

H. D'OLIER, JR.
PORTABLE ELECTRIC LAMP.
APPLICATION FILED SEPT. 30, 1904.

FIG. 2

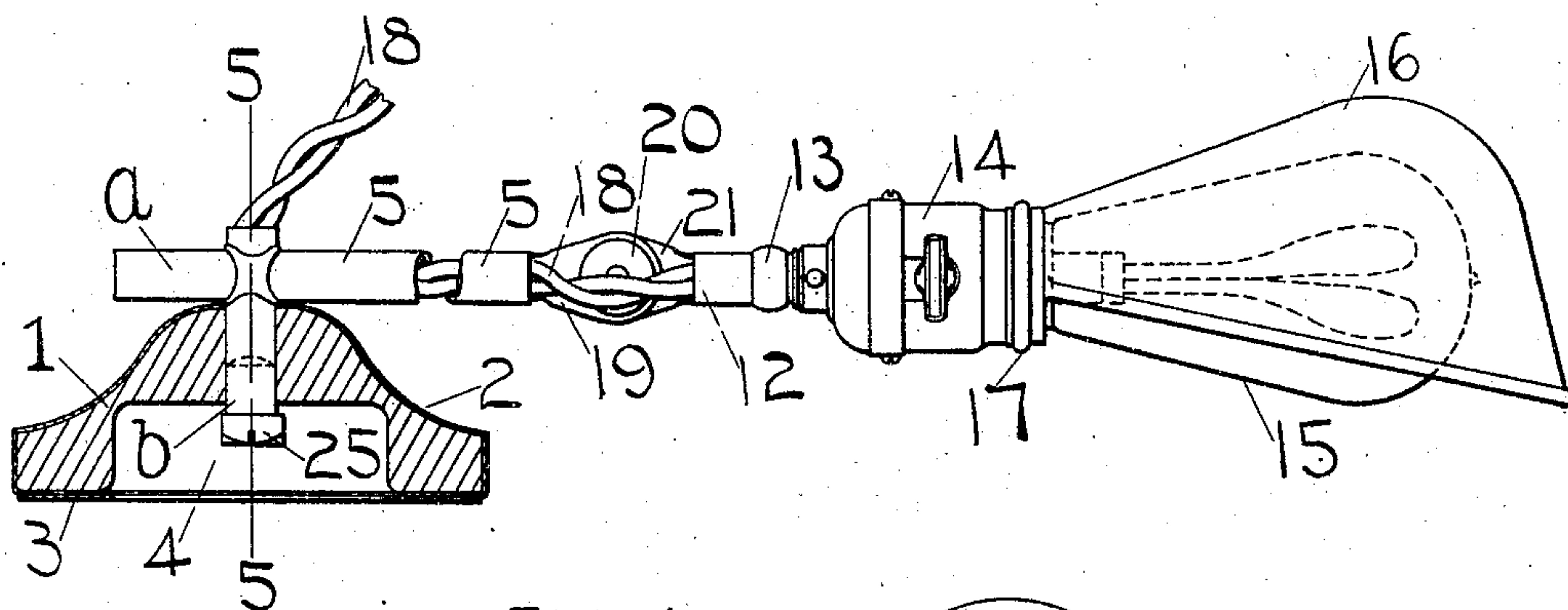


FIG. 1

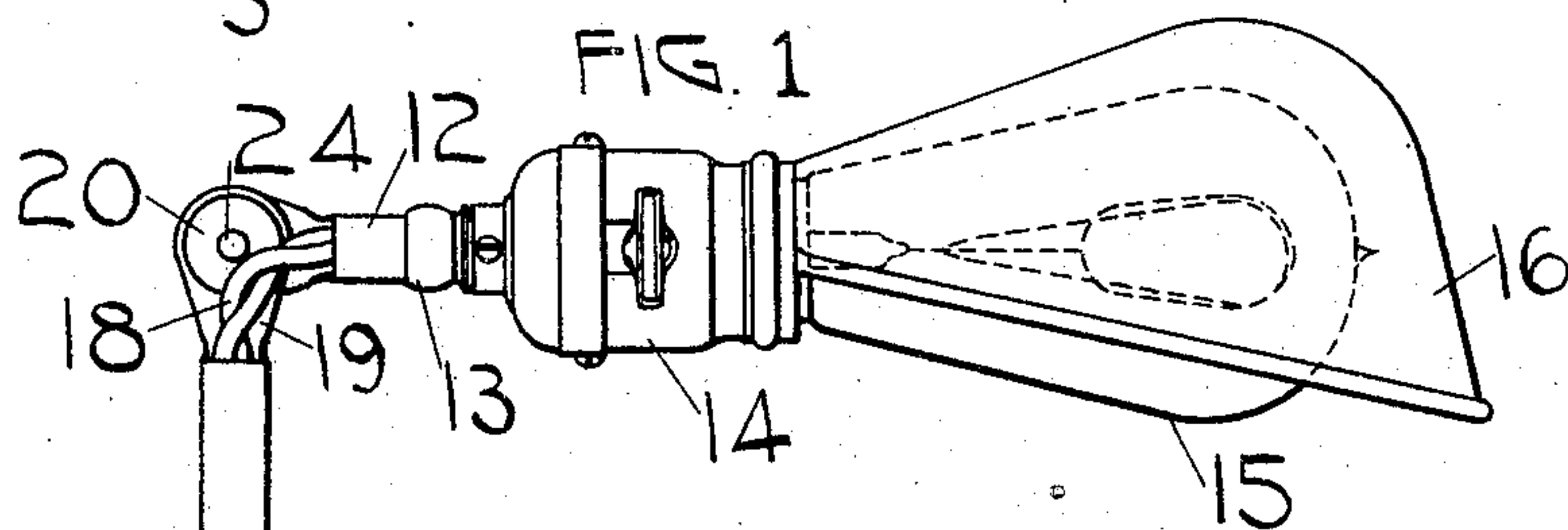


FIG. 4

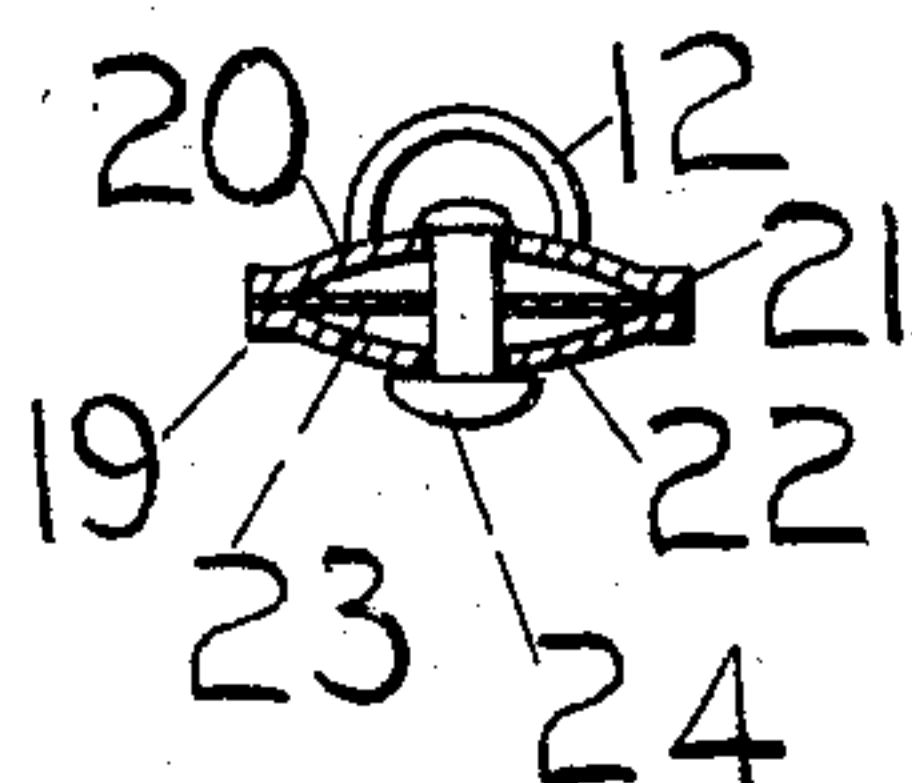


FIG. 3

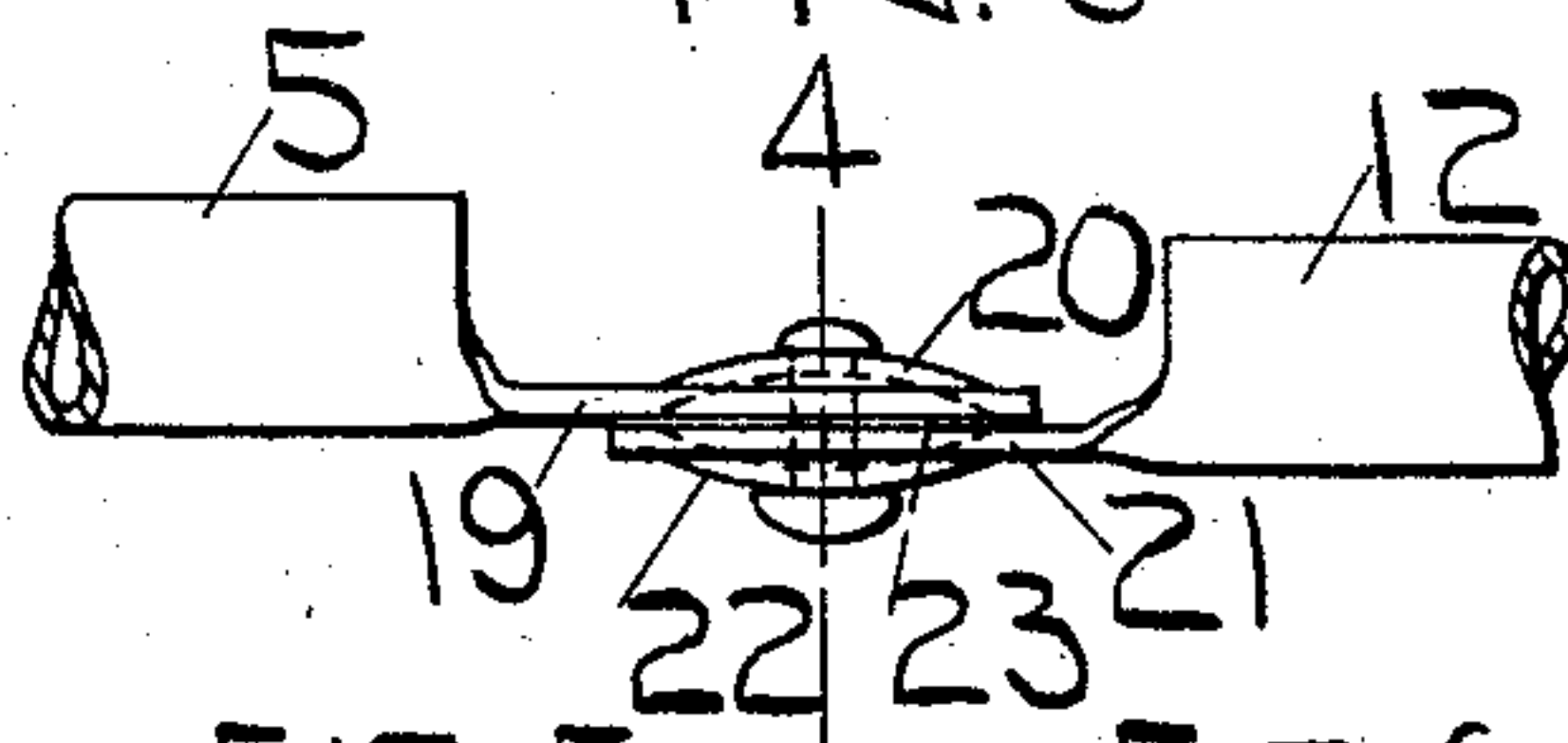


FIG. 5

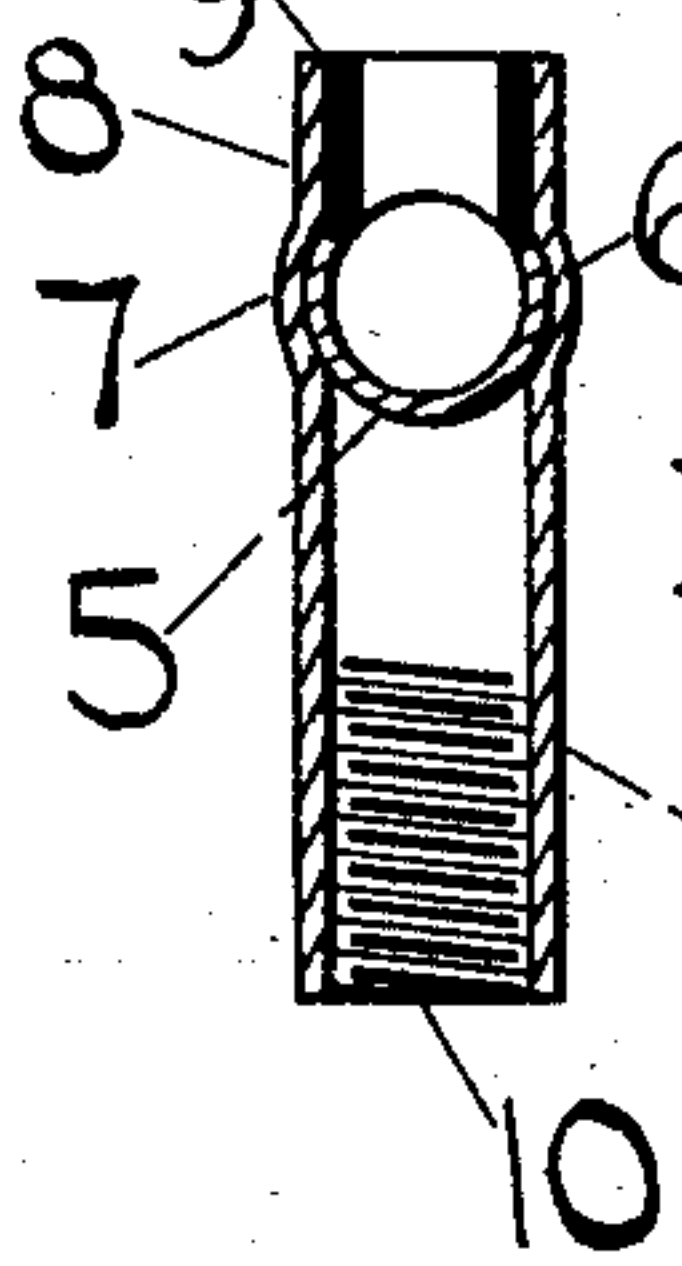
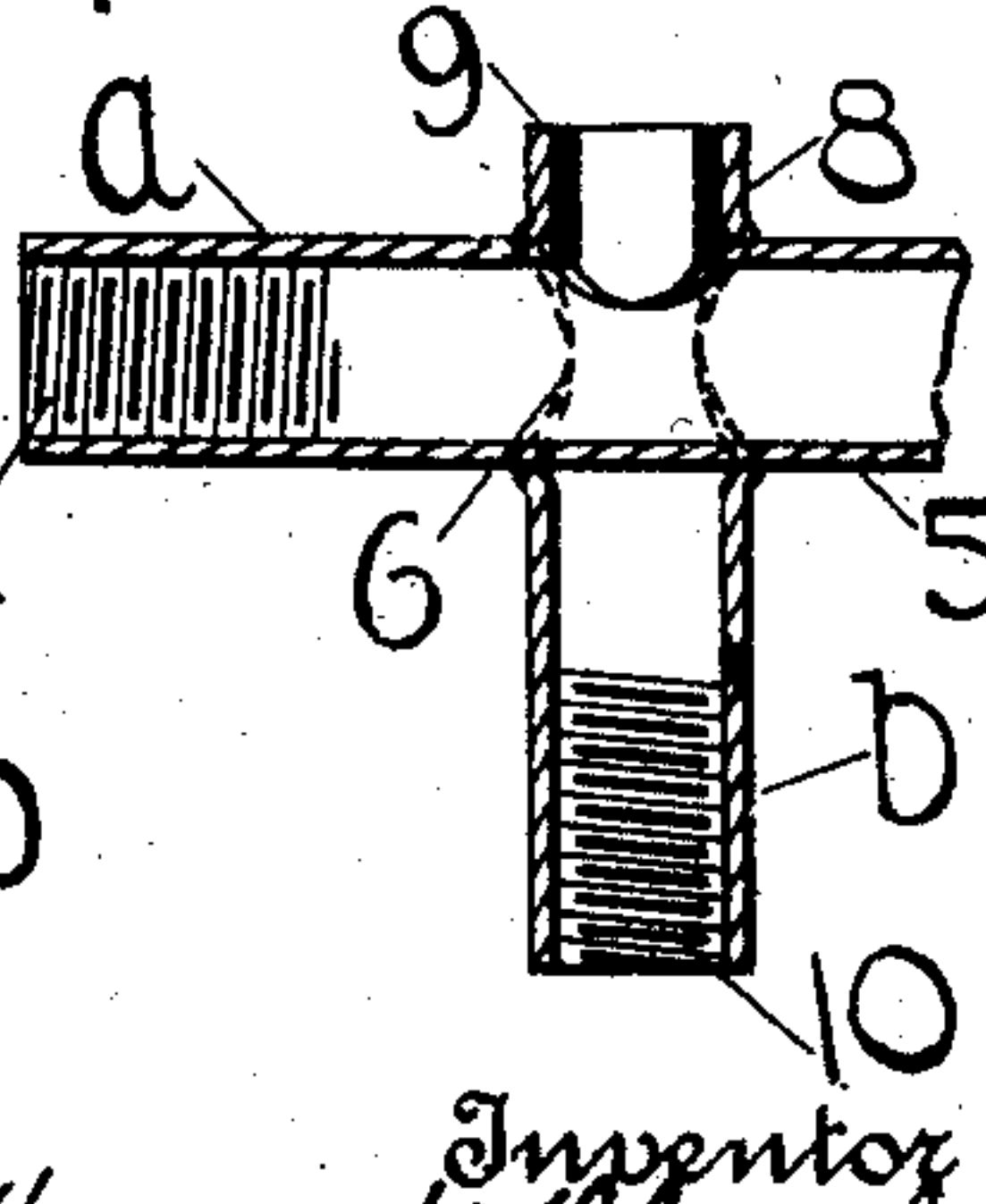


FIG. 6



Witnesses

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HENRY D'OLIER, JR., OF PHILADELPHIA, PENNSYLVANIA.

PORTABLE ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 785,481, dated March 21, 1905.

Application filed September 30, 1904. Serial No. 226,653.

To all whom it may concern:

Be it known that I, HENRY D'OLIER, JR., residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Portable Electric Lamp, of which the following is a specification.

My invention relates to portable electric lamps, more especially to those adapted to be used on tables, desks, or the like, connection with the supply-circuit being had through flexible conductors or any other suitable means.

My invention resides in a construction and arrangement of parts whereby the lamp may be rotated to numerous different positions, a half-shade rotatable with respect to the lamp being provided whereby the light may be projected to any desired region.

My invention resides in a lamp-support which is rotatable with respect to a base member, different axes of rotation being provided; also, in a joint in a lamp-supporting member whereby suitable adjustment of the lamp may be made when changing from one axis of rotation to the other or at other times.

My invention resides also in other features hereinafter described, and pointed out in the claims.

For an illustration of one of the numerous forms my invention may take reference is to be had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of the portable lamp. Fig. 2 is a side elevation, partly in section, of the apparatus shown in Fig. 1 except that rotation with respect to the base member takes place about a different portion of the lamp-support. Fig. 3 is an enlarged detail view showing in side elevation the elastic joint between the different portions of the apparatus. Fig. 4 is a cross-sectional view taken on the line 4 4 of Fig. 3. Fig. 5 is a sectional view taken on the line 5 5 in Fig. 2. Fig. 6 is a sectional view of the joint shown in Fig. 5, taken at right angles to Fig. 5.

Referring to said drawings, 1 represents a heavy base member, preferably of cast-iron, which is incased in the sheet-metal member

2, which serves to give a finished appearance. On the bottom of the base member is attached an annular member 3, of felt, rubber, or other soft material, whose purpose is to prevent scratching or marring of the article upon which the portable lamp may be placed. In the bottom of the base member 1 is the recess 4. Extending through the top of the base member 1 into the recess 4 is a hole adapted to receive either the member *a* or the member *b*.

a is integral with or a part of the tubular member 5, to which the tubular member *b* is joined. This joint may be better understood by reference to Figs. 5 and 6. The short tube *b* is drilled transversely and the portions 6 and 7 spread outwardly sufficiently to permit the insertion of the tube 5. When the tubes are in the desired position with respect to each other, as shown, for example, in Fig. 1, the two portions are soldered or brazed to each other and then the tube 5 is drilled from the short end 8 of the tube *b*. Finally a bushing 9 of insulating material is inserted within the portion 8. The tube *b* is interiorly threaded at 10 and the portion *a* of tube 5 is interiorly threaded at 11, both to receive the nut 25.

Either the member *a* or the member *b* may be inserted into the hole in the member 1, and thus serve as an axis of rotation for the remainder of the apparatus. As shown in Fig. 1, the apparatus is rotatable about *a* as an axis, while in Fig. 2 *b* operates as the axis of rotation. The nut 25, though not essential, may be used to prevent the parts being separated from the base.

To the upper end of the tube 5, Fig. 1, is hinged or jointed another tubular member 12, on the end of which is secured the screw-threaded nipple 13, on which is fastened the incandescent-lamp socket 14. Engaging in this socket in the usual manner is the lamp 15.

16 is a half-shade which is secured to the socket 14 by the beaded ring portion 17, which also permits the rotation of the shade 16 about the axis of the lamp 15.

18 is a flexible cord comprising the electrical conductors led in through the bushing 9 and along inside of the tube 5 and thence through the tube 12 into the interior of the

lamp-socket 14, where connections are made in the well-known manner.

Formed out of the material of the tube 5 and integral therewith is the hinge portion or element 19, which at 20 is pressed into concavo-convex form. Similarly the hinge portion or element 21 is integral with the tube 12 and is also stamped into concavo-convex form, as shown at 22. The portions 20 and 22 are then secured together, with the steel washer 23 intervening, by the rivet or other suitable means 24, which serves as pivot. The concavo-convex shape of the elements 20 and 22 render them resilient or elastic, and when the rivet 24 is secured in place these portions 20 and 22 are under compression and therefore exert pressure upon each other through the steel washer 23, with the result that sufficient friction between the members 20 22 and the washer 23 is afforded to permit the adjustment of the lamp 15 to any position with respect to the tube 5 and to insure the parts remaining in position after adjustment. Inasmuch as the parts 20 and 22 are resilient, the wear at the joint is taken up automatically as it occurs, with the result that friction at such joint continues for an indefinitely long period of time. It follows from this that the lamp 15 may be rotated with respect to the tube 5 an exceedingly great number of times without danger of the apparatus wearing out or becoming useless.

The disposition illustrated in Fig. 1 is suitable for use upon a top of a table or flat-topped desk, while the disposition shown in Fig. 2 is suitable to a roll-top desk, the base member 1 in the latter case being placed upon the extreme top of the desk, while the lamp 15 extends out over the main portion of the desk.

It is to be understood, of course, that the lamp 15 may be rotated about the pivot 24 to any position in either Fig. 1 or Fig. 2 and that the lamp 15 may be rotated to any position about the member *a* in Fig. 1 or to any position about the member *b* in Fig. 2 irrespective of what may be the position of the lamp 15 with respect to the tube 5, and, further, in every possible position of the lamp 15 the half-shade 16 may be rotated to any position about the axis of the lamp 15. From these numerous adjustments it is apparent that light may be directed to any region desired.

From the foregoing description it is obvious that the mechanism and apparatus therein described comprises relatively few parts and that as to each of these parts and as to the entirety of the apparatus the greatest of simplicity obtains along with greatest facility and cheapness in manufacture.

Though the parts *a*, *b*, 5, and 12 are herein shown as tubes and referred to in the claims as "tubes," it is to be understood that they may be solid rods or be of any other desired construction so long as they cooperate in substantially the manner herein described.

Having now described my invention in one of its numerous forms, what I claim is—

1. In combination, a base member, a lamp-support, a lamp secured to said support, and a plurality of means associated with said support and each adapted to engage said base member whereby said lamp-support may rotate with respect to said base member about any one of a plurality of axes.

2. In combination, a base member, a lamp-support, a lamp secured to said support, and a plurality of members associated with said support and disposed at an angle with respect to each other, any of said members being adapted to engage said base member, whereby said lamp-support may be rotated with respect to said base member.

3. In combination, a base member, a lamp-support, a lamp secured to and movable with respect to said support, and a plurality of members associated with said support, each of said members adapted to engage in said base member, whereby said lamp-support may be adjusted to said base member and adapted to rotate about any one of said members as an axis.

4. In combination, a base member, a lamp-support comprising a tubular member, a lamp secured to and movable with respect to said support, said tubular member being adapted to engage said base member and rotate with respect thereto, and a member secured to and extending at right angles to said tubular member, said member being adapted to engage said base, whereby said lamp may rotate with respect to said base about said member as an axis.

5. In combination, a base, a lamp-support comprising a tube, a second tube embracing and secured to said tube, either of said tubes being adapted to engage said base and to serve as an axis of rotation for said lamp-support.

6. In combination, a base, a lamp-support comprising a tube, a second tube secured at right angles to said tube, either of said tubes being adapted to engage said base and to serve as an axis of rotation for said lamp-support.

7. In combination, a base, a lamp-support comprising a tube, a second tube secured at right angles to said tube, either of said tubes being adapted to engage said base and to serve as an axis of rotation for said lamp-support, and a lamp secured to and movable with respect to said support.

8. In combination, a base, a lamp-support comprising a tube, a second tube embracing said tube and extending at right angles thereto, either of said tubes adapted to engage said base and to serve as an axis of rotation for said lamp-support.

9. In combination, a portable weighted base, a member for supporting an electric lamp, a second member secured at right angles to said supporting member, either of said members being adapted to loosely engage in

a socket in said base to permit the rotation of said supporting member, and an electric lamp secured to said supporting member.

10. In combination, a portable weighted base, a lamp-support, an electric lamp supported thereby, and a member secured at right angles to said lamp-support, said lamp-support and said member each being adapted to engage loosely in a socket in said base to permit the rotation of said lamp-support about either one of two axes.

11. In combination, a portable weighted base, a lamp-support, a member secured at right angles to said lamp-support, said lamp-support and said member each being adapted to engage loosely in a socket in said base to permit the rotation of said lamp-support about either one of two axes, and an electric lamp supported by and movable with respect to said lamp-support.

12. In combination, a portable weighted base, a lamp-support comprising a tube, a second tube secured at right angles to said tube, each of said tubes being adapted to loosely engage in a socket in said base to permit the rotation of said lamp-support, and an electric lamp secured to said lamp-support.

13. In combination, a portable weighted

base, a lamp-support comprising a tube, a second tube secured at right angles to and ap- 30
proximate one end of said tube, either of said tubes being adapted to loosely engage in a socket in said base to permit the rotation of said lamp-support, and an electric lamp secured to and movable with respect to said 35
lamp-support.

14. In combination, a base, a plurality of jointed tubes, one of said tubes being adapted to engage said base, an electric lamp secured to another of said tubes, a concavo- 40
convex hinge element integral with each of said tubes, a pivotal connection securing said elements together, and a washer intervening between said elements.

15. In combination, a plurality of jointed 45
tubes, an electric lamp secured to one of said tubes, another of said tubes serving as a support, a resilient concavo-convex hinge element integral with each of said tubes, a pivotal connection securing said elements together at 50
the concavo-convex portions, and a washer intervening between said elements.

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Witnesses:

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