(No Model.)

E. THOMSON.

CARBON HOLDER FOR ARC LAMPS.

No. 583,955. Patented June 8, 1897.

FIG. 1.

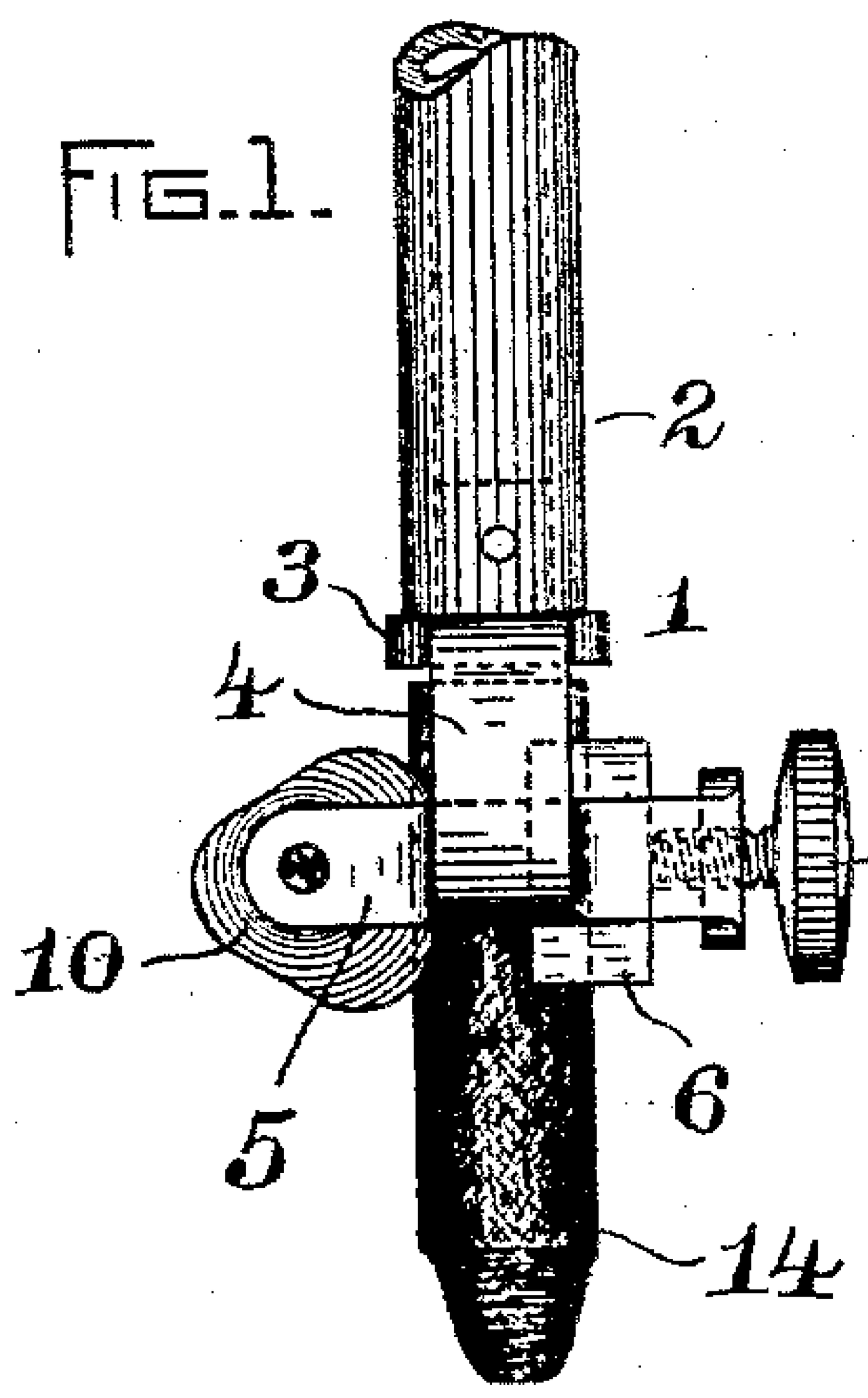


FIG. 2.

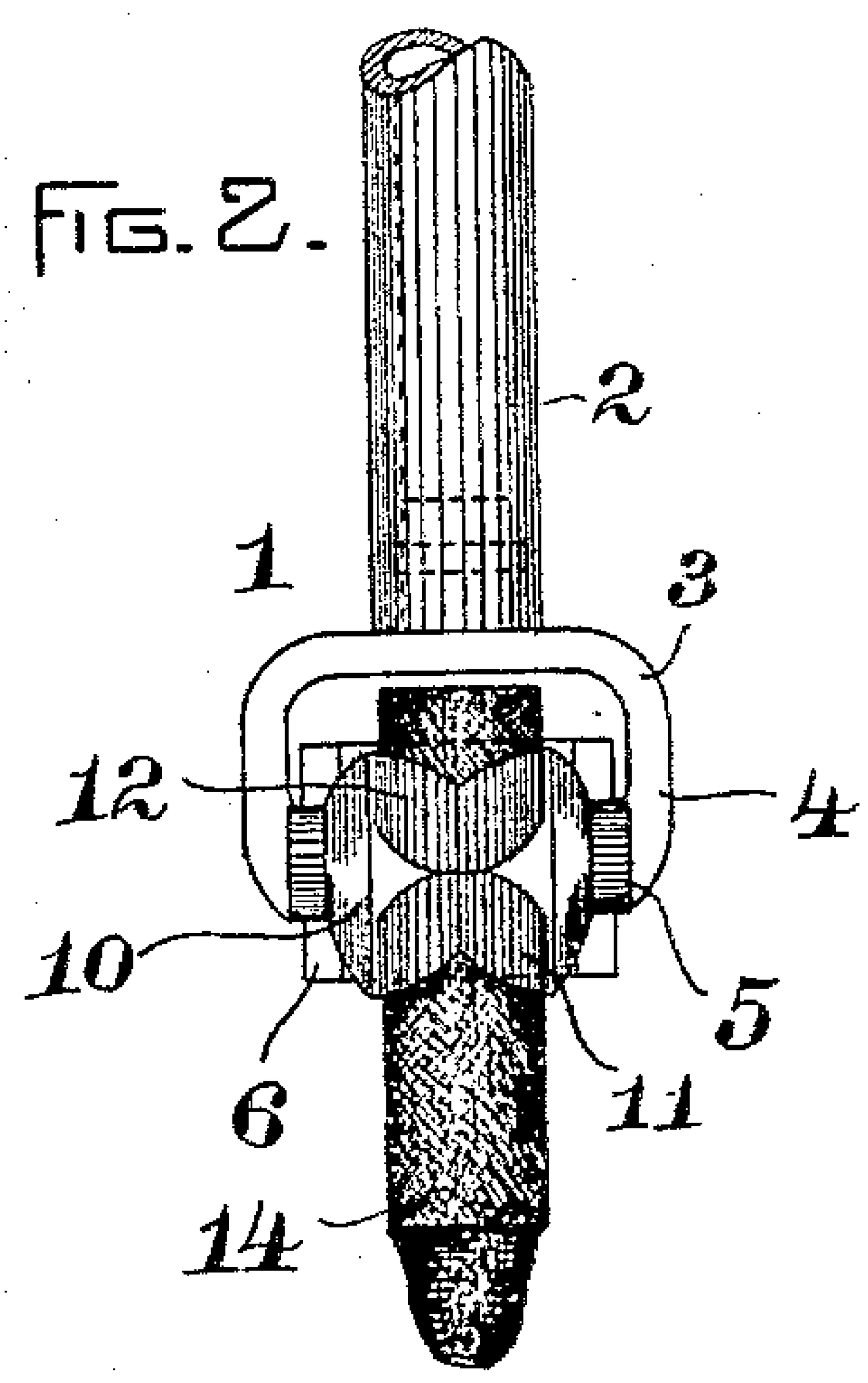


FIG. 3.

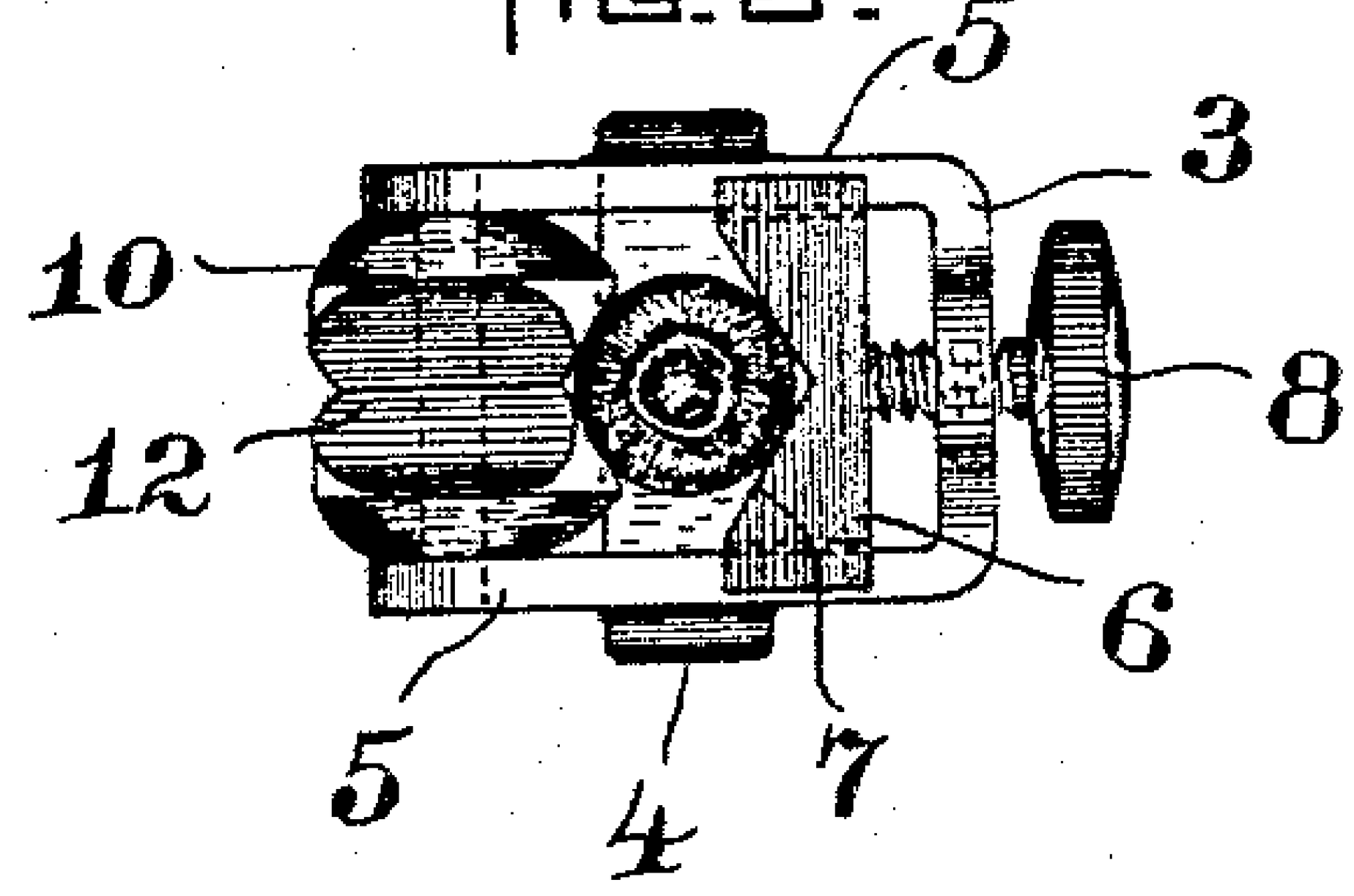


FIG. 4.

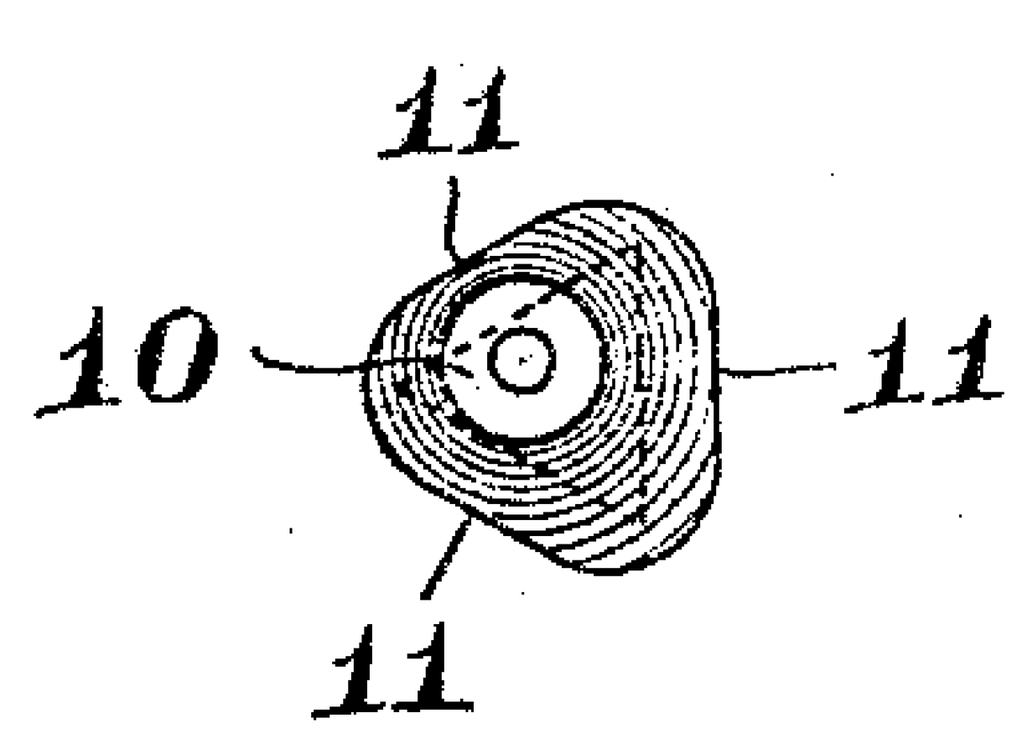
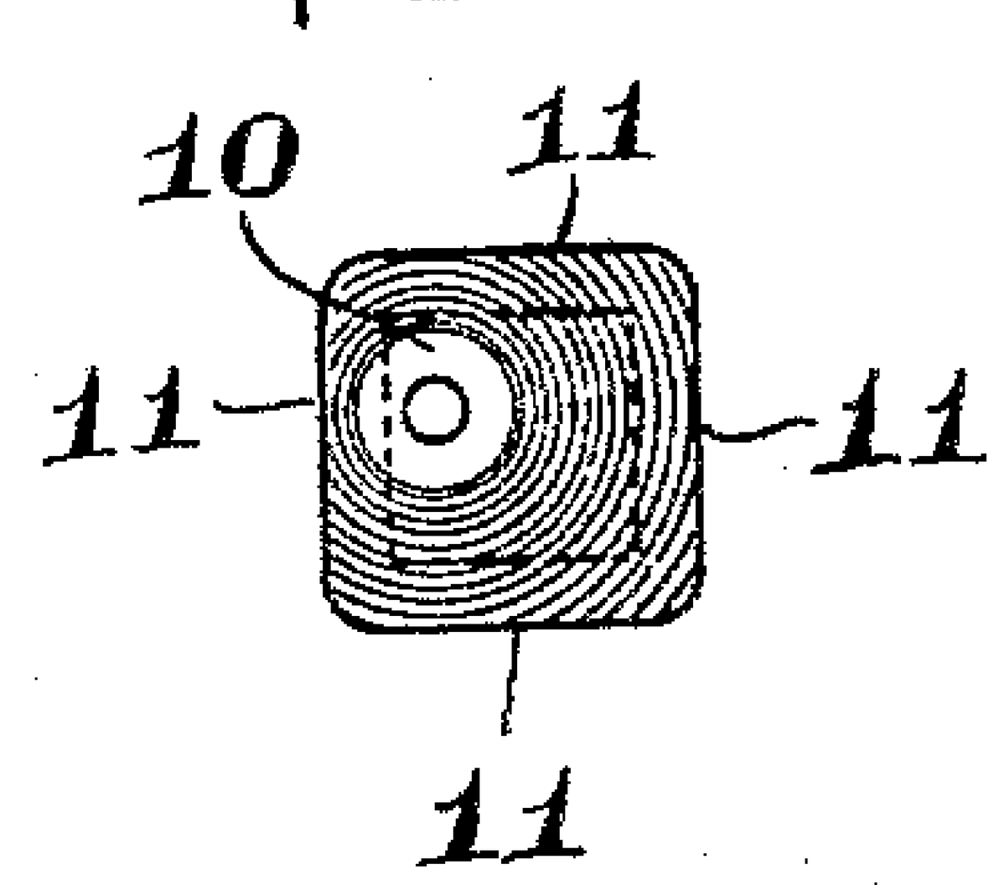


FIG. 5.



WITNESSES.
Henry O. Westendarp
B. B. Hull

INVENTOR.
Elihu Thomson, by
By Geo. R. Blodgett,
Atty.

UNITED STATES PATENT OFFICE.

ELIHU THOMSON, OF SWAMPSCOTT, MASSACHUSETTS, ASSIGNOR TO THE GENERAL ELECTRIC COMPANY, OF NEW YORK.

CARBON-HOLDER FOR ARC-LAMPS.

SPECIFICATION forming part of Letters Patent No. 583,955, dated June 8, 1897.

Application filed October 31, 1896. Serial No. 610,656. (No model.)

To all whom it may concern:

Be it known that I, ELIHU THOMSON, a citizen of the United States, residing at Swampscott, county of Essex, State of Massachusetts, have invented certain new and useful Improvements in Carbon-Holders for Arc-Lamps, (Case No. 476,) of which the following is a specification.

This invention relates to a carbon-holder for arc-lamps, and has for its object to provide a clamp by means of which not only can carbons of different size be clamped into position, but also by means of which the clamped carbon will be automatically and accurately centered.

The invention consists of a clamp for holding carbons of arc-lamps constructed and arranged as hereinafter set forth and explained.

Referring to the accompanying drawings, in which similar figures indicate like parts, Figure 1 is a side view in elevation of a carbon-holder for arc lamps constructed in accordance with this invention. Fig. 2 is a front view thereof. Fig. 3 is a plan view of the clamp, looking at it from the under side; and Figs. 4 and 5 are detail views of one of the clamping members or jaws of the clamp.

In carrying out this invention the clamp 1 is mounted on the carbon-supporting rod 2 of an arc-lamp by means of the U-shaped piece 3, having depending arms 4, provided with horizontal arms 5. Mounted in the U-shaped piece 3 is the usual sliding clamping jaw or member 6, which may be provided with a V-shaped face 7, adapted to bear against the carbon and arranged to slide on the arms 5 and operated by means of a thumb-screw 8, bearing against the back of said clamping member or jaw 6. Mounted in the outer ends of the arms 5 is a rotatable member or jaw 10, eccentrically pivoted in said arms 5. This clamping member or jaw 10 may be provided with two or more faces 11, and these faces may each be provided with a V or other shaped groove 12. It will readily be seen that by means of this construction when the carbon 14 is inserted in the clamp 1 between the jaws 6 and 10 the distance between said jaws may be regulated by locating one of the faces of the jaw 10 opposite to the face of the clamping member 6, and by having the clamping member or jaw 10 pivoted eccentrically the clamp may be adapted to carbons of different sizes, the eccentrically-pivoted member or jaw 10 automatically rolling into place, so as to afford a greater or narrower space between the jaws 6 and 10, according as the clamping member is swung about its pivotal point, the distance being determined by the distance from the inner face of the clamping member 10 with respect to its pivotal point. In other words, when the clamping member 10 is swung about its pivotal point its several faces are brought into position opposite to the clamping-jaw 6 at varying distances from the latter. The carbon 14 is securely fastened in place, when the parts of the clamp have been adjusted, by means of the set-screw 8. The clamping member 10 may be of different shapes, as shown in Figs. 4 and 5, triangular, as in Fig. 4, or square, as in Fig. 5, in Fig. 4 there being presented three clamping-faces and in Fig. 5 four clamping-faces. The distances of the faces of clamping member 10 from its pivotal point are so selected that when the clamping-jaw 10 is clamped against the carbon the latter will be automatically and accurately centered, whether it be of one size or another of carbon—as, for instance, one-half inch, five-eighths inch, or seven-sixteenth inch in diameter when three faces are used, or any one of four standard sizes of carbon when four faces are used, as with the piece shown in Fig. 5.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A carbon-clamp for arc-lamps, provided with an eccentrically-pivoted rotary jaw fixable in a number of working positions, a horizontal sliding jaw, and means for clamping the same in a desired position.

2. A carbon-clamp for arc-lamps, provided with an eccentrically-pivoted rotary jaw, having a number of faces, a movable jaw, and means for clamping the same in a desired position.

3. A carbon-clamp for arc-lamps provided with an eccentrically-pivoted rotary jaw, having a number of grooved faces, and a movable jaw with means for clamping the same in a desired position.

4. A carbon-clamp for arc-lamps, provided

with a rotary clamping-jaw with a number of clamping-faces, said jaw being eccentrically pivoted, and a horizontal sliding clamping-jaw with a set-screw for adjusting and clamping the same.

5. A carbon-clamp for arc-lamps, provided with an eccentrically-pivoted rotary jaw, having a number of grooved faces, a horizontally-moving jaw, and means for clamping the same in any desired position.

In witness whereof I have hereunto set my hand this 28th day of October, 1896.

ELIHU THOMSON.

Witnesses:
JOHN W. GIBBONEY,
HERMANN LEVY.