(No Model.)

W. R. PATTERSON.

JOINT FOR ELECTRIC ARC LIGHT CABLES.

No. 311,914. Patented Feb. 10, 1885.

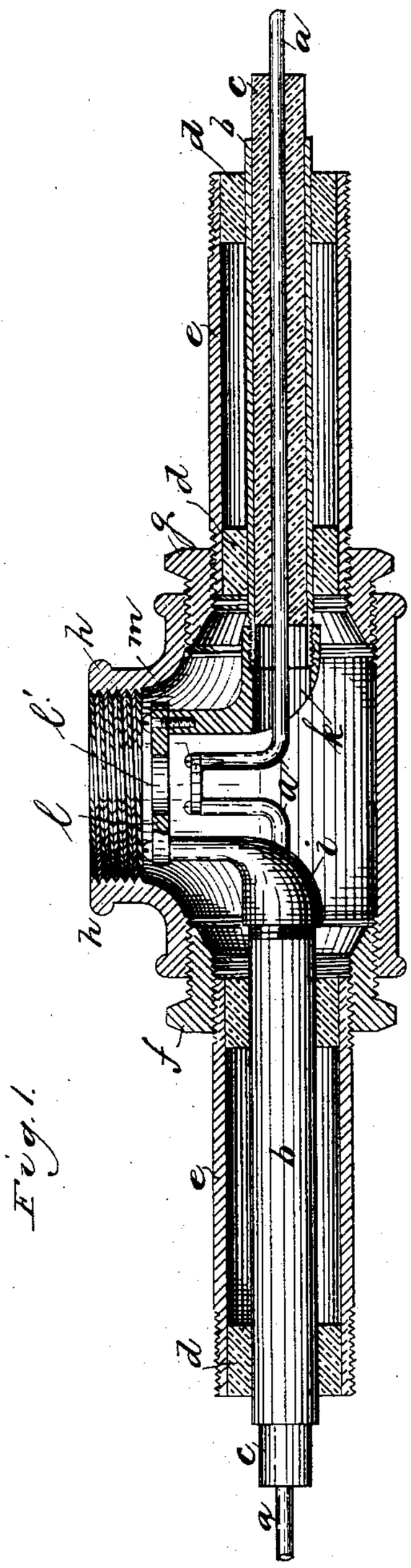

Fig. 1.

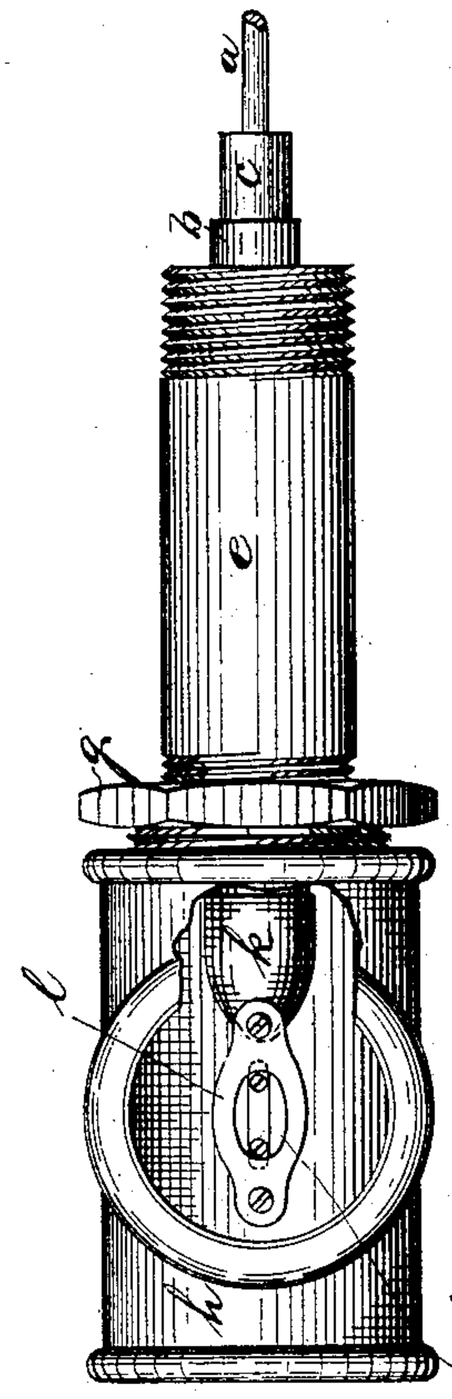

Fig. 2.

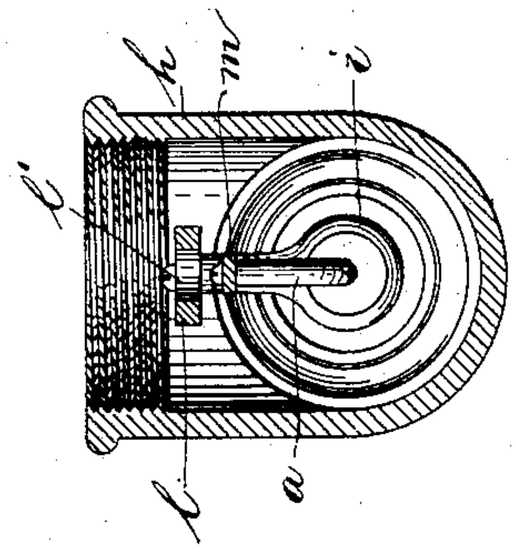

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM R. PATTERSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

JOINT FOR ELECTRIC-ARC-LIGHT CABLES.

SPECIFICATION forming part of Letters Patent No. 311,914, dated February 10, 1885.

Application filed July 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. PATTERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Joints for Electric-Arc-Light Cables, (Case 40,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

In an application filed herewith (Case 35) I have described and claimed a cable consisting of two concentric conductors and means for uniting the sections of such a cable together, so as to afford facilities for making branch connections with the different conductors.

My improvement herein consists in certain modifications in the means for connecting the sections together, in order that four ends of the conductors may be taken out at the joint, so as to afford facilities for connecting with arc lamps which are placed one after another in the circuit and not in multiple arc, as is the case in incandescent systems of lighting.

My invention is illustrated in the drawings, in which Figure 1 is a sectional view of cable embodying my improvements. Fig. 2 is a top view of a portion thereof. Fig. 3 is a transverse vertical central sectional view through the joint.

Like parts are indicated by similar letters of reference in the different figures.

The conductor *a* is insulated from the conductor *b* by means of the strips *c*, which may be of wood or other insulating material. The rings or strips *d*, also preferably of wood, serve to insulate the conductor *b* from the iron pipe *e*. The interstices between the strips and rings may be filled with insulating material, like asphalt, which may be forced in hot. The bushings *f g* should be of such size as may be required to fit the pipe of the cable. The T-coupling *h* must be large enough to give room for the ends of the conductors and their connections. The pieces *i k* are screwed, respectively, to the opposing ends of the outer conductor, *b*, and are connected together by the cross-piece *l*, which is provided with the opening *l'*, as shown. The ends of the central conductor, *a*, are brought through the openings in the pieces *i k* and bent up and connected by the cross-piece *m*, as shown. By simply removing the cross-pieces *l* and *m* the four ends of the two conductors are made accessible, so that connection may be made with the arc lamps in any way desired.

It is evident that either of the cross-pieces may be removed without disturbing the other, and a lamp may be connected with the conductor *a* through the opening in the upper cross-piece.

The outlet in the T-piece *h* should be plugged when connections are made with the conductors at the joint.

I claim—

1. The combination, with the concentric conductors *a* and *b* of an electric-arc-light cable, of the pieces *i* and *k*, screwed to the opposing ends of the tube of the outer conductor, and the ends of the central conductor projecting through openings in said pieces, respectively, and the removable cross-pieces *l* and *m*, substantially as and for the purpose specified.

2. The combination, with the conductor *a*, of the outer conductor, *b*, and the pieces *i k*, provided with openings for the ends of conductor *a*, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 15th day of July, A. D. 1884.

WILLIAM R. PATTERSON.

Witnesses:

GEORGE P. BARTON,

H. FRANKFURTER.