

(No Model.)

S. D. MOTT.

INCANDESCING ELECTRIC LAMP.

No. 283,270.

Patented Aug. 14, 1883.

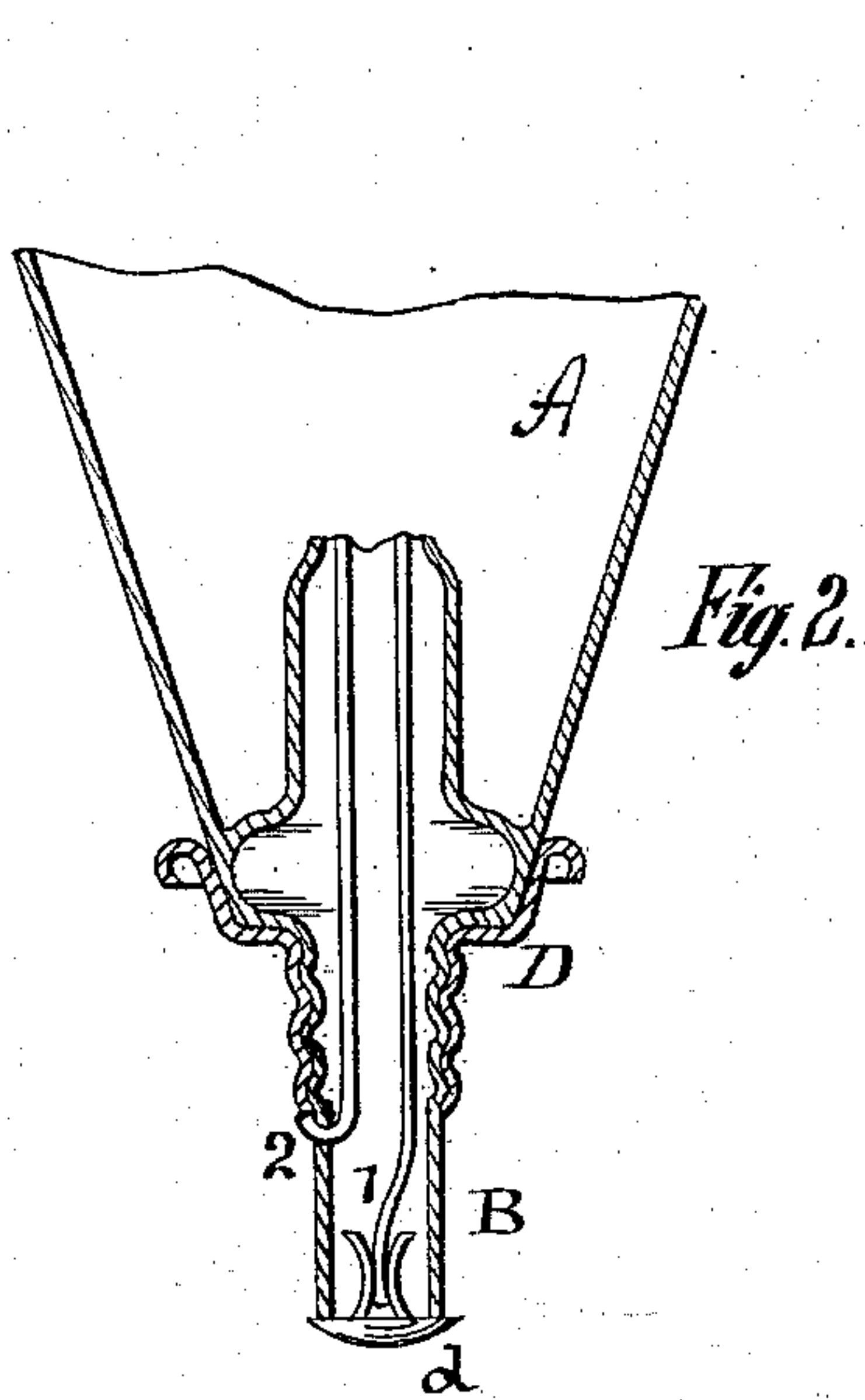


Fig. 2.

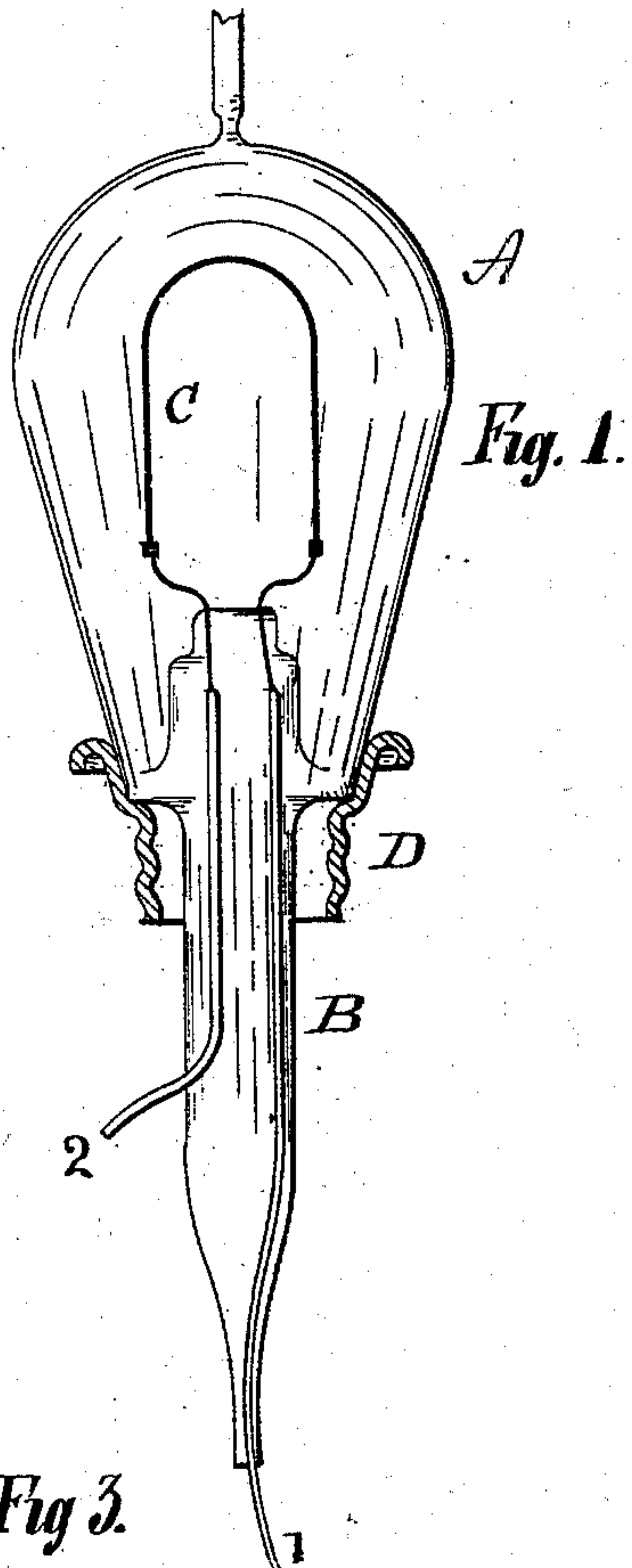


Fig. 1.

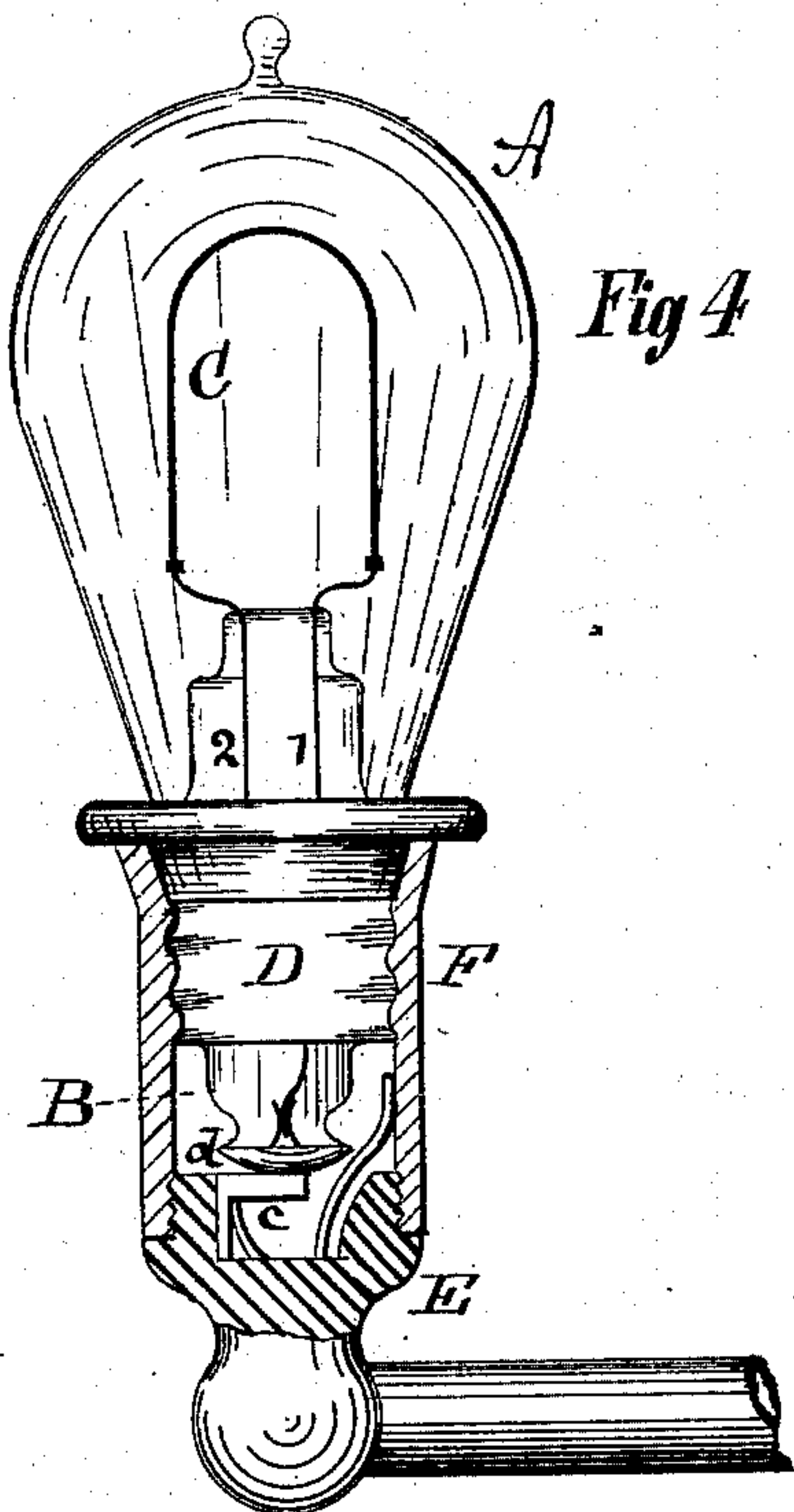
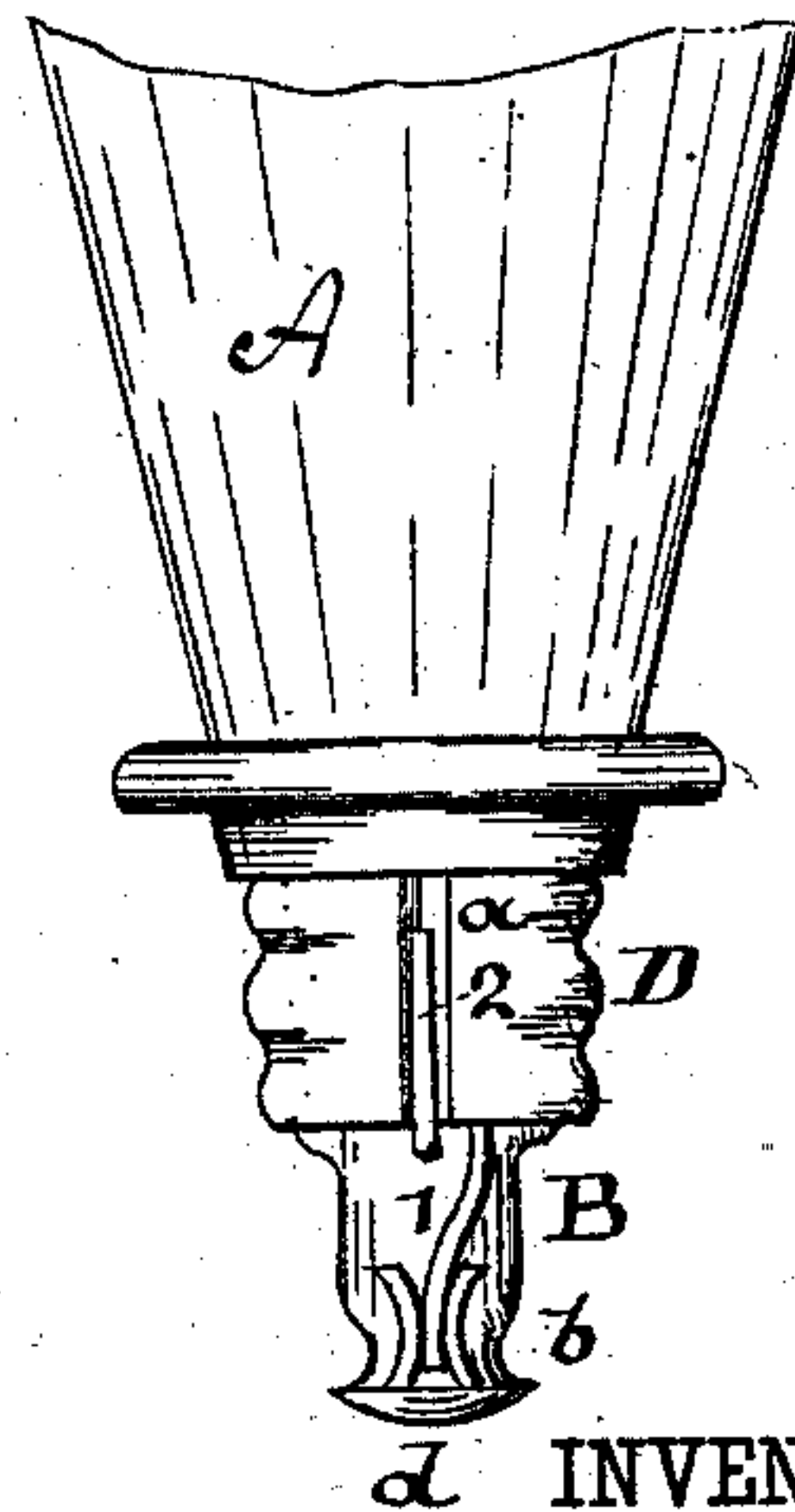


Fig. 4.

Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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ELECTRIC LIGHT COMPANY, OF NEW YORK, N. Y.

## INCANDESCING ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 283,270, dated August 14, 1883.

Application filed November 29, 1881. Renewed August 14, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL D. MOTT, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a certain  
5 new and useful Improvement in Incandescent Electric Lamps, (Case B,) of which the following is a specification.

Heretofore incandescent electric lamps have had molded or otherwise formed on the lower  
10 part of their glass-supporting necks or stems a collar or base of insulating material, to the exterior of which two terminals are attached. Such terminals are arranged to correspond with similar terminals on the interior of a  
15 socket of insulating material.

The object of my invention is to dispense with the insulating collar or base, instead of attaching the terminals directly to the glass, producing a collar simpler and easier of construction, smaller and neater in appearance,  
20 and more reliable and durable in use than those hitherto made. In accomplishing these ends I use for the lamp-terminals a screw-threaded metal ring and a metal plate or button. The ring which forms the upper terminal is placed around the glass neck, which is softened by heat and then blown out into the ring, filling the latter, so that it is held closely  
25 to the glass. To keep it from turning around on the glass it is provided with a depression, forming an internal vertical rib, which holds it in place on the glass, and also furnishes a convenient place for soldering one of the leading-in wires, which is bent out and attached  
30 to the ring. The upper part of the ring is enlarged, so as to form a shoulder to support the lamp when placed in its socket. The lower terminal is a button or plate, having a projection, which, when the plate is placed across the lower end of the stem, extends up within  
35 the stem, and has the other leading-in wire attached to it. The glass is pinched down upon the projection, so that the terminal is held in place. A convenient socket, in which the lamp may be placed, consists of a metal ring or sleeve, a portion of whose interior has a screw-thread corresponding to that of the base. The metal sleeve terminates in a block of insulating material containing a terminal  
40 corresponding to the lower terminal of the lamp-base. To this terminal and to the sleeve

are attached the respective wires of the multiple-arc circuit in which the lamp is placed.

In the annexed drawings, Figure 1 is a view of a lamp with the ring-terminal placed in position; Fig. 2, a sectional view of the lower part of the lamp after the glass is blown out into the ring and the other terminal attached; Fig. 3, an elevation of the same, and Fig. 4 a view of the completed lamp set in its socket. 55  
60 Similar letters refer to corresponding parts in all these figures.

A represents the glass inclosing-globe of an incandescent electric lamp, and B its interior glass tube or stem, supporting the carbon C. 65  
D is the upper or screw-threaded ring-terminal, and *d* the lower or plate-terminal.

In Fig. 1 the lamp has not yet been exhausted, and the ring D is simply placed over the neck of the lamp, without being secured there. 70  
The glass of the tube B is softened and blown out, so as to completely fill the screw-threaded portion of the ring D. The lower portion of the tube B is then broken off and the terminal *d* placed on the end of the remaining 75  
portion. The wire 2 is bent up and soldered to the ring D; or this wire may, before the glass is blown out into the ring, be placed between the glass and the ring, and thus held, when the glass is caused to fill the entire ring 80  
and the wire 1 attached, as shown, to the terminal *d*. The lamp is now in the form shown in Figs. 2 and 3, the glass being softened and pinched down at *b* upon the upward projection of the terminal *d*, so as to hold the terminal in 85  
place. (See Fig. 3.)

In Fig. 3, *a* is a vertical depression, which forms a vertical rib on the inside of the ring D, employed to keep the ring from turning around on the glass. In this depression is 90  
soldered the end of the wire 2.

In Fig. 4 is shown a form of socket adapted to receive this lamp. E is a block of wood or other insulating substance. From it extends upwardly a metal ring or sleeve, F, adapted to 95  
receive the ring D, and having a screw-thread corresponding to that of the ring. A metal terminal, *e*, is placed so as to contact with the lamp-terminal *d*. From the ring F and terminal *e* wires run to the interior of a fixture which 100  
supports the socket and lamp.

What I claim is—



1. The combination, with the glass neck or stem of an incandescing electric lamp, of a screw-threaded metal collar or ring secured directly upon the glass of said neck or stem, one of the leading-in wires of the lamp being attached to said collar or ring, substantially as set forth.
2. The combination, with an incandescing electric lamp, of a screw-threaded metal collar or ring encircling the glass neck or stem of said lamp, and provided with an internal rib, substantially as and for the purpose set forth.
3. The combination, with an incandescing electric lamp, of a plate or button adapted to form one of the terminals of the lamp, and secured directly and permanently to the end of the glass neck and to one leading-in wire, substantially as set forth.
4. The combination, with the glass neck or stem of an incandescing electric lamp, of a screw-threaded metal collar or ring secured directly upon the glass of said neck or stem, and a plate or button secured directly to the end of said neck or stem, the leading-in wires of the lamp being attached, respectively, to said collar and said plate or button, substantially as set forth.

This specification signed and witnessed this 19th day of November, 1881.

SAMUEL D. MOTT.

Witnesses:

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