

CHARLES DEAVS.

Improvement in Sustaining Device for Center Drop-Lights of Gasoliers.

No. 118,349.

Patented Aug. 22, 1871.

Fig. 1

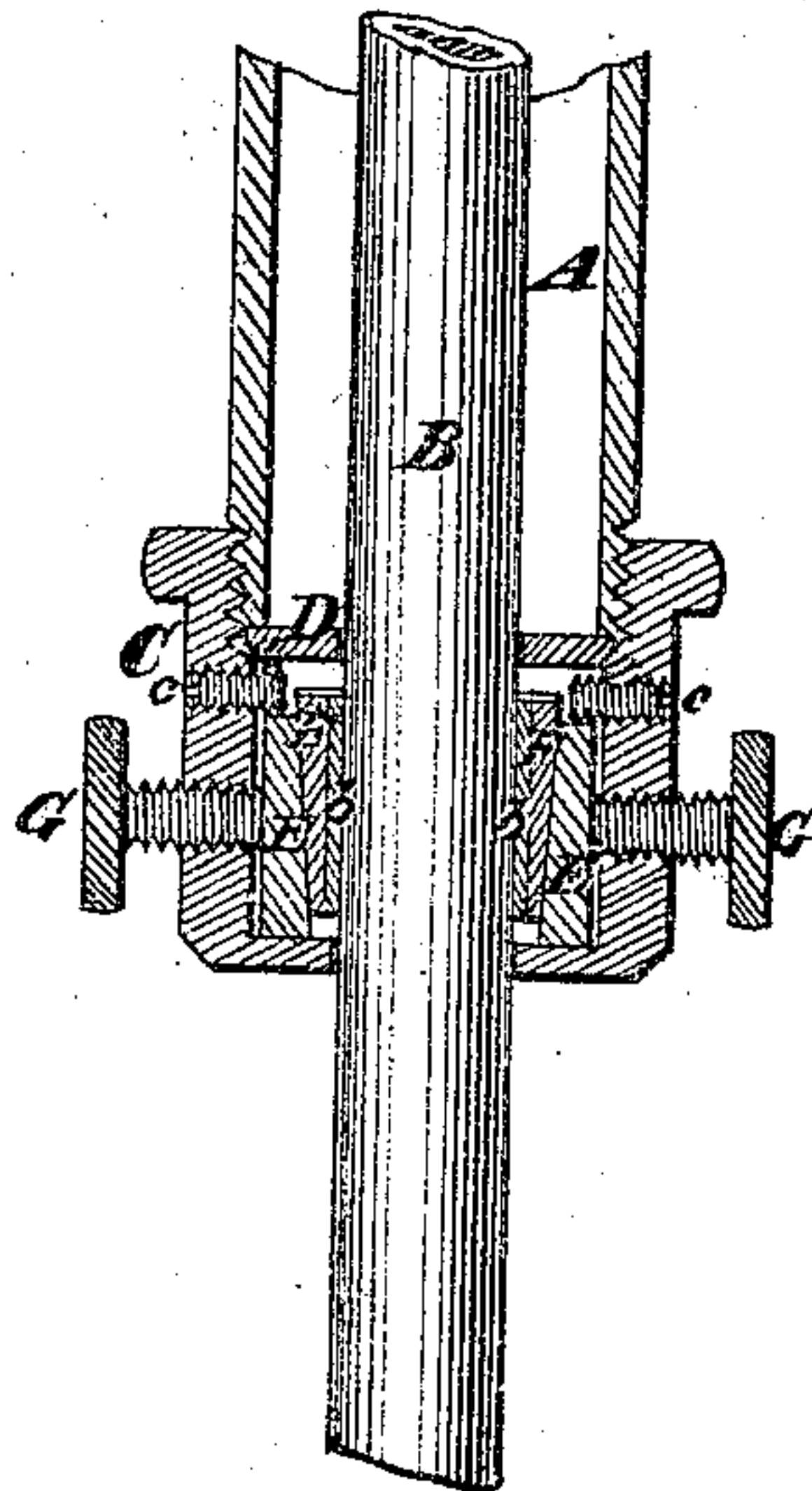
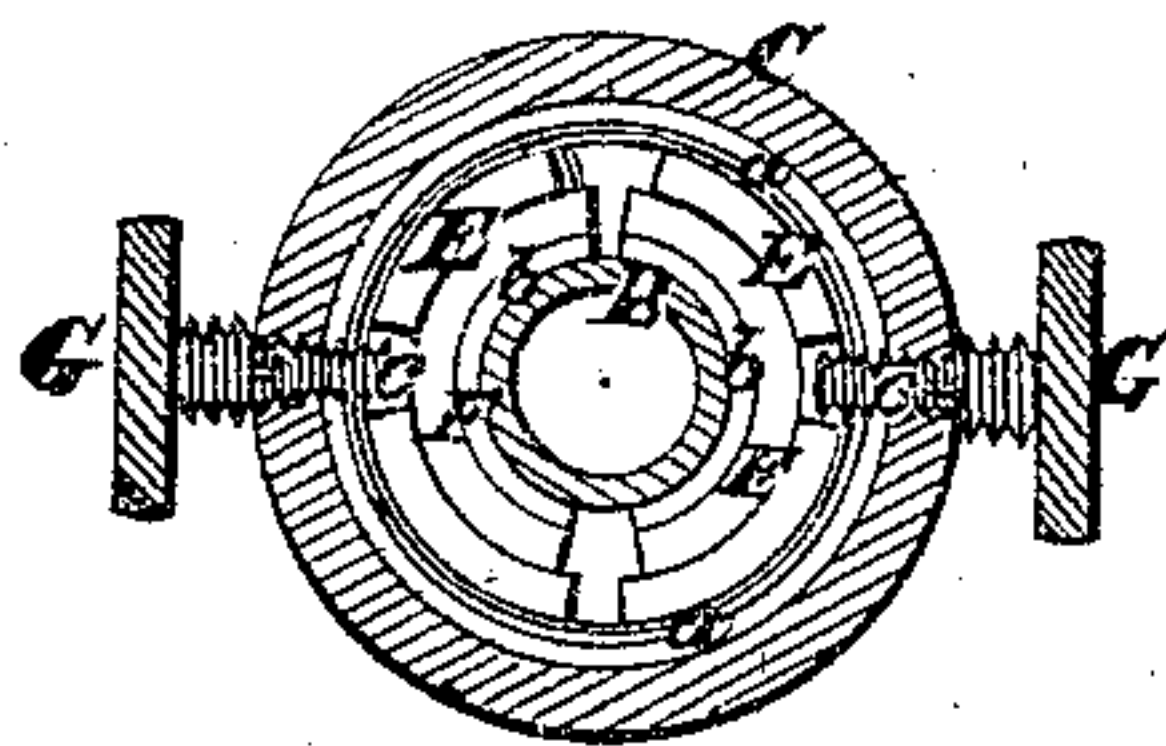


Fig. 2



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES DEAVS, OF NEW YORK, N. Y., ASSIGNOR TO ARCHER AND PANCOAST MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN SUSTAINING DEVICES FOR CENTER-DROP LIGHTS OF GASOLIERS.

Specification forming part of Letters Patent No. 118,349, dated August 22, 1871.

To all whom it may concern:

Be it known that I, CHARLES DEAVS, of the city, county, and State of New York, have invented a new and useful Sustaining Device for Center-Drop Lights of Gasoliers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of this specification.

The great difficulty experienced with center-extension drop-lights is their liability to wear loose and their incapability of having their sustaining friction adjusted from the outside to correct the looseness. The object of this invention is to remedy these difficulties; and to this end it consists in a novel combination, with a box or cap which is attached to the bottom of the outer pipe, of two reversed series of conical clamps and set-screws, whereby the friction applied to the inner extension-tube can be so regulated from the outside as to make it sufficient and yet will so release the said tube as to permit it to move up easily when it is desired to raise the center light.

In the accompanying drawing, Figure 1 is a full sized central vertical section of my sustaining-device, showing the gas-tubes or pipes broken away; and Fig. 2 is a horizontal section of said device.

Similar letters of reference indicate corresponding parts in both figures.

A is the outer pipe, and B the inner one. C is a box or cap, which is screw-threaded at the mouth and is screwed on to the lower end of the outer pipe A. The lower part of the interior of said cap is smaller than its screw-threaded portion, and forms at its junction therewith a shoulder, *a*, for the support of a metal plate or washer, D, that surrounds the inner pipe B, and is secured in place by the lower edge of outer-pipe A when the cap is screwed thereon up to its place. Arranged within the body of the said box or cap C are two series of metal clamps, E and F, one within the other. The outer set or series E E of these cones is of inverted conical form internally, and the inner ones F F are of corresponding form externally. The interiors of the latter are cylindrical and faced with leather or other soft material, *b*, which comes in contact with and produces an

even and regular friction on the inner pipe B. The outer clamps E E are notched on their upper edges for the reception of pins *c c* projecting from the interior of the cap or box C, by which they are held down and prevented from turning. Just below these studs *c c*, opposite the middles of the plates E E, are set-screws G G, which screw through tapped holes in the sides of the cap C, and are operated from the outside thereof to increase or diminish the pressure of the plates E E on those F F and consequent pressure of the latter on the inner pipe B, and thereby to control the amount of friction upon the said pipe. In the downward movement of the drop-light the inner clamps F F are, by means of the friction between them and the exterior of the inner pipe B, drawn down and wedged between said pipe and the outer plates E E, and their tendency to clamp the pipe, or, in other words, their friction upon it is thereby increased; but when the drop-light is pushed up the inner clamps are carried up with it as far as permitted by the plate or washer D, and their pressure on the pipe is thereby relaxed, so that the drop-light can be pushed up easily. The friction produced to operate against any tendency of the pipe B to descend is increased or diminished by screwing in or out the screws G G.

I may either use this device alone or in connection with a device which is the subject of the first clause of a claim in a patent granted to me July 19, 1870. I much prefer using it in the latter manner, as when used alone an inexperienced person adjusting the pressure of the clamping-plates might let the drop-light come down with a run, which would be very dangerous for other persons in the room near it.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the box or cap C secured to the end of the outer tube, of the two reversed sets or series of conical clamps E E and F F, and the set-screws G G, substantially as and for the purpose herein set forth.

CHARLES DEAVS.

Witnesses:

FRED HAYNES,
R. E. RABEAU.