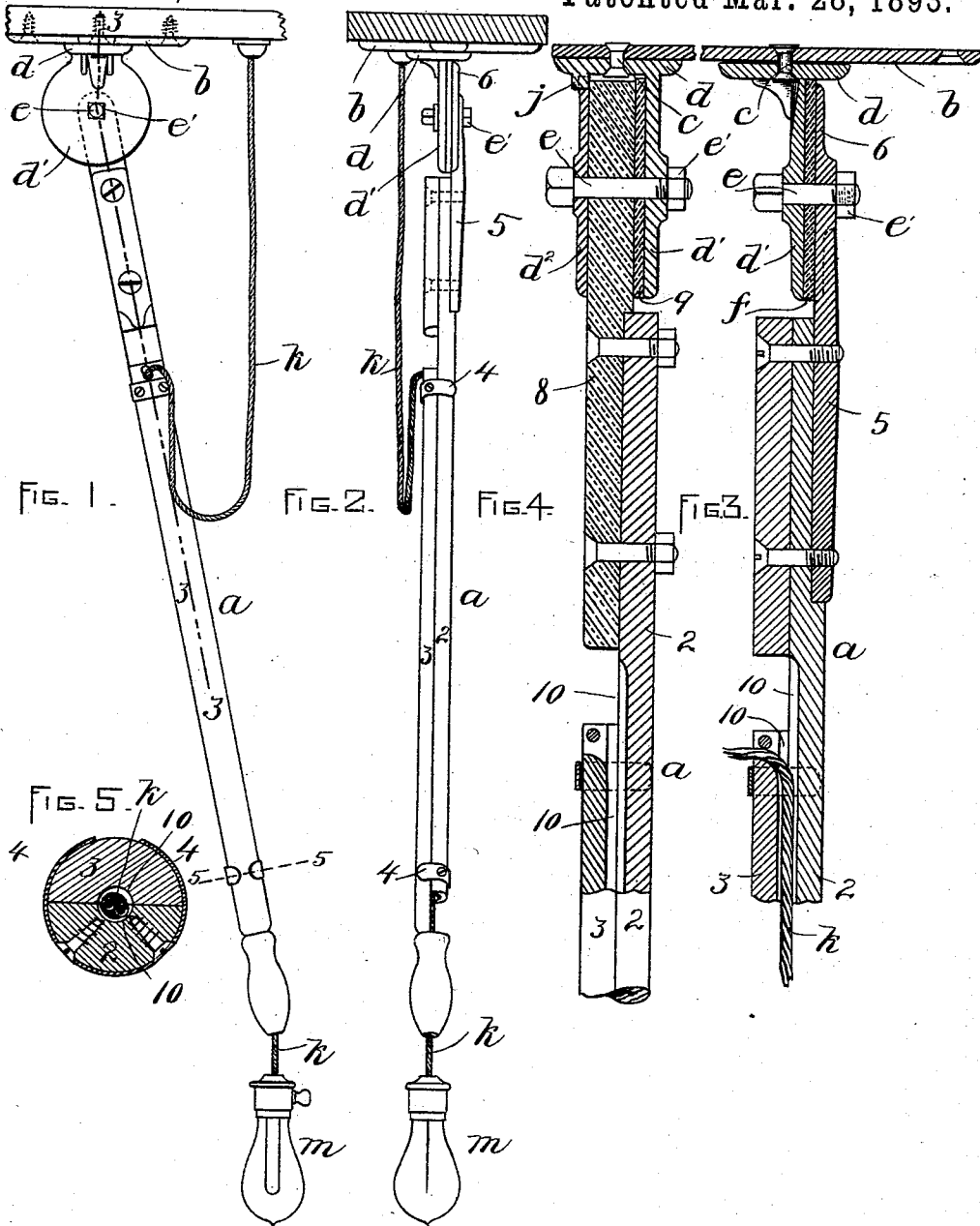


(No Model.)

C. E. RICHARDSON.  
ELECTRIC LAMP SUPPORT.

No. 494,348.

Patented Mar. 28, 1893.



WITNESSES:  
M. W. Jackson  
W. S. M. Speed

INVENTOR:  
C. E. Richardson  
by *Might Brown Forsley*  
Attys-

# UNITED STATES PATENT OFFICE.

CHARLES E. RICHARDSON, OF SPRINGFIELD, VERMONT.

## ELECTRIC-LAMP SUPPORT.

SPECIFICATION forming part of Letters Patent No. 494,348, dated March 28, 1893.

Application filed November 16, 1892. Serial No. 452,212. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. RICHARDSON, of Springfield, in the county of Windsor and State of Vermont, have invented certain new and useful Improvements in Electric-Lamp Supports, of which the following is a specification.

This invention relates to that class of devices for adjustably supporting incandescent electric lamps from elevated points, comprising a longitudinally extensible and contractible arm, having at one end a universal joint connection with a fixed overhead support, so that a lamp secured to the swinging end of said arm can be adjusted to and held in a variety of positions.

The invention has for its object to provide an improved supporting device of this class, which shall be simple and inexpensive in construction, as well as durable and effective.

To these ends, the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming part of this specification: Figure 1 represents a side elevation of a supporting device embodying my improvements. Fig. 2 represents a front elevation of the same. Fig. 3 represents a longitudinal section on the line 3-3, Fig. 1. Fig. 4 represents a longitudinal section showing a modification. Fig. 5 represents a section on line 5-5, Fig. 1.

The same letters and numerals of reference indicate the same parts in all the figures.

In the drawings: *a* represents an extensible arm, which is composed of the members 2 and 3, fitted to slide one upon the other, and connected by spring ears or clips 4 4, one of which is attached to the member 2 and bears yieldingly on the member 3, while the other is attached to the member 3 and bears yieldingly on the member 2, the pressure of said clips causing sufficient friction to retain the sliding member 3 at any position to which it may be adjusted. Each of the clips is partly circular so that it forms a clasp which holds the two members together, while the resiliency of the ends of the clip constitutes frictional means for holding the members at different adjustments.

*b* represents a plate, which is or may be

adapted to be secured by screws to a ceiling or other elevated support. To the plate *b* is connected by a vertical pivot *c*, a plate *d*, adapted by means of said pivot to rotate in a horizontal plane when the plate *b* is affixed to an overhead horizontal support. On the rotary plate *d* is formed a downwardly-projecting ear *d'*, extending substantially at right angles to the plate *d*, and supporting a horizontal bolt or pivot *e*. The member 2 of the extensible arm is connected with the pivot *e* by means of a supplemental piece 5, which, as shown in Figs. 1, 2 and 3, is a metallic arm, having its upper end formed as a disk or plate 6 of about the same area as the ear *d'*, said plate being perforated to receive the pivot *e*, and adapted to turn on said pivot.

*f* represents a washer, of leather or other suitable yielding material, interposed between the ear *d'* and plate 6, for the purpose of creating sufficient friction to hold the telescopic arm to any angle to which it may be adjusted by turning it upon the pivot *e*. A nut *e'*, screwed upon one end of the pivot *e*, enables the degree of friction to be readily adjusted.

In Fig. 4, I show, instead of the metal plate 5, and disk 6, a wooden piece 8, affixed to the upper end of the member 2 and interposed between the ear *d'* and another ear or plate *d''*, which is mounted upon the pivot *e* and is prevented from rotating by the engagement of a slot formed in its margin with a tooth or lug *j* formed upon the plate *d*. In this case, a washer 9 is interposed between one side of the wooden piece 8 and the ear *d'*.

The contacting inner sides of the members 2 and 3 are provided with coinciding channels or grooves 10 10, which collectively form a longitudinal orifice, extending through the arm, for the passage of a flexible conductor *k*, which supports an incandescent electric lamp *m*.

It will be seen that the vertical pivot *c* and the horizontal pivot *e* enable the extensible arm to be swung in any desired direction, while the longitudinal adjustability of the arm enables the lamp to be supported at any desired height.

It will be observed that the construction employed by me, by which the universal movement of the arm is permitted is simple and

inexpensive, as well as durable, and that the  
conducting cord is mainly concealed between  
the parts or members of the arm, so that the  
liability of said cord being caught and in-  
5 jured by contact with external objects is ma-  
terially lessened.

I claim—

1. The improved supporting device herein-  
before described, comprising in its construc-  
10 tion a plate *b* adapted for attachment to an  
elevated support; a plate *d* fitting against the  
plate *b* and connected therewith by a single  
vertical pivot said plate *d* provided with an  
ear *d'* standing substantially at right angles  
15 to it; and an extensible arm, one member of  
which is provided with an extension fitting  
against said ear *d'* and connected therewith  
by a horizontal pivot, as set forth.

2. A supporting device comprising in its

construction an extensible arm composed of 20  
two members fitted to slide one upon the oth-  
er, and provided with coinciding grooves in  
their inner sides for the reception of a flexi-  
ble conductor; external elastic clips which  
connect the two members together and hold 25  
them by friction at any desired longitudinal  
adjustment; and a universal joint device con-  
nected to the inner end of one of said mem-  
bers, as set forth.

In testimony whereof I have signed my 30  
name to this specification, in the presence of  
two subscribing witnesses, this 7th day of No-  
vember, A. D. 1892.

CHARLES E. RICHARDSON.

Witnesses:

ALICE M. WHEELER,  
M. L. LAWRENCE.