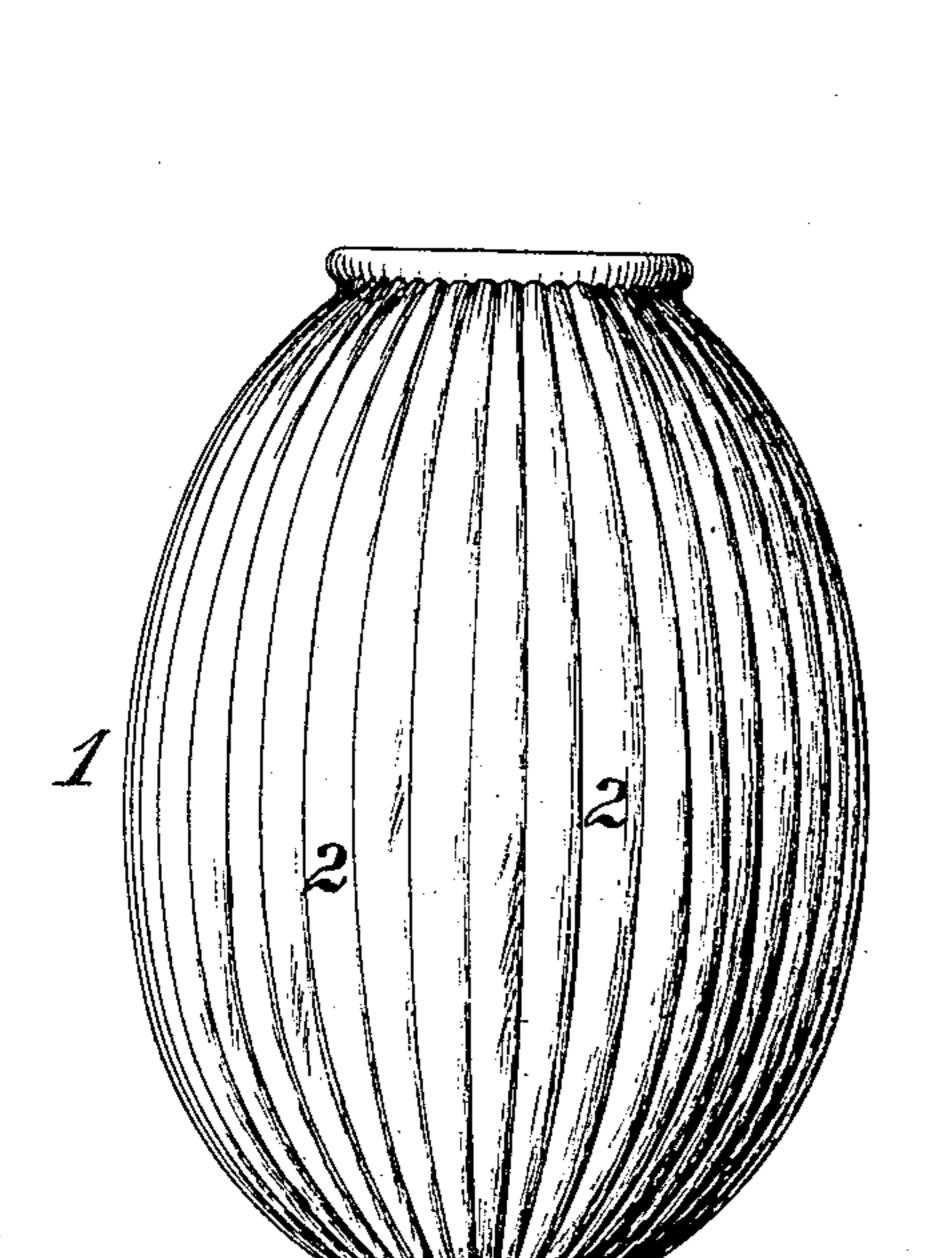
(No Model.)

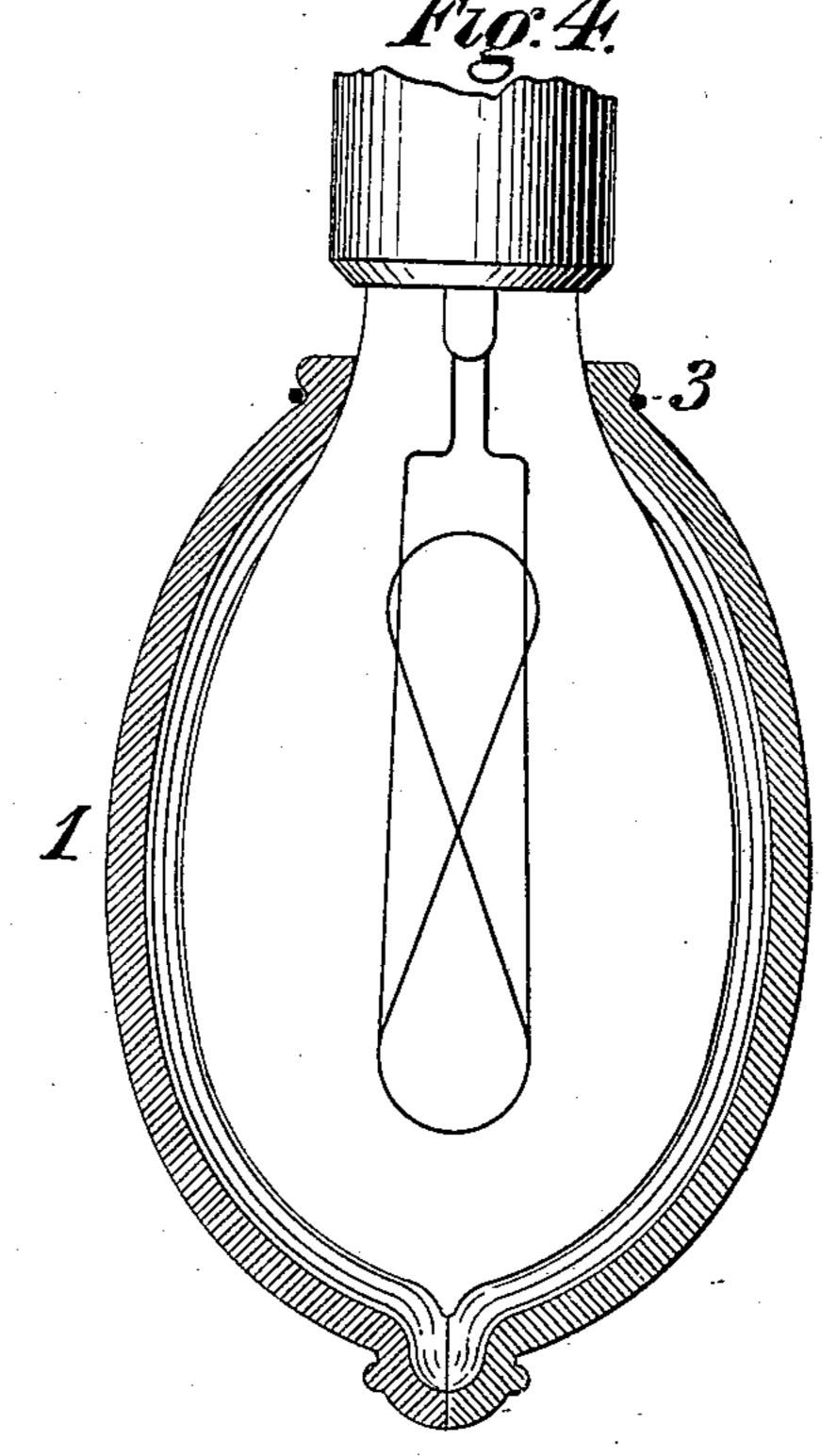
## S. H. SPRAGUE.

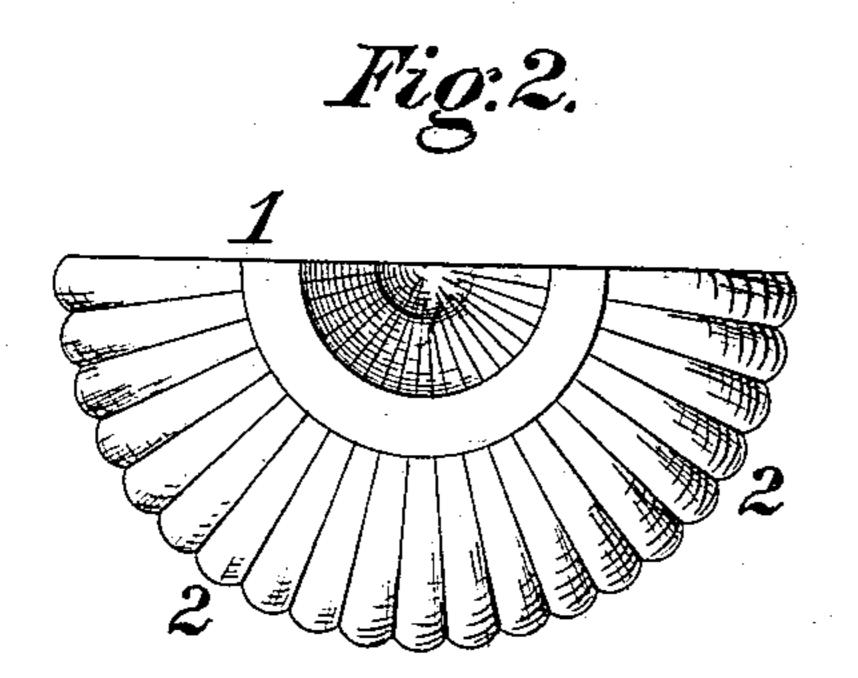
BULB CASE FOR INCANDESCENT ELECTRIC LAMPS.

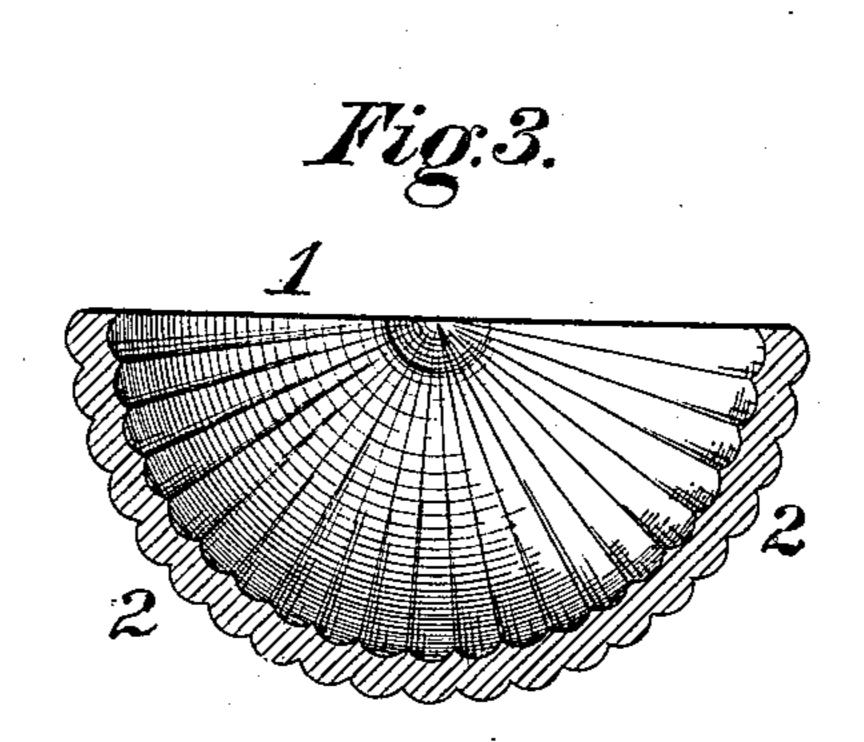
No. 326,459.

Patented Sept. 15, 1885.









WITNESSES: Mondan Coll.

ATTORNEY.

## United States Patent Office.

S. HOWARD SPRAGUE, OF PITTSBURG, PENNSYLVANIA.

## BULB-CASE FOR INCANDESCENT ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 326,459, dated September 15, 1885.

Application filed February 4, 1885. (No model.)

To all whom it may concern:

Be it known that I, S. Howard Sprague, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Bulb-Cases for Incandescent Electric Lamps, of which improvements the following is a specification.

In the accompanying drawings, which make part of this specification, Figure 1 is a side view in elevation of a bulb-case embodying my invention; Fig. 2, an end view in elevation of a section of the same; Fig. 3, a transverse section; and Fig. 4 a longitudinal central section, showing the case in position upon a lamp.

The object of my invention is to moderate and diffuse the illuminating action of incandescent electric lamps, as well as to impart a novel and ornamental effect thereto; to which end my invention, generally stated, consists in a translucent casing formed of separate sections ornamented in any desired pattern, and adapted to inclose removably the bulb of an incandescent electric lamp. The improvements claimed are hereinafter fully set forth.

In view of the perishability of the carbon filaments of incandescent electric lamps, as 30 well as of the necessity under the existing conditions of forming the bulbs thereof extremely thin, it has not heretofore been found practicable to ornament them, except in a slight degree by the use of the sand-blast, or by the 35 employment of colored glass. The concentration of a given candle-power within a comparatively small area of incandescent carbon, which obtains in lamps of this type, produces an unpleasant and injurious effect upon the 40 eye, and previous efforts to obviate this objection have involved an undesirable curtailment of the illuminating capacity of the lamps. By the employment of my invention the rays of light radiated from the carbon filament of 45 an incandescent electric lamp may be so diffused as to exert an illuminating action corresponding with that of a substantially-equal candle-power exerted throughout a much greater radiating area, and the lamp may, for 50 such reason, be located as near to the user as

desired without loss of light by an intercepting shade or exerting a dazzling or wearying action upon the eye, as heretofore.

In the practice of my invention I provide a transparent or translucent bulb-case, 1, which 55 is formed in two or more separate sections, and corresponds substantially in form and dimensions with the bulb 4 of the incandescent. lamp to which it is to be applied, so as to be adapted to fit freely around and completely 60 inclose the same. The surface of the bulbcase, which may be of any preferred color, presents a series of light-diffusing faces or projections, 2, which in this instance are exemplified as longitudinal ridges or corrugations, 65 but which may be of any other desired form or pattern, as facets, intersecting ribs or grooves, or relieved figures of varied special designs. A high degree of ornamentation may thus be afforded, and as the bulb-cases are subject to 70 no tendency to injury or deterioration when in use, and may be successively applied to a series of lamp-bulbs as the same become in turn useless by the consumption of their filaments, they may be handsomely and elabo- 75 rately finished, and in use will present the same effect as if the plain bulb which they inclose were similarly ornamented.

The bulb-cases are preferably divided longitudinally, as shown, being open at one end to fit around the neck or base of the lamp, and the sections may be connected by any suitable clamp or fastening, 3, as a strand of light wire twisted together at its ends, or a strip of flexible metal having a proper end connection.

I am aware that a frontal illuminating apparatus in which an incandescent lamp is located within a case or cover which is not transparent or translucent, and which is provided with lenses or openings serving to concentrate 90 and project the rays of light without substantial obstruction in any desired direction, has been heretofore proposed, and I therefore disclaim, broadly, a casing or cover for an incandescent-lamp bulb. So far, however, as my 95 knowledge and information extend, a bulb-case translucent throughout its entire extent, and having light-diffusing faces which are uninterrupted by opaque portions of the body of the case, so as to moderate and diffuse in all 100

directions the rays of light, was not known in the art at the date of my invention.

I claim herein as my invention—

1. A sectional casing translucent substantially throughout its entire surface, and adapted to inclose the bulb of an incandescent electric lamp, substantially as set forth.

2. A sectional casing translucent throughout, having a series of light-diffusing faces or projections upon its periphery, and adapted to inclose the bulb of an incandescent electric lamp, substantially as set forth.

3. A sectional casing translucent throughout, having an ornamented periphery and

adapted to inclose the bulb of an incandescent 15 electric lamp, substantially as set forth.

4. The combination of an incandescent electric lamp, a removable casing translucent throughout, formed in two or more sections and inclosing the bulb of said lamp, and a 20 clamp or fastening connecting the sections of the casing, substantially as set forth.

In testimony whereof I have hereunto set my

hand.

S. HOWARD SPRAGUE.

Witnesses:

J. SNOWDEN BELL, R. H. WHITTLESEY.