

No. 861,940.

PATENTED JULY 30, 1907.

R. B. BENJAMIN.
ELECTRIC LAMP SOCKET.
APPLICATION FILED JULY 14, 1904.

4 SHEETS—SHEET 1.

Fig. 1.

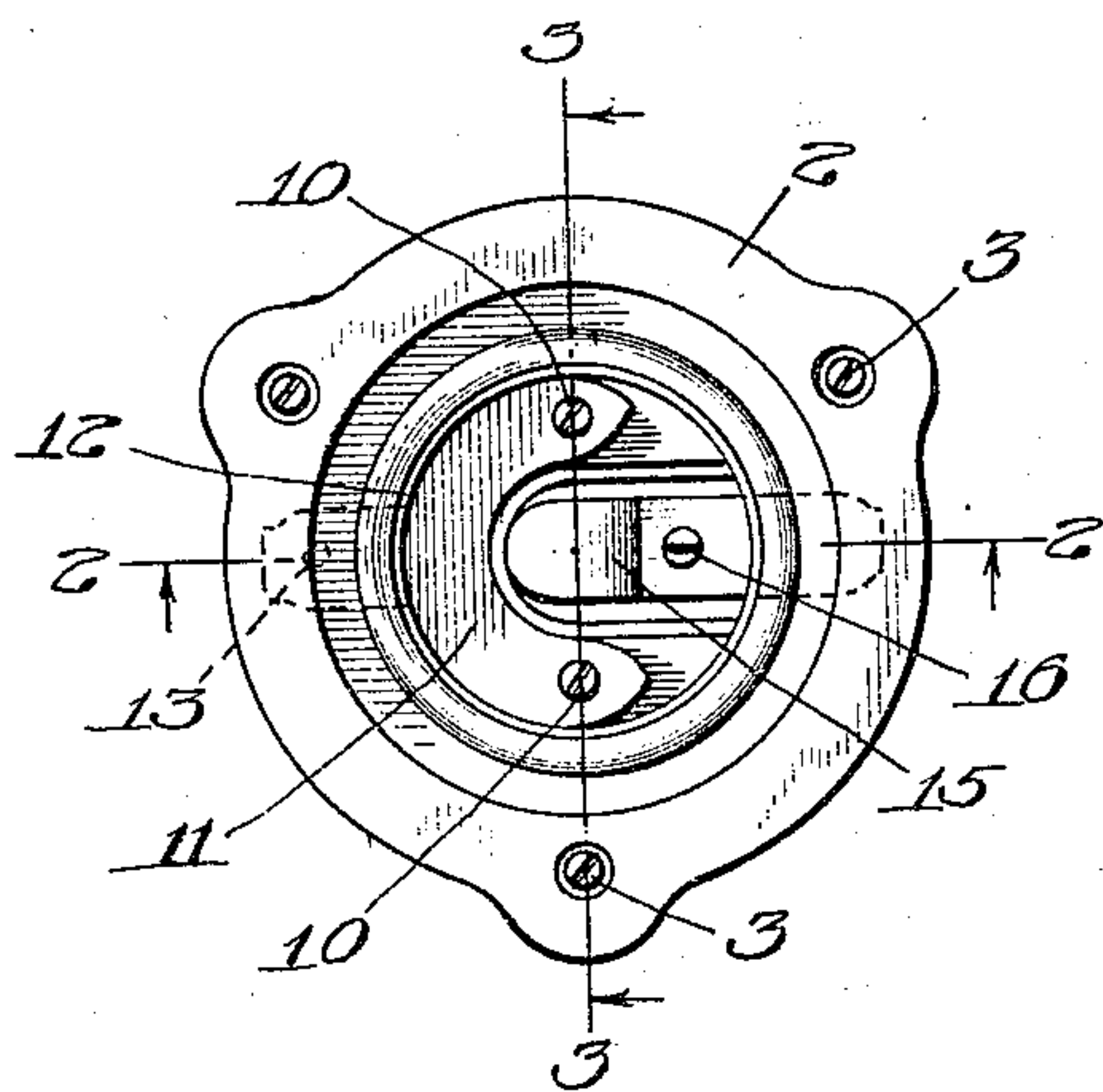


Fig. 4.

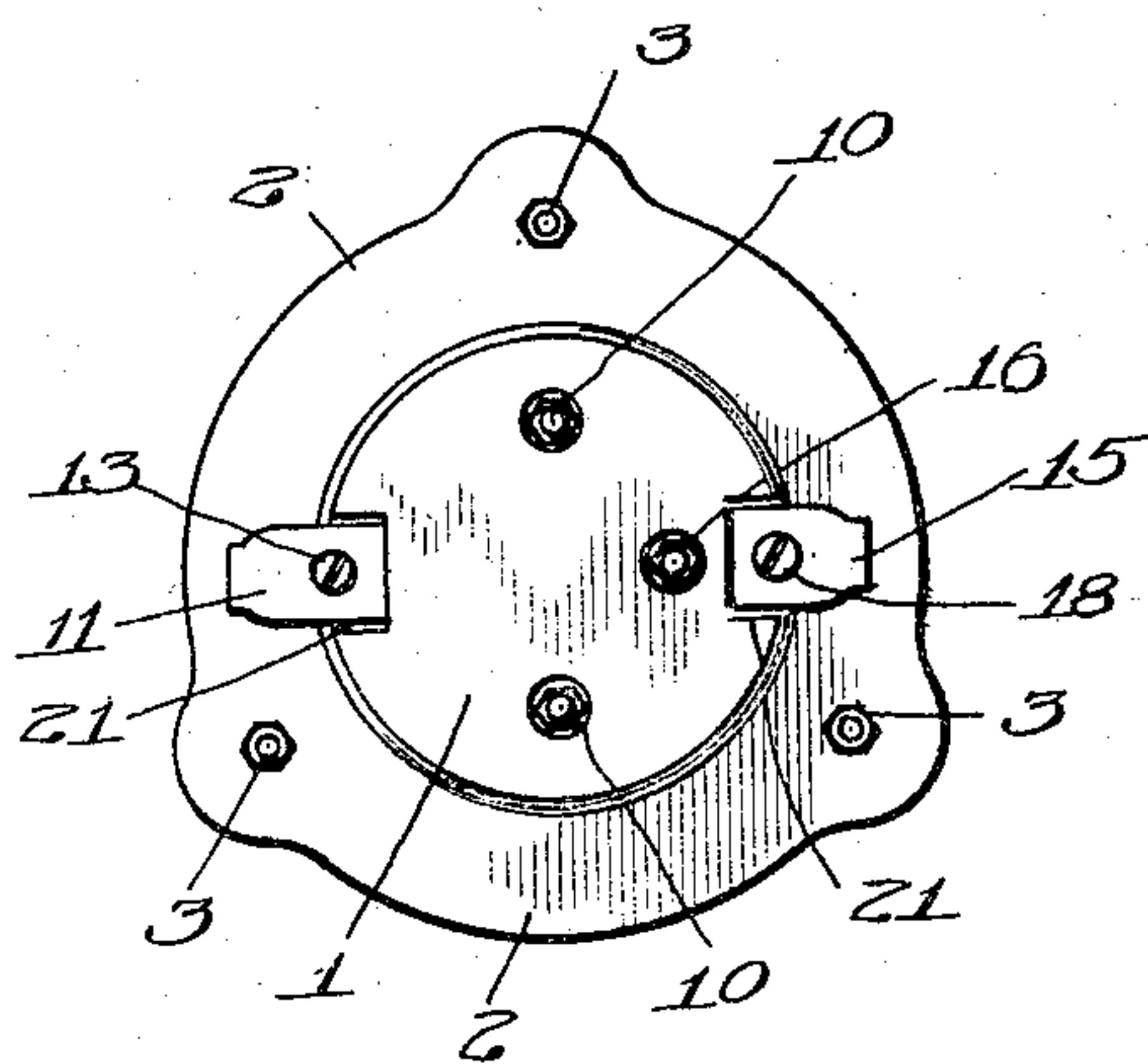


Fig. 2.

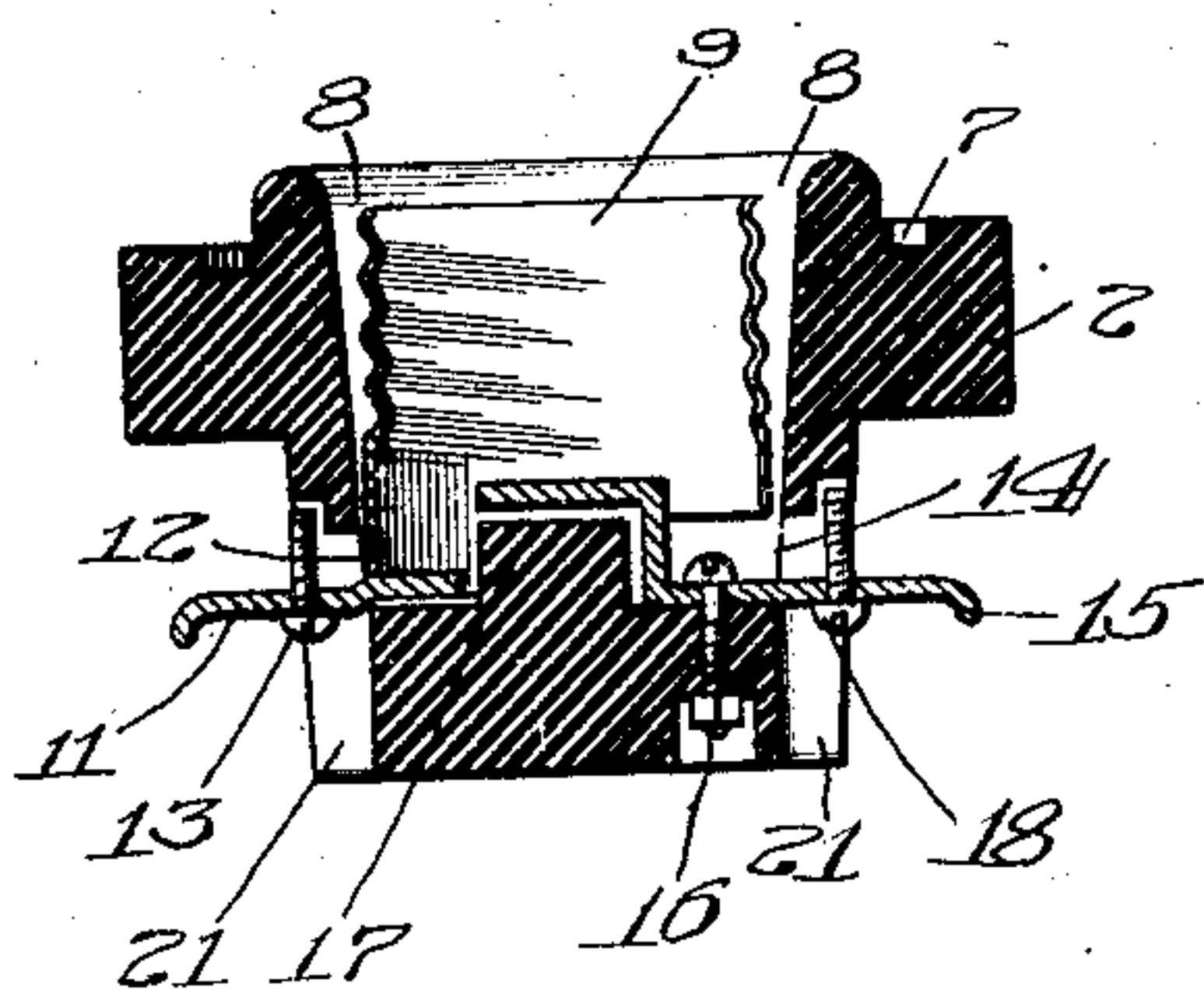


Fig. 3.

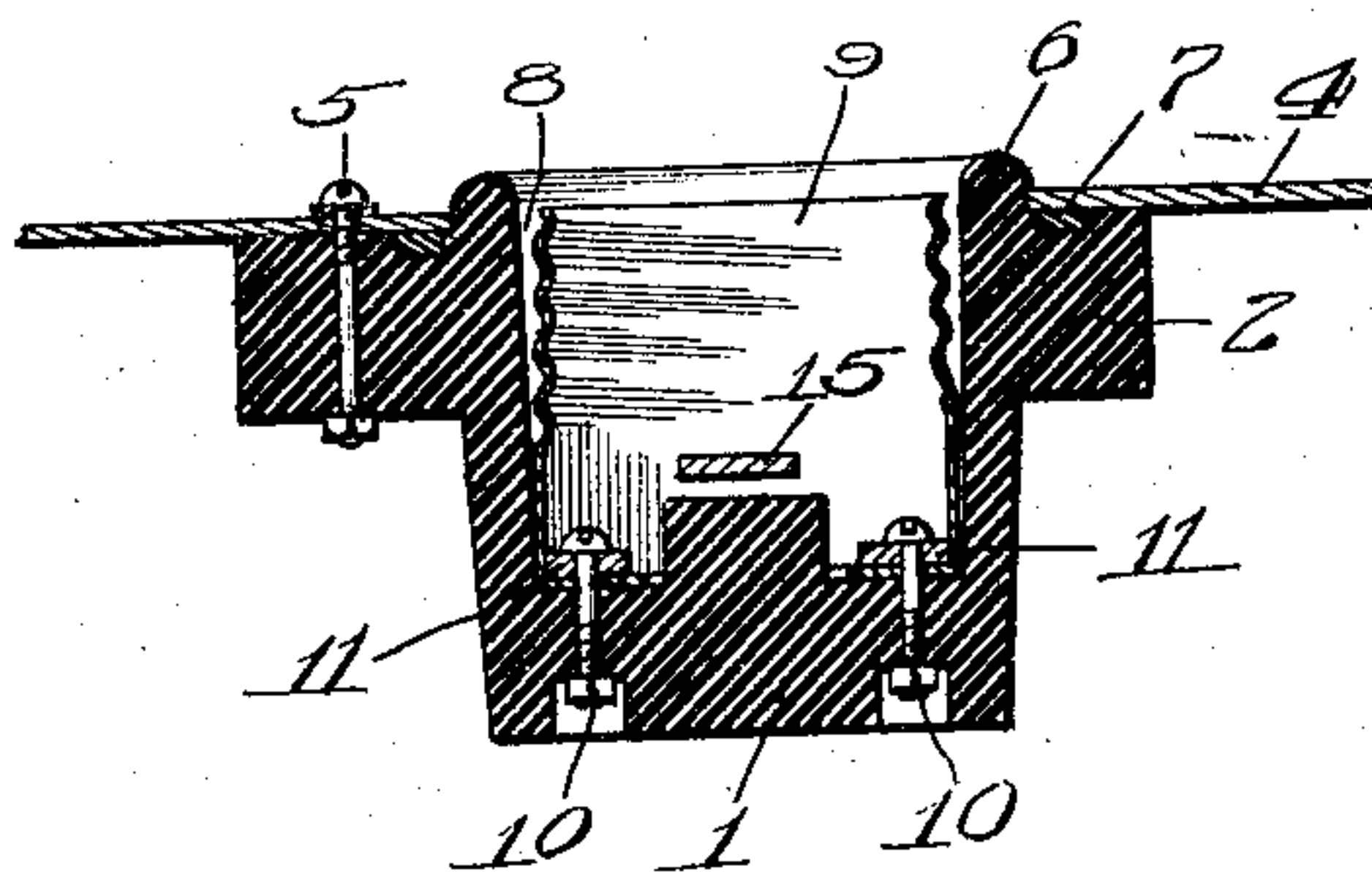
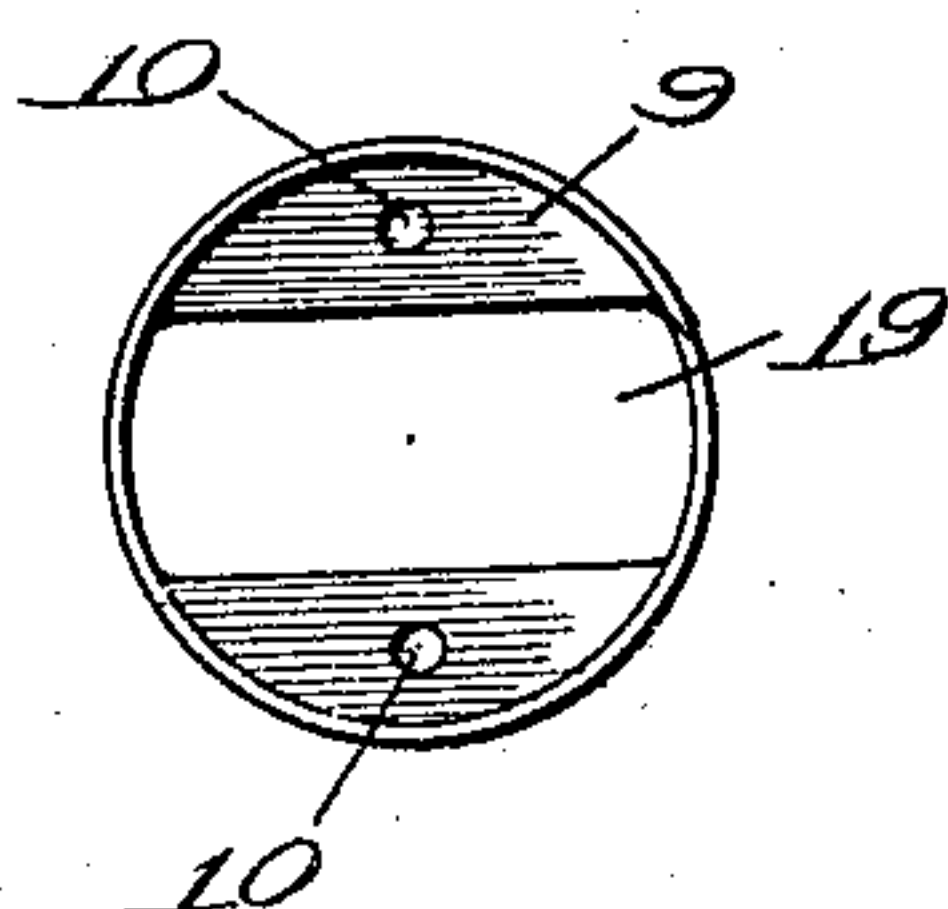


Fig. 5.



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4 SHEETS—SHEET 2.

Fig. 6.

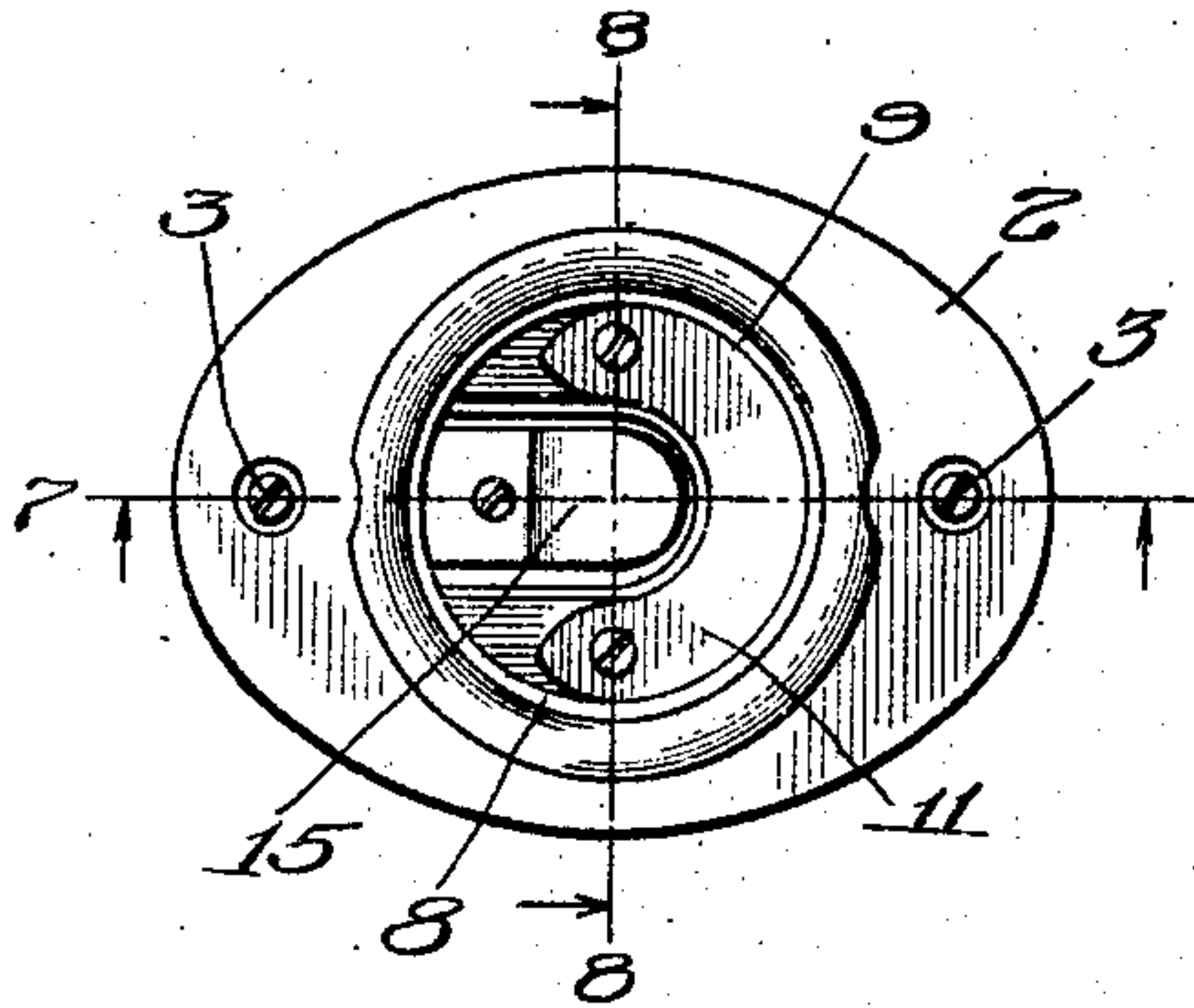


Fig. 9.

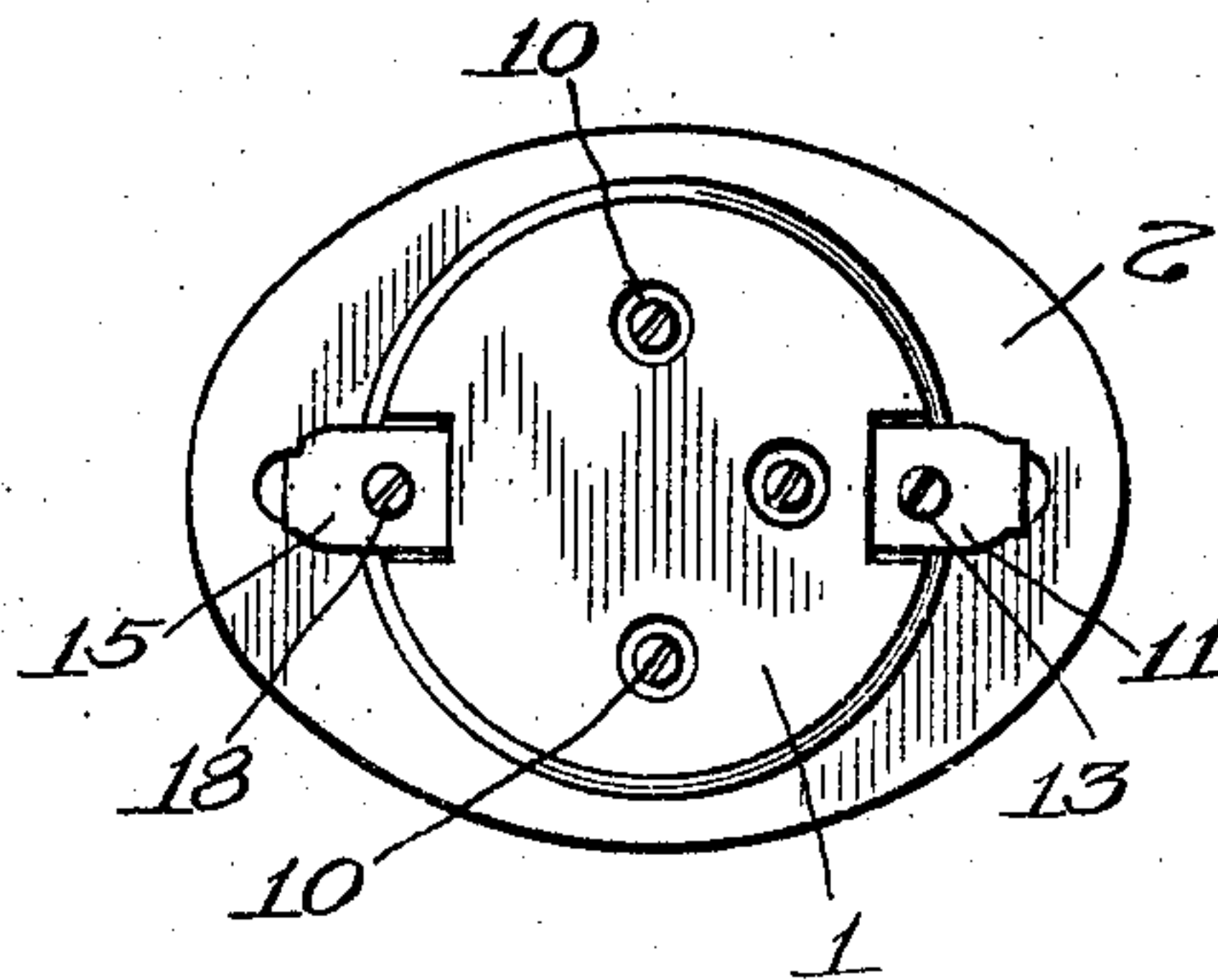


Fig. 7.

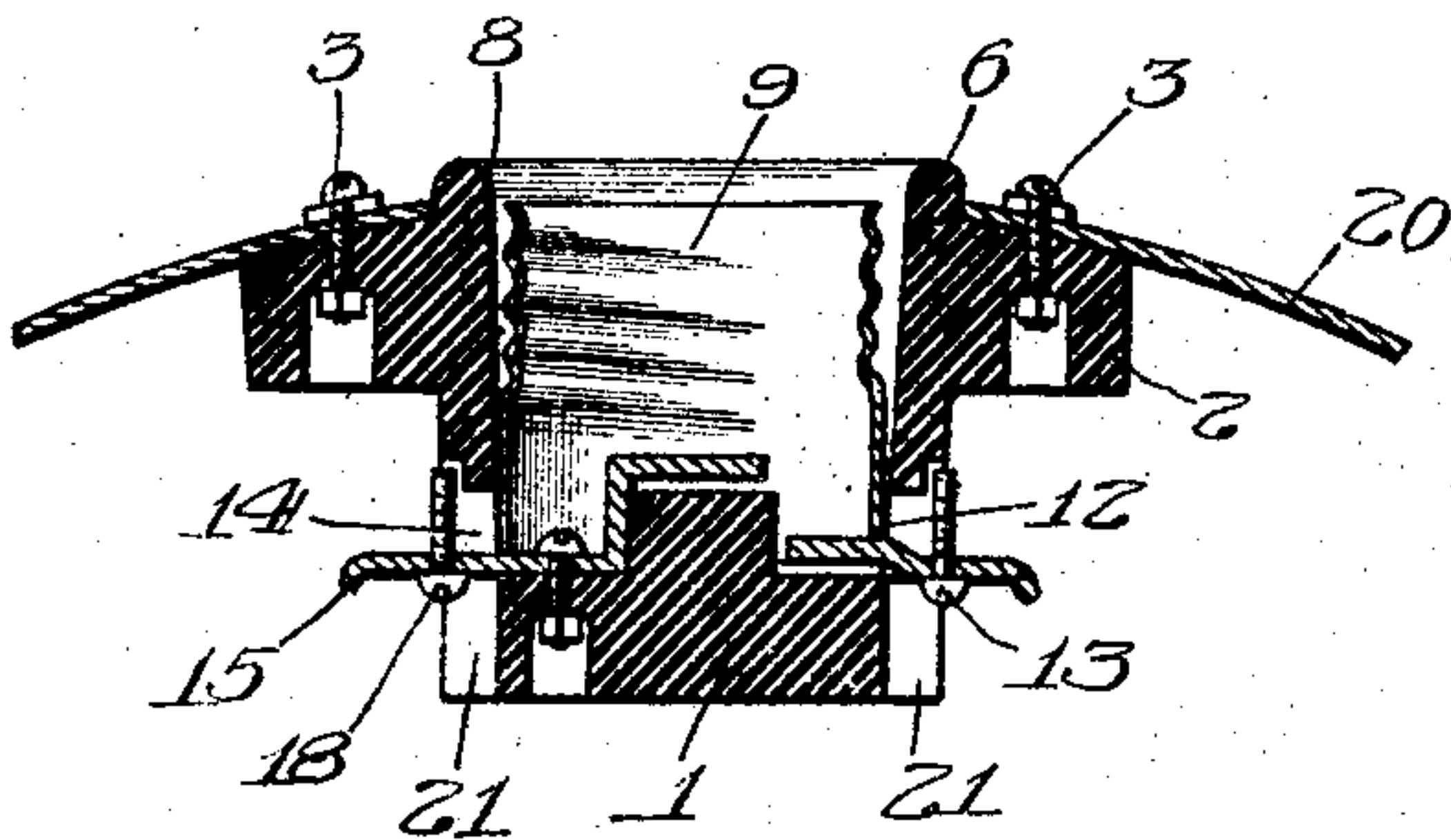


Fig. 8.

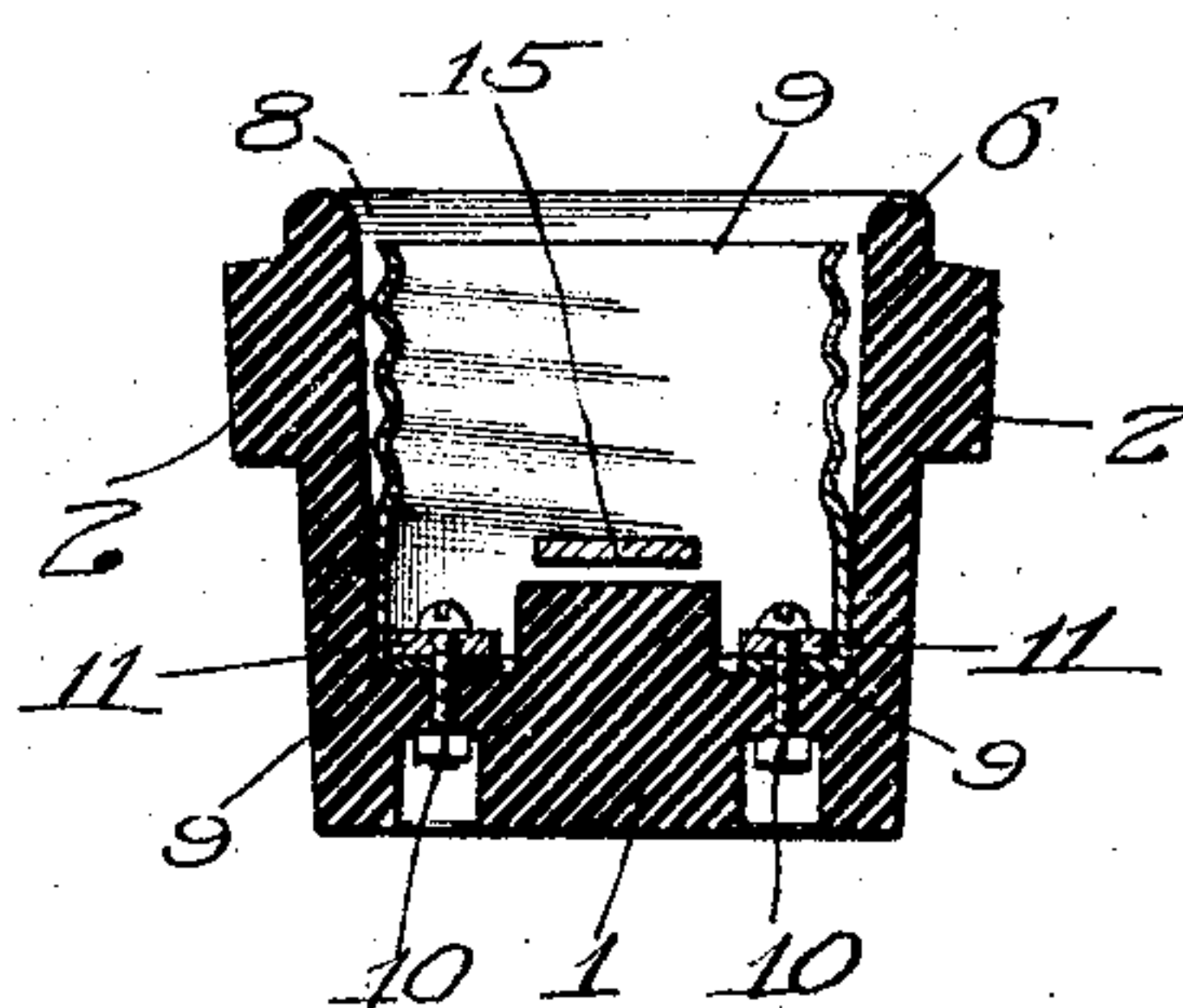
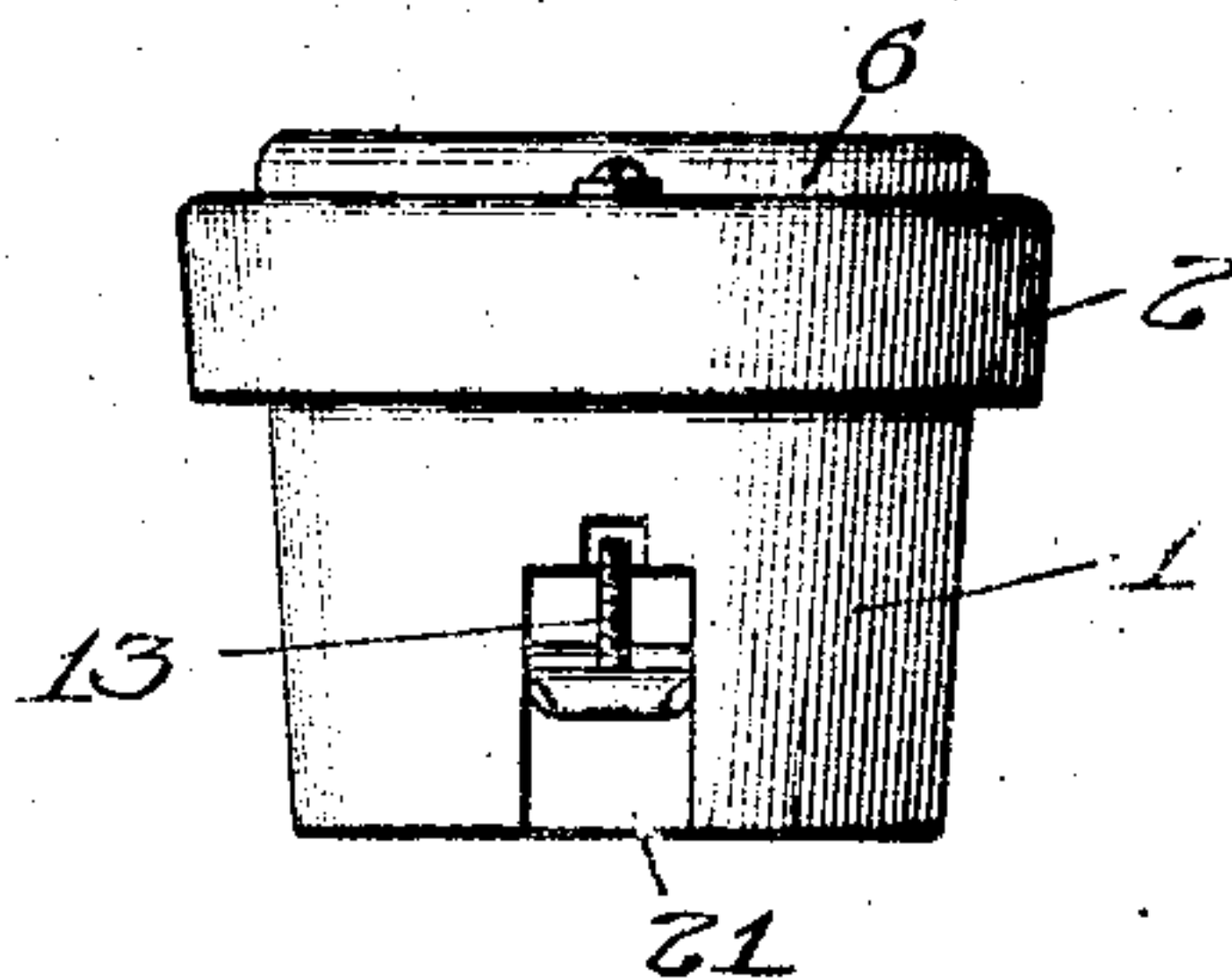


Fig. 10.



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4 SHEETS—SHEET 3.

Fig. 11.

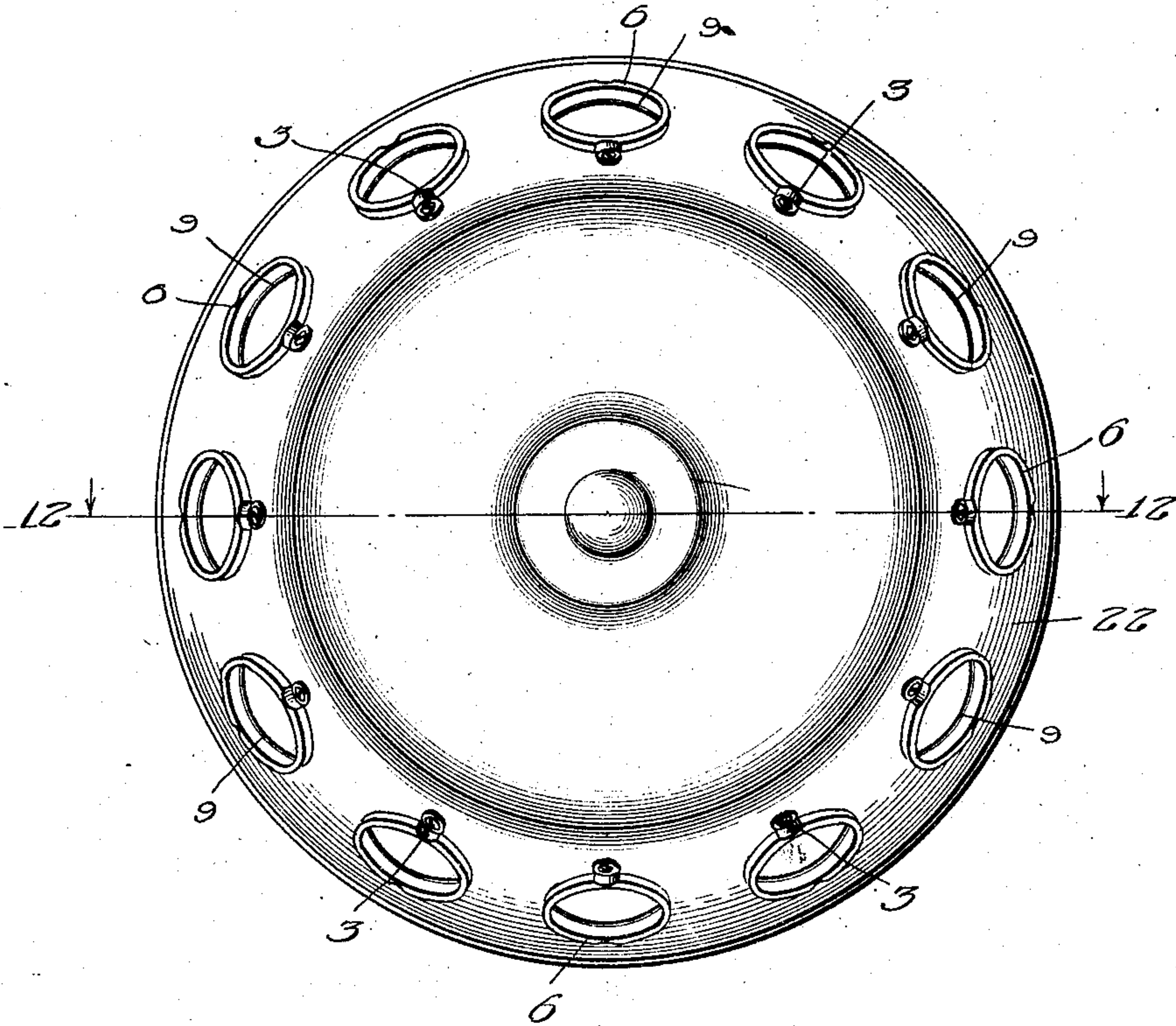
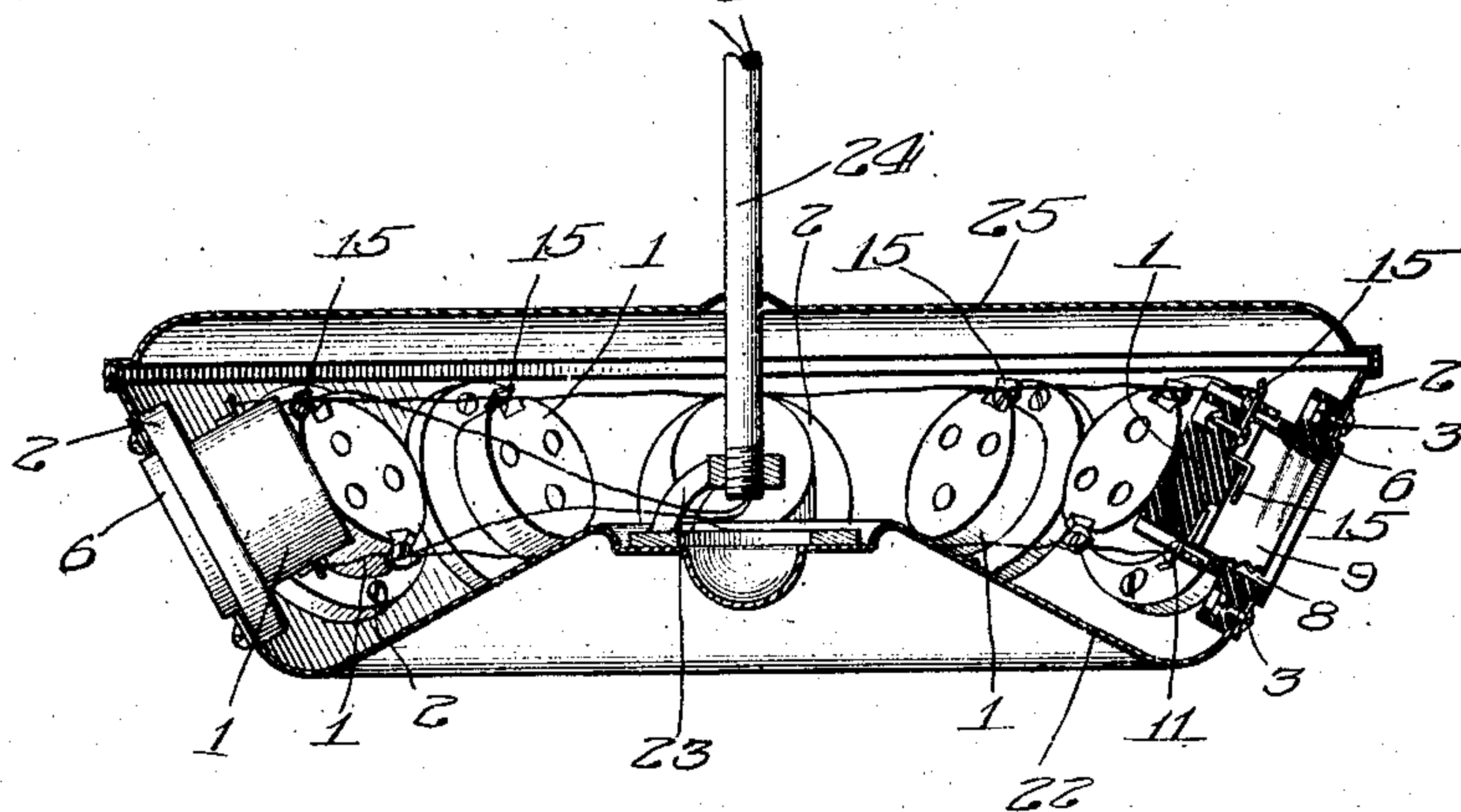


Fig. 12.



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4 SHEETS—SHEET 4.

Fig. 13.

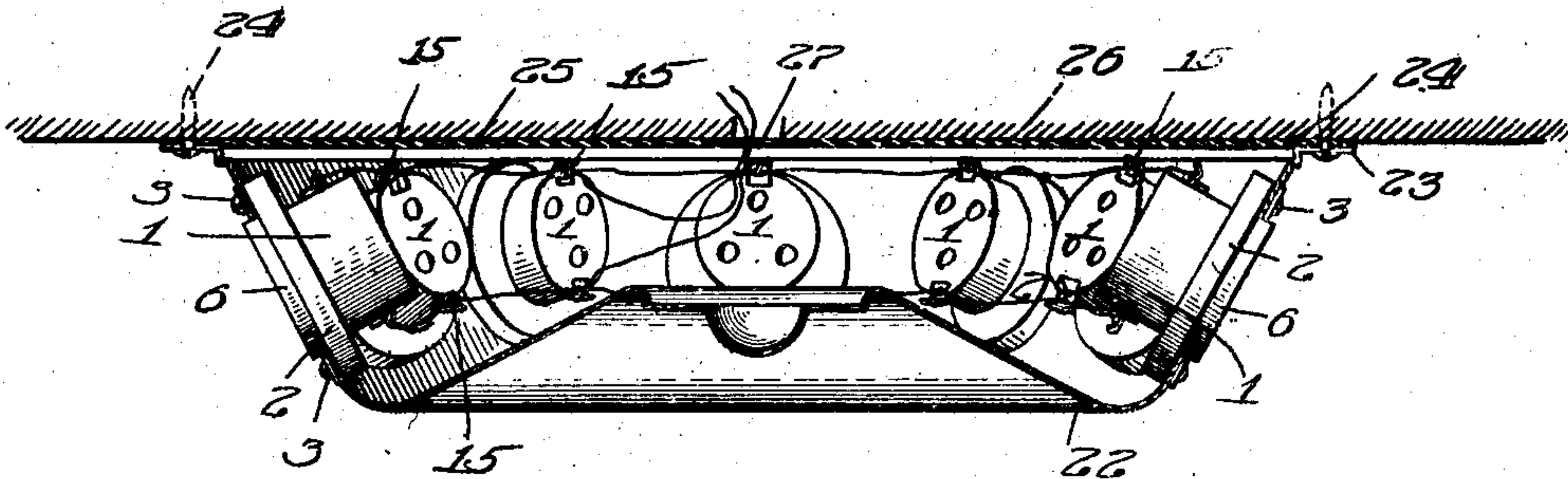
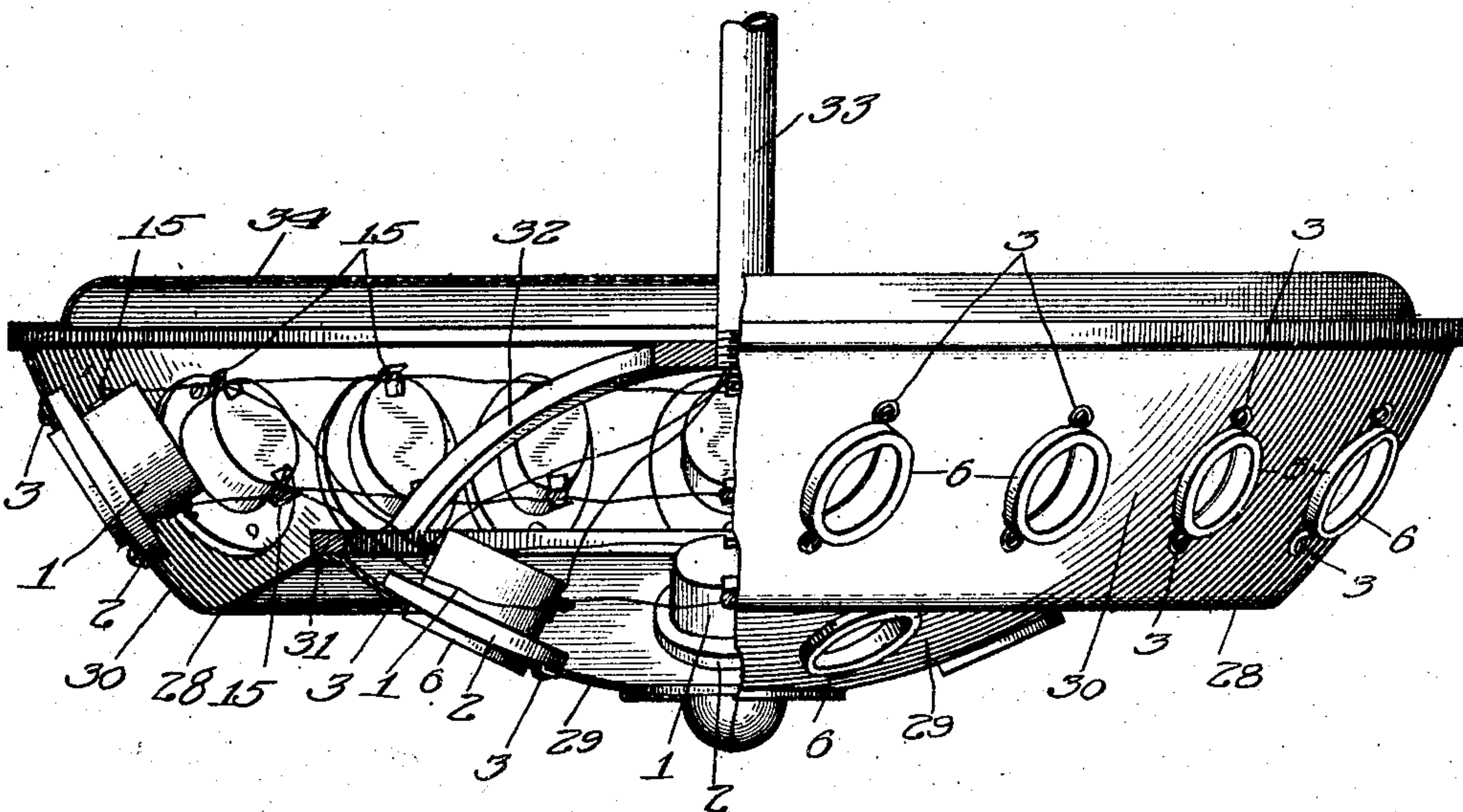


Fig. 14.



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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.

ELECTRIC-LAMP SOCKET.

No. 861,940.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed July 14, 1904. Serial No. 216,581.

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 Electric-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 electric lamp sockets.

One of the objects of my invention is the provision of a socket that will be of simple construction and efficient in use, and that may be easily mounted in large numbers upon a suitable base or support.

My invention is particularly adapted for use in electric sign work and large clusters where it is desired to mount a large number of incandescent lamps upon a single supporting plate or base.

The other objects and novel features of my invention will more fully appear from the accompanying description and drawings in which like reference characters are used to indicate like parts in the several figures.

Referring to the drawings, Figure 1 is a front or face view of one form of my improved socket; Fig. 2 is a sectional view on the line 2—2 of Fig. 1; Fig. 3 is a sectional view on the line 3—3 of Fig. 1, showing the socket attached to a supporting plate; Fig. 4 is a rear view of my improved socket; Fig. 5 is a detail view of the lamp receiving shell; Fig. 6 is a face view of another form of my invention; Fig. 7 is a sectional view on the line 7—7 of Fig. 6, showing the socket secured to a supporting plate; Fig. 8 is a sectional view on the line 8—8 of Fig. 6; Fig. 9 is a rear view of my invention; Fig. 10 is a side elevation thereof; Fig. 11 is a bottom plan view of a cluster socket embodying my invention; Fig. 12 is a sectional view on the line 12—12 of Fig. 11; Fig. 13 is a sectional view of another form of my invention adapted for use as a ceiling cluster; and, Fig. 14 is a partial sectional view of another form of cluster embodying my invention.

Referring to Figs. 1 to 5, inclusive, a base 1, made of porcelain or other suitable insulating material, is provided with a flange 2, having suitable openings 3, formed therein for securing the socket to a support 4, screws 5 being preferably provided for that purpose.

The supporting plate 4 is preferably formed of metal, although any other suitable material may be used. An annular projection 6 may be formed upon the flange 2 which projects slightly beyond the supporting plate 4, and serves to insulate the lamp contacts from said supporting plate. An annular recess 7 is preferably provided in the face of the flange 2, which is arranged to receive a gasket or washer of rubber or other suitable

material, to form a water tight connection between the flange 2 and the supporting plate 4.

Formed in the face of the insulating base 1, is a recess or receptacle 8, a screw threaded lamp receiving shell 9 being disposed in the bottom of said receptacle, and secured therein in any suitable manner, as by the bolts 10, 10, extending through the base. These bolts also secure in position a contact plate 11 which extends through an aperture 12 formed in the side of the insulating base 1, and carries a binding screw 13 for securing the feed wire thereto. An aperture 14 is formed in the opposite side of the base 1, to accommodate the center lamp contact plate 15, which is held in position by the bolt 16, and has one end thereof preferably disposed upon a projection 17 carried by the base 1 whereby the center contact is insulated from the lamp receiving shell 9 and the contact plate 11. The contact plate 15 also carries a suitable binding screw 18 for securing a feed wire thereto.

The lamp receiving shell 9 has a cut out portion 19 formed in the bottom thereof to accommodate the contact plates 11 and 15, the bolts 10, 10, entering said shell upon either side of said cut out portion as shown in Fig. 5.

It will be understood that any desired number of the sockets above described may be mounted upon a continuous supporting plate, and that said sockets may be arranged in any desired manner thereon. The feed wires pass from one socket to another being connected to the binding screws carried by the contact plates 11 and 15.

Referring to Figs. 6 to 10, inclusive, the flange 2 carried by the insulating base 1 is elliptical in form to permit the sockets to be mounted closely together upon a supporting plate 20. The face of the flange 2 is preferably beveled to conform to the concave supporting shell 20, although the socket may be adapted for use with any desired form of support, and any suitable means of securing the sockets thereto may be adopted in lieu of the bolts 3, 3. The grooves or depressions 21, 21, are formed in the sides of the base 1, to afford access to the binding screws 13 and 16 and to permit the feed wires to be more readily attached thereto.

In Figs. 11 and 12, I have illustrated my invention in connection with a pendent cluster, in which a circular outer casing 22 is centrally supported by a tripod 23, or other suitable means, attached to a pipe or conduit 24. Formed about the periphery of the casing 22 are a plurality of apertures or openings, opposite which the insulating bases 1 are disposed, the receptacle 8, formed in said bases, being adapted to register with said apertures, and the flanges 2 of said bases being secured to

the outer casing 22 by screws 3, 3. The supporting plate or casing 22 is preferably stamped from a single piece of metal and has the face thereof adapted to support the insulating bases 1, 1, preferably in a diagonal position with reference to the supporting pipe or conduit 24 whereby the lamps are supported in diagonal position.

A removable cup or cover 25 preferably formed from a single piece of metal and having a central opening for the conduit 24 is provided for the socket. The leading in wires for the socket are arranged to pass through conduit 24 and are secured one to either side of the circuit, the ring and center contacts of the lamp having been previously wired as shown in Fig. 12.

In Fig. 13 the supporting casing 22 has an annular flange 23 formed integrally therewith, which is adapted to support the cluster directly upon the ceiling or other suitable support by means of the screws 24, 24. A flat disk 25 of insulating material having an opening 27 for the leading in wires is disposed between the ceiling or support 26, and the interior of the cluster.

In Fig. 14 I have illustrated my invention as adapted for use with another form of cluster, which is shown as comprising a supporting plate 28, preferably stamped from a single sheet of metal and having suitably disposed annular faces 29 and 30, provided with apertures registering with the receptacles formed in the insulating bases 1. The supporting plate or casing 28 is preferably supported in position by a ring 31 secured to said plate by screws (not shown) or in any suitable manner, and having radially converging arms 32 integrally connected thereto to which is connected a suitable pipe or support 33, which also constitutes a conduit for the feed wires. A suitable casing or cover 34, preferably formed from a single piece of metal and having a centrally disposed aperture formed therein for the conduit or support 33, is provided for the casing or supporting plate 28.

While I have illustrated my invention in connection with a substantially semi-spherical casing, it will be understood that any desired form of casing or support may be used, and that my invention is applicable for use wherever it is desired to mount a large number of single sockets upon such a support, and while I have described the construction of said sockets with particular reference to the details of their construction, I am aware that many changes may be made therein, and I do not wish to limit myself to said details further than is defined in the appended claims.

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

1. In a lamp socket, the combination with a support, of a socket arranged in the rear of said support and comprising a one-piece insulating base provided with a lamp receiving recess or receptacle and having a transversely extending attaching flange at the forward end thereof, suitable lamp contacts in said receptacle, a pair of plates connecting with said contacts and extending through openings in the side walls of said insulating base to the rear of said attaching flange, and a pair of binding posts, one carried upon each of said plates upon the exterior of said insulating base.

2. In a lamp socket, the combination with a suitable support, of a socket comprising a one-piece insulating base provided with a lamp receiving recess or receptacle and having a transversely extending attaching flange at the forward end thereof secured at the rear of said support, suitable lamp contacts in said receptacle, a pair of plates connected with said contacts and extending through openings in the side walls of said insulating base, and a pair of binding posts, one carried upon each of said plates upon the exterior of said insulating base, said insulating base having an annular lip or ridge extending forward from said attaching flange.

3. In a lamp socket, the combination with a suitable support, of a lamp socket comprising a one-piece insulating base provided with a lamp receiving recess or receptacle and having a transversely extending attaching flange at the forward end thereof secured at the rear of said support, suitable lamp contacts in said receptacle, a pair of plates connected with said contacts and extending through opening in the side walls of said insulating base, and a pair of binding posts, one carried upon each of said plates upon the exterior of said insulating base, said insulating base having an annular lip or ridge extending forward from said attaching flange, said attaching flange being provided with an annular recess exterior to said annular lip adapted to receive a gasket which forms a tight joint between said support and said flange.

4. The combination with a supporting plate having a lamp opening therein, of a lamp socket having a one-piece insulating base provided with a lamp receptacle having suitable contacts and provided at the forward end with a transversely extending flange resting against and secured to said supporting plate, a pair of contact plates connected with the lamp contacts within said lamp receptacle and extending through the side walls of said insulating base to the rear of said attaching flange, and a pair of binding screws, one mounted upon each of said contact plates exterior to the insulating base and on the opposite side of said supporting plate from the lamp.

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

REUBEN B. BENJAMIN.

Witnesses:

C. B. CAMP.

E. A. OLSEN.