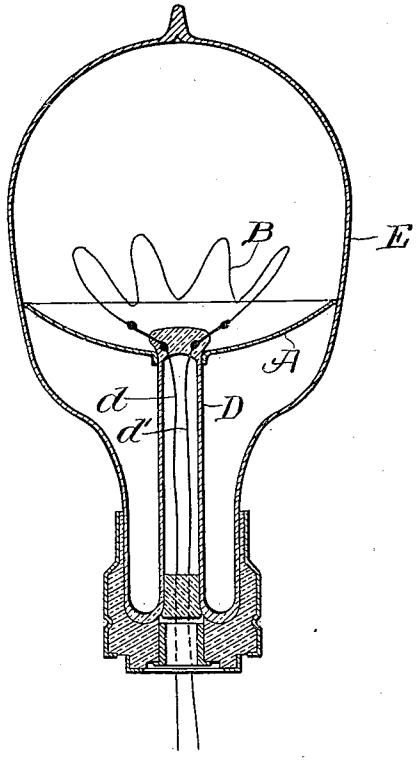
No. 663,524. Patented Dec. 11, 1900.

S. D. WASHBURN & C. H. TINKHAM.

INCANDESCENT LAMP.

(Application filed Mar. 12, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

SAMUEL D. WASHBURN, OF BOSTON, AND CLARENCE H. TINKHAM, OF CAMBRIDGE, MASSACHUSETTS; SAID TINKHAM ASSIGNOR TO FRED F. RHODES, OF BOSTON, MASSACHUSETTS.

INCANDESCENT LAMP.

SPECIFICATION forming part of Letters Patent No. 663,524, dated December 11, 1900.

Application filed March 12, 1900. Serial No. 8,314. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL DEXTER WASHBURN, of Boston, in the county of Suffolk, and CLARENCE HERBERT TINKHAM, of Cambridge, in the county of Middlesex, in the State of Massachusetts, have invented an Improved Incandescent Lamp, of which the following is a description, reference being had to the accompanying drawing, which is a longitudinal central section of one of our improved lamps.

Our invention relates to electric lamps made up of a glass bulb, a glass tube sealed at its outer end to the neck of the bulb and at its inner end about the leading-in wires, and supporting at its inner end a mirror crosswise of the bulb as well as the filament connected to the leading-in wires.

We have discovered that the best material for the mirror A is aluminium in the form of a very thin disk dished, as shown in the drawing, and polished upon the side next the filament B; but when the metal is very thin it is very difficult to support it properly in the bulb. We therefore make a central hole in the disk, through which the glass tube D is passed after the leading-in wires *d d'* are sealed in and attached to the filament B, and, of course, before the outer end of tube D is sealed to the neck of bulb E; and our invention consists in this construction, which not only enables us to use a disk of metal, preferably aluminium, which is very thin, but also results in greater economy of manufacture, as all of the steps in the manufacture are those with which all skilled in this art have long been familiar, except only passing the tube D through the mirror A, which is so simple as to be readily acquired by workmen of ordinary skill.

We are aware of Patent No. 621,292, dated March 14, 1899, to Cazin, and disclaim all that is shown therein, for in our lamp it is essential that the glass tube should extend well into the exhausted bulb in order that it may support the metal disk in its place within the exhausted bulb, as shown in the drawing.

What we claim as our invention is—

The improved incandescent lamp comprising the exhausted bulb; the glass tube extending into the exhausted bulb and sealed at its outer end to the neck of the exhausted bulb, and at its inner end about the wires which support the filament; and a disk of metal within the exhausted bulb and mounted on the glass tube, near its inner end, substantially as above described.

SAMUEL D. WASHBURN.
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Witnesses:
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