

(No Model.)

W. A. TURBAYNE.  
ELECTRIC ARC LAMP.

No. 500,829.

Patented July 4, 1893.

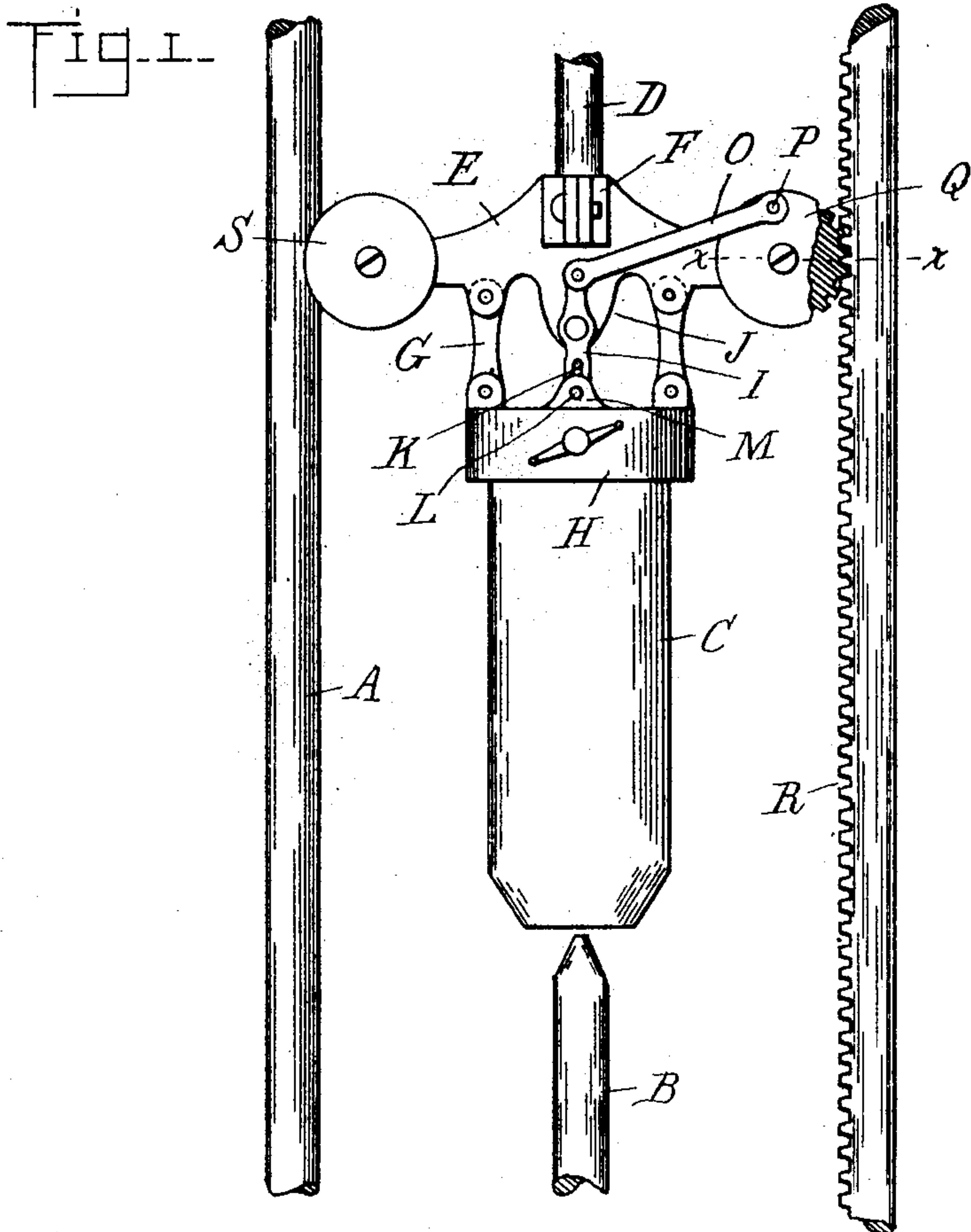
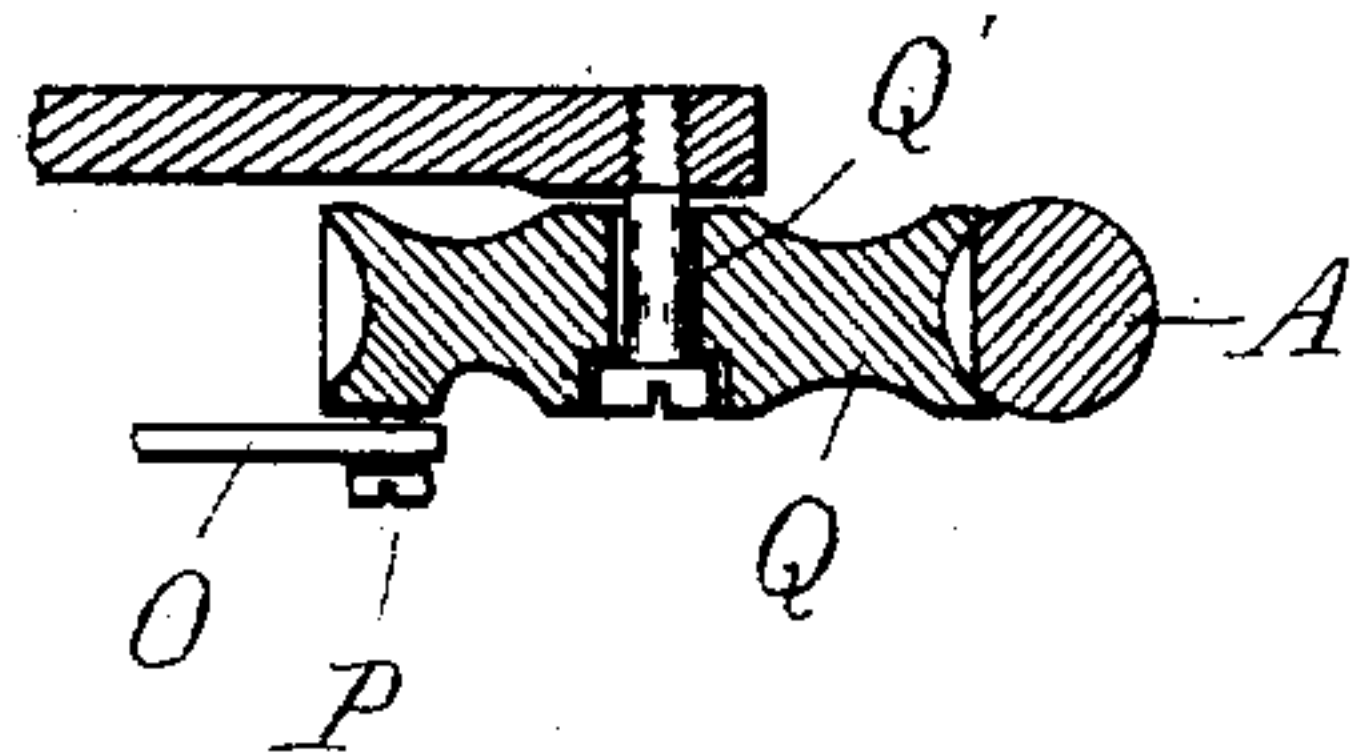


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

WILLIAM A. TURBAYNE, OF DETROIT, MICHIGAN.

## ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 500,829, dated July 4, 1893.

Application filed November 5, 1892. Serial No. 451,107. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. TURBAYNE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Arc Lamps, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention consists in the peculiar construction of a lateral feeding device for one of the carbons, while said carbon is being fed longitudinally.

15 The invention further consists in the peculiar construction, combination and arrangement of the various parts, as more fully hereinafter described.

20 In the drawings, Figure 1 is an elevation of an arc lamp frame embodying my invention. Fig. 2 is a horizontal section thereof on line  $x\ x$ .

25 The invention belongs to that class of lamps in which one wide carbon is used in connection with one of the usual carbons, the wide carbon being fed longitudinally toward the other carbon and at the same time fed laterally across the same.

A are the standards.

30 B is the stationary carbon secured in a socket in the frame and C is the movable carbon. This movable carbon is of a width sufficient to allow it to be fed laterally in relation to the carbon B and yet at all times to maintain a proper electrical relation thereto.

35 D is the feed shaft having any suitable means for feeding it vertically. At the lower end of this shaft is a cross-head E secured to the shaft, preferably by a clamping collar F centrally thereof. To the lower edge of the cross-head are secured links G which suspend the carbon socket H free to swing laterally.

45 I is a lever pivoted to an ear J depending centrally from the cross-head and having a slot K vertically arranged therein, which engages over a pin L upon the ear M in the top of the socket H. The upper end of this lever pivotally connects with the connecting rod O, the other end of which is connected to a crank pin upon a guide roller Q and journaled upon a shaft Q' at one end of the cross-

head. This roller is provided with a concave circumferential groove which engages the face of one of the standards and is toothed to engage with a rack R upon the standard. 55

S is a guide roller at the opposite end of the cross-head engaging with the opposite standard of the lamp frame.

The parts being thus constructed their operation is as follows: As the feeding device 60 lowers the movable carbon toward the stationary carbon B, the toothed roller Q will be turned because of its engagement with the rack R and in rotating it will reciprocate the connecting rod O, rocking the lever I upon 65 its pivot and feeding the movable carbon laterally across the end of the carbon B.

What I claim as my invention is—

1. The combination in an arc lamp, of a frame, a suspended carbon holder and means 70 for moving said holder laterally, consisting of a wheel rotated by engaging one of the standards, and a connecting rod from a crank pin on the wheel to the carbon holder, substantially as described. 75

2. The combination in an arc lamp, of a frame comprising vertical standards, a rack bar on one of the standards, a cross head having grooved wheels engaging the standards, teeth upon one of the wheels engaging 80 the rack bar, a carbon holder suspended by links from the cross-head, a lever pivoted upon the cross head engaging at one end with the carbon holder, and a connecting rod at the other end extending to a crank pin on 85 the toothed wheel, substantially as described.

3. In an arc lamp of the kind described, the combination of the stationary carbon, the frame having parallel standards, a cross-head having guide rollers engaging with the standards and correspondingly suspended from said cross-head, a lever pivoted on the cross-head and connecting to the carbon and a connecting rod between the end of said lever and the crank pin on one of the rollers, substan- 95 tially as described.

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

WILLIAM A. TURBAYNE.

Witnesses:

M. B. O'DOHERTY,  
N. L. LINDOP.