

No. 711,567.

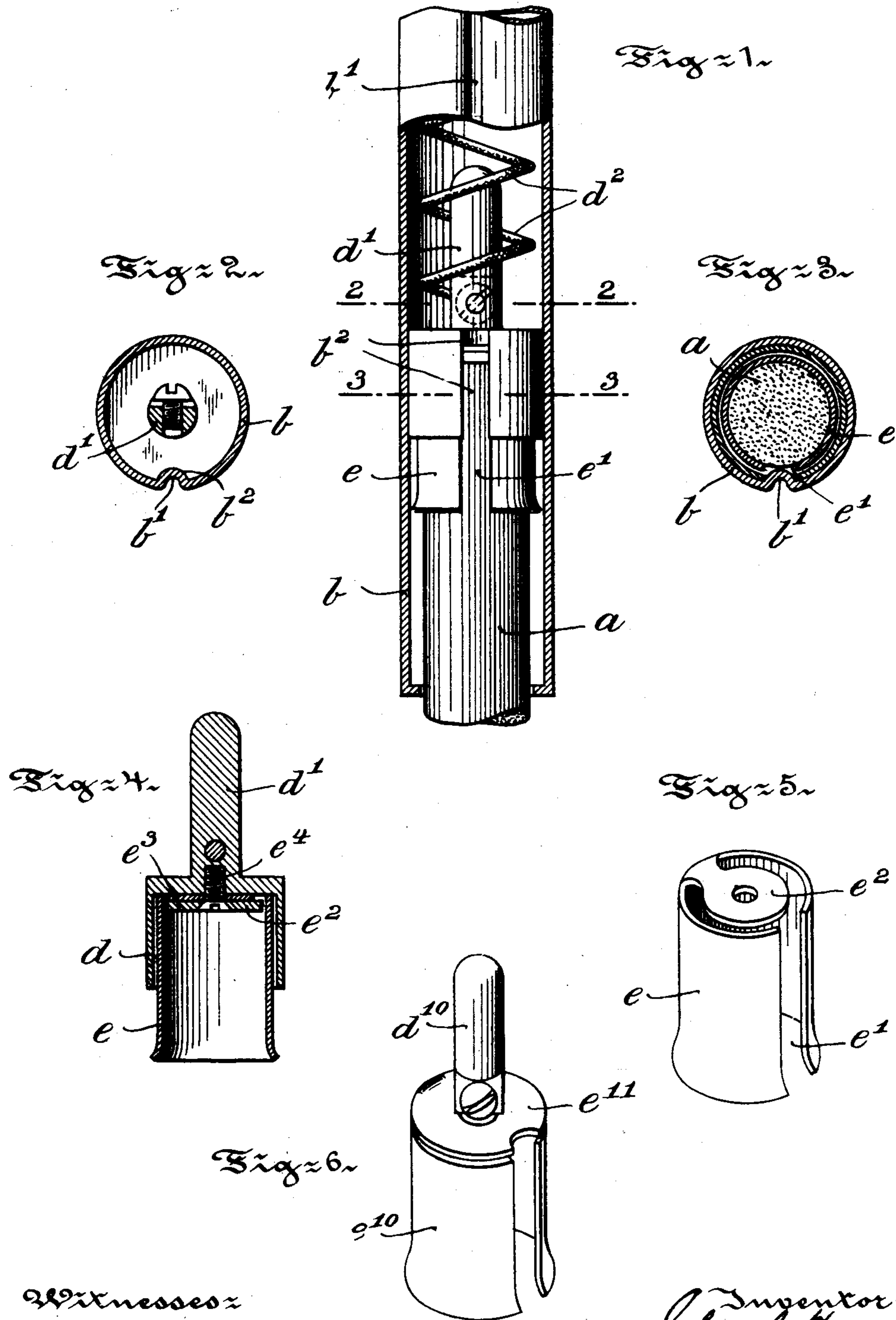
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J. A. HEANY.

CARBON HOLDER FOR ELECTRIC ARC LAMPS.

(Application filed Mar. 12, 1902.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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CARBON-HOLDER FOR ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 711,567, dated October 21, 1902.

Application filed March 12, 1902. Serial No. 97,801. (No model.)

To all whom it may concern:

Be it known that I, JOHN ALLEN HEANY, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Carbon-Holders for Electric-Arc Lamps, of which the following is a specification.

My invention has relation to a carbon-holder for electric-arc lamps, and in such connection it has relation to the construction and arrangement of such a carbon-holder.

The principal object of my invention is to provide a carbon-holder of simple construction which is adapted to readily receive and retain the carbon and from which the carbon may be readily removed, said holder also adapted, in conjunction with the tube in which the carbon slides, to maintain the carbon in proper vertical position during the feeding of the carbon.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a front elevational view of a carbon-holder embodying main features of my invention, the tube in which the carbon is fed being broken away and sectioned and the carbon being held by the holder. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 1. Fig. 4 is vertical sectional view of the holder. Fig. 5 is a perspective view of the holder, the post and cup connecting the holder with the flexible bond or conductor being removed; and Fig. 6 is a perspective view of a modified form of the holder.

Referring to the drawings, *a* represents the movable carbon of an electric-arc lamp, and *b* represents the surrounding tube, through which the carbon *a* is to be fed. This tube *b* is vertically indented, as at *b'*, to form a rib or guideway for a purpose hereinafter explained.

The carbon-holder, as illustrated in Figs. 1 to 5, consists, essentially, of an outer cup or shell *d*, from which projects upward a post

d', to which a flexible bond *d²* is secured to thereby connect the post and cup to one pole of the electric circuit. This cup or shell *d* has along its rim and in its base a channel *b²* to receive the rib *b'* of the tube *b*. This channeling of the shell or cup *d* in conjunction with the rib *b'* of the tube *b* serves to guide the cup *d* vertically in the tube and to prevent the turning of the cup *d* in the tube *b*. Within the cup *d* is located a cup-shaped socket *e*, arranged to receive and retain the carbon *a*. The socket *e* consists, preferably, of a flat strip of metal bent into tubular form with the edges separated from each other by a space *e'*. At one end of the socket the strip is bent inward in the form of a tongue *e²*, which forms a ready means of attaching the socket to the interior of the cup or shell *d*. In practice the tongue *e²* is preferably clamped down upon the interior of the cup or shell *d* by a washer *e³*, a screw or pin *e⁴* being passed through both washer *e³* and tongue *e²* and entering the post *d'*, as clearly illustrated in Fig. 4. By so assembling the parts the spring-like effect of the tubular socket *e* is not impaired, and yet a very close electrical connection between the socket and the cup or shell *d* is insured. In the form shown in Fig. 6 the outer cup or shell *d* is dispensed with. In this form the strip of metal is formed into a socket *e¹⁰* and tongue *e¹¹*, the tongue, however, covering the end of the socket. To the tongue the post *d¹⁰* is secured directly in any suitable manner. The socket *e¹⁰* and its tongue *e¹¹* have a channel or space adapted to receive the rib *b'* of the tube *b*.

Having thus described the nature and scope of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A carbon-holder, comprising a spring-socket formed of a strip of metal bent into tubular shape with a space between its edges, a tongue formed at one end of the socket, and a post in electrical connection with said tongue.

2. A carbon-holder, comprising a spring-socket formed of a strip of metal bent into tubular shape with a space between its edges, a tongue formed at one end of the socket, a

cup surrounding the socket and tongue, a post projecting from said cup, and means for clamping the tongue to the interior of the cup.

- 5 3. In a carbon-holder, a tube, wherein the carbon is adapted to slide, a vertical rib formed in the wall of said tube, a cup recessed to receive the rib and to slide thereon within the tube, a post projecting from said cup, a
10 flexible bond connecting the post with one pole of the electric current, a spring-socket

formed of a strip of metal bent into tubular shape, a tongue formed at one end of the socket, and means for uniting the tongue to the interior of the cup.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

JOHN ALLEN HEANY.

Witnesses:

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