

No. 620,214.

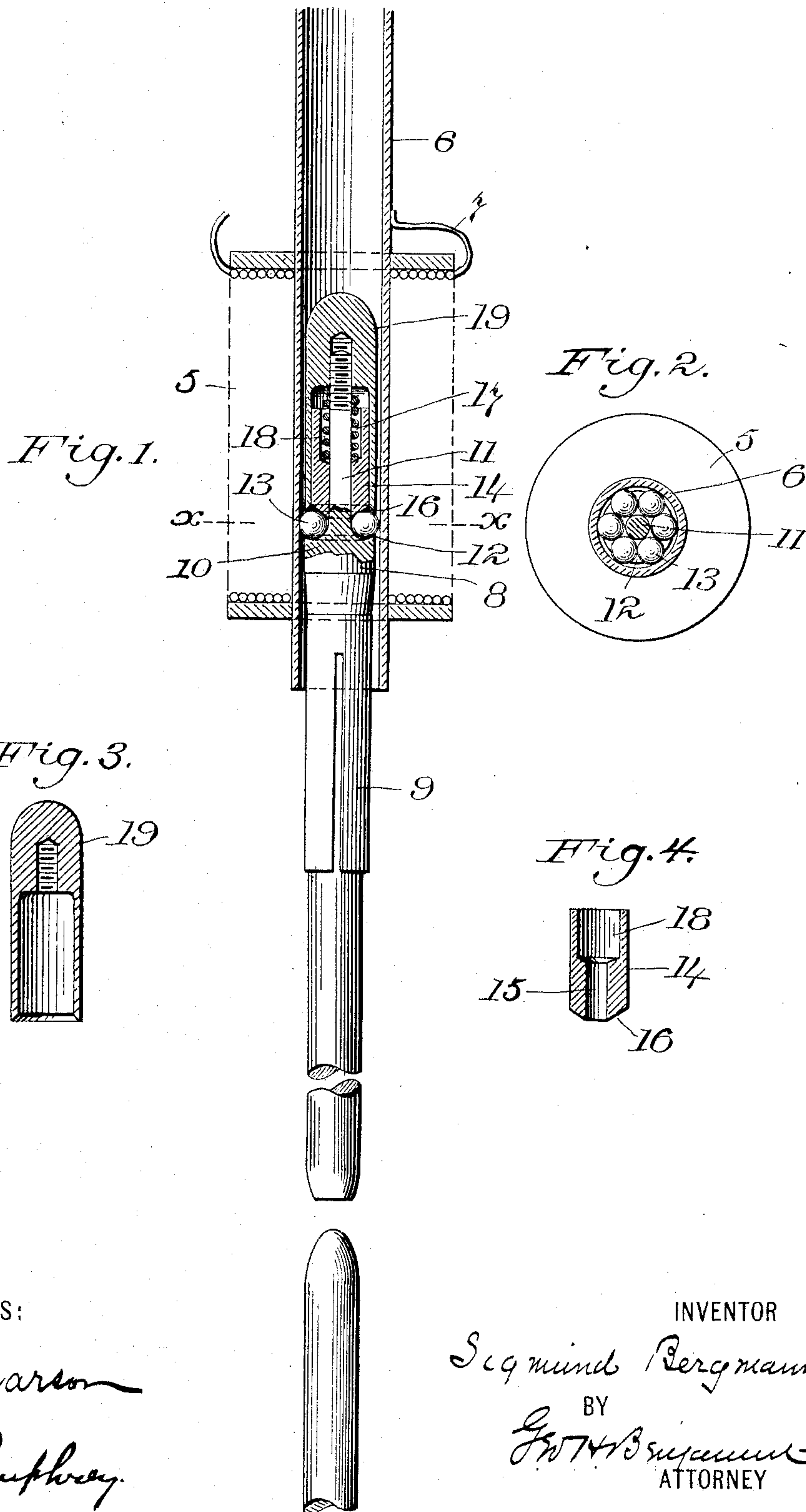
Patented Feb. 28, 1899.

S. BERGMANN.

CARBON HOLDER FOR ELECTRIC ARC LAMPS.

(Application filed Jan. 24, 1898.)

(No Model.)



WITNESSES:

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SIGMUND BERGMANN, OF NEW YORK, N. Y., ASSIGNOR TO THE GENERAL INCANDESCENT ARC LIGHT COMPANY, OF NEW YORK.

CARBON-HOLDER FOR ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 620,214, dated February 28, 1899.

Application filed January 24, 1898. Serial No. 667,786. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND BERGMANN, a citizen of the United States, residing at New York city, State of New York, have invented a new and useful Improvement in Carbon-Holders for Electric-Arc Lamps, of which the following is a specification.

My invention relates to a device for supporting and guiding the upper carbon of an electric-arc lamp and which also serves as a means for conveying the current from the guiding-tube to the carbon.

The object of my invention is to cause the carbon-holder to move in a straight line through the guiding-tube and to do away with the objectionable springs heretofore used for conveying the current from the guiding-tube to the carbon-holder.

In the accompanying drawings similar numerals indicate like parts.

In the drawings, Figure 1 is a view, partially in elevation and partially in vertical section, showing a magnet-spool, guiding-tube, carbon-holder, and a pair of electric-light carbons. Fig. 2 is a transverse section on the line X X of Fig. 1. Figs. 3 and 4 are detached vertical sections of portions of the carbon-holder.

In the drawings, 5 represents a magnet-spool; 6, a guiding-tube, which is in circuit with the helix of the magnet through the conductor 7. The carbon-holder consists of the body portion 8, provided with the usual divided end 9 for holding the upper carbon. The body portion at 10 has projecting upward from it the stem 11, screw-threaded at the top. The body portion 10 is formed as a concave ring 12, in which are mounted a number of balls—as, for instance, six, Fig. 2—13. Arranged over the balls is a cylindrical portion of metal 14, having the bore 15, which takes over the stem 11. The lower portion 14 has the convex surface 16, which when the portion 14 is in position lies over the balls 13 and tends to force them outward. This por-

tion 14 is movable vertically upon the stem 11 and acts upon the balls either by reason of its weight or by reason of its weight plus the action of a helical spring 17. This spring is interposed between the bottom of the cavity 18 of the part 14 and the under surface of the interior of a cap 19, which fits over the part 14 and is secured in position by means of the screw on end of stem 11. This cap 19 merely serves as an inclosing device for the part 14 and also to resist the upper movement and adjust the pressure of the spring 17. Manifestly this cap and the spring could be omitted without materially altering the operation of the carbon-holder.

The function of the balls, it will be observed, is to guide the carbon-holder in the guiding-tube and also to form a rolling electrical contact between the carbon-holder and the guiding-tube.

Having thus described my invention, I claim—

1. The combination with a guiding-tube for a carbon of an electric-arc lamp, of a carbon-holder, provided with a concave seat, a series of balls mounted on said seat, and a weight mounted over said balls and tending to force said balls in contact with said seat and guiding-tube.

2. The combination with a guiding-tube for a carbon of an electric-arc lamp, of a carbon-holder provided with the seat 10, balls 11, and weight 14, substantially as described.

3. The combination with a guiding-tube for a carbon of an electric-arc lamp, of a carbon-holder provided with the seat 10, balls 11, weight 14, spring 17 and cap 19, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

SIGMUND BERGMANN.

Witnesses:

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