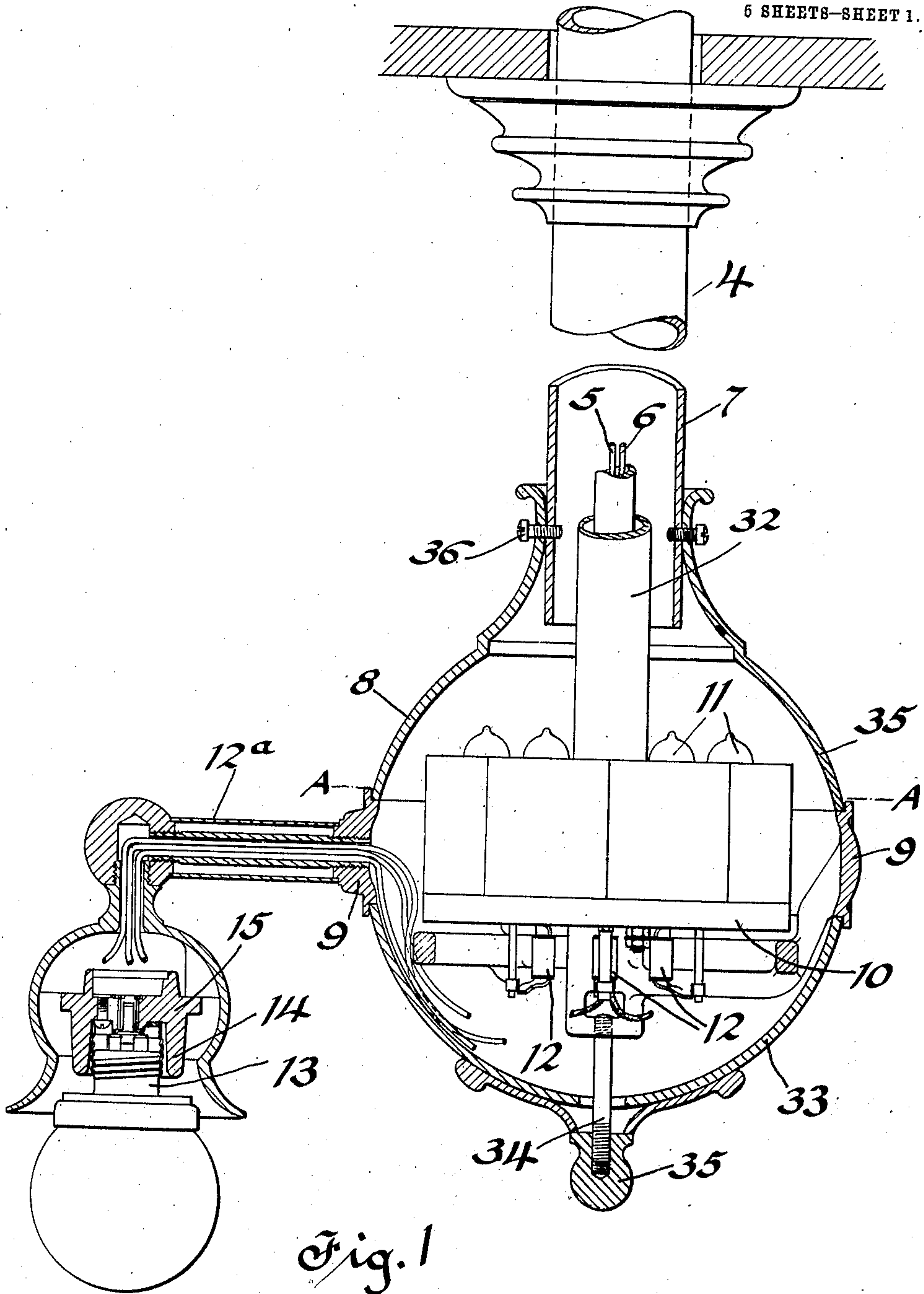


983,364.

M. HARRIS.
FIXTURE LAMP.
APPLICATION FILED NOV. 11, 1908.

Patented Feb. 7, 1911.

5 SHEETS—SHEET 1.



WITNESSES:
W. B. Jones.
Geo. Walker

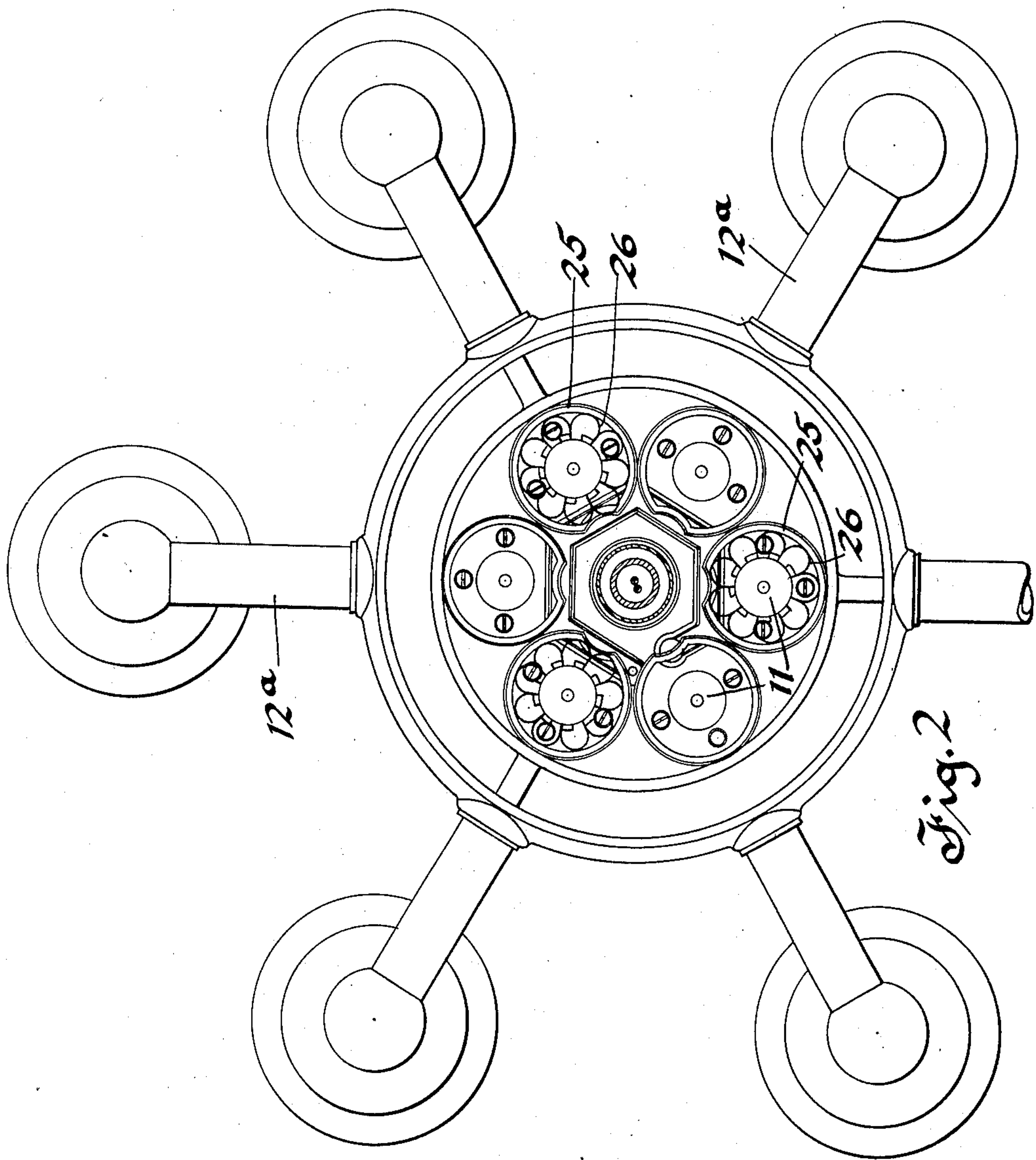
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5 SHEETS—SHEET 2.



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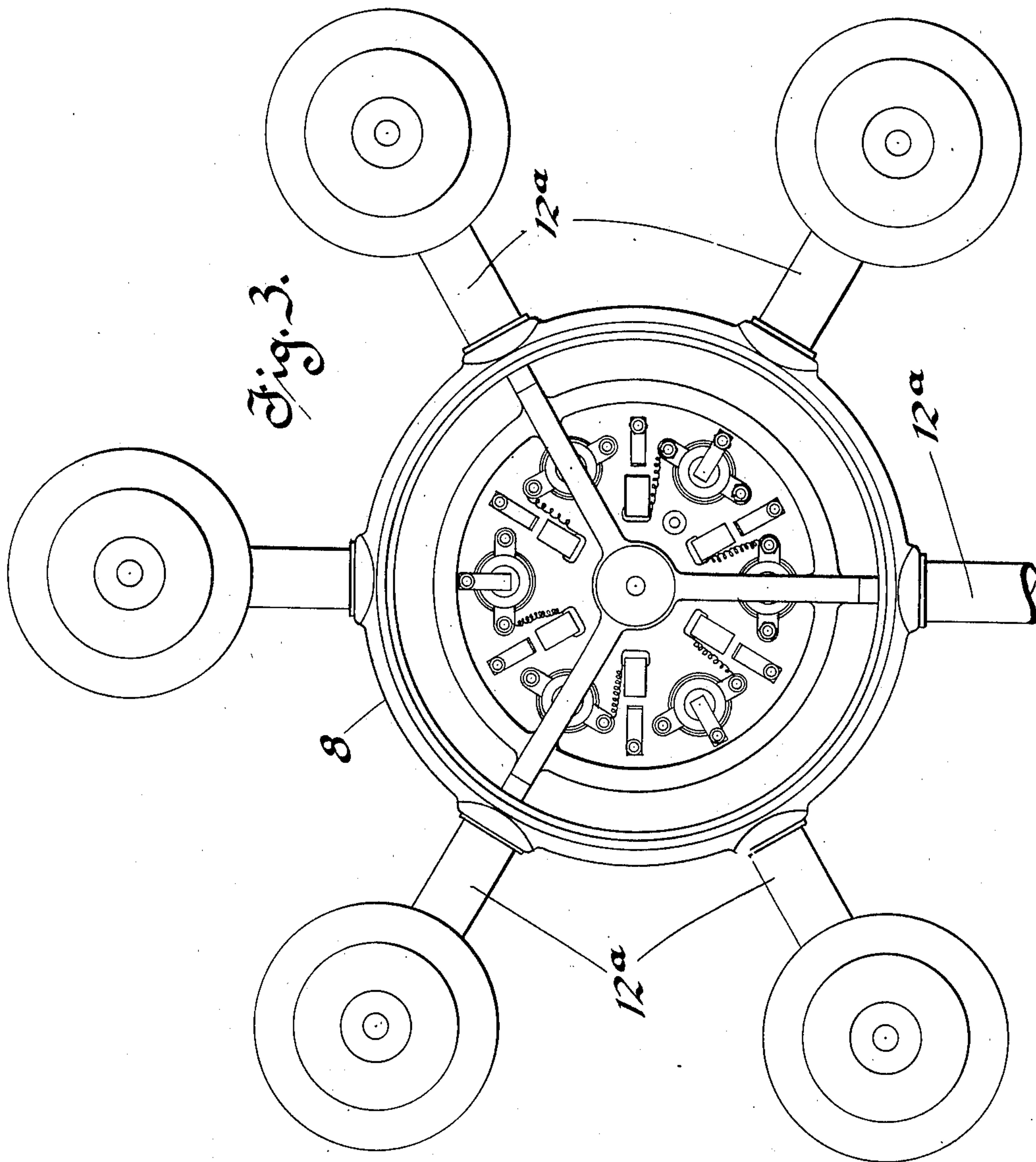
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5 SHEETS—SHEET 3.



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 5 SHEETS—SHEET 4.

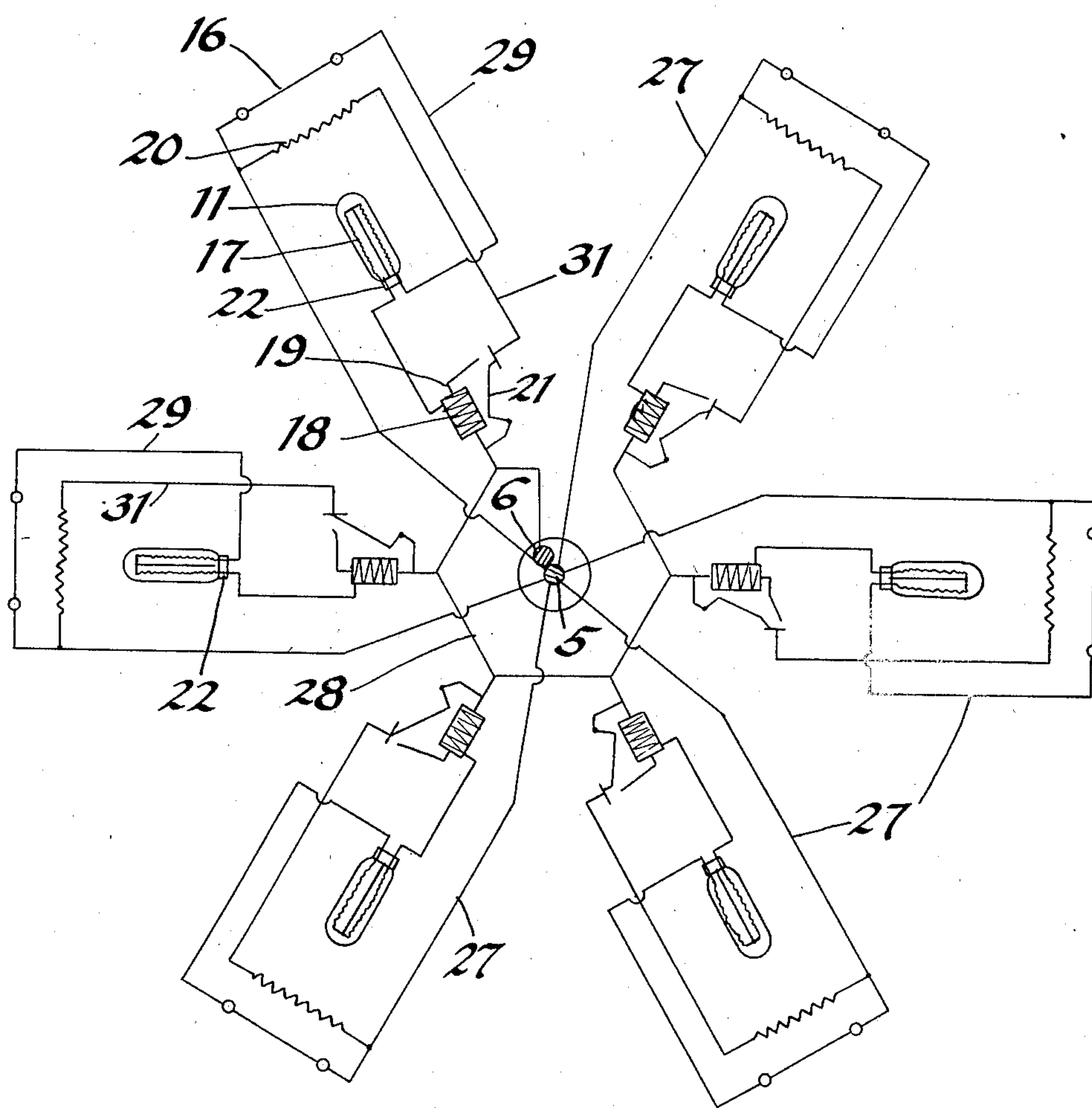


Fig. 4.

WITNESSES:

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Geol. W. Chas.

BY

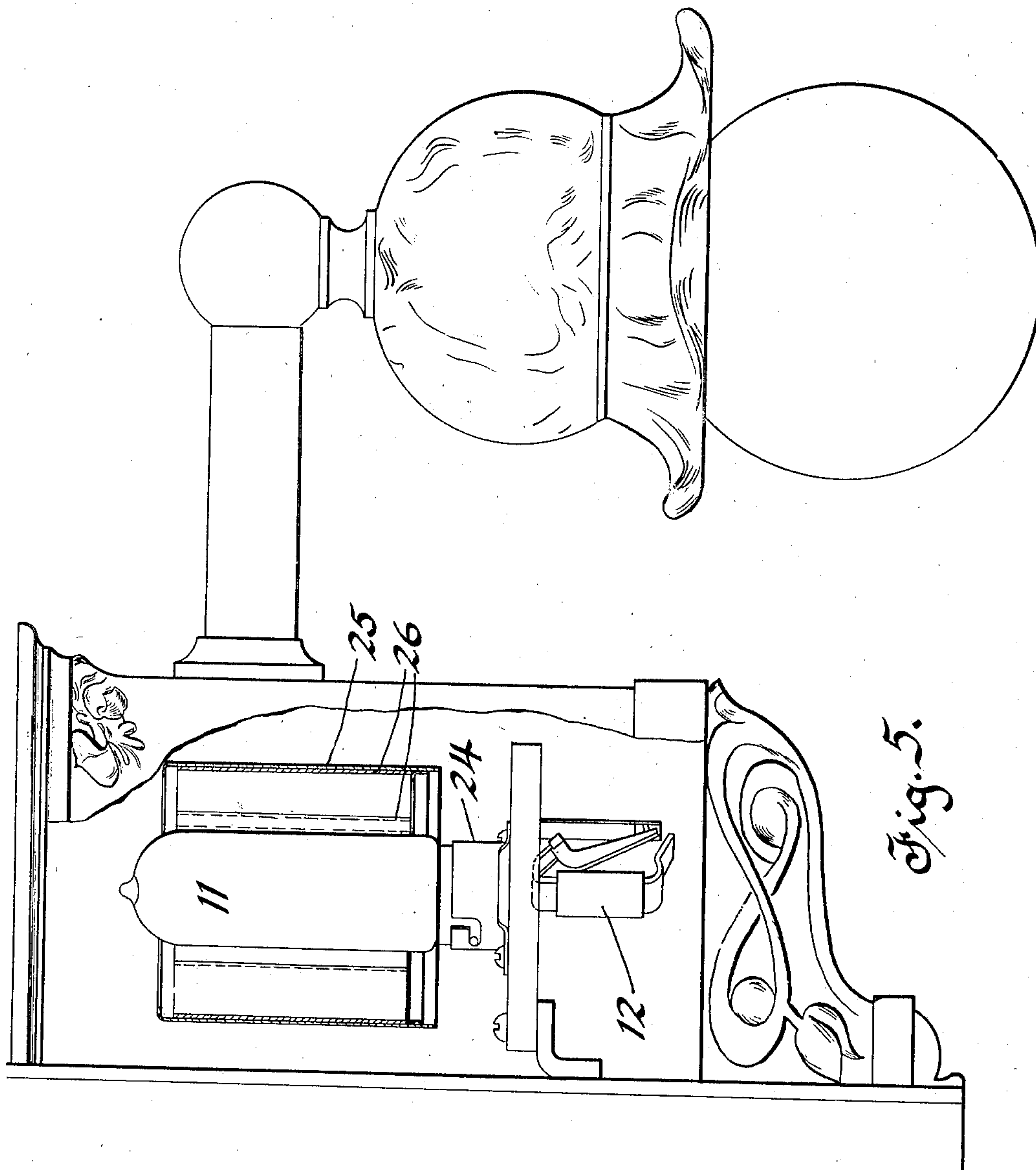
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5 SHEETS-SHEET 5.



WITNESSES.
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UNITED STATES PATENT OFFICE.

MAX HARRIS, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS,
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FIXTURE-LAMP.

983,364.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed November 11, 1908. Serial No. 462,161.

To all whom it may concern:

Be it known that I, MAX HARRIS, a citizen of the United States, and a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have made a new and useful invention in Fixture-Lamps, of which the following is a specification.

This invention relates to second class conductor lamps and particularly to fixture lamps.

An object of this invention is to produce a lamp so constructed that the lamp body and the glowers or portions adapted to emit light are separated and located at relatively great distances apart.

A further object is the production of a lamp in which a number of separate glowers or a number of separate groups of glowers are located at different positions and at a distance from the lamp body.

A further object is the adaptation of a lamp for decorative purposes.

These and other objects I attain in a lamp embodying features herein described and illustrated.

In the drawings accompanying this application and forming a part thereof: Figure 1 is a fragmental sectional view of a lamp embodying my invention; Fig. 2 is a sectional view along the line A A of Fig. 1; Fig. 3 is an inverted plan view of Fig. 1 with the lower portion of the bowl removed; Fig. 4 is a wiring diagram illustrating the connections employed in the lamp illustrated in Figs. 1 to 3 inclusive; and Fig. 5 is a modification of my invention.

The glower and the heater of a lamp are ordinarily mounted on a separate holder piece which is secured to the lamp body; and the ballast, the cut-out device, and the lamp terminals are mounted on the lamp body. In the lamp embodying my invention I have assembled into an organized whole a number of separate glowers and their co-operating elements and I have provided a lamp body on which the ballast and the cut out devices of all the glowers are mounted. The glowers and their individual heaters are located separately or in separate groups at a distance from the lamp body and are connected to it by means of suitable electric connections.

Referring to the drawings: a lamp fixture 4 is adapted to be secured to the ceiling or other support, and is so arranged that ter-

minal or feed wires 5 and 6 extend downwardly through a depending tubular portion 7, which is provided at its lower end with a spherical bowl 8 adapted to inclose a body portion or porcelain 10 on which six ballast tubes 11 and six cut-out devices 12 are mounted. A ring 9 surrounds and forms a part of the enlarged portion 8 and supports six laterally disposed arms 12^a which project outwardly from the bowl portion 8 and which are adapted to support the separate glowers and heaters. Each glower is mounted on a porcelain 13 which is provided with a screw base 14 and the coöperating heater is mounted on the same porcelain adjacent to the glower. The end of each arm 12^a is provided with a decorative fixture in which a terminal socket 15 is secured. This socket is adapted to receive the screw base 14 and make electric connections with it. The screw base is provided with three separate terminals, one common to the heater and the glower and a separate terminal for the heater and for the glower. These three terminals contact with similarly arranged terminals provided in the terminal socket 15 and three terminal wires extend through each arm 12^a and are adapted to electrically connect the glower and the heater supported by the arm with the body portion of the lamp.

By referring to the wiring diagram it will be noted that each glower 16 is included in a separate circuit which includes a ballast wire 17 and a magnetic coil 18 of a cut-out device 19. Each heater 20 is included in a separate circuit which is parallel with the coöperating glower circuit and which includes a swinging armature 21 of the cut-out device. The armature 21 of each cut-out device 19 is so constructed that it completes the heater circuit when the coil 18 is not energized. When a glower 16 is converted into a current conductor and current flows through it the coil 18, connected to it, is energized and by attracting the armature 21 breaks the heater circuit. The cut-out device of each glower and heater circuit is mounted on the lower face of the porcelain or body portion 10.

Each ballast wire 17 is mounted within a tube 11 which is provided with a terminal plug 22. The plug 22 forms terminals for the wire 17 and is adapted to be secured into a terminal socket 24 which is secured on the

body portion 10 of the lamp. Each ballast bulb 11 is provided with a separate cooling device which consists of a cylindrical tube 25 and a number of separately formed cooling vanes 26. The vanes are mounted within the tubes 25 and are so arranged that they cooperate in receiving the bulb 11 in mounting the entire cooling device on the bulb. This arrangement is shown in section in Fig. 5. A portion of each vane is held by the resilience of the vane in close contact with the surface of the tube 11 and is effective in conducting and radiating the heat away from the ballast. The top and bottom of each cooling tube 25 is open so that convection currents are readily established and circulate between the vanes.

The terminal or feed wire 5 connects with a centrally located distributing terminal from which wire 27 extends to each heater and glower. The terminal or feed wire 6 is electrically connected to a terminal piece 28 to which the frame portions of each of the cut-out devices 19 are connected. The coil 18 of each cut-out device and the ballast wire 17 are electrically connected and a wire 29 connects one terminal of each ballast wire to one terminal of a glower. A wire 31 is adapted to electrically connect each armature of the cut-out device to one terminal of a heater. The other terminal of each glower and each heater is connected to the individual wire 27 included in the respective heater and glower circuit. The wires 27, 29 and 31 extend through the arms 12 and instead of being directly connected to the terminals of the heater and the glowers as shown in the wiring diagram are connected to the terminals of the socket 15.

In Fig. 5 I have shown a slight modification of my invention and have illustrated a wall or side bracket lamp. The body portion of the lamp includes the ballast tube, the cooling device and the cut-out device, and is connected by wires as described in connection with the other modification to the holder base for the glower and heater. The holder base is mounted in the end of an extending arm and is located at some distance from the lamp body. The inclosing fixture of the body portion of the lamp illustrated in Fig. 5 is so constructed that the cut-out device and ballast or other elements of the lamp may be reached with ease and without unfastening or unscrewing the fixture. This is accomplished by providing a door or some opening in one or both sides of the bracket.

The fixture illustrated in Fig. 1 is adapted to give easy access to the elements composing the body portion of the lamp. In the first place the body portion or porcelain 10 is secured to a tube or rod 32 which extends upwardly through the tube 7 and is firmly secured in place. A substantially

semi-spherical portion 33 which forms the lower part of the bowl 8 is secured in place by means of a stud 34 which is secured to the body portion 10 and a nut 35 which is screwed on to the stud 34. The upper portion of the bowl 8 consists of a substantially semi-spherical part 35 which is adapted to rest against the ring portion 9, and which is adapted to be raised and secured in any position along the tube 7 by a set screw 36. The ring portion 9 is supported by the rod 32. This construction gives access to the top and bottom of the body portion of the lamp.

In accordance with the provisions of the patent statutes, I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof, but I desire to have it understood that the apparatus shown is only illustrative and that the invention can be carried out by other means.

What I claim is:

1. In combination in a lamp of the class described, a plurality of separately located glowers, a heater located in close proximity with each glower, a lamp body provided with a ballast and a cut-out device, and electrical connections between each glower and heater and said lamp body.

2. In combination in a lamp of the class described, a lamp body, a plurality of separately located glowers, a heater located in close proximity with each glower, and a ballast and a cut-out device for each glower and heater mounted on the body portion of the lamp.

3. In combination in a lamp of the class described, a heater located in close proximity to each glower, a ballast located in circuit with each glower, a cut-out device located in circuit with each heater and each glower, and a body portion on which all the ballasts and cut-out devices are mounted.

4. A lamp fixture having a body portion inclosing the ballast and cut out device of a second class conductor lamp, arms projecting from said body portion and secured thereto, glowers and means for attaching a glower to each arm.

5. A lamp fixture inclosing the body portion of a second class conductor lamp, and an arm projecting therefrom and provided with glower and heater terminals.

6. A second class conductor lamp including a ballast, its housing and a glower, the glower being outside and distant from the ballast housing.

In testimony whereof, I have hereunto subscribed my name this 6th day of November, 1908.

MAX HARRIS.

Witnesses:

C. S. ST. JOHN,
M. RICHARD SCHWARZ.