

No. 872,065.

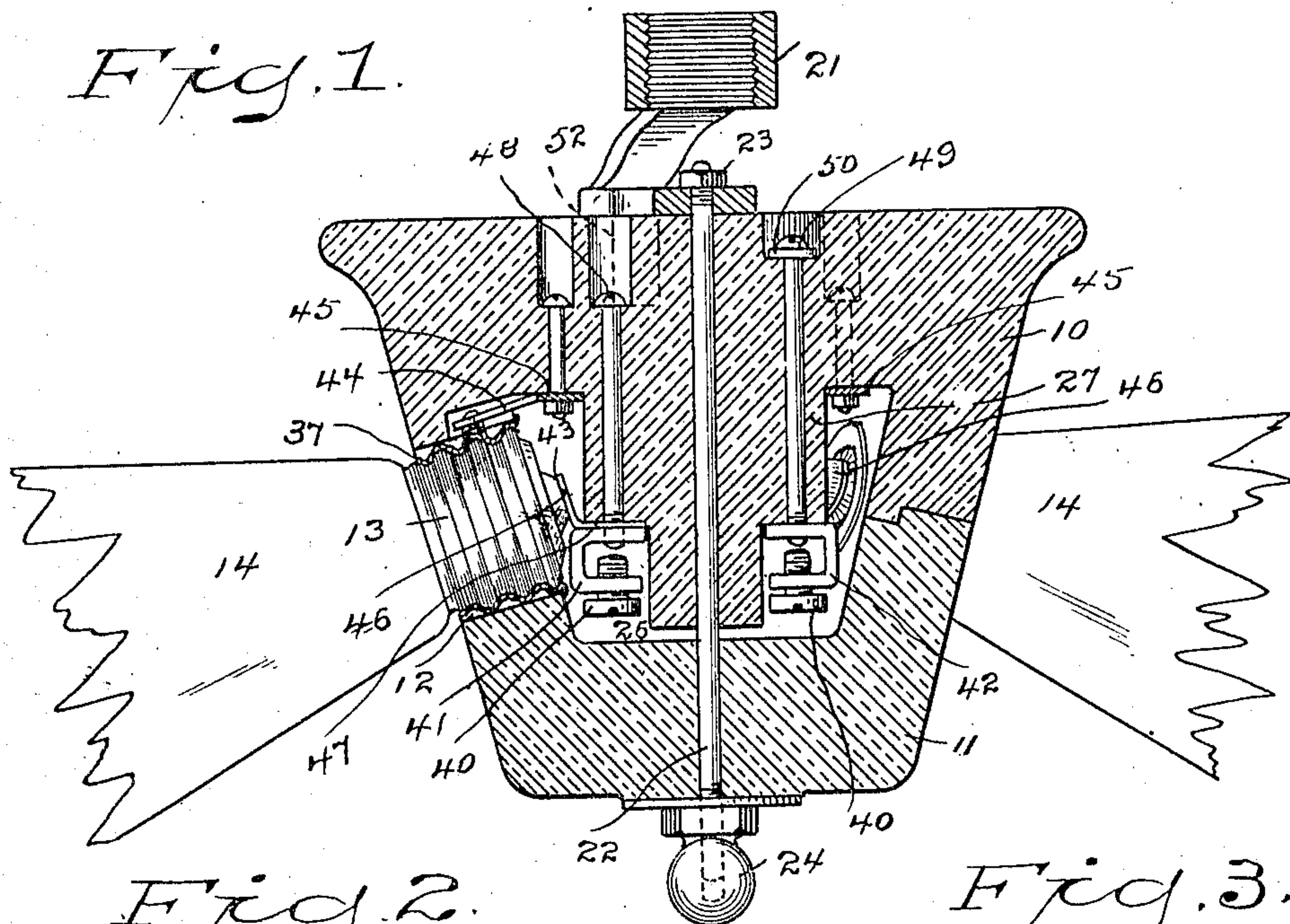
PATENTED NOV. 26, 1907.

H. HUBBELL.  
INCANDESCENT LAMP CLUSTER.

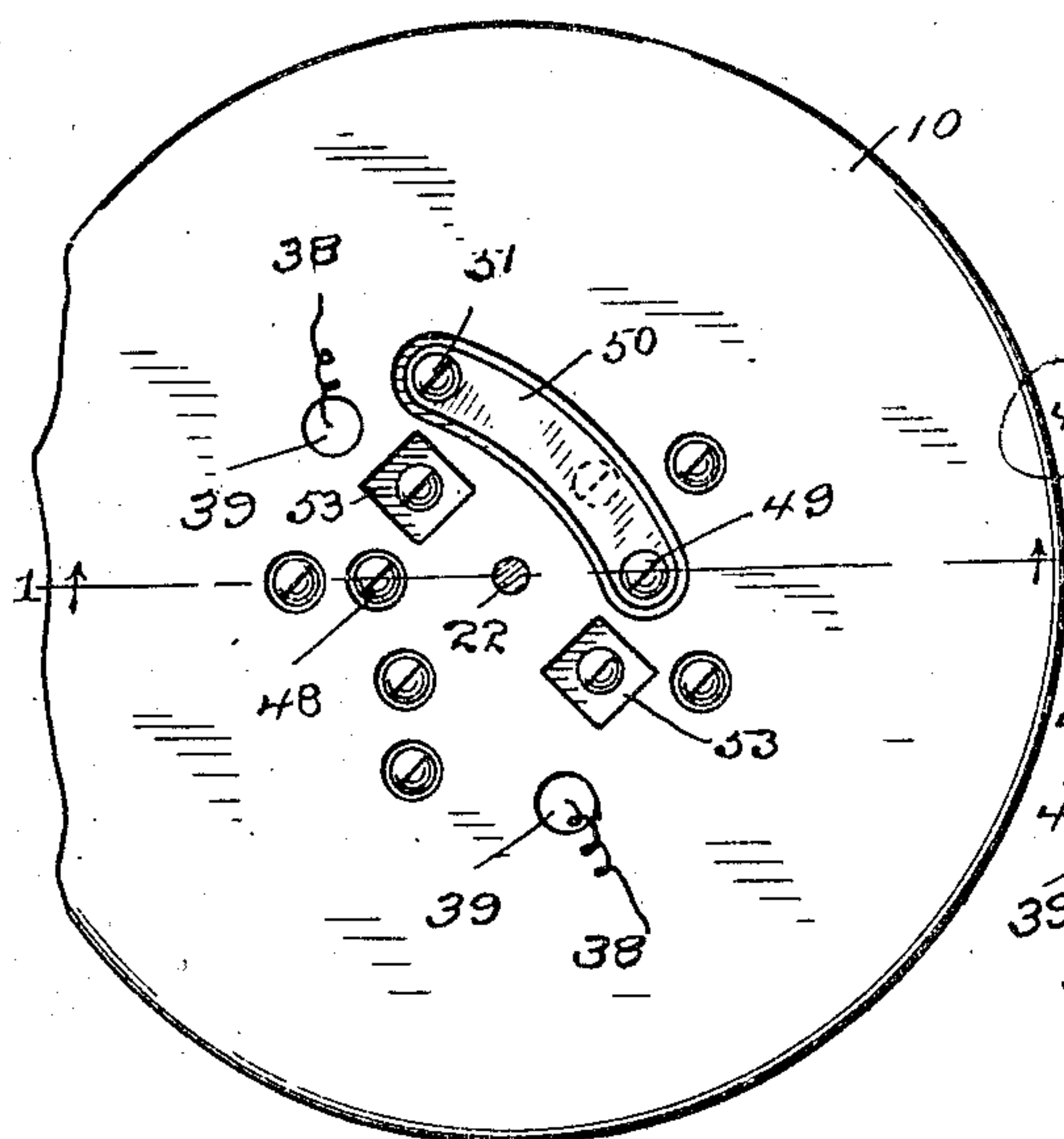
APPLICATION FILED OCT. 13, 1905.

2 SHEETS—SHEET 1.

*Fig. 1.*



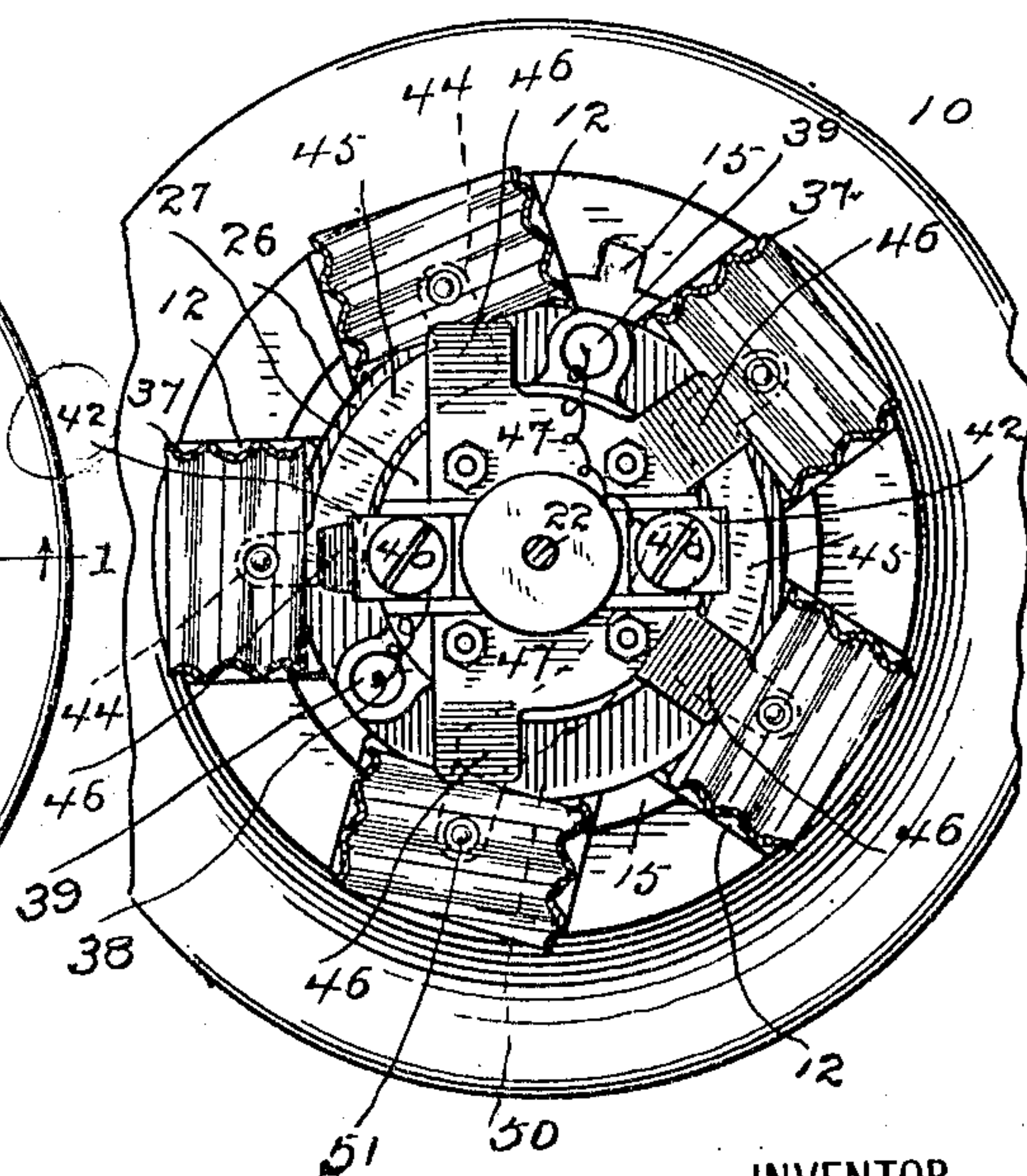
*Fig. 2.*



WITNESSES

H. C. Lamb.  
S. W. Atherton.

*Fig. 3.*



INVENTOR

Harvey Hubbell

BY

A. M. Wooster  
ATTORNEY

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2 SHEETS—SHEET 2.

Fig. 4.

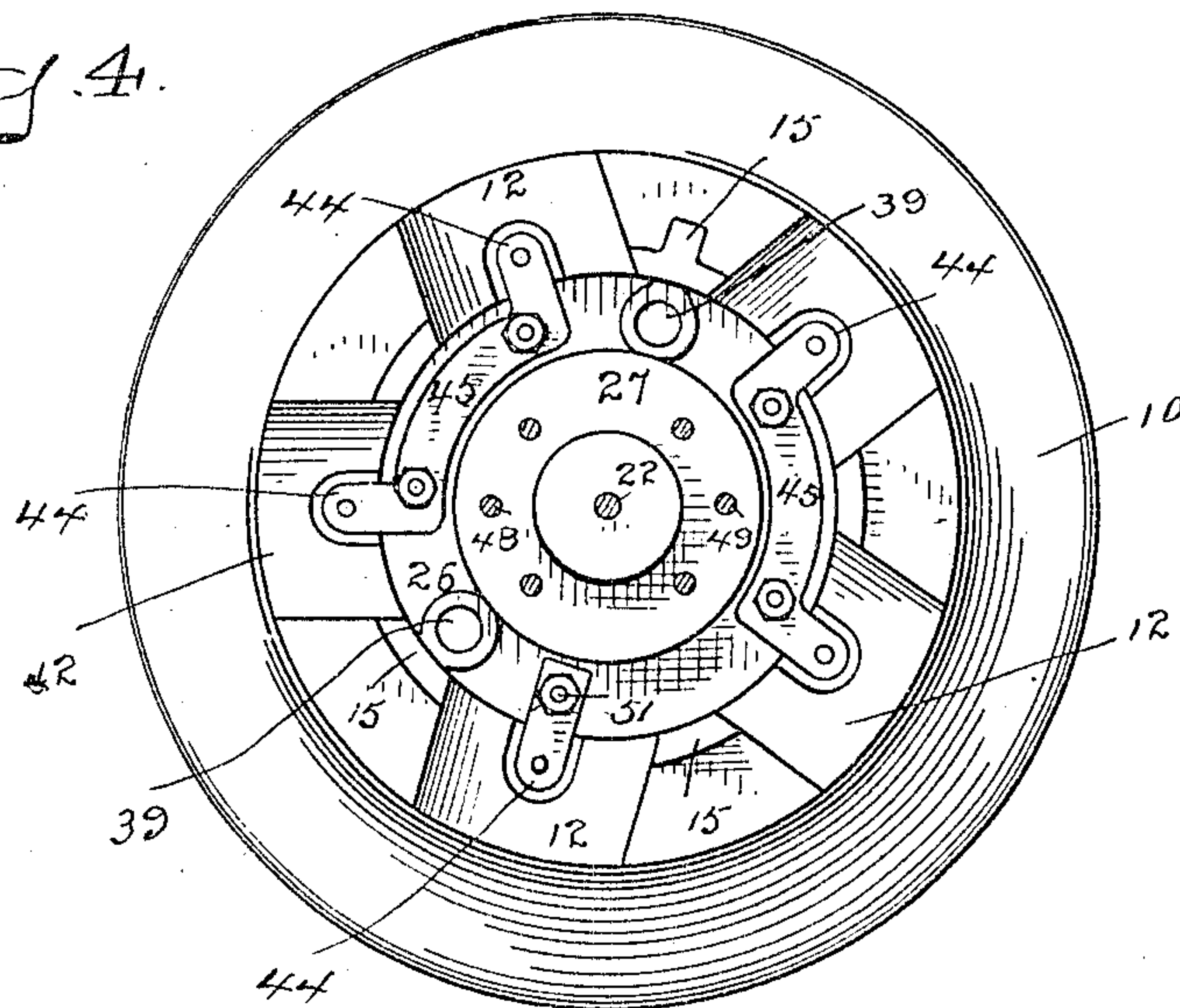
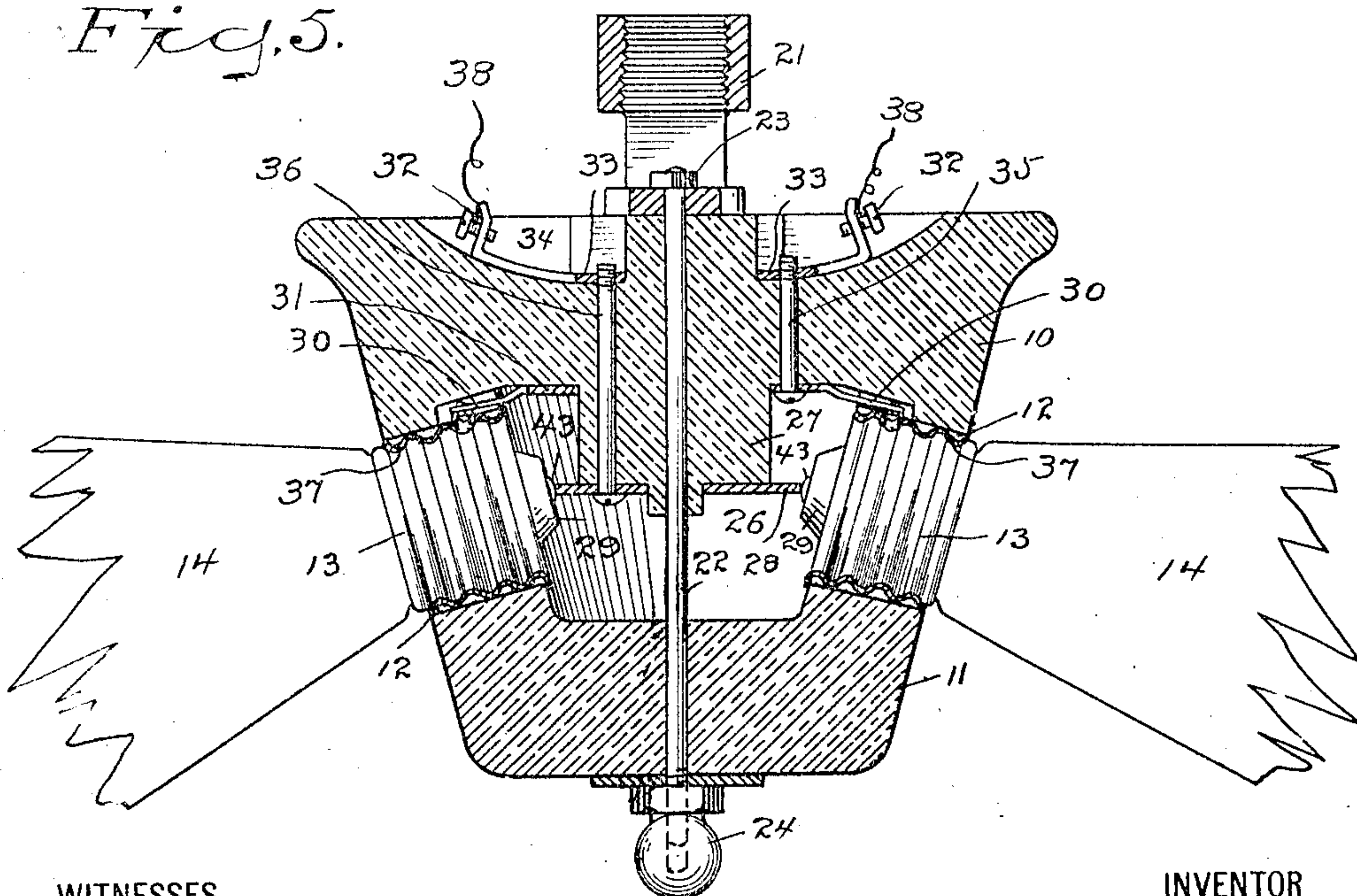


Fig. 5.



WITNESSES

H. A. Lamb.  
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INVENTOR

Harvey Hubbell

BY

*A. M. Wooster*  
ATTORNEY



# UNITED STATES PATENT OFFICE.

HARVEY HUBBELL, OF BRIDGEPORT, CONNECTICUT.

## INCANDESCENT-LAMP CLUSTER.

No. 872,065.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed October 13, 1905. Serial No. 282,600.

*To all whom it may concern:*

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Incandescent-Lamp Cluster, of which the following is a specification.

This invention has for its object to produce a simple and inexpensive incandescent lamp cluster the body of which shall be made entirely of porcelain or other insulating material and shall be made in two parts, each part containing half sockets which in the assembled position form sockets adapted to receive threaded sleeves which in turn receive the screw shells of incandescent lamps. By making the body entirely of porcelain or similar material I am enabled to produce incandescent lamp clusters in which very little metal is used and in which there are no exposed metallic parts and no opportunity for corrosion, the cluster being very economical to produce, neat and satisfactory in appearance, easy and satisfactory to operate and absolutely safe under all the conditions of use.

With these and other objects in view I have devised the novel structure which I will now describe referring to the accompanying drawings forming a part of this specification and using reference characters to indicate the several parts.

Figure 1 is a vertical section of my novel cluster on the line 1—1 in Fig. 2 illustrating a form of the invention in which the lamps are in series; Fig. 2 a plan view of the cluster detached from the hickey; Fig. 3 an inverted plan view of the upper part of the body of the cluster detached; Fig. 4 a similar view with the contacts, binding screws and threaded sleeves removed; and Fig. 5 is a view corresponding with Fig. 1, illustrating a form of the invention in which the lamps are in multiple.

10 and 11 denote the parts of the body which are molded from insulating material, as porcelain, and are made of any required configuration. The parts are each provided with a plurality of half-sockets 12 which are molded therein. These half-sockets correspond with each other and each pair of half-sockets form a socket to receive a threaded sleeve 37 which in turn is adapted to receive the screw shell 13 of an incandescent lamp 14. Each upper part 10 is shown as provided on its underside with in-

terlocking projections 15 which interlock with corresponding depressions, not shown, in part 11 of the body to retain said parts accurately in position relatively to each other in assembling and in use. The parts of the body are secured together and the cluster as a whole is secured to a hickey 21 by means of a central bolt 22 threaded at both ends and engaged by nut 23 in the hickey and an ornamental nut 24 on the underside of part 11 of the body. The hickey is provided with lugs 52, see dotted lines Fig. 1, which engage recesses 53 in the top of part 10 of the body. This construction insures a perfect fitting together of the parts in assembling and avoids the possibility of movement of the hickey relatively to the body.

Within the body when the parts thereof are in the assembled position is a recess 26, part of said recess being formed in each portion of the body and projecting into this recess is a hub 27 formed upon part 10 of the body.

In the series form of the invention, that is as illustrated in Figs. 1 to 4 inclusive, the binding posts to which the circuit wires are attached are on the underside of part 10 of the body, while in the multiple form, as illustrated in Fig. 5, the binding screws are on the upper side of part 10 of the body. In the latter form, 28 denotes a contact plate which is secured to the hub and is adapted to be engaged by contacts 43 in the bases of incandescent lamps. 30 denotes contacts shown as extending from a ring 31 which is secured to part 10 of the body at the upper end of recess 26. These contacts are rigidly secured to threaded sleeves 37 and retain the sleeves in place, said sleeves themselves being adapted to be engaged by the screw shells 13 of incandescent lamps. 32 denotes binding screws for the circuit wires which are shown as carried by plates 33 lying in a recess 34 in the top of part 10 of the body. One of the plates 33 is shown as secured in place by means of a screw 35 which also secures ring 31 in place, as at the right in Fig. 5, the other plate 33 being shown as secured in place by means of a screw 36 which also secures contact plate 28 in place, as at the left in Fig. 1. The passage of the current in this form will be readily understood from Fig. 5. Suppose that the current enters at the binding screw in the left plate 33. It will pass by means of screw



36 to contact plate 28, thence to the lamps through the engagement of the lamp bases with said plate. The current passes from the lamps through the engagement of the screw shells with threaded sleeves 37 and the engagement of the latter with contacts 30 on ring 31, thence by means of screw 35 to the binding screw in the right plate 33.

In the series form, see Figs. 1 to 4 inclusive, the circuit wires indicated by 38 pass downward through holes 39 in part 10 of the body and are connected to binding screws 40 carried respectively by plates 41 and 42. The threaded sleeves are riveted or otherwise secured to plates 44 which are themselves secured to part 10 of the body and certain of which are shown as connected by means of bridge plates 45. 46 denotes contacts which are adapted to be engaged by the contacts 43 in the bases of lamps. Certain of these contacts are connected by bridge plates 47 which are secured to hub 27 and one of said contacts, see at the left in Fig. 3, engages the plate 41 carrying one of the binding screws. Plate 41 is secured in place by a screw 48 which also aids in securing one of the bridge plates 47. Plate 42 is secured in place by a screw 49 which also secures one end of a bridge plate 50 in the top of part 10 of the body. The other end of bridge plate 50 is secured by means of a screw 51 which also secures the plate 44 that is not connected to a bridge plate 45 in place. The passage of the current is as follows: Suppose that it enters by means of the circuit wire connected with the binding screw in plate 41. The current passes by means of the plate 46 in contact with plate 41 to the contact 43 in the base of a lamp; thence through the screw shell of the lamp and the threaded sleeve 37 at the left in Fig. 3 to the corresponding plate 44 and bridge plate 45 to another lamp and by contact 43 to plate 46, through bridge plate 47 and another plate 46 to the threaded sleeve and screw shell of a third lamp; thence through the contact 43, plate 44, a bridge plate 45 and another plate 44 to a threaded sleeve and the screw shell of a fourth lamp; thence by means of a contact 43, a plate 46, bridge plate 47 and another plate 46 to the contact 43 of a fifth lamp; thence through the corresponding screw shell and threaded sleeve to a plate 44; thence by means of screw 51 to bridge plate 50 and by means of screw 49 to plate 42, carrying the binding screw to which the other circuit wire is attached, said circuit wire passing upward through a hole 39 in part 10 of the body.

In use, the lamps are attached and detached by turning them into and out of the threaded sleeves 37 in the body, it being an important feature of the present invention that there are no parts to be insulated for

the reason that the entire body is made of insulating material.

Having thus described my invention I claim:

1. A cluster for incandescent lamps comprising two parts made of insulating material each having formed therein half-sockets which with the corresponding half-sockets of the other part form sockets, and threaded sleeves in said sockets which are adapted to receive the screw shells of incandescent lamps.

2. A cluster for incandescent lamps comprising a part made of insulating material and having half-sockets formed therein and provided with threaded sleeves for engagement by the screw shells of incandescent lamps and contacts for engagement by the bases of incandescent lamps, and another part also formed of insulating material and having half-sockets formed therein which with the corresponding half-sockets in the other part form sockets which inclose the threaded sleeves.

3. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, one of said parts having contacts for engagement by the bases of incandescent lamps.

4. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, said cluster having an internal recess and within said recess contacts to engage the screw shells and other contacts to engage the bases of incandescent lamps.

5. An incandescent lamp cluster consisting of two corresponding parts made of insulating material each part having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, contacts to which the threaded sleeves are attached, other contacts for engagement by the bases of incandescent lamps and means for securing the parts together.

6. An incandescent lamp cluster comprising two corresponding parts made of insulating material each part having corresponding half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, contacts to which said sleeves are attached, bridge plates connecting certain of said contacts, contacts adapted for engagement by the bases of incandescent lamps, bridge plates connecting certain of said contacts, binding screws to which the circuit wires are attached and a bridge plate con-



connected to one of said binding screws and to a contact engaging a threaded sleeve and not connected to a bridge plate.

5 7. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, one of said parts being provided with recesses, threaded sleeves in said sockets adapted to receive the  
10 screw shells of incandescent lamps, contacts engaging the threaded sleeves, other contacts adapted for engagement by the bases of incandescent lamps, and a hickey to which said parts are connected and which is provided  
15 with lugs engaging the recesses.

8. An incandescent lamp cluster comprising two parts both formed from insulating material and having corresponding half-sockets which together form sockets, threaded  
20 sleeves in said sockets adapted to receive the screw shells of incandescent lamps, one of said parts being provided with holes through which the circuit wires pass and binding

screws on its underside to which the circuit wires are connected and contacts which en- 25  
gage the threaded sleeves and the bases of incandescent lamps.

9. An incandescent lamp cluster comprising two corresponding parts made of insulating material each part having corresponding  
30 half-sockets which together form sockets, threaded sleeves in said sockets adapted to receive the screw shells of incandescent lamps, contacts engaging respectively the threaded sleeves and the bases of incandes- 35  
cent lamps and binding screws on the underside of one of the parts to which the circuit wires are connected and which are connected in series with the contacts.

In testimony whereof I affix my signature, 40  
in presence of two witnesses.

HARVEY HUBBELL.

Witnesses:

A. M. WOOSTER,  
S. W. ATHERTON.