(No Model.)

J. JAUCH.

CENTRAL DRAFT LAMP.

No. 590,415. Patented Sept. 21, 1897.

Fig. 1

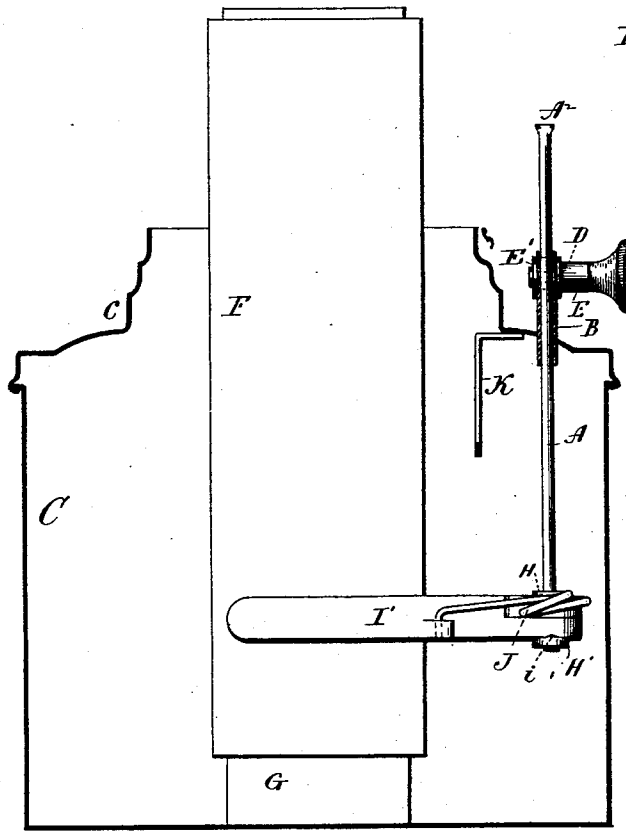


Fig. 2

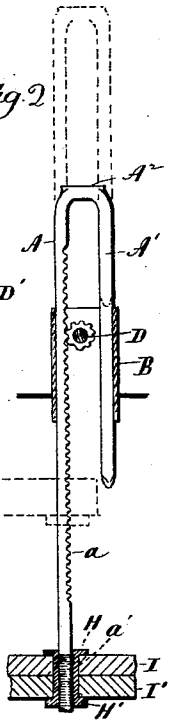


Fig. 4

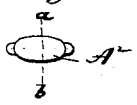


Fig. 5



Fig. 3

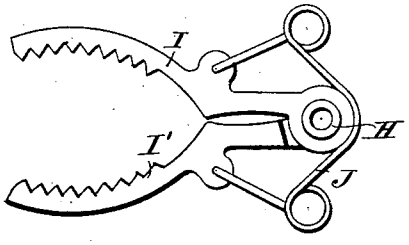
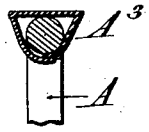


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH JAUCH, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE BRADLEY & HUBBARD MFG. CO., OF SAME PLACE.

CENTRAL-DRAFT LAMP.

SPECIFICATION forming part of Letters Patent No. 590,415, dated September 21, 1897.

Application filed September 25, 1894. Serial No. 524,028. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH JAUCH, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Central-Draft Lamps; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view partly in elevation and partly in vertical section of a lamp having a wick-adjuster constructed in accordance with my invention; Fig. 2, a detached sectional view of the draw-bar and its operating-pinion and bearing-tube; Fig. 3, a detached plan view of the wick-carrier; Fig. 4, a similar view of the draw-bar; Fig. 5, a broken view thereof, in vertical section, on the line *a b* of Fig. 4; Fig. 6, an enlarged broken view of the draw-bar, showing its provision with an independently-formed handle.

My invention relates to an improvement in wick-adjusters for central-draft lamps, the object being to provide a simple, convenient, and effective wick-adjuster of the combined screw and push-and-pull type.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In carrying out my invention as herein shown I employ a draw-bar preferably made from a single piece of wire bent to form two parallel legs A and A′, of which the former is longer than the latter and having the loop or bend connecting the upper ends of the said legs flattened in a plane of a right angle to them to form a handle A^2, the edges of which project beyond the legs and which presents a flat surface for the application of the finger in pushing down the draw-bar. By constructing the draw-bar with such a handle it is much more convenient to use both in pushing it down and in pulling it up than a draw-bar made of wire and having a simple rounded bend or loop, which affords no convenient resting-place for the finger, which is apt to slip off one side or the other.

Instead of forming the flat handle by flattening the loop or bend of the wire, as shown, I may make a sheet or cast metal handle and apply it to the bent or looped portion of the wire, as shown in Fig. 6, wherein the draw-bar is shown as provided with an independently-formed sheet-metal handle A^3. The said draw-bar is located in a flat bearing-tube B, in which it plays up and down, and which is mounted in the top of the lamp-fount C, so as to present one of its flat faces instead of its edge outward.

The two legs of the draw-bar are sufficiently separated from each other to receive between them the stem D of the knurled operating-button D′, the said stem being leaved, so as to form an integral pinion to coact with the teeth *a* of the rack formed upon the inner face of the long leg A of the draw-bar. If preferred, the pinion might be made independent of and applied to the said stem. The said stem has bearing in a horizontally-arranged hub E, applied to and projecting radially outward from the outer face of the flat bearing-tube B. The said stem also extends through the inner face of the tube and projects beyond the same for the reception of a retaining-washer E′. I do not, however, limit myself to constructing the button and stem in the exact manner described, though I design to arrange them so that the button shall extend radially outward with reference to the lamp-fount, for I regard that arrangement of it most favorable to its convenient use.

If desired, the draw-bar may be constructed so that its two legs will have to be sprung toward each other a little in order to get them into the bearing-tube, whereby enough frictional resistance to its movement up and down in the tube will be developed to assist in holding it in place in any desired position of adjustment. I do not, however, consider this construction of the draw-bar necessary, inasmuch as the friction of the wick F upon the central-draft tube G is ordinarily sufficient to maintain the wick in any of its adjustments.

By forming the rack upon the long leg of the draw-bar I secure a direct drawing and pushing action upon the wick-carrier, whereby the power used to turn the operating-but-

ton is employed to the best advantage and with the minimum strain upon the parts of the adjusting device.

By reference to Fig. 2 of the drawings it will be seen that the leaved stem or pinion of the operating-button holds the long leg of the draw-bar against one end of the tube, while the short leg of the draw-bar has a long bearing against the other end thereof.

The extreme lower end of the long leg A of the draw-bar is threaded, as at a', to adapt it to be screwed into the internally-threaded bushing H, upon which the jaws I and I′ of the wick-carrier are mounted. As herein shown, the jaw I turns freely upon the bushing, while the jaw I′ is rigidly connected with the lower end of the bushing H through the medium of a collar H′, fastened thereto and upset into a notch i, formed in the jaw, as shown in Fig. 1. A spring J, formed from a single piece of wire and connected with both of the jaws, is provided for normally moving the jaws toward each other, and hence causing them to grip the wick. I do not, however, limit myself to constructing the wick-carrier, comprising the jaws I and I′, the bushing H, and the spring J, in any particular manner.

I provide the fount with a depending wedge K, arranged to pass between the two jaws of the wick-carrier for spreading the same apart and releasing the wick when the carrier is elevated for the purpose of bringing the jaws into engagement with the wedge.

I may now call attention to the fact that by locating the rack upon the long leg of the draw-bar instead of the short leg thereof I am able to make the rack do the double duty of not only raising and lowering the wick as required, but also of spreading the jaws of the wick-carrier, as required, for the release of the wick. On the other hand the short leg of the bar cannot perform both of these functions, as it could not accommodate a rack long enough to not only provide for the adjustment of the wick, but also for the spreading of the jaws of the wick-carrier, the short leg of the bar being limited in length by the problem of assembling the device as well as dismembering it, as will hereinafter appear.

The short leg A′ of the draw-bar I construct of such length with respect to the other parts of the device that after the lower end of the long leg A of the bar has been fully connected with the wick-carrier the lower end of the said short leg will project a little below the upper edge of the flat bearing-tube B, so that the upper end of the draw-bar has to be sprung sidewise sufficiently to lift the lower end of the short leg of the bar to permit the said leg to enter the upper end of the tube, after which the draw-bar springs back or is sprung back into a perpendicular position, whereby it is permanently assembled with the lamp-fount, for afterward no turning of the operating-button D′ can raise the draw-bar high enough to lift the short leg of the draw-bar out of the bearing-tube, nor can the draw-bar be lifted by its handle high enough to permit its short leg to emerge from the tube, it not being expected, of course, that the user of the lamp will ever so misuse it as to spring the draw-bar to one side in the same manner that it was sprung in its original assemblance with the lamp. When the lower end of the long leg of the draw-bar is threaded to adapt it to be connected with the carrier, the carrier is placed within the fount and the long leg of the draw-bar entered thereinto through the flat bearing-tube, after which the draw-bar is turned so as to screw its long leg into the carrier until the lower end of the short leg of the draw-bar is drawn down to a point below the upper end of the bearing-tube, the carrier being at this time in its highest position in the fount. The projecting upper end of the draw-bar is then sprung, as set forth, for the introduction of the lower end of the short leg of the draw-bar into the bearing-tube.

I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

I am aware, however, that United States Patent No. 2,514, granted March 28, 1842, to Carr, for an improvement in lamps, shows that it is old to connect the wick-carrier of a lamp of the Argand type with the lower end of the long leg of a bowed draw-bar, the short leg of which is constructed upon its inner face with a rack adapted to be taken into by a pinion located upon a short shaft furnished with a finger-button and journaled in bearings permanently connected with the fount of the lamp; but in this connection I desire to call attention to the fact that Carr locates his rack upon the short leg of his bowed draw-bar, whereas I locate my rack upon the long leg of my bowed draw-bar, and thus adapt the same to perform the twofold function of adjusting the wick up and down within sufficiently-extended limits and also provide for utilizing the bar for spreading the wick-jaws apart to release the wick therefrom. Therefore by my particular construction I impose an additional office upon the device.

I am further aware that a carrier consisting of two gripping-jaws and a spring applied to them so as constantly to urge them to close together is old, and, further, that it is old to separate those jaws to distinguish them from the wick by means of a wedge depending from the upper portion of the lamp-fount.

I claim—

In a central-draft lamp, the combination with a lamp-fount, of a draft-tube, a wick-carrier comprising two pivotal wick-jaws, a spring therefor, a wedge for spreading the jaws against the tension of the said spring so as to release the wick, a bearing-tube, an operating-button having its stem journaled in

the said tube, a pinion mounted upon the said stem, and a draw-bar mounted for vertical reciprocation in the said bearing-tube and fount, and consisting of a long leg and a short leg, the lower end of the long leg extending downward into the fount, and being connected with the wick-jaws of the wick-carrier so as to be concentric with the pivot thereof, and having formed upon it a rack which is taken into by the said pinion, which through the said long leg of the draw-bar operates the wick-carrier not only for raising and lowering the wick, but also for drawing the wick-jaws against the said wedge for separating them to release the wick, and the said short leg of the draw-bar being of a length so that in the highest position of the draw-bar the lower end of the said leg will extend slightly below the upper end of the said bearing-tube into and out of which it must be sprung by bending the bar when the same is assembled with and removed from the lamp.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH JAUCH.

Witnesses:
C. D. NEWBURY,
F. A. LEEDS.