

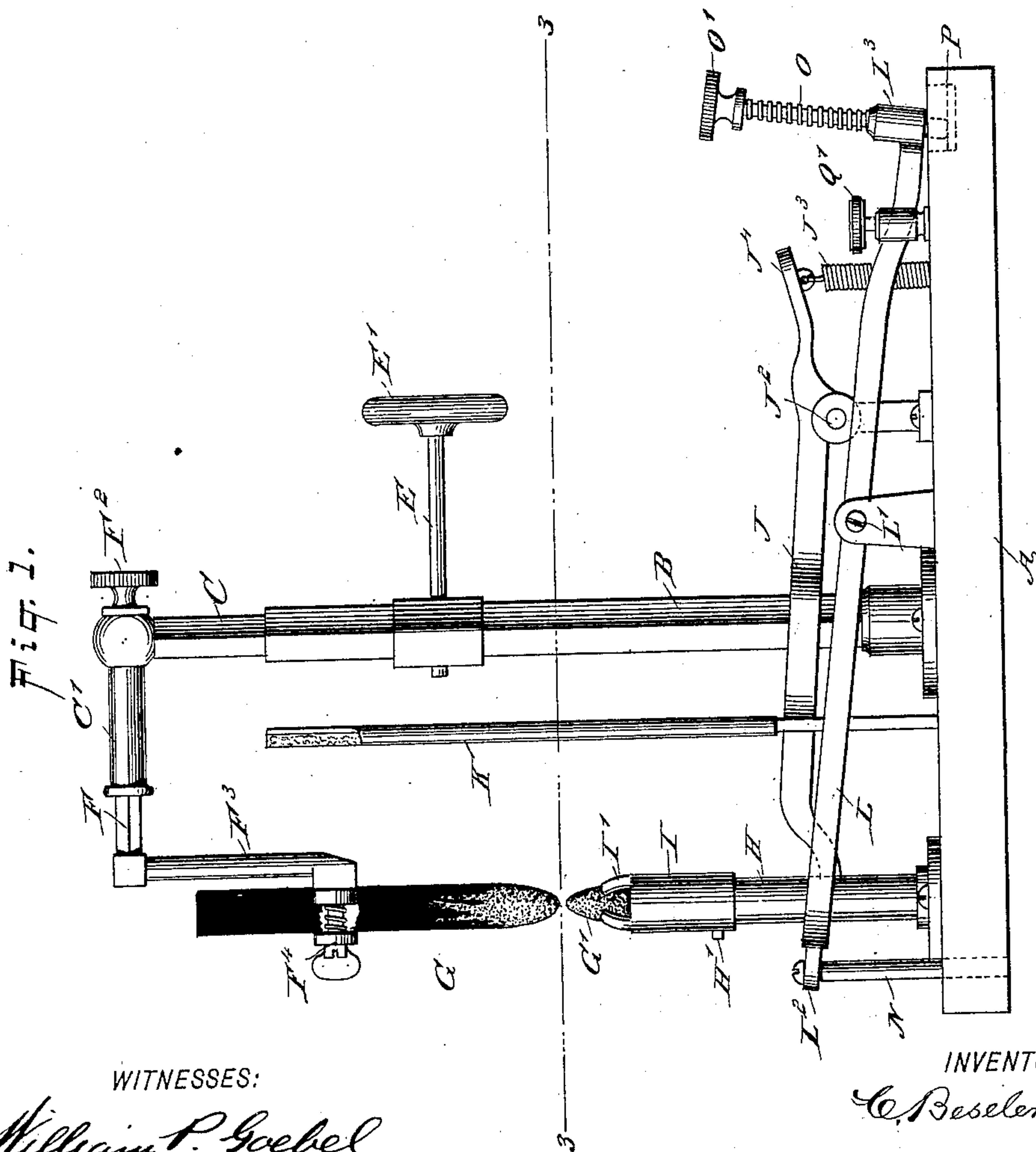
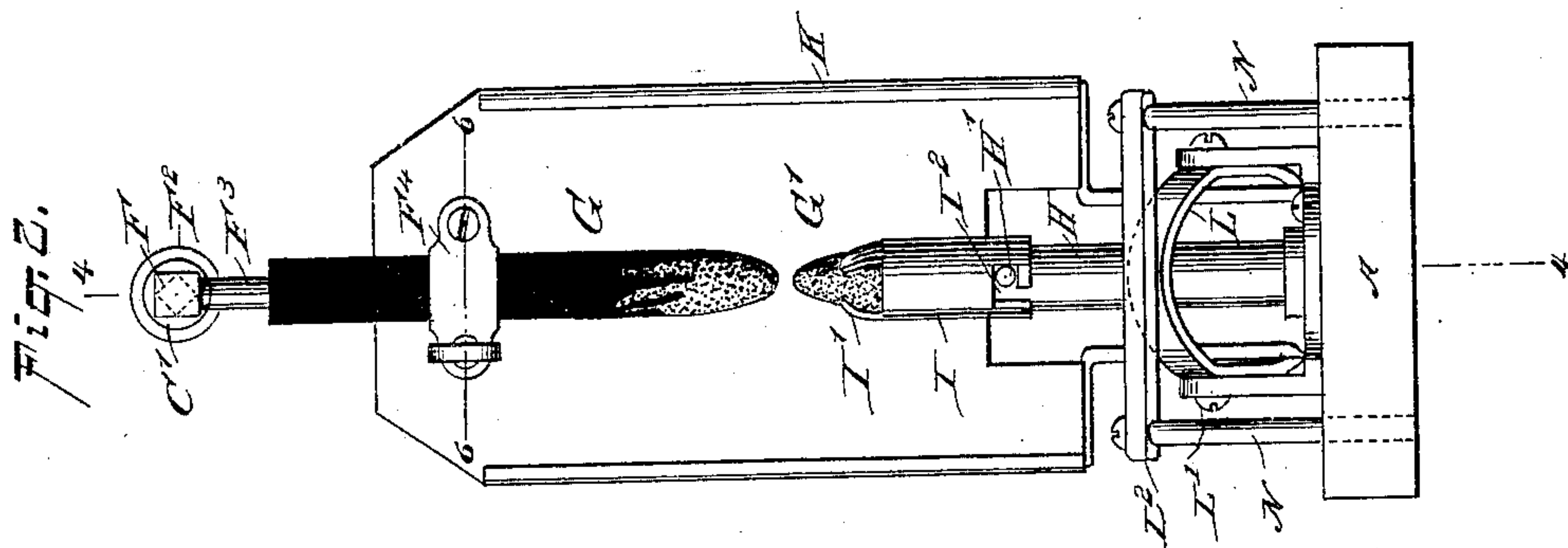
(No Model.)

2 Sheets—Sheet 1.

C. BESELER.
ELECTRIC ARC LAMP.

No. 548,028.

Patented Oct. 15, 1895.



WITNESSES:

William P. Goebel.

Rev. J. Foster,

INVENTOR

C. Beseler

BY

Munn & Co
ATTORNEYS.

(No Model.)

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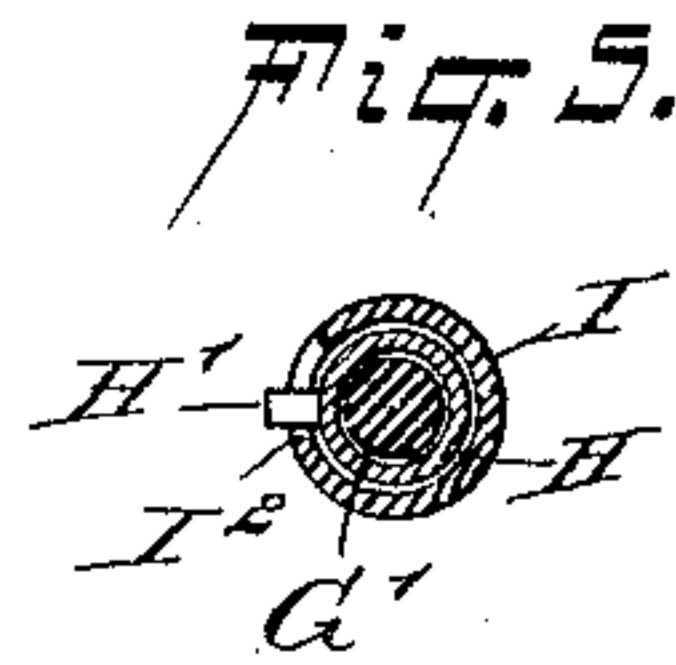
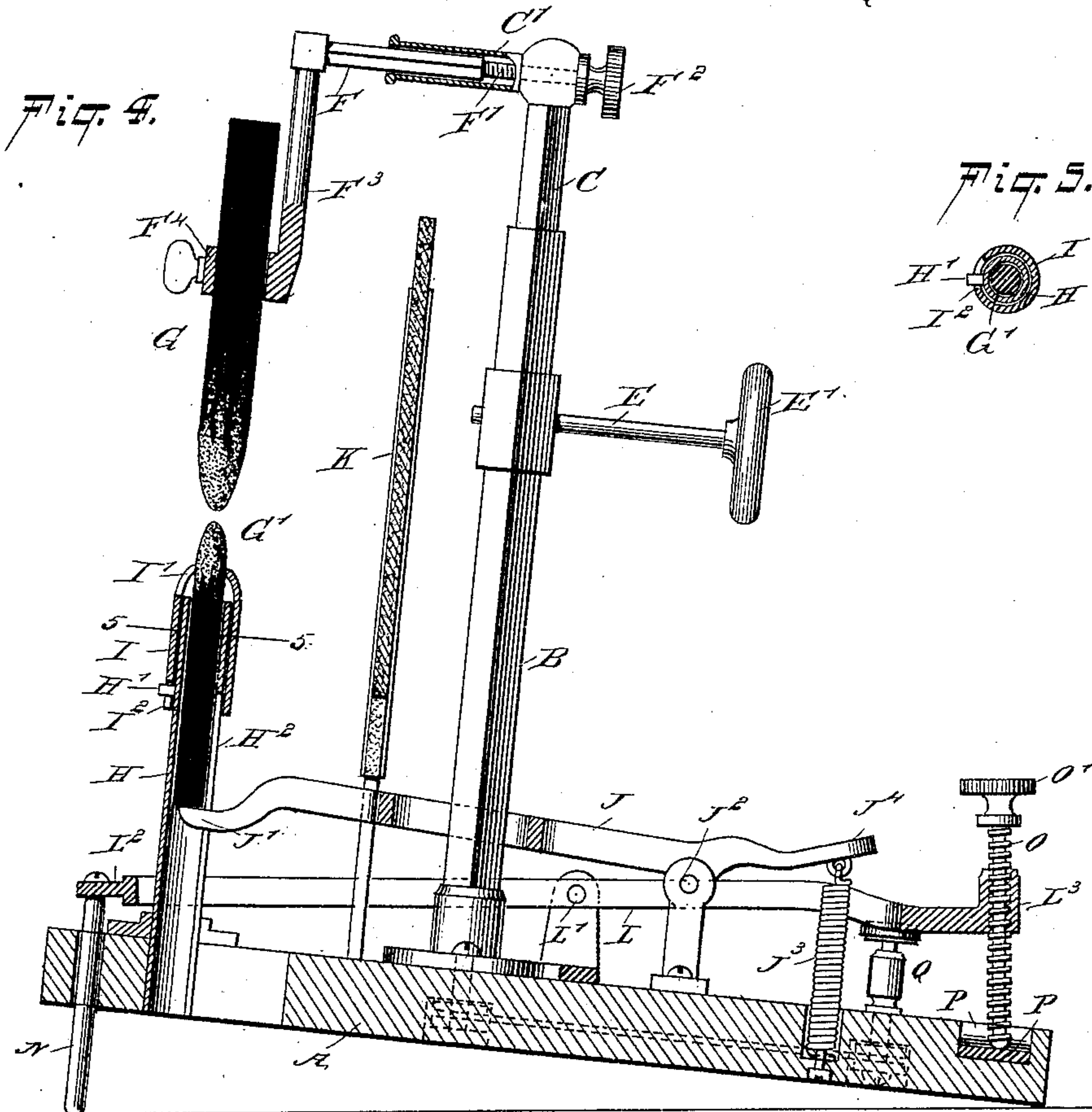
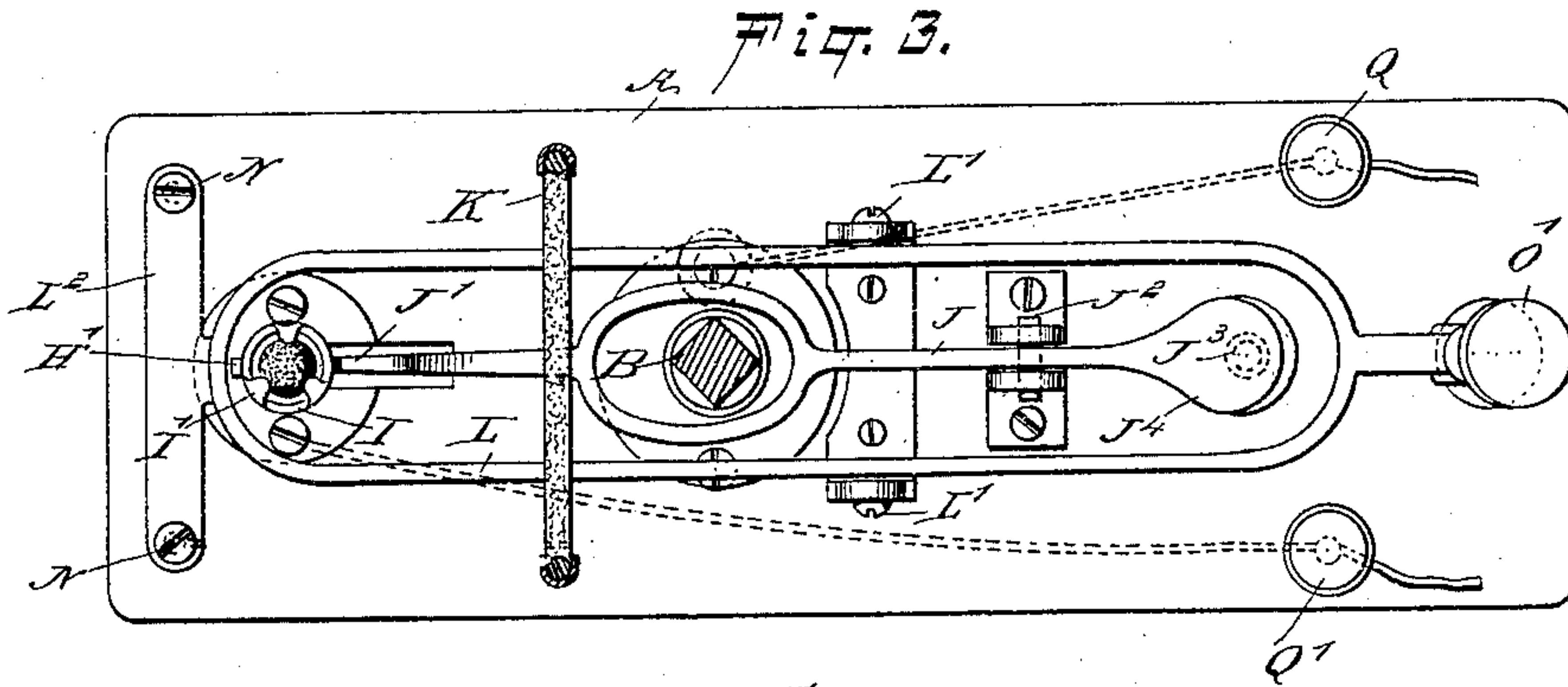


Fig. 6.

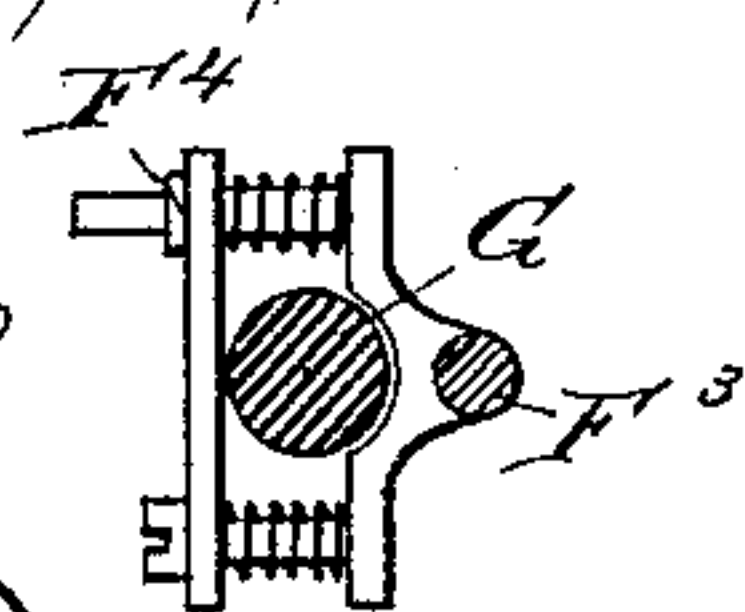
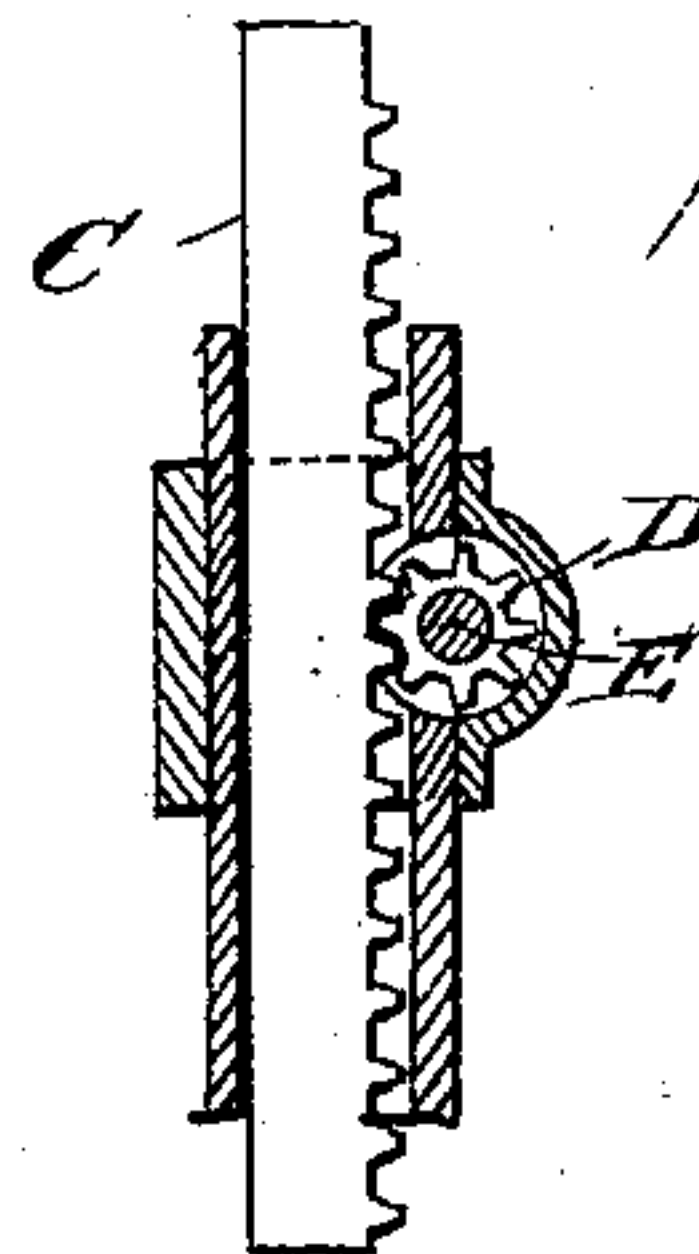


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES BESELER, OF JERSEY CITY, NEW JERSEY.

ELECTRIC-ARC LAMP.

SPECIFICATION forming part of Letters Patent No. 548,028, dated October 15, 1895.

Application filed May 4, 1895. Serial No. 548,175. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BESELER, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Feed for Arc Lamps for Magic Lanterns, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved feed for arc lamps employed in magic lanterns, the said feed being arranged to permit the operator to bring the light emanating from the lamp to the position necessary to properly work and illuminate the magic lantern.

The invention consists of a base carrying the lamp, a lever fulcrumed on the base and provided at one end with a pin or pins adapted to rest on a fixed part of the magic lantern, the other end of the said lever being provided with a screw resting in a step in the said base, so that when the screw is turned an inclined position is given to the base.

The invention consists, further, of a removable cap for the lower-carbon holder, the cap being provided with prongs, and a spring-pressed lever adapted to support the carbon and press the latter in contact with the said prongs.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement with parts broken out. Fig. 2 is an end elevation of the same. Fig. 3 is a sectional plan view of the same on the line 3 3 of Fig. 1. Fig. 4 is a sectional side elevation of the improvement on the line 4 4 of Fig. 2. Fig. 5 is a sectional plan view of the lower-carbon holder and cap, the section being taken on the line 5 5 of Fig. 4. Fig. 6 is a sectional plan view of the clamp for the upper carbon, and Fig. 7 is a transverse section of the raising and lowering device for the upper carbon.

The improved feed mechanism, as shown in the drawings, is provided with a suitably-constructed base A, adapted to normally raise

the base for the magic lantern on which the device is to be employed. On the base A is erected a tubular post B, in which is fitted to slide vertically an extension-post C, made in the form of a rack, as indicated in Fig. 7, the teeth of the said rack being in mesh with a pinion D, secured on a shaft E, journaled in the post B, and provided at its outer end with a hand-wheel E' under the control of the operator, to enable the latter to conveniently turn the said shaft E and pinion D to raise or lower the extension-post C in the tubular post B.

The upper end of the extension-post C is provided with a right-angled tubular arm C', in which is fitted to slide longitudinally a bar F, moved forward and backward in the said arm C' by a screw-rod F', mounted to turn in the post C, and provided at its outer end with a knob F², under the control of the operator. The outer end of the bar F is provided with a downwardly-extending arm F³, carrying a clamp F⁴ for securely holding the upper carbon G, held in alignment with the lower carbon G', mounted loosely in a carbon-holder H, secured to the base A.

On the upper end of the carbon-holder H is held a cap I, provided with prongs I', extending over the top of the carbon-holder H to engage and limit the upward movement of the carbon G'. This cap I is provided with an L-shaped notch I², engaged by pin H' on the carbon-holder H to permit of conveniently removing the said cap from the carbon-holder H when a new carbon G' is to be inserted, and to replace it again on the said carbon-holder after the carbon is inserted. A lever J extending with its front end J' through a vertically-disposed slot H² in the carbon-holder H engages the lower end of the carbon G' to press the latter upward in contact with the prongs I'. This lever J is fulcrumed at J² on a suitable bracket secured to the base A, and on the rear end of the said lever J pulls downward a spring J³, secured at its lower end to the base A, as will be readily understood by reference to Fig. 4. The rear end J⁴ of the said lever J is formed with a finger-piece to enable the operator to press on the said lever in case the spring J³ should fail.

Directly in the rear of the carbons G and

G' is arranged a reflector K, supported from the base A and preferably made of asbestos or other non-combustible material.

In order to raise or lower the entire lamp, I provide a lever L fulcrumed at L' on a bracket attached to the base A, the forward end of the said lever being provided with a cross-piece L², carrying one or two pins N, fitted to slide in step-bearings in the base A. In the rear threaded end L³ of the said lever L screws a screw-rod O, provided on its upper end with a knob O', adapted to be taken hold of by the operator to screw the screw-rod O up or down in the threaded end L³. The lower end of the screw-rod O rests in a longitudinally-extending groove P' of a step P, attached to the base A at the rear end thereof, as will be readily understood by reference to Fig. 4. Now it will be seen that when the lever L is in the position shown in Fig. 1, then the lower ends of the pins N are flush with the bottom surface of the base A, and when it is desired to raise the light emanating from the carbons G G' to bring the said light in proper relation to the lenses of the magic lantern, then the operator turns the screw-rod O so that the front end of the base A is raised, as indicated in Fig. 4, with the pins N now forming the support for the lamp at the front end of the base, the rear of the latter still resting on the base of the magic lantern.

On the base A are arranged the usual binding-posts Q and Q', connected by wires with a source of electricity, the said binding-posts being also connected with the post B and the carbon-holder H, respectively, so that the electricity passes to the carbons G and G' to produce the arc light at the adjacent ends of the said carbons.

It will be seen that this device is very simple in construction and is completely under the control of the operator, so that the latter can bring the carbons G and G' in the proper

position relatively to one another to insure a proper light, and he can also raise the entire lamp so as to bring the light in proper relation to the lenses of the magic lantern.

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

1. A device of the class described, comprising a base carrying the lamp, a lever fulcrumed on the base and provided at one end with a pin or pins adapted to rest on a fixed part of the magic lantern, and a screw rod screwing in the rear end of the said lever and resting on a step in the said base, so that when the screw is turned, an inclined position is given to the said base, substantially as shown and described.

2. A device of the class described, comprising a base provided at its rear end with a longitudinally grooved step, a lever fulcrumed on the base, and provided at its front end with a pin or pins adapted to rest on a fixed part of the magic lantern, and a screw rod screwing in the threaded rear end of the said lever and resting on the said step, substantially as shown and described.

3. A device of the class described, comprising a spring-pressed lever adapted to support the lower carbon and press the latter upward, a carbon holder carrying the lower carbon, and into which projects the forward end of the said lever, and a cap held removable on the said carbon holder, and provided at its upper end with prongs adapted to engage the lower carbon holder, to limit the upward movement thereof, as the latter is pressed upward by the said lever, substantially as shown and described.

CHARLES BESELER.

Witnesses:

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C. SEDGWICK.