and an outer casing inclosing said contacts and binding-screws, said casing being provided with an opening opposite each of
75 said sockets. 80

4. A plural lamp-holding device comprising, in combination, a hemispherical casing having a central opening and a circularly arranged series of openings, a plurality of lamp-receiving sockets disposed within said casing
85 and registering with said openings, means for sustaining the sockets which register with the circularly arranged openings in inclined position relatively to the axis of the casing and a center contact for each of said sockets. 90

5. A plural lamp-holding device comprising, in combination, a bowl-shaped casing having a central opening and a circularly-arranged series of openings, a plurality of lamp-holding devices disposed within said casing
95 and registering with said openings, means for sustaining the lamp-holding devices which correspond to the circularly-arranged openings in inclined position relatively to the axis of the casing and contacts for each of
100 said lamp-holding devices.

6. A plural lamp-holding device comprising, in combination, a hemispherical casing having a central opening and a circularly-arranged series of openings, a plurality of
105 lamp-holding devices disposed within said casing and registering with said openings, means for sustaining the lamp-holding devices which correspond to the circularly-arranged openings in inclined position relatively to the axis of the casing, contacts for each of said lamp-holding devices and binding-screws carried by said base and in permanent electrical connection with said contacts. 115

7. A plural lamp-holding device comprising, in combination, an insulating block, a hemispherical casing having a central opening and a series of openings arranged in a circle around said central opening, a plurality
120 of lamp-receiving sockets sustained within said casing and registering with said openings and a center contact carried by said insulating block for each of said lamp-holding devices. 125

8. A plural lamp-holding device comprising, in combination, an insulating member, a casing having a central opening and a series of openings arranged in a circle around said
130 central opening, a plurality of lamp-receiving

sockets sustained within said casing and registering with said openings, a center contact carried by said insulating member for each of said sockets, and means carried by said insulating member adapted for connection with a source of current supply, said means being permanently connected electrically with said sockets and center contacts.

9. A plural lamp-holding device comprising, in combination, an insulating member, a casing having a central opening and a circularly-arranged series of openings, a plurality of lamp-holding devices arranged within said casing so as to register with said openings, lamp-terminal-engaging contacts for said lamp-holding devices, and means carried by said insulating member and adapted for connection with supply conductors, said means being in permanent electrical connection with the contacts of said sockets.

10. A plural lamp-holding device comprising, in combination, a casing having a central opening and a series of openings disposed around said central opening, means within said casing adjacent each of said openings for sustaining an electric lamp, contacts for engagement with the terminals of lamps and means for conducting current to said contacts, said means being permanently connected electrically with said contacts.

11. A plural lamp-holding device comprising, in combination, a casing provided with a central opening and a series of openings disposed around said central opening, means within said casing adjacent each of said openings for sustaining an electric lamp, means for engaging the terminals of such lamps, and means permanently connected electrically with said last-named means and adapted for connection with a source of current supply.

12. A plural lamp-holding device comprising, in combination, a casing having a central opening and a series of openings disposed around said central opening, means within said casing adjacent each of said openings for sustaining an electric lamp, and permanently organized means for conducting current to the terminals of such lamps.

13. A plural lamp-holding device comprising, in combination, a casing having a central opening and a plurality of openings disposed around said central opening, a socket adjacent each of said openings and adapted to receive an electric lamp, permanently-organized means for conducting current to said sockets, center contacts for said sockets,

and permanently organized means for conducting current to said center contacts.

14. A plural lamp-holding device comprising, in combination, an insulating member, a casing having a central opening and a series of openings arranged in a circle around said central opening, a plurality of lamp-receiving sockets sustained within said casing and registering with said openings, a center contact carried by said insulating member for each of said sockets, and permanently-organized means for conducting current to said contacts and said sockets.

15. A plural lamp-holding device comprising, in combination a series of sockets radially disposed, a single socket disposed axially with relation to said series of sockets, means for supporting said sockets and electrically connecting the same with each other, an insulating member, a center contact for each of said sockets, said contacts being supported by said insulating member in proper position relative to said sockets, and means in permanent electrical connection with said center contacts for connection with a source of current supply.

16. A plural lamp-holding device comprising, in combination, a centrally disposed lamp-receiving socket, a plurality of sockets disposed radially with relation to the axis of said first-named socket, means for permanently connecting all of said sockets electrically with each other, a center contact for each of said sockets, all of said center contacts being permanently connected electrically with each other.

17. A plural lamp-holding device comprising, in combination, a centrally disposed lamp-receiving socket, a plurality of sockets disposed radially with relation to the axis of said first-named socket, means for supporting said sockets and permanently connecting all of said sockets electrically with each other, a center contact for each of said sockets, permanently organized means for conducting current to said sockets and contacts, said last-named means being adapted for connection with a source of current supply, all of said center contacts being permanently connected electrically with each other.

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

REUBEN B. BENJAMIN.

Witnesses:

C. B. CAMP,

WALTER E. McCORMACK.