

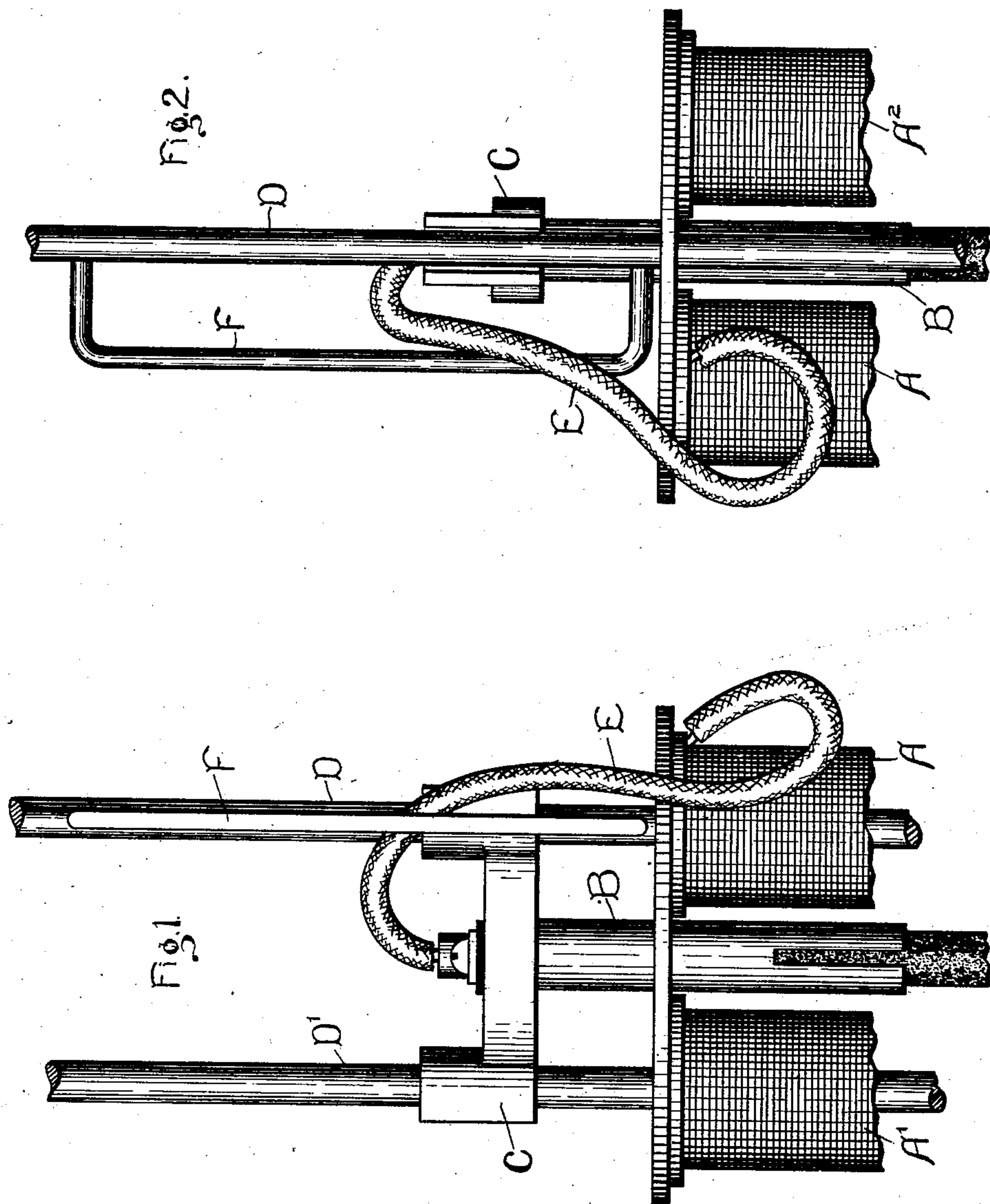
No. 742,604.

PATENTED OCT. 27, 1903.

G. R. DAVISON.  
ELECTRIC ARC LAMP.

APPLICATION FILED FEB. 16, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 742,604, dated October 27, 1903.

Application filed February 16, 1903. Serial No. 143,469. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE R. DAVISON, a citizen of the United States, and a resident of Pittsfield, county of Berkshire, State of Massachusetts, have invented certain new and useful Improvements in Electric-Arc Lamps, of which the following is a specification.

The object of my invention is to provide a means which shall avoid the defects of prior structure for electrically connecting in circuit the moving carbon of an arc-lamp. It has been common to use a loosely-hanging flexible connection which is likely to catch in and be jammed by the moving parts. It has also been common in order to avoid this difficulty to coil the flexible connections in a spiral. This has the defect that it acts as a spring and prevents the free movement of the carbon. It also necessitates the use of a very small connecting-wire. My invention does away with both these difficulties and permits free movement of the carbon without danger of catching and jamming the connecting-wire.

Referring to the drawings, Figure 1 shows a structure embodying my invention, and Fig. 2 shows a side view of the same.

A represents one of the series coils.

B is the holder for the movable carbon carried by a cross-piece C, which slides between guides D D'.

E is the flexible lead running from the series coil A to carbon-holder B. Lead E is preferably insulated with asbestos or other heat-resisting material. Attached to guide D is the wire F. Lead E passes between guide D and wire F, which thus acts as a guide for lead E. By this means lead E is held

away from the moving parts, and yet permits the free movement of carbon-holder B. Lead E and carbon-holder B may both be insulated from the cross-piece C, thus making the lamp safe to handle and reducing the danger of short circuits.

I do not desire to limit myself to the particular construction and arrangement of parts here shown, since changes therein which do not depart from the spirit of my invention will be obvious to those skilled in the art.

Having thus described the invention, what I claim, and desire to protect by these Letters Patent, is—

1. In an electric-arc lamp, a movable carbon-holder, a vertical guide therefor, a guide-rod parallel to said vertical guide, and a loosely-hanging flexible connecting-lead for said holder passing between said vertical guide and said guide-rod.

2. In an electric-arc lamp, a movable carbon-holder, a guide for said holder, a wire parallel to said guide, and a flexible connecting-lead for said holder passing between the said guide and the said wire.

3. In an electric-arc lamp, a carbon-holder, a cross-piece carrying said holder, guide-rods for said cross-piece, a vertical wire attached to one of said guide-rods, and a flexible connecting-lead for the carbon-holder passing between the vertical wire and a guide-rod.

Signed at Pittsfield, Massachusetts, this 13th day of February, 1903.

GEORGE R. DAVISON.

Witnesses:

RICHARD EYRE,  
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