

(No Model.)

S. H. EMMENS.  
INCANDESCENT ELECTRIC LAMP.

No. 267,647.

Patented Nov. 14, 1882.

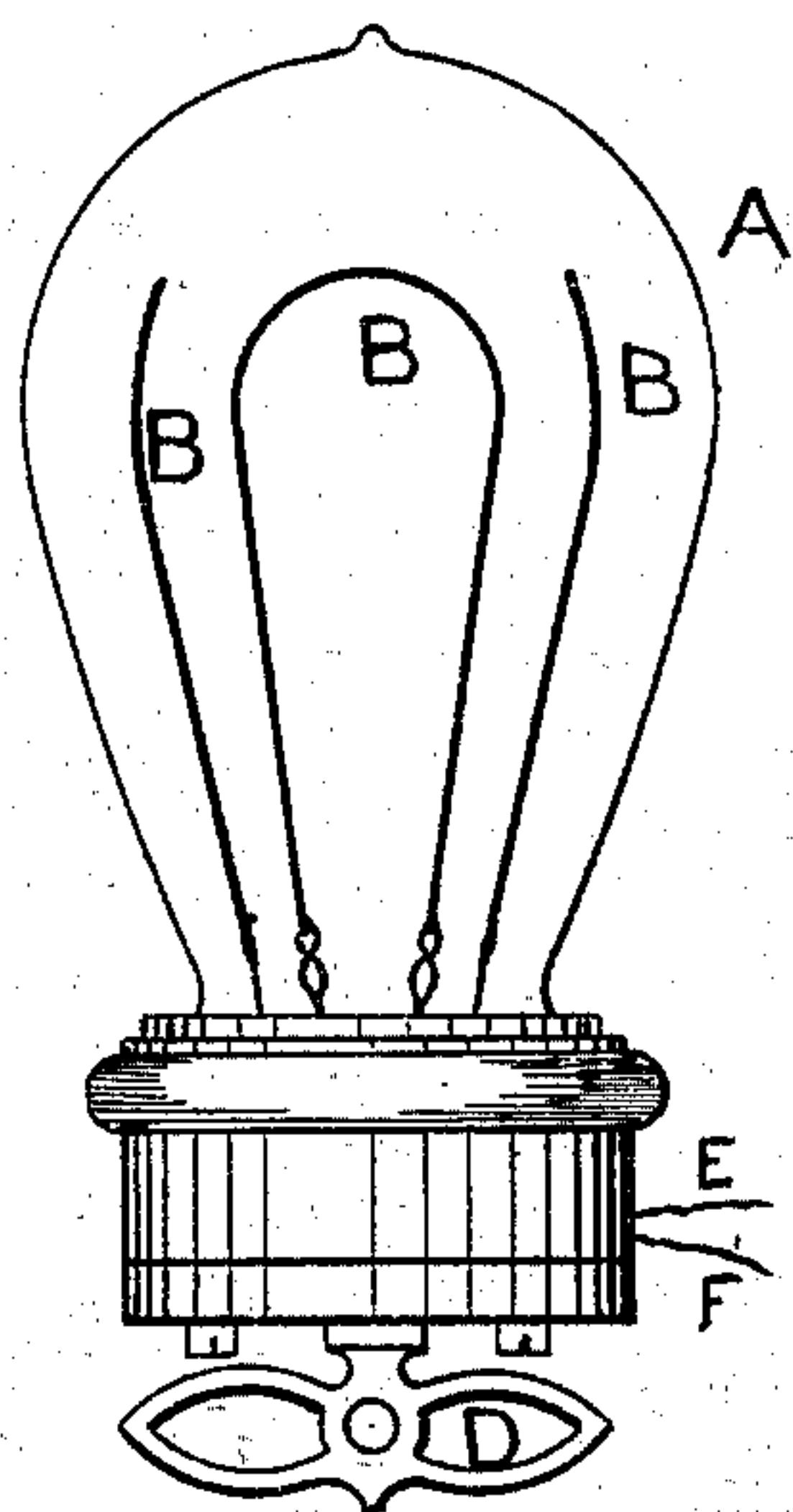


FIG. 1.

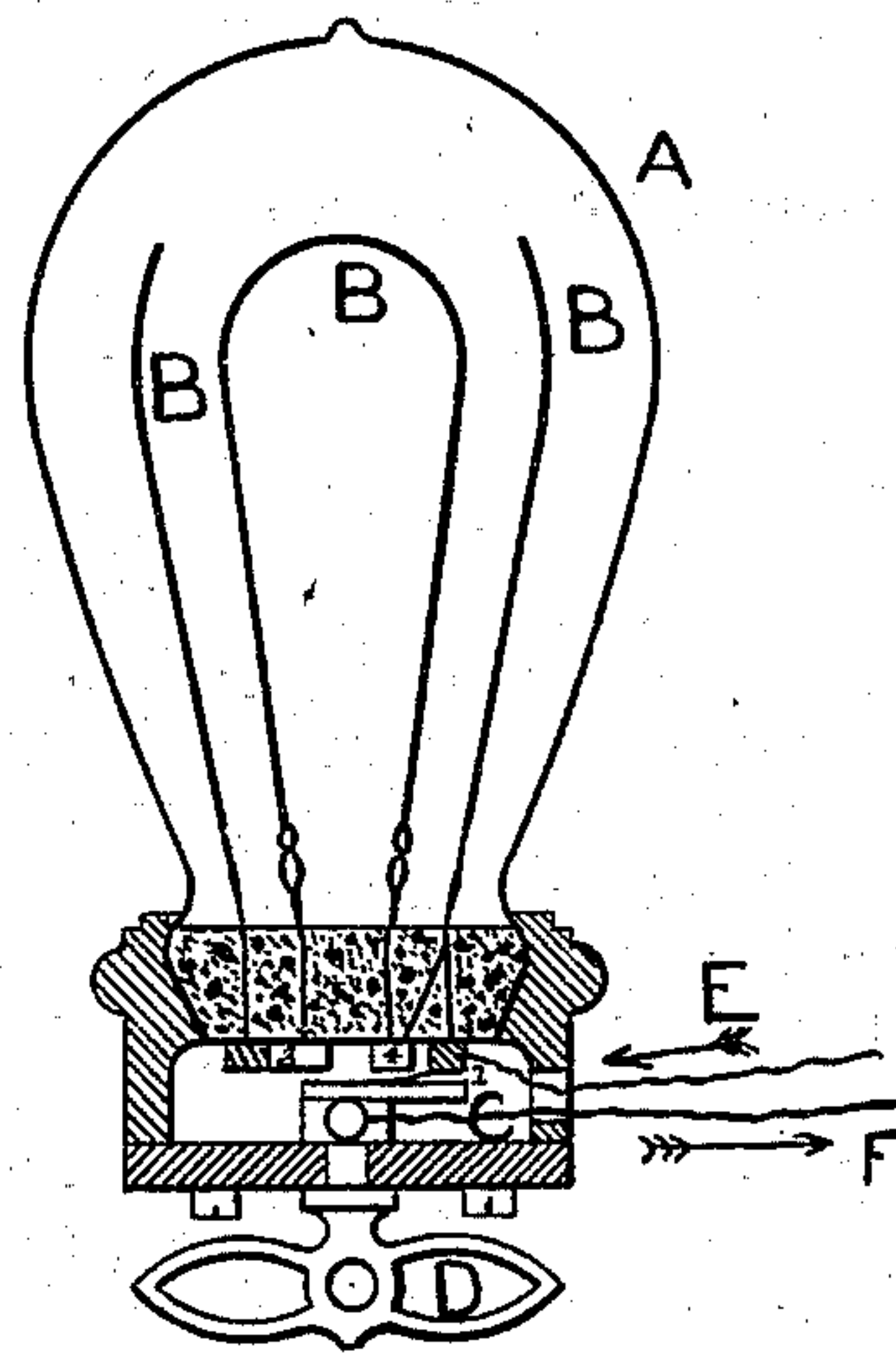


FIG. 2.

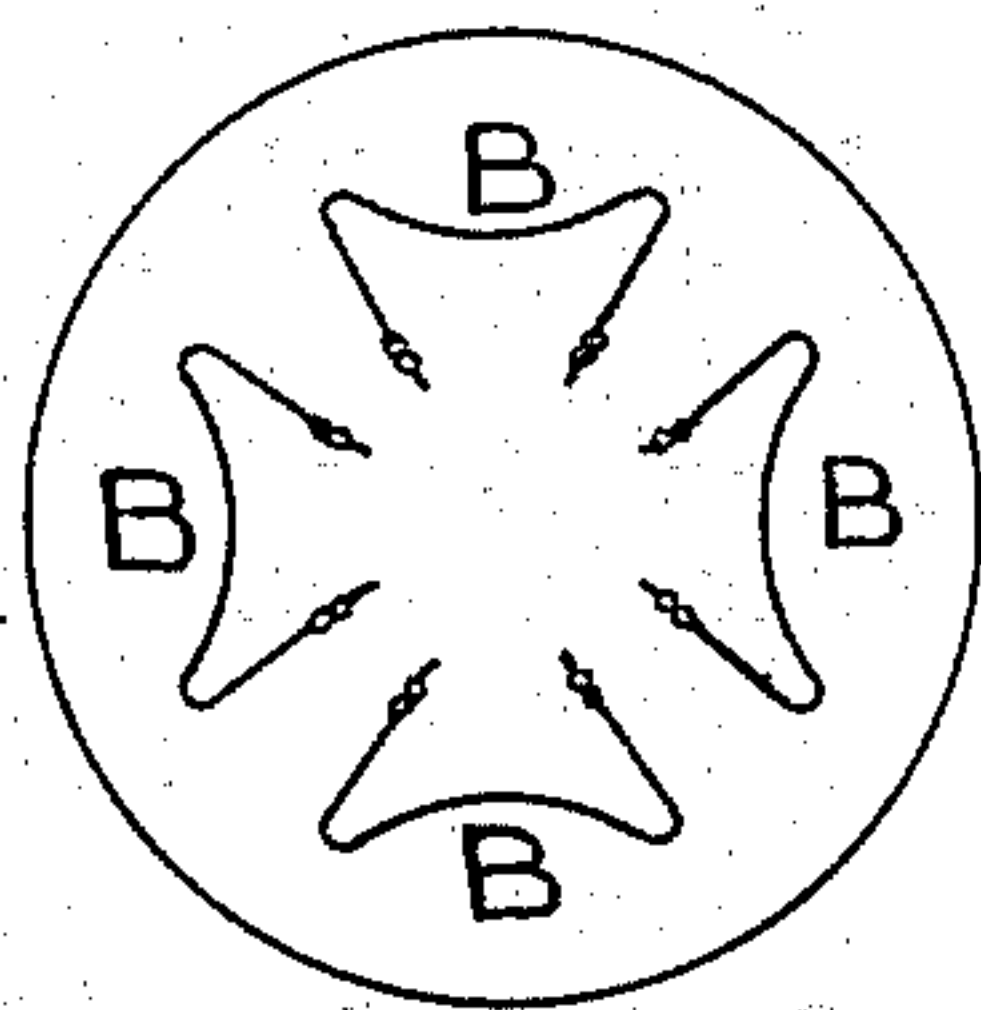


FIG. 3.

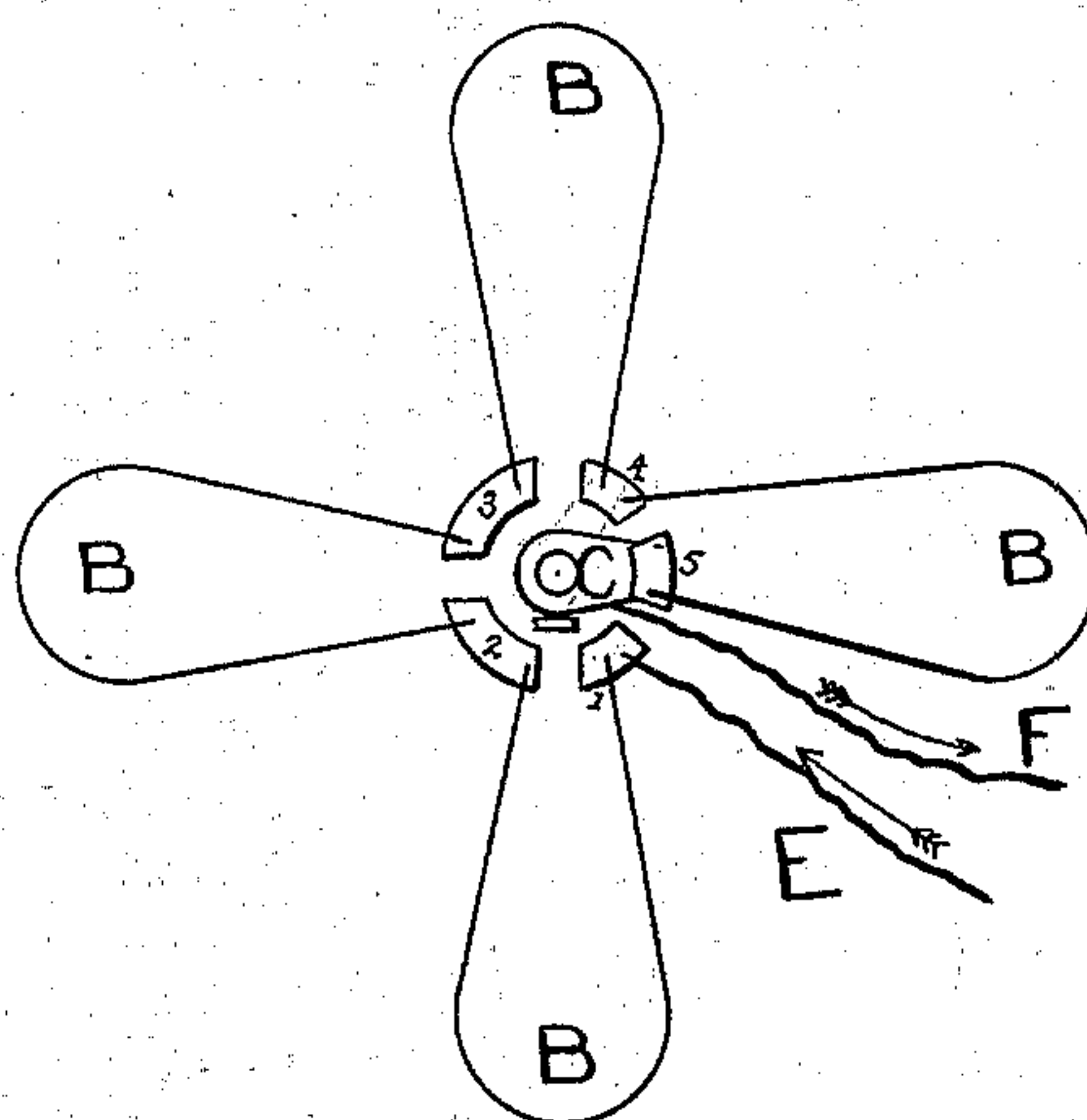


FIG. 4.

WITNESSES:  
*W. B. Chaffee*  
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INVENTOR,  
*Stephen Henry Emmens,*  
BY HIS ATTORNEY,  
*Geo. L. Ewin.*



# UNITED STATES PATENT OFFICE.

STEPHEN HENRY EMMENS, OF LONDON, COUNTY OF MIDDLESEX, ENGLAND.

## INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 267,647, dated November 14, 1882.

Application filed September 6, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN HENRY EMMENS, a subject of the Queen of Great Britain, residing at London, in the county of Middlesex, England, have invented a new and useful Improvement in Electric Lights, of which the following is a specification.

This invention relates to electric lamps dependent for their luminosity upon the incandescence of bridges or conductors of carbon or other suitable substance of high electrical resistance, *in vacuo*, or in petroleum, bisulphide of carbon, or other suitable gas or vapor. It is designed to afford at will a highly diffused light and to provide for readily regulating the quantity of light from any single lamp, and for extinguishing the same, by short-circuiting, without complication of parts. These objects I effect in the manner illustrated in the drawings herewith and forming part hereof, in which—

Figure 1 is an elevation of my lamp. Fig. 2 is a vertical section of the same. Fig. 3 is a plan view; and Fig. 4 is a diagrammatic development in plan of the carbons and connections, like letters of reference indicating corresponding parts in the several figures.

A may represent the outer part of the lamp, composed of a transparent bulb or globe and a hollow base, which may be of any approved description. Within the bulb I arrange a series of small incandescing conductors or "bridges," B, four in the example, which are disposed around a circle concentric with the bulb, as shown in Figs. 1 and 3. Metallic connections comprising a corresponding circular series of anvils, 1 2 3 4 5, within the hollow base of the lamp unite the bridges B with each other, as shown in Figs. 2 and 4, and provide for readily connecting the whole in series with the conducting-wires leading into and out of the lamp, so as to produce by their joint luminosity a highly-diffused light. To provide by the same means in part for regulating the luminosity of the lamp and for extinguishing the light by short-circuiting the electricity at the lamp I provide a switch or "tap" formed by a rotary contact-piece, C, within the said hollow base

of the lamp in combination with the said series of anvils 1 2 3 4 5, said contact-piece having a vertical arbor in line with the axis of the lamp, and provided with an external thumb-piece, D, by means of which said contact-piece is conveniently rotated. The wire E leading from the source of electricity into the lamp is connected permanently with the first of the said series of anvils 1, and the wire F leading out of the lamp is connected with the said contact-piece C through its arbor. In the position of the contact-piece C represented by Fig. 4, the current of electricity entering the series of bridges B at 1 and leaving at 5 renders the whole series incandescent. If, now, C be turned upon 4, it will be seen that only three of the four bridges will be in circuit; if C be turned upon 3, only two bridges will be in circuit; if C be turned upon 2, only one bridge will be in circuit, and if C be turned upon 1, the lamp will be short-circuited and extinguished.

I do not claim herein broadly the combination in one electric lamp of two or more incandescing conductors, a single electric circuit leading thereto, and a circuit-controller therein, as I am aware that these elements have before been combined in another lamp.

I claim as new and desire to protect by Letters Patent of the United States—

The combination, in an electric lamp, of the within-described series of incandescing bridges B, arranged around a circle within and concentric with the bulb of the lamp, metallic connections comprising a corresponding series of anvils uniting said bridges with each other and with a wire leading from a source of electricity, the rotary contact-piece C, connected with a wire leading out of the lamp, and the thumb-piece D, for turning said contact-piece into different positions, substantially as herein specified, for the purposes set forth.

London, June 16, 1882.

STEPHEN HENRY EMMENS.

Witnesses:

JAMES SIMMONS,  
S. P. WILDING.