No. 668,904.

Patented Feb. 26, 1901.

C. A. CHASE. INCANDESCENT ELECTRIC LAMP.

(Application filed Dec. 8, 1900.)

(No Model.)

Witnesses.

Edward J. Wray. House It Hough Enables a. Chase
by Parker Tarter
his setty:

United States Patent Office.

CHARLES A. CHASE, OF CHICAGO, ILLINOIS, ASSIGNOR TO GENERAL INCANDESCENT LAMP COMPANY, OF CLEVELAND, OHIO.

INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 668,904, dated February 26, 1901.

Application filed December 8, 1900. Serial No. 39,122. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. CHASE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Incandescent Electric Lamps, of which the following is a specification.

tion. My invention relates to incandescent lamps, ro and has for its object to provide a lamp which may have substantially the ordinary form and shape and be made in substantially the same way as the ordinary incandescent lamp, but which shall have, in addition to the fea-15 tures possessed by such ordinary incandescent lamps, an outwardly-bulging portion in the vicinity of the neck or smaller portion of the lamp, but entirely separate and removed from the metallic portions of the socket. 20 This outwardly-bulging portion takes the form of a sort of annulus, with sides gently curving in both directions, and is formed in the glass of the incandescent lamp as the latter is blown. The important object of this 25 construction is to prevent the moisture or other deleterious substances which would tend to injure the metallic supporting and connecting parts of the lamp from accumulating upon the larger portions of the lamp 30 globe or bulb and then traveling back downwardly or inwardly, or even upwardly, if that were possible, along the smaller portion or neck of the lamp. In such cases this out-

nulus and drops off. In the manufacture of such lamps it is unsatisfactory to produce this annulus in any other way than during the process of blowing, and its walls must be of approximately the same thickness as the walls of the rest of the lamp; otherwise a danger-point is produced at which the lamp is likely to break. It is equally important unsil likely to break. It is equally important unsave a gently-curving inclination in both di-

wardly-bulging annulus serves as a check to

accumulates at the lower portion of such an-

35 such action, and the moisture, for example,

rections to connect it with the other glass portions of the lamp. It is imperative that it should have no connection whatever with the metallic portions or fastenings or socket or connections of the lamp.

My invention is illustrated in the accom-

panying drawing, wherein is shown an ordinary incandescent lamp with the outwardly-bulging annulus. A portion of this lamp is 55 broken away to show that the annulus has the same cross-section as the other parts of the lamp.

A is the bulb proper, B the connection part, and C the outwardly-bulging annulus, with 60 its two curved connecting-surfaces D E.

I have not shown the details of the connection part or the method of connecting it with the lamp or neck of the bulb, as any desired means may be employed, and there are many 65 which are familiarly known. It is only important that such connection part and the means or device for connecting it with the lamp or bulb or the neck of the bulb should be entirely separate from the outwardly-bulg-70 ing annulus.

I claim—

1. An incandescent lamp having a bulb portion of thin glass, a suitable metallic connection part, a relatively small neck-like portion 75 leading from the connection part to the bulb, and an outwardly-bulging annulus formed in such neck-like portion between the connection part and the bulb and entirely removed from the connection part.

2. An incandescent lamp having a bulb portion of thin glass, a suitable metallic connection part, a relatively small neck-like portion leading from the connection part to the bulb, and an outwardly-bulging annulus formed in such neck-like portion between the connection part and the bulb and entirely removed from the connection part, said bulb, neck and annulus of uniform thickness.

3. An incandescent lamp having a bulb portion of thin glass, a suitable metallic connection part, a relatively small neck-like portion leading from the connection part to the bulb, and an outwardly-bulging annulus formed in such neck-like portion between the connection part and the bulb and entirely removed from the connection part, said annulus connected in both directions with the glass of the neck or bulb by gently-curving surfaces.

CHARLES A. CHASE.

Witnesses:
HOMER L. KRAFT,
MAY S. HARRISON.