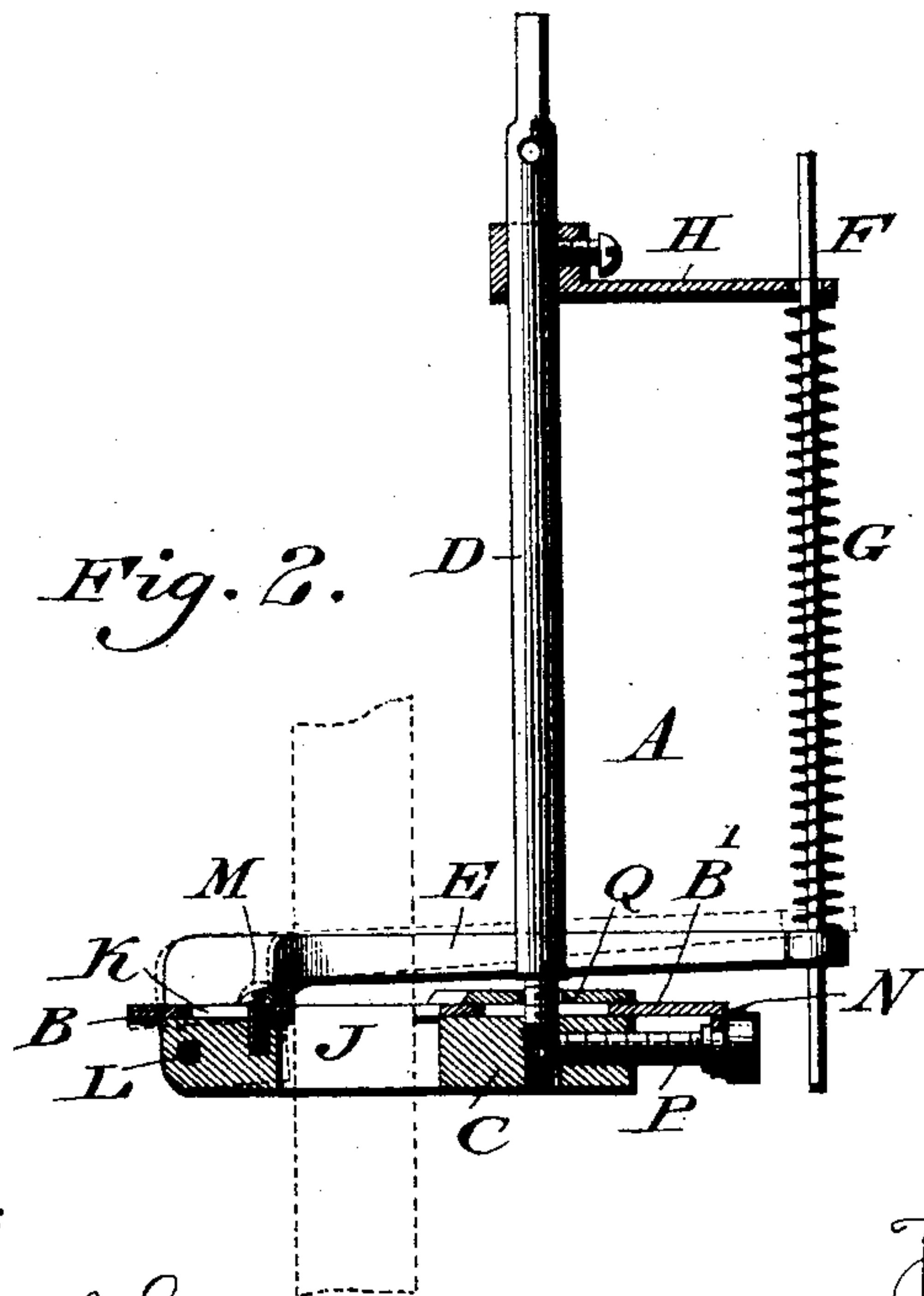
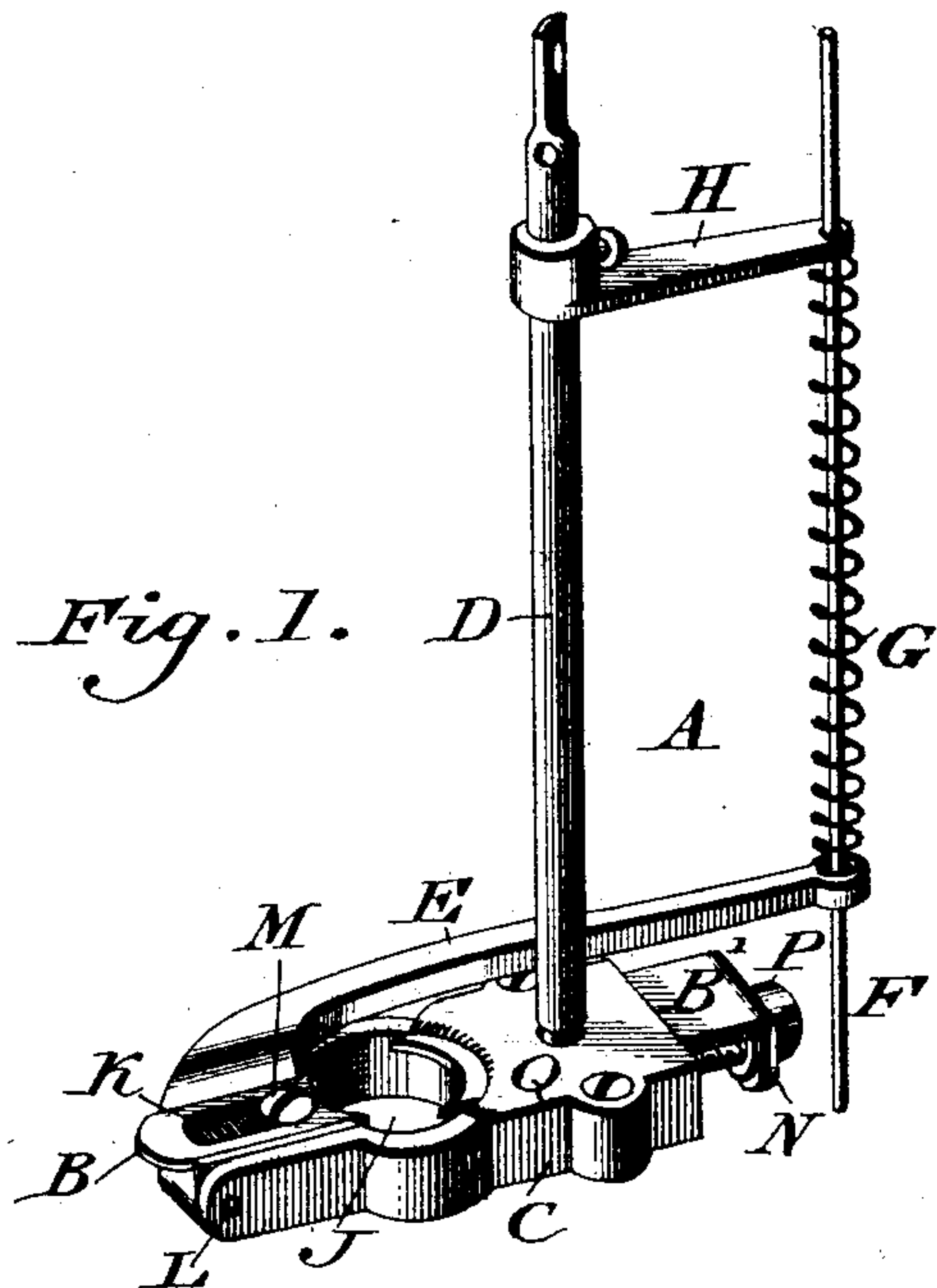


(No Model.)

F. H. THOMPSON.  
CLUTCH FOR ARC LAMPS.

No. 455,071.

Patented June 30, 1891.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK H. THOMPSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO DANIEL KILLION, OF SAME PLACE.

## CLUTCH FOR ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 455,071, dated June 30, 1891.

Application filed October 18, 1890. Serial No. 368,521. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK H. THOMPSON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Adjustable Clutches or Clamps for Arc Lamps, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a clutch for an arc lamp, having adjustable jaws, so as to compensate for the wear of the carbon-rod, and also to accommodate different sizes of carbon-rods.

Figure 1 represents a perspective view of a device embodying my invention. Fig. 2 represents a vertical sectional view thereof.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings, A designates a clutch for the carbon-rod of an arc lamp, and which, excepting the adjustable jaws B B', hereinafter described, is of the usual construction, consisting of a base or body C, a supporting-rod D, a lever E, pivoted to the base, a guiding-rod F for the tension-spring G, and an adjustable tension-regulating arm H for the said spring.

It is well known that owing to the movement of the carbon-rod in the opening J of the base the walls of the same become in time so worn that instead of the rod feeding the carbon regularly and uniformly to the flame the action of the lever will bind the rod, so that it will not feed as required. To obviate this defect I employ movable jaws B B'. The jaw B, which is slotted at K, is adapted to slide in ways or guides on the boss L of the lever E, whereby it may be adjustably secured to the said boss by means of the screw M, the stem of which passes through the slot and enters the boss and has its head adapted to bear against the upper face of the jaw, so as to securely clamp it in its adjusted position. The jaw B' has also a curved end, so as to adapt it to the usual form of a carbon-rod; but if said form is different the ends will be made to conform to the same, and the said end, with the end of the jaw B, engages or contacts with the carbon-rod, so as to furnish a bearing for the same, and it is provided with an angular outer end N in an opening

in which is swiveled a screw P, having its inner end working in the base C, so that the rotation of the said screw P will move said jaw B' either to or from the guides in the said base. A cap or plate Q, secured to the base, prevents the displacement of the jaw B' from the device. It will be seen that the wear of the walls of the opening J can be compensated by the adjustment of the jaws B B', whereby the result of the contact of a carbon rod or rods gives a uniform bearing at all times, so that a regular or uniform feed will correspond to the movements of the lever. It will also be seen that the size of the opening J may be adjusted so as to suit carbon-rods of different sizes.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A clutch for an arc lamp, having a lever with an adjustable jaw thereon and a base with an adjustable jaw opposite the said adjustable jaw of the lever, said jaws being horizontally arranged and slotted and having their opposing edges adapted to engage with an inserted carbon-rod, said parts being combined substantially as described.

2. A clutch for an arc lamp, having sliding jaws with ends adapted to grasp an inserted carbon-rod, one of said jaws having a slot and a binding-screw and the other jaw being in like manner formed with a slot and having an angular portion with an opening, and a screw swiveled in said opening and adapted to move said jaw, said jaws being arranged horizontally and directly in line with each other, said parts being combined substantially as described.

3. A clutch for an arc lamp, having sliding jaws, each having an end adapted to contact with an inserted carbon-rod, one of said jaws having a slot and being guided in ways on a pivoted lever of said clutch and the other jaw having an angular portion with opening, a binding-screw for said first jaw, and a swiveled adjusting-screw and a binding-plate for the second jaw, said parts being combined substantially as described.

FRANK H. THOMPSON.

Witnesses:

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