

(No Model.)

C. STOCKMANN.

LAMP BURNER.

No. 257,407.

Patented May 2, 1882.

Fig. 1.

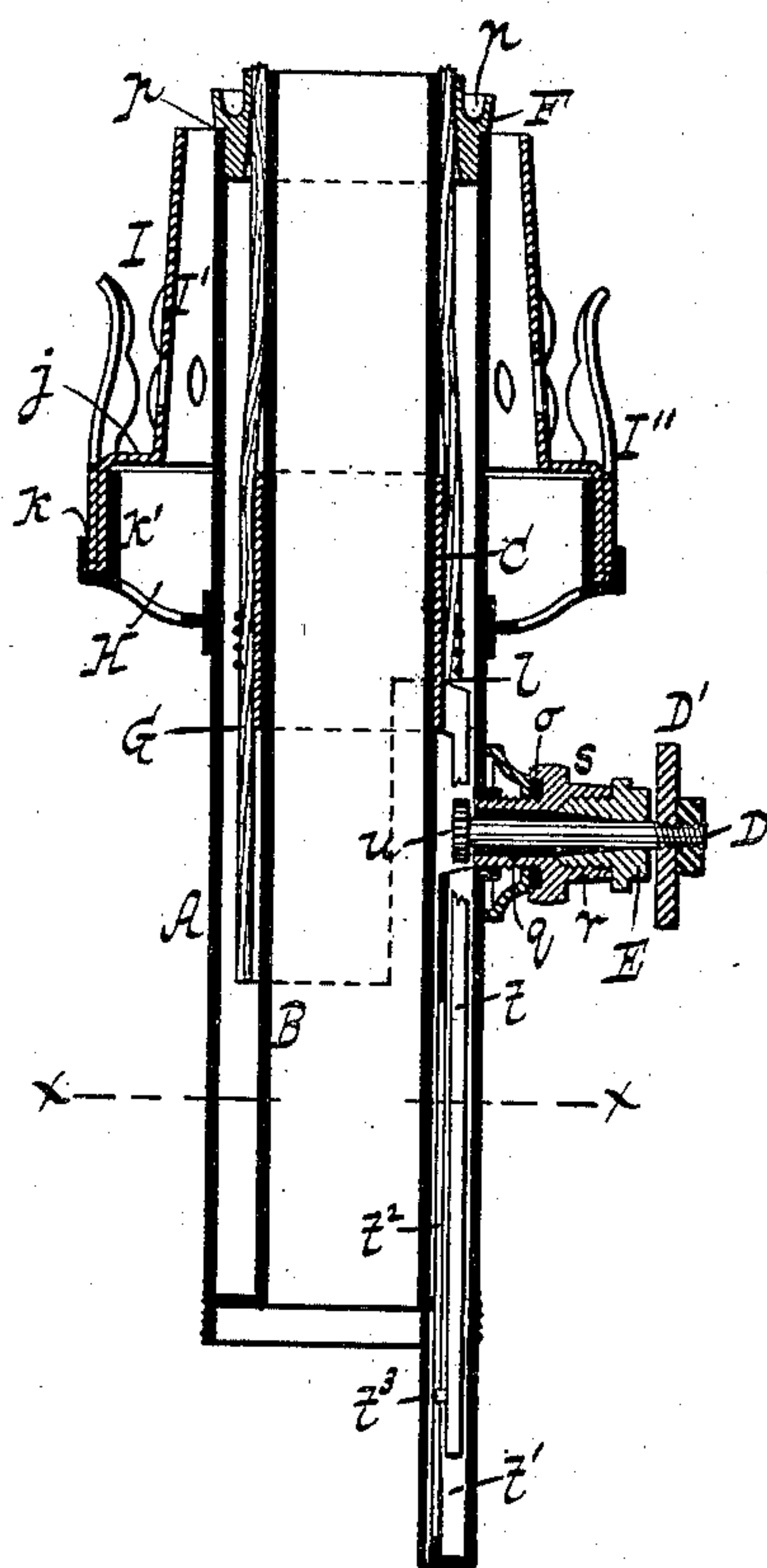


Fig. 2.

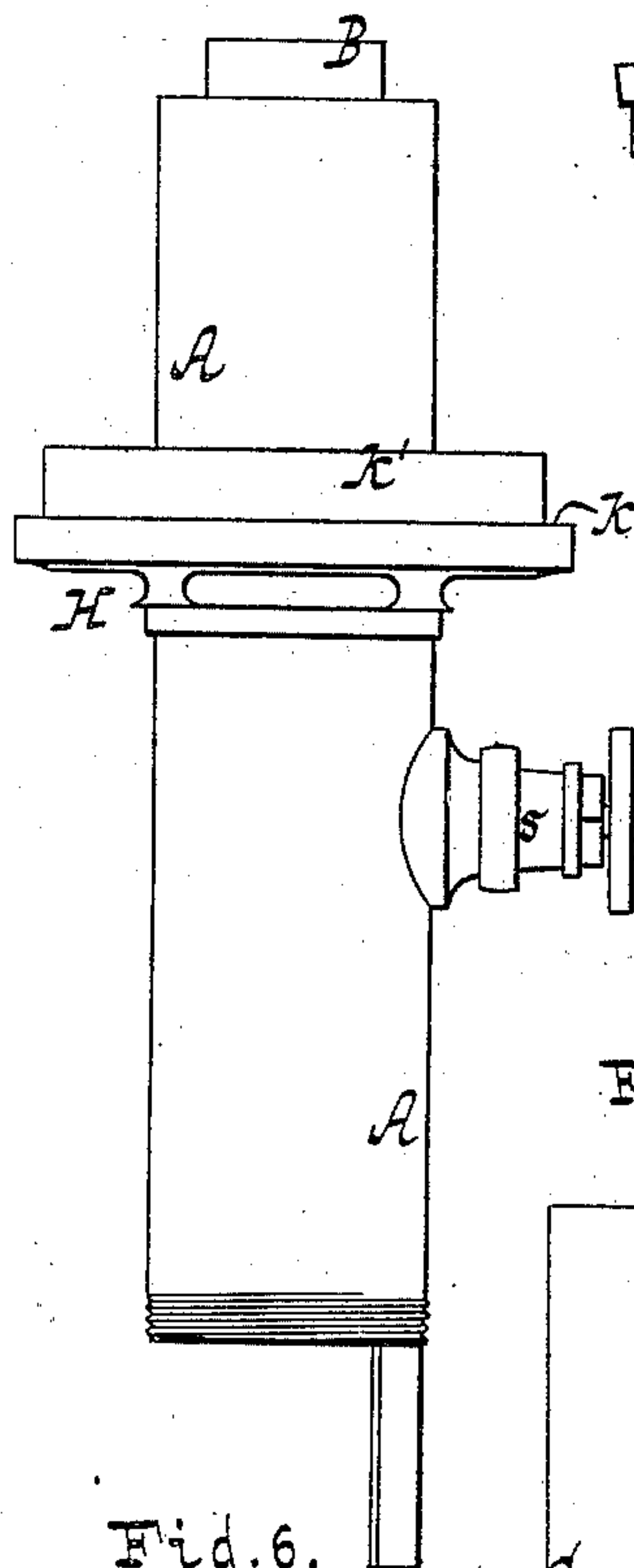


Fig. 5.

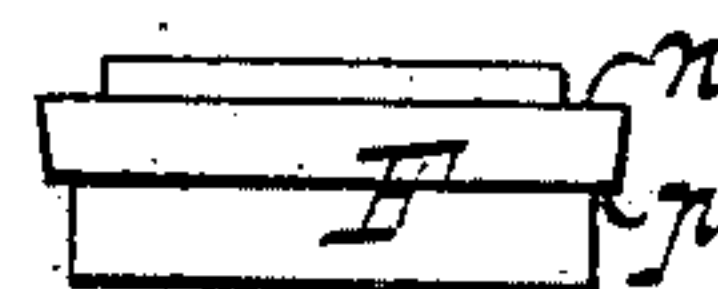


Fig. 3.

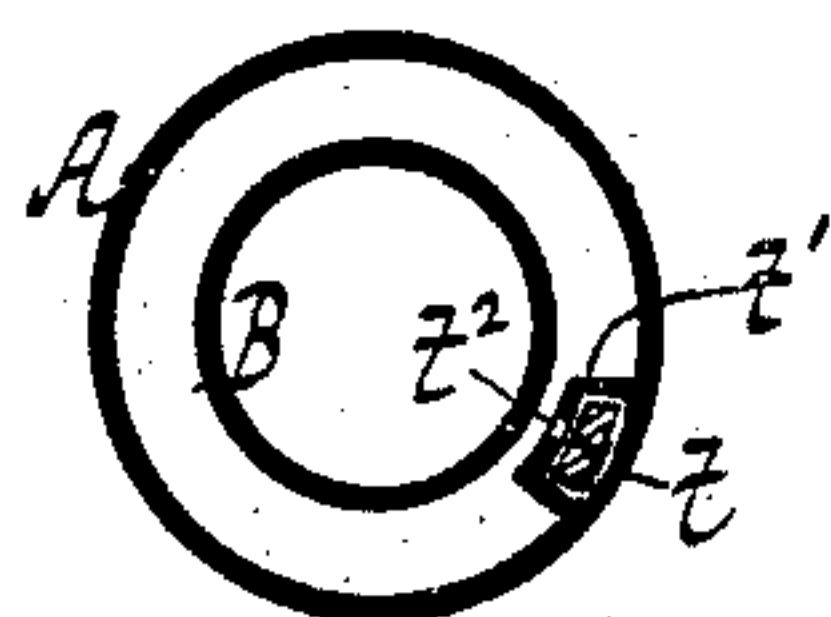


Fig. 4.

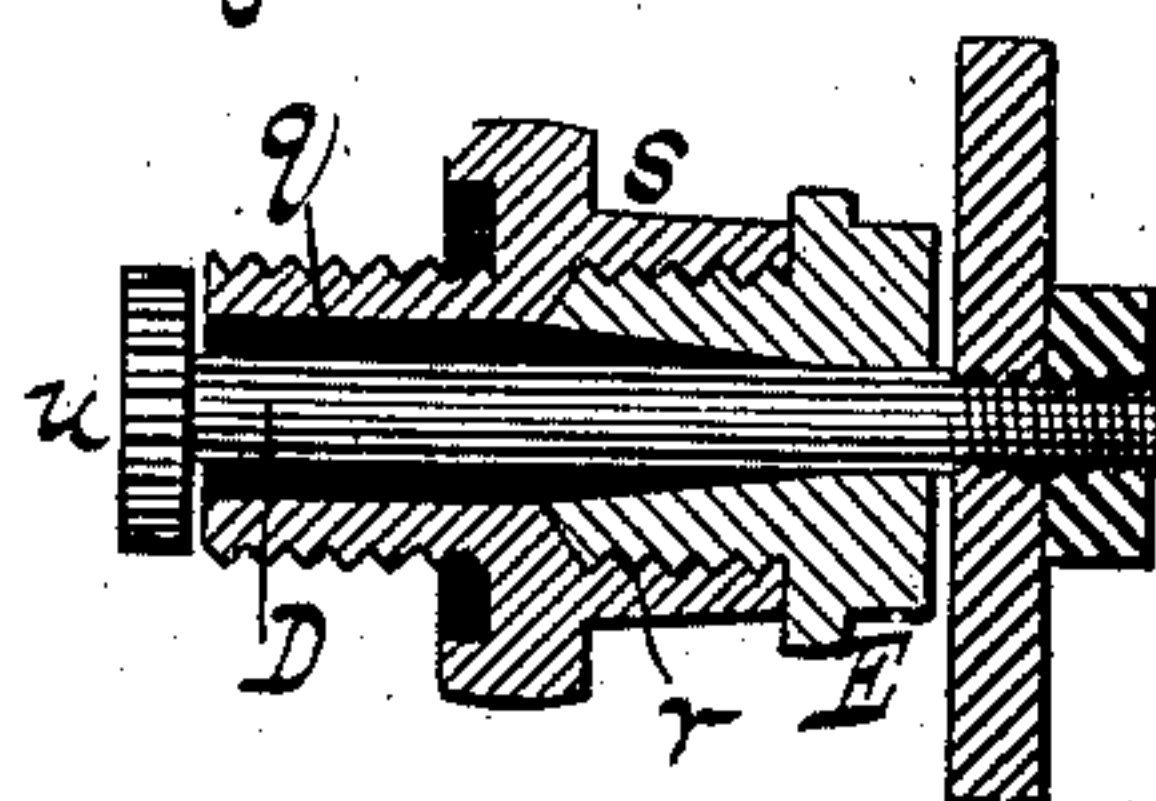


Fig. 7.

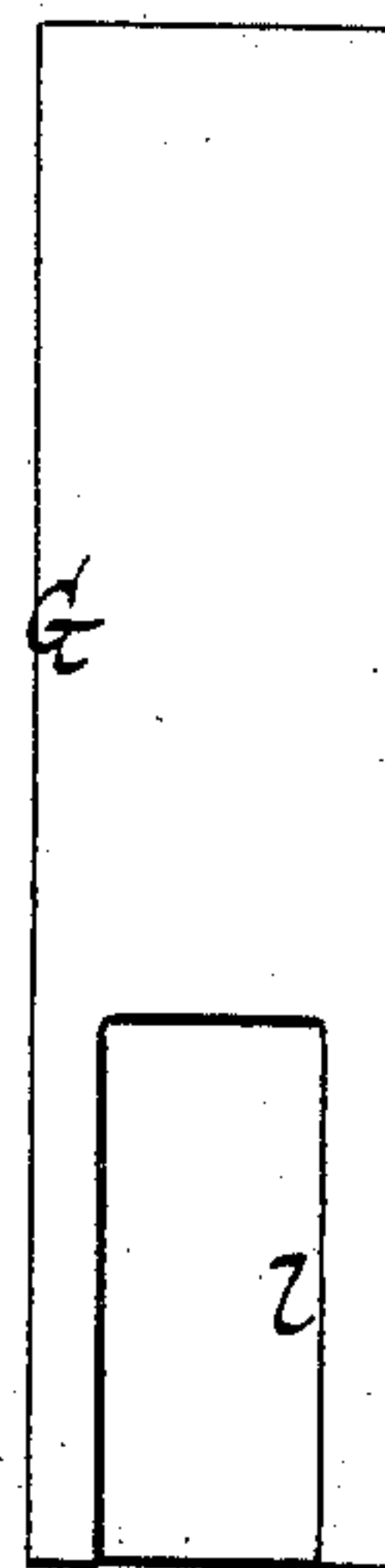
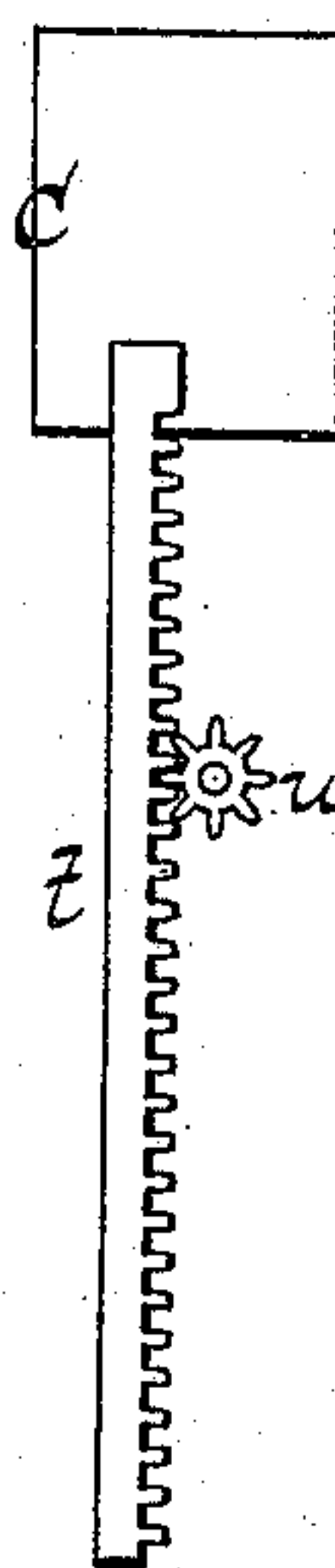


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHRISTOPHER STOCKMANN, OF BROOKLYN, NEW YORK.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 257,407, dated May 2, 1882.

Application filed February 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER STOCKMANN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Lamp-Burners, of which the following is a specification.

This invention is especially adapted to Argand burners, but also partly to burners of other forms; and it has for its object to produce a packing for a wick-raising rod upon the side of the burner which shall be impervious to oil and prevent leakage around the rod without undue friction; also, in Argand burners to produce an attachment for concentrating the wick at its burning-point, and thereby to permit the enlargement of the outer or main tube, which facilitates the introduction of the wick, and to utilize such attachment for catching the cinders that drop from the wick.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a longitudinal central section. Fig. 2 is a side view, omitting the chimney-holder. Fig. 3 is a cross-section on the line *x x*, Fig. 1. Fig. 4 shows the packing for the wick-raising rod on an enlarged scale. Figs. 5, 6, and 7 are detail views of parts.

Similar letters indicate corresponding parts. The letter A designates the outer or main tube, and B the wick-tube, of an Argand burner.

C indicates the wick-carrier, fitted on the wick-tube; and D, the wick-raising rod, carrying at its inner end a pinion, *u*, which is adapted to engage a rack, *t*, upon the wick-carrier and co-operate with such rack for adjusting the carrier. The wick-raising rod D passes through a stuffing-box, *s*, which is secured to the side of the main tube A, in this example by being screwed into a suitable hole therein so that it is detachable, thus allowing the removal of the pinion together with the rod. The stuffing-box *s* is formed with an annular recess, *r*, opening outward and surrounding the wick-raising rod D, for the reception of a follower, E, and into the stuffing-box is fitted a packing-sleeve, *q*, which is composed of hard rubber, and embraces the wick-raising rod, while it is tapered toward the outer end, where it projects into or past the inner end of the box-recess. The side of the box-recess *r* is screw-

threaded, and the follower E is secured therein by that means, the follower being provided with a corresponding thread. This follower E is made annular in shape to surround the wick-raising rod D, and the bore or inner surface thereof is flared toward its inner end, as clearly shown, so that when the follower is screwed into place it engages the tapering outer end of the sleeve *q* and compresses the latter upon the wick-raising rod. In this manner the wick-raising rod is "packed" in an effective manner, while, owing to the nature of the material composing the sleeve, it is not liable to exert an undue or obstructive friction upon the rod. I would remark in this connection that I have found by experiment that hard rubber is the only packing material which is impervious to oil, and which thus is adapted to oil-lamps for the purpose named. A hard-rubber packing, *o*, also is preferably applied to the stuffing-box *s* where it impinges against the burner.

Into the main tube A is fitted a ring, F, which rests on the upper end of the tube by means of a shoulder, *p*, formed thereon, and the inner diameter of which is larger than the outer diameter of the wick-tube B, leaving a space between the ring and such tube approximately equal to the thickness of the wick. The width of the ring F, moreover, is such that when it is put into place the upper edge thereof is approximately even with the corresponding edge of the wick-tube. This ring F serves to concentrate the wick at the burning-point, and thus allows the main tube A, which heretofore accomplished this purpose, to be made of large diameter, the effect of which is to facilitate the introduction of the wick into the burner.

In the top of the concentrating-ring F is formed a groove, *n*, which opens upward and forms a receptacle for the cinders that may drop from the wick as it is consumed. In ordinary burners these cinders are liable to collect in the chimney-gallery and clog up its perforations, thus impeding the draft of air, besides soiling the article, whereas by the groove *n* this is obviated.

The wick G is formed with an opening, *l*, (best seen in Fig. 7,) which extends upward from the lower end thereof, and is of sufficient width to clear the rack *t* and pinion *u*. This

opening *l* thus adapts the wick to be fastened to or upon its carrier *C* in such a manner as to depend therefrom, as indicated in Fig. 1, without interfering with the operation of the rack and pinion, and by this means the wick is caused to remain immersed in the oil when in use for a long period of time as compared with a wick terminating at the lower edge of the carrier, as heretofore, and the advantage thereby gained is that the wick requires the least frequent renewal, which is a desideratum.

To the main tube *A* is fixed, as by solder, the chimney-gallery *H*, which is perforated in the usual manner, and constructed with an annular recess, *k*, opening upward, into which is fitted the lower edge of the chimney-holder *I*, the latter being left detached, whereby a simple and efficient connection of the holder is obtained, and one which allows the removal of the holder, together with the chimney, as in lighting the lamp. The inner wall, *k'*, of the gallery-recess is higher than its outer wall, and is arranged to bind the chimney-holder *I*, thus improving its connection with the gallery.

The chimney-holder *I* consists of the cone *I'*, having a shoulder, *j*, which forms a rest for the base or lower end of the chimney, combined with a rim, *I''*, formed with the usual chimney-holding springs.

The wick-rod *D* is turned by an ordinary milled head, *D'*, and the rack *t* is guided in a channel, *t'*, having a slot, *t''*, which receives in it a pin, *t'''*, on the rack, so as to regulate the movement of the latter.

I am aware that it is not broadly new to arrange a ring in the upper end of a wick-tube to form a nozzle for the wick; also, that it is not new to attach to the upper end of a wick-

tube an outwardly-projecting flange forming a recess around the wick-tube adjacent to the wick-tube; but such features, broadly, do not constitute my invention.

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

1. The combination, substantially as hereinbefore set forth, with the outer or main tube and wick-raising rod, of the stuffing-box having an annular recess opening outward and surrounding the rod, the outwardly-tapering hard-rubber packing-sleeve embracing the rod within the stuffing-box, and the follower screwing into the box-recess and having its bore flared to engage the tapering outer end of the packing-sleeve, for the purpose specified.

2. The combination, substantially as hereinbefore set forth, with the main tube and wick-tube, of the wick-concentrating ring fitted into and resting upon the upper end of the main tube and formed with a groove opening upward for catching cinders, as specified.

3. In an Argand burner, the gallery *H*, secured to the main tube and provided with an annular recess, *k*, formed by two vertical walls, the inner one, *k'*, of which is higher than the outer one, as described, in combination with the chimney-holder *I I'*, detachably arranged in the annular recess of the gallery, and against which the inner wall, *k'*, binds, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHRISTOPHER STOCKMANN. [L. s.]

Witnesses:

W. HAUFF,

CHAS. WAHLERS.