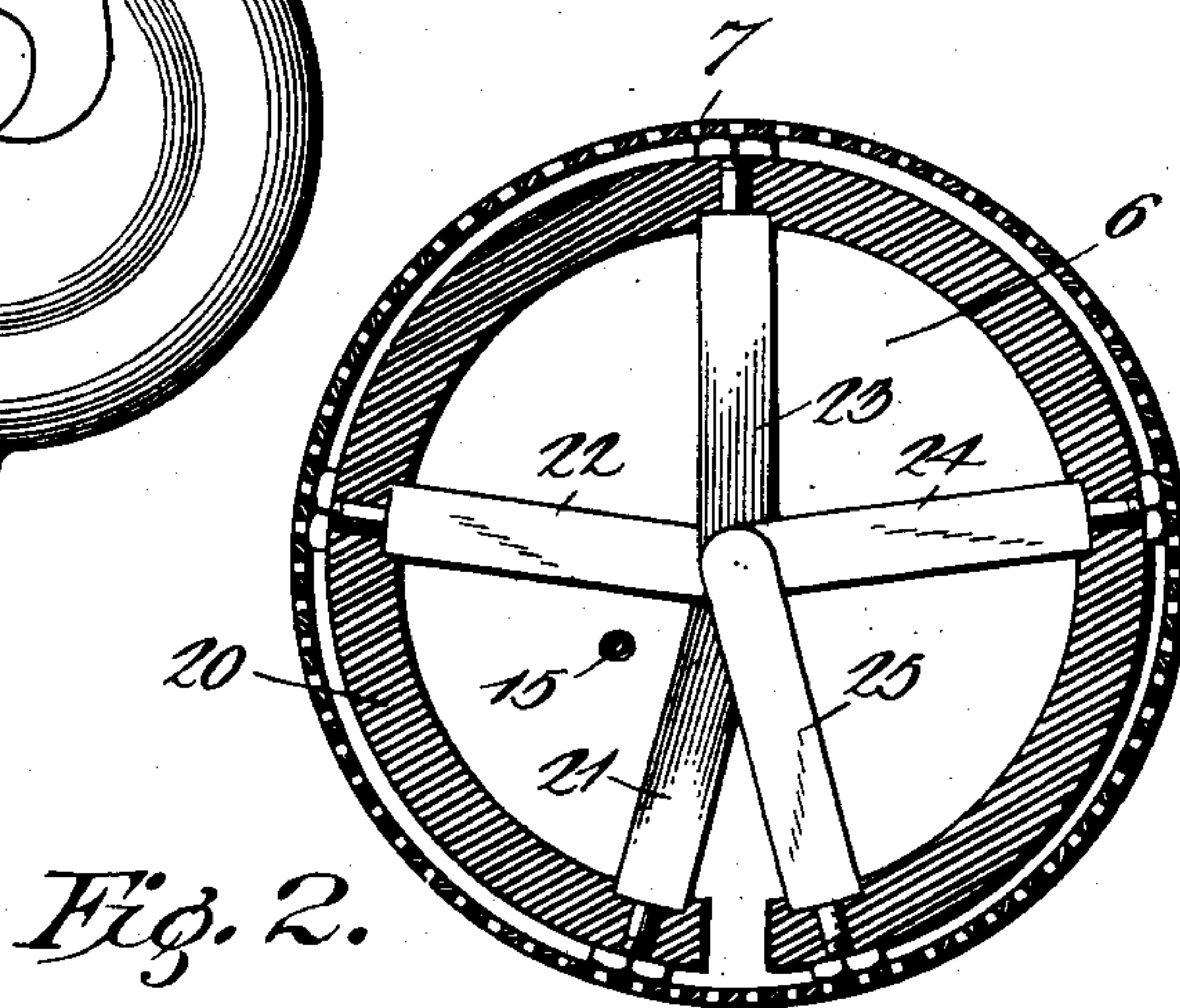
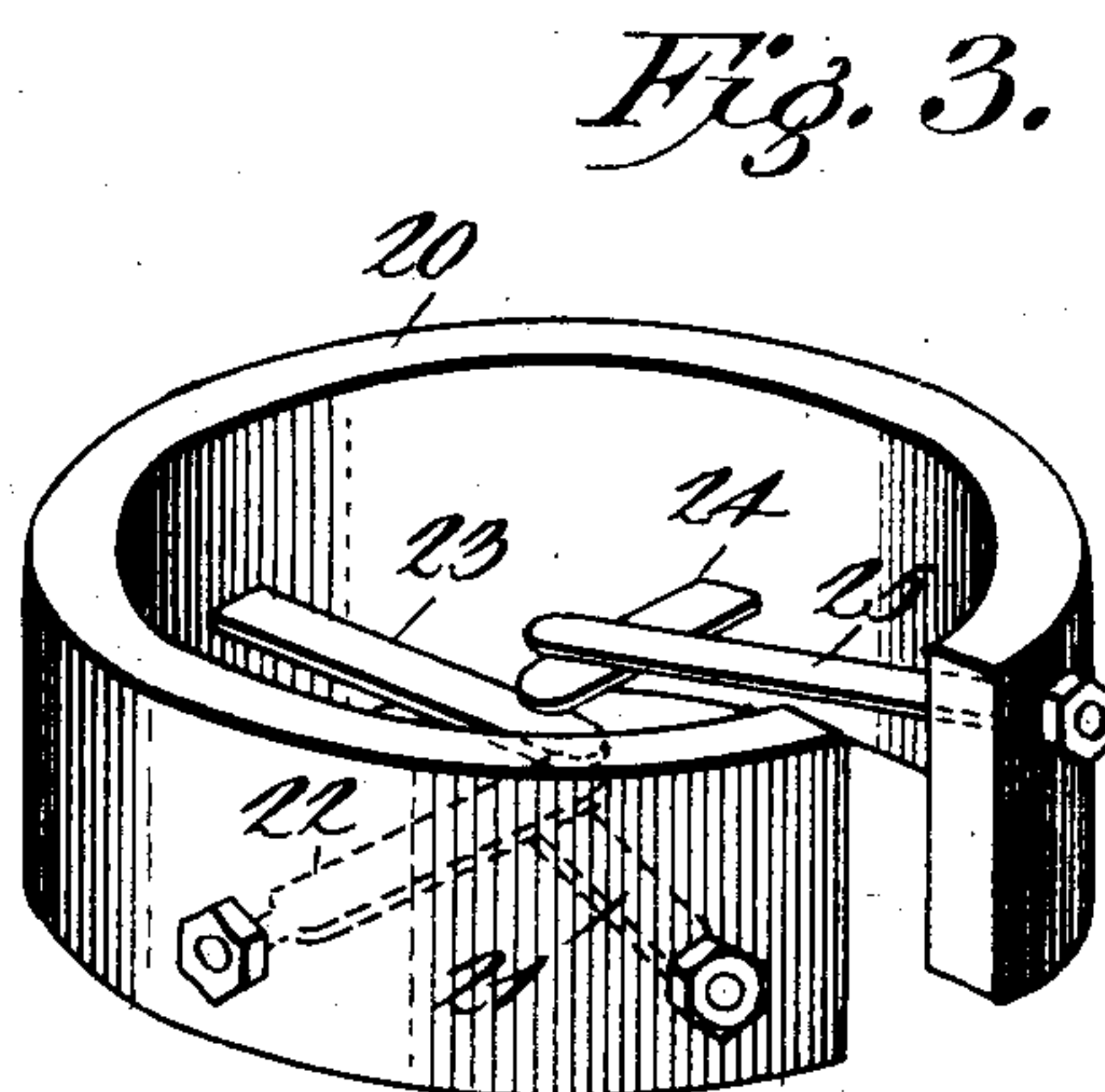
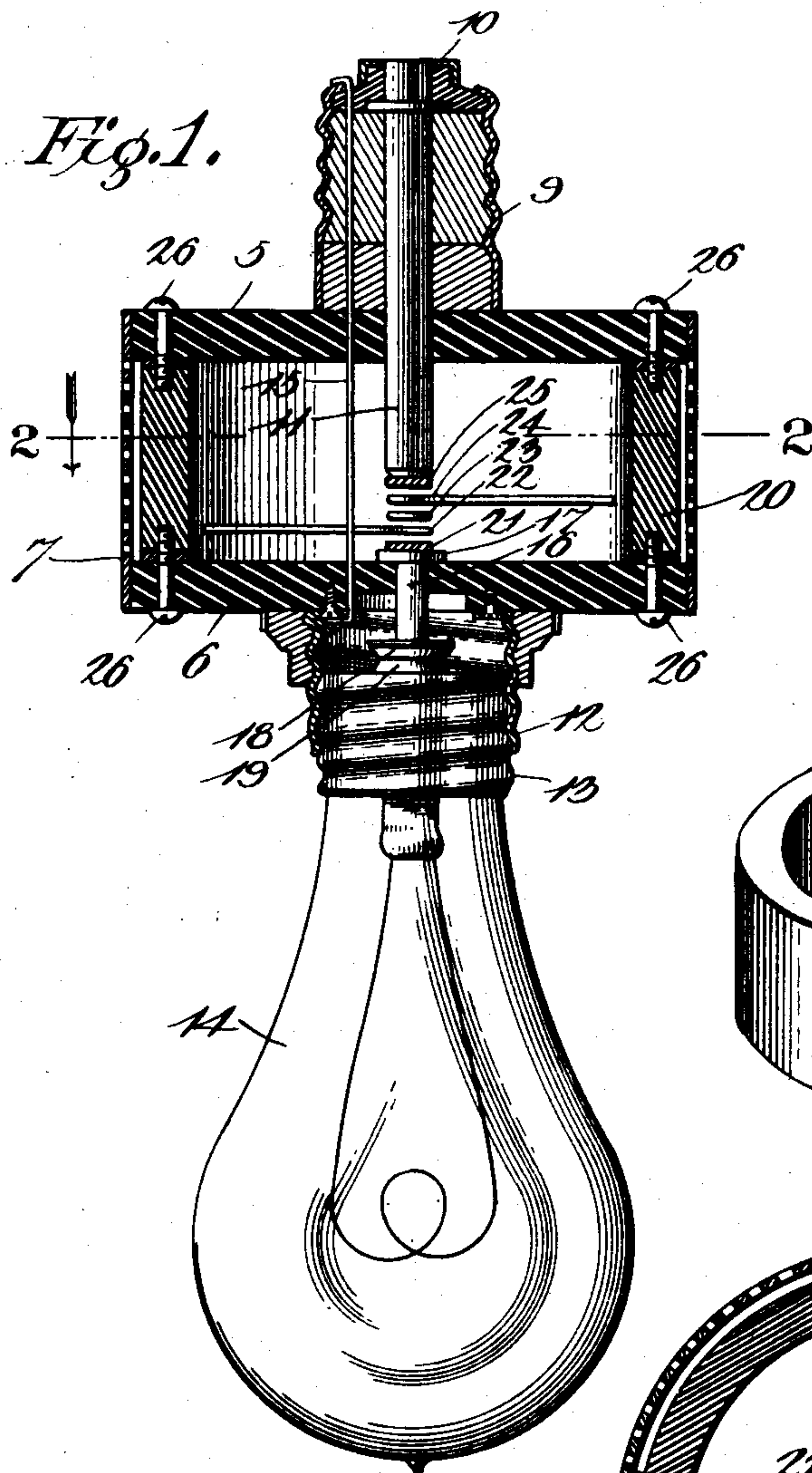


G. D. POGUE.  
 INCANDESCENT LAMP ATTACHMENT.

(Application filed Apr. 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

*John F. C. C. C. C.*  
*John F. C. C. C.*

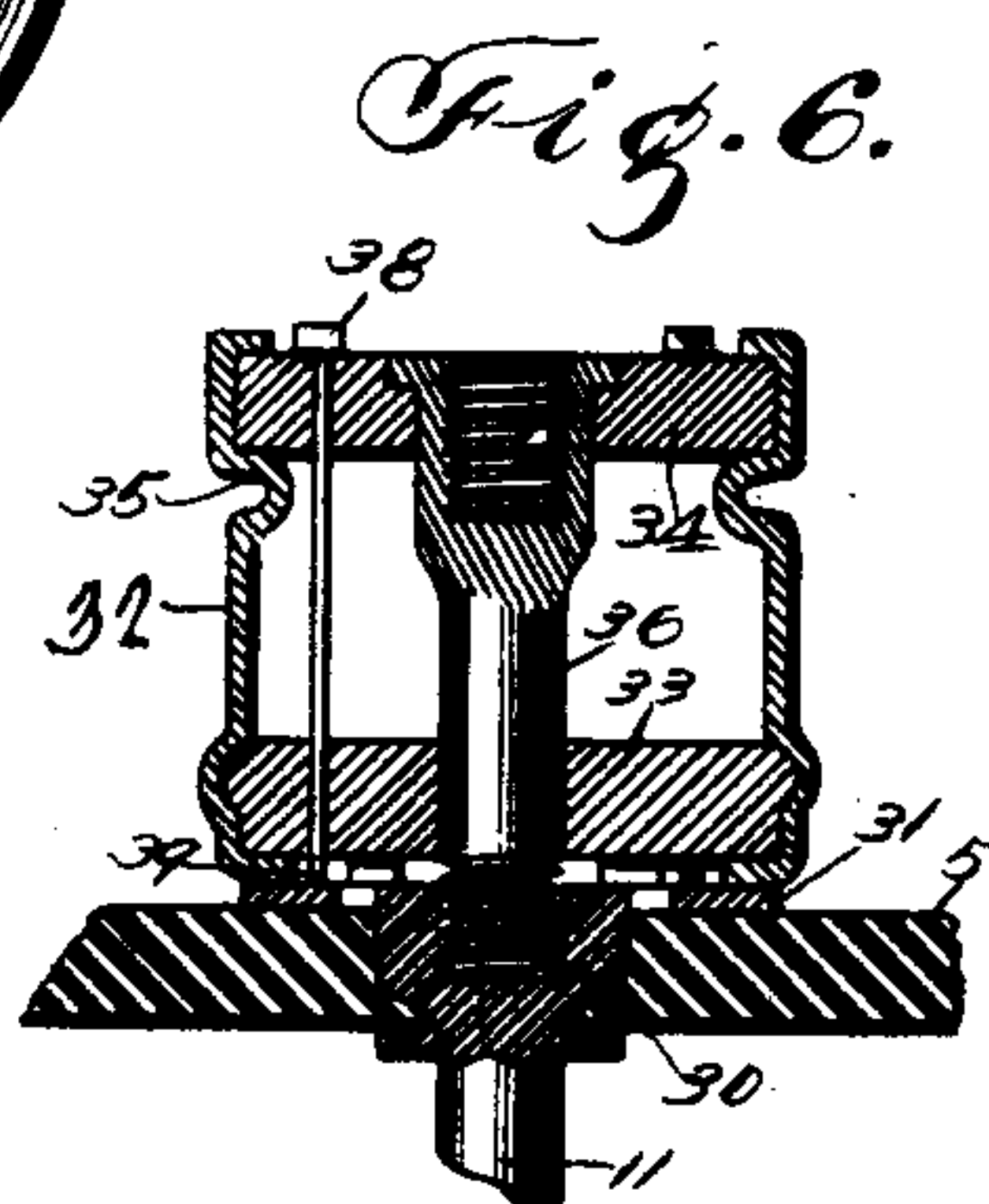
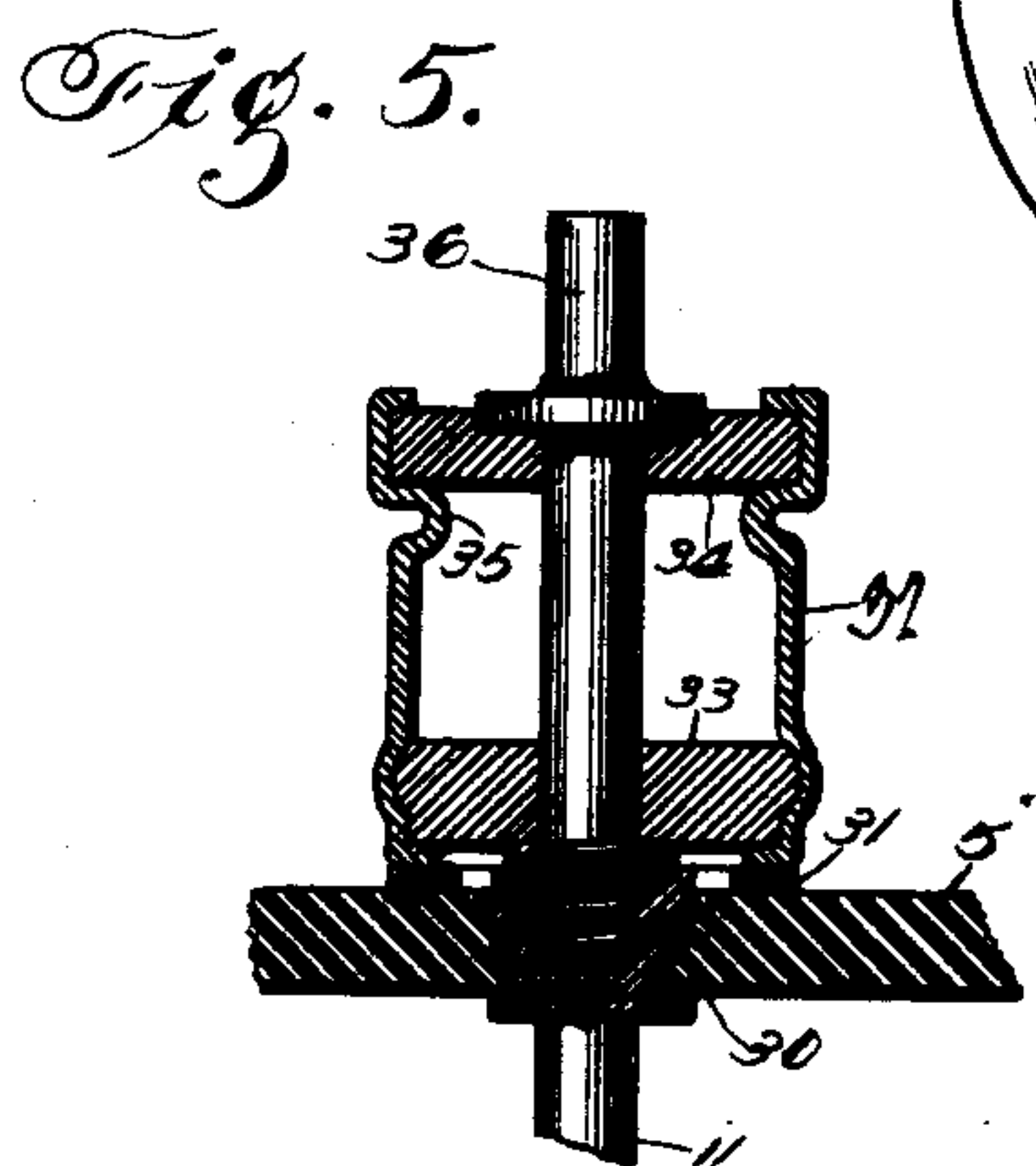
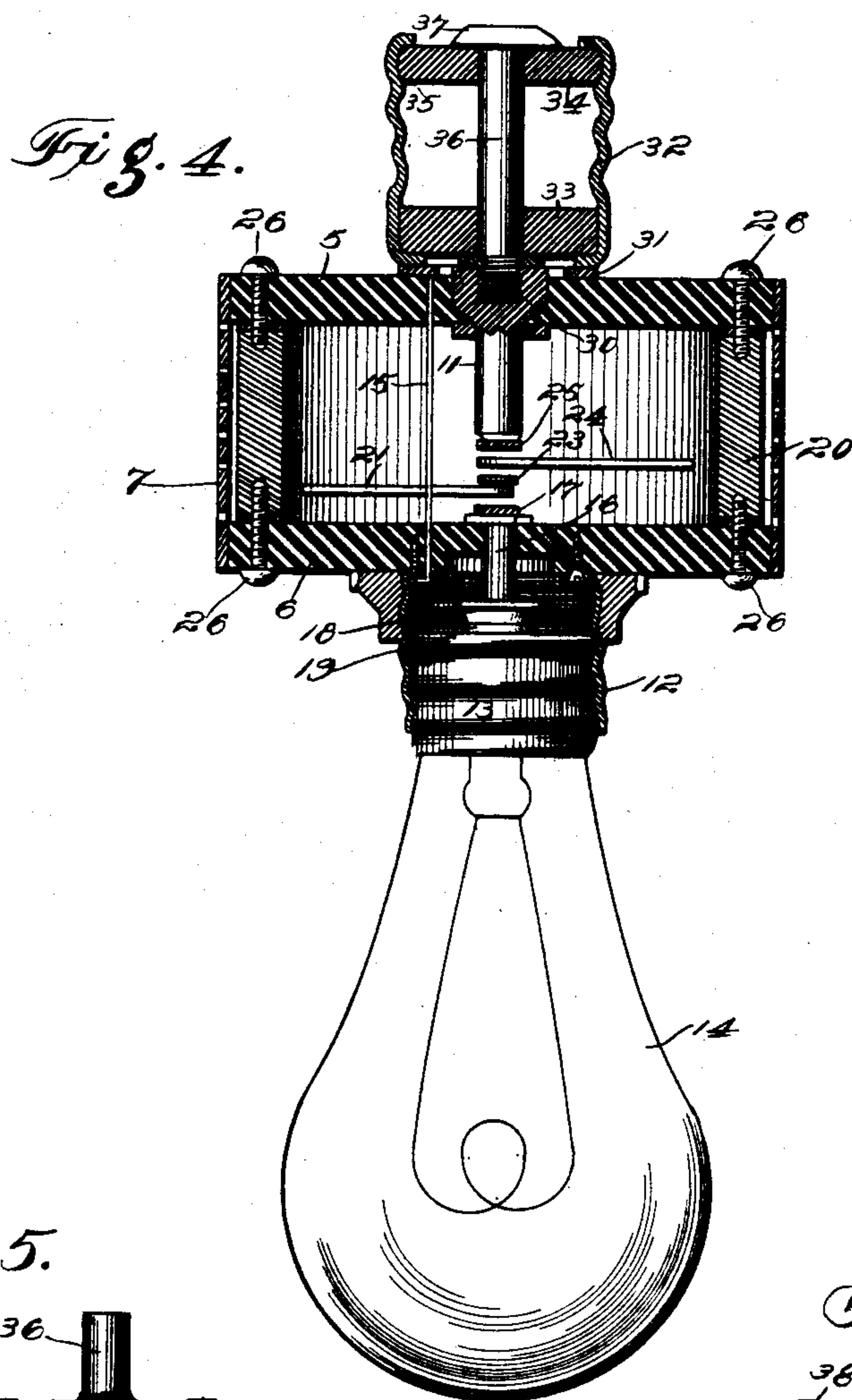
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(Application filed Apr. 29, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses  
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Attorneys



# UNITED STATES PATENT OFFICE.

GEORGE DUDLEY POGUE, OF ST. LOUIS, MISSOURI.

## INCANDESCENT-LAMP ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 683,982, dated October 8, 1901.

Application filed April 29, 1901. Serial No. 58,001. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE DUDLEY POGUE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Incandescent-Lamp Attachment, of which the following is a specification.

This invention relates to dimming attachments for incandescent lamps; and it has for its object to provide a simple efficient construction wherewith by rotating the lamp the light therefrom may be varied in intensity by cutting in or out artificial resistance.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a view, partly in section and partly in elevation, showing a lamp with the attachment applied thereto. Fig. 2 is a section on line 2-2 of Fig. 1. Fig. 3 is a detail perspective view showing the ring forming the artificial resistance. Fig. 4 is a view similar to Fig. 1 and showing a removable plug for engagement with the usual lamp-socket. Figs. 5 and 6 are sectional views showing different forms of plugs for different forms of sockets.

Referring now to the drawings, there is provided a casing, including spaced insulating-plates 5 and 6, disposed within the ends of a metallic drum 7, which latter is perforated, as illustrated, to permit of a free circulation of air therethrough.

Upon the upper plate 5 is fixed a common form of plug 9, exteriorly threaded for engagement with the threads of the usual lamp-socket, the metal exterior shell of this plug making contact with the threaded inner shell of the socket, while the central cap 10 of the plug is adapted for contact by the usual spring-finger of the socket when the key is operated, and from this cap there extends a rod or post 11, which projects into and centrally of the inclosure of the casing and terminates substantially midway of the plates 5 and 6 for a purpose that will be presently explained.

Upon the under side of the plate 6 is secured a socket, including the shell 12, having the usual threads pressed therein and adapted for engagement by the threaded base 13 of a lamp 14, this shell being held in place

by screws or in any other suitable manner and being electrically connected with the shell of the plug 9 through the medium of a wire 15.

Centrally of the shell 13 and passed inwardly through the plate 6 is a rod 16, having a head 17 at its upper end to prevent it from dropping from the plate, and having also a head 18 at its lower end to limit its upward movement, and this rod is disposed in position for engagement by the central contact-plate 19 upon the end of the base of a lamp, so that when the lamp is screwed into the socket on plate 6 its contact 19 will engage said rod and will raise it through the opening in the plate 6, in which it is slidably disposed.

The artificial resistance employed in the present instance is a split ring 20 of any suitable substance of suitably high resistance, and secured to the inner face of this split ring are a series of inwardly-directed spring-fingers 21, 22, 23, 24, and 25, the inner ends of which lie one above the other with intervening interspaces and overlapped, so that if pressure be brought against the lowermost finger at its free end it will be moved into contact with the finger next above, and continued movement will move this second finger into contact with the finger next above, and so on throughout the entire series of fingers. It will be noted that the finger 21 is disposed at one end of the split ring, while the finger 25 is disposed at the opposite end thereof, while the remaining fingers are equally spaced. The ring 20 is disposed within the casing and between the plates 5 and 6, to which it is held by screws 26, so that there are interspaces between the plates and the upper and lower edges of the ring to permit of access of air to the inclosure of the ring and around it from the perforations in the side of the casing, and the inner ends of the several fingers intersect the common axis of the rods 11 and 16, with the finger 21 resting against and in electrical contact with rod 16, while finger 25 rests against and in electrical contact with the rod 11. With the inner ends of all of the fingers out of mutual contact then the circuit would be from the shell of plug 9 to shell of socket on plate 6, thence through the lamp to the



rod 16, to lower finger 21, then throughout the length of the resistance-ring, and finally through finger 25 to post 11. The entire resistance of the ring 20 being thus in the lamp-circuit, little current will flow through the lamp, and it will give very little light. If the lamp be then screwed into the socket, the rod 16 will be raised and will raise finger 21 into contact with finger 22. The current from post 16 then instead of passing down finger 21 and through the entire ring 20 will be shunted through finger 22, around the segment of the ring, between fingers 21 and 22, cutting out this much of the resistance, with a corresponding increase in the luminosity of the lamp. As the lamp is further screwed up the succeeding fingers are engaged by those next below, with the result of cutting out other segments of the resistance, until finally the entire number of fingers are in contact, when the resistance is entirely cut out. By reversing the direction of rotation of the lamp it will of course be understood that the segments of the ring are successively cut into the lamp-circuit, with the result of dimming it.

It will be understood that in practice other resistance than that shown may be used and that various other modifications may be used and that any suitable materials and proportions may be employed for the various parts without departing from the spirit of the invention, and it will be noted that the ring 20 is spaced inwardly from the side of the casing, so that it may be kept cool by ventilation.

In Fig. 4 of the drawings there is shown a construction wherein the dimming apparatus is the same as in that just described, but in which there is a removable plug. In this construction the post 11 has a threaded socket 30 at its upper end which terminates just above the plate 5, and secured upon the upper face of the plate 5 and concentric with this socket is an annular conducting-plate 31, with which is connected the wire 15. There are a plurality of plugs provided, as shown in Figs. 4, 5, and 6, and each of which includes a metal drum 32, which is formed for engagement with its special lamp-socket on a fixture, and one end of which drum is flanged inwardly over the insulating-plate 33 to form a bearing-surface for electrical contact with the plate 31. The upper end of the drum is also flanged over an upper insulating-plate 34, which is held against inward displacement by the inwardly-directed bead 35, and passed longitudinally through the drum and engaged with the plates at the ends thereof is a post 36, having a lower threaded end which projects through the lower plate of the plug for engagement with the threads of the socket 30 to draw the drum against and hold it in close contact with the plate 31. In the construction shown in Fig. 4 the post 36 has a flat head 37 for engagement with the central terminal of the socket formed by the usual spring-finger operated by the key, the other

terminal of the socket being formed by the usual sleeve that receives the drum 32. In Fig. 5 the post 36 is extended and the drum is shaped to engage what is known as the "Westinghouse" socket, while in Fig. 6 the post has a threaded socket to receive the stem of the Thomson-Houston socket, and the upper plate has a contact 38, connected with a contact 39 on the lower plate which engages the plate 31, the lower end flange of the drum in this instance being so short as not to engage the plate 31. With this construction it will be seen that any one of the plugs may be applied to adapt the device to different lamp-sockets.

What is claimed is—

1. A dimming attachment for electric lamps, comprising an artificial resistance, a lamp-support, and means operable by engagement of a lamp with the support for cutting the resistance into the circuit of the lamp.

2. A dimming attachment for electric lamps, comprising an artificial resistance, a lamp-support, means operable by engagement of a lamp with the support for cutting the resistance into the circuit of the lamp, and means operable by further movement of the lamp for cutting the resistance out of the lamp-circuit.

3. A dimming attachment for electric lamps, comprising an artificial resistance including sections, a lamp-support, and means operable by movement of a lamp engaged with the support for cutting said sections successively into or out of the lamp-circuit.

4. A dimming attachment for electric lamps, comprising an artificial sectional resistance, yieldable contacts connected with the ends of the sections of the resistance, a lamp-support, electrical connections for including the sections of the resistance in series in the lamp-circuit when the lamp is engaged with its support, and means operable by movement of the lamp in the support for moving the contacts successively into mutual engagement to shunt the resistance-sections included therebetween.

5. A dimming attachment for electric lamps, comprising an artificial sectional resistance having spring-fingers connected with the ends thereof and disposed to overlap, a lamp-support electrical connections for including the lamp in circuit with the sections of the resistance in series when the lamp is engaged with the support, and a plunger operable by movement of the lamp in the socket for moving the fingers into successive engagement to cut out the resistance-sections included therebetween.

6. A device of the class described, comprising a split ring of resistance material, spring-fingers connected with the ring and projecting inwardly thereof and overlapping, a plug in circuit with a finger at one end of the ring, a lamp-socket, and a plunger disposed in contact with a finger at the opposite end of the ring and lying in the path of movement of the



lamp into the socket to move the fingers successively into contact to cut out the resistance included therebetween.

7. A device of the class described, comprising spaced plates, a split ring of resistance material held between the plates and having spring conducting-fingers connected therewith and extending inwardly and overlapping, a plug upon one of the plates having a rod in contact with the finger at one end of the ring, a lamp-socket on the opposite plate and electrically connected with a member of the plug, and a plunger disposed in contact

with the finger at the opposite end of the ring and operable by movement of a lamp engaged with the socket, to move the fingers successively into contact to cut out the resistance-sections included therebetween. 15

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 20

GEORGE DUDLEY POGUE.

Witnesses:

H. W. POGUE,  
W. P. RICHARDS.