(No Model.)

W. C. HOMAN.

WICK ADJUSTER FOR CENTRAL DRAFT LAMPS.

No. 537,890. Patented Apr. 23, 1895.

Fig. 1.

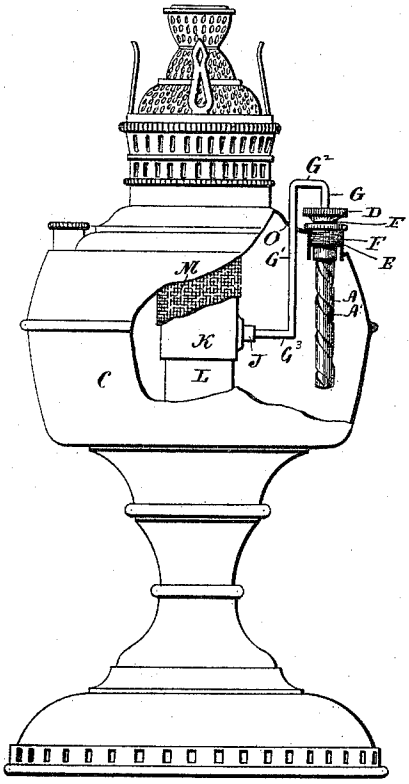

Fig. 2.

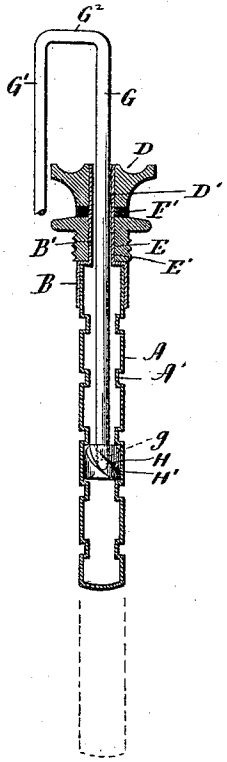

Fig. 4.

Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

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WICK-ADJUSTER FOR CENTRAL-DRAFT LAMPS.

SPECIFICATION forming part of Letters Patent No. 537,890, dated April 23, 1895.

Application filed October 30, 1893. Serial No. 489,477. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HOMAN, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Wick-Adjusters for Central-Draft Lamps; and I do hereby declare the following, when taken in connection with 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 in side elevation of a central-draft lamp containing a wick-adjusting device constructed in accordance with my invention, a portion of the fount of the lamp being broken away to show the device; Fig. 2, a detached view on an enlarged scale of the wick-adjusting device; Fig. 3, a detached view in side elevation of the tubular screw; Fig. 4, a corresponding view of the cap.

My invention relates to an improvement in the combined direct thrust-and-lift action and screw-action wick-adjusting device for central draft lamps, disclosed in United States Patent No. 477,865, granted under date of June 28, 1892, upon my application.

The object of my present invention is to improve and to reduce the expense of producing devices of the particular character referred to and particularly to avoid defective and weak parts, and the distortion of the parts during their assemblance.

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

In carrying out my invention, as herein shown, I form a sheet-metal connecting or coupling piece, comprising a cylindrical head B, a tubular neck B′, and a bearing shoulder B^2, located between the said head and neck. This connecting piece is combined with an independently formed, tubular, sheet-metal screw A, to the upper end of which it is attached through the medium of its head, which corresponds to the tube in diameter. As shown herein the head is set over the screw. The head and screw may be soldered together, or otherwise firmly united. The said screw, as shown, is open at its upper and closed at its lower end, uniform in diameter throughout its length, and constructed with a coarse indented screw thread A′ produced in any suitable manner, but the construction of the screw is not limited to that shown and described. By preference, the lower end of the tubular screw is closed to exclude oil therefrom. It may be drawn closed. I find that by excluding oil from the tube, the device acts more freely, as illuminating oil is not a good lubricant. The open upper end of the tube extends above the level of oil in the fount, and moreover is closed by the connecting-piece, whereby oil is prevented from entering the tube from the upper end thereof. A finger button D, having a knurled edge and a suitable central opening D′, is set over the outer end of the neck B′ of the said connecting-piece, and rigidly secured thereto in any approved manner. Between the said button and the bearing-shoulder B^2 of the connecting-piece, I interpose a suspension nut E, having a suitable central opening E′, through which the said neck B′ passes, and in which the same is free to turn in either direction. As herein shown, the said suspension nut E has an overhanging knurled edge, and an externally threaded shank, the latter taking into a bushing F, mounted in the top of the lamp-fount C. A fibrous washer F′, interposed between the said suspension nut and the said finger-button, reduces the friction of their operation.

It may be well for me to state here that I employ the term connecting-piece for the reason that the part so designated connects the finger-button and suspension nut with the tubular sheet-metal screw.

As herein shown, the draw-bar consists of an outer member G, an inner member G′, and a horizontal reach G^2 uniting the upper ends of the said members, which, with the reach, are preferably formed from a single piece of wire. The said outer member or reversed end G of the draw-bar plays up and down through the finger-button and suspension nut, and through the connecting-piece already described, and enters the upper end of the tubular screw A. At its extreme lower end it is furnished, as herein shown, with a head H, having a screw thread of coarse pitch, which

coacts with the screw-thread A′ of the said tubular screw. As herein shown also, the said head is provided at its upper end with a central, internally threaded counter-bore *h*, which receives the reduced screw-threaded end *g* of the said outer member G of the draw-bar. The inner member G′ of the draw-bar is bent inward at a right angle at its lower end to form a horizontal foot G^3, which enters a horizontal socket J located at the upper end of the wick-band or holder K, which encircles the draft-tube L, and carries the wick N. The said inner member of the draw-bar plays up and down through an orifice O formed in the top of the lamp fount, and opening upward and outward. It is apparent, however that a connecting-piece comprising a hollow neck, a head, and a bearing shoulder between the said neck and head, and adapted to connect a finger-button and a suspension nut with a tubular sheet-metal screw, is not limited to use in combination with the particular construction and arrangement of parts herein shown and described.

It is thought that it will not be necessary to describe the operation of the device further than to say that for quick adjustment of the wick, as for instance in extinguishing the lamp, the reach of the draw-bar is seized by the fingers, and the draw-bar suddenly pushed downward. In the same way the wick is quickly raised by seizing the reach of the draw-bar and pulling the same directly upward. On the other hand, if it is desired to procure a nice adjustment of the wick, as when the lamp is burning, the same may be effected by turning the finger-button one way or the other as required. The manifest advantages of a direct thrust-and-lift action, and of a screw-action are thus combined in one organization.

Heretofore in the actual manufacture of the invention disclosed in my prior patent, the tubular screw, the reduced hollow neck, and the bearing shoulder between the same have been drawn in one piece; but by forming the hollow neck on which the finger-button and suspension nut are mounted and the shoulder against which the said nut bears, independently of the screw, I simplify the production of the wick-adjusting mechanism, and not only reduce the expense thereof, but also insure a very easy running device, on account of the accuracy with which the parts may be independently constructed, and because I minimize the liability to distortion during the process of making and assembling the parts, and also the production of imperfect parts. Thus, the connecting-piece being made independently of the screw, I am enabled to assemble the finger-button and suspension nut with it before its application thereto. The formation of a tubular screw with an integral, reduced hollow neck at its upper end, is not only difficult on account of the character of the tools and manipulations required, but also involves the danger of distorting the screw or neck or both, and of the production of imperfect parts, particularly in the shoulder between the screw and neck. In the first place, the reduced neck has to be drawn down from the tube before the same is threaded. Then after the formation of the neck, as described, the heavy pressure required for the threading of the tube endangers the distortion of either the tube or neck or both, so as to destroy their alignment, and it is to be said that their perfect alignment is necessary in order to secure the free operation of the device. Again, in the handling of the tubes in bulk, the necks when made integral with them, are very liable to become bent or indented. In assembling the suspension nut and finger-button with a reduced neck made integral with a tubular screw, it is necessary to support the screw by means of a long die inserted into it, so that the force of the operation may be taken by the shoulder between the tube and neck. Such a die on account of its length is liable to spring and permit the parts to distort, and moreover, the operation has to be performed slowly. All of the objections above recited are completely avoided by making the tubular screw, and neck and shoulder independent of each other, and connecting them in the final assemblance of the parts. I therefore, by my invention, secure important advantages in cheapness and facility of manufacture, and achieve an absolutely better result, inasmuch as the neck is always in perfect alignment with the tubular screw. Other advantages of making the neck and shoulder independently of the tube might be set forth were it thought necessary.

Obviously, as aforesaid, my improved connecting piece is not limited to use with a wick-adjusting device constructed and organized as shown and described, and I would therefore have it understood that I do not limit myself to such construction, but hold myself at liberty to make such changes as fairly fall within the spirit and scope of my invention.

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

1. The combination with a tubular screw, a suspension nut and a finger-button, of a connecting-piece formed independently of the said tube and consisting of a tubular neck to carry the button and nut, a head for the attachment of the connecting-piece to the upper end of the tubular screw, and a bearing shoulder located between the said neck and head, and forming a bearing for the suspension nut which is interposed between the shoulder and the finger-button, substantially as set forth.

2. The combination with a tubular screw, a draw-bar having a reversed end, a suspension nut and a finger-button, of a connecting-piece formed independently of the said tube and consisting of a tubular neck to carry the button and nut and receive the reversed end of

the draw-bar, a head for the attachment of the connecting-piece to the upper end of the tubular screw, and a bearing shoulder located between the said neck and head, and forming a bearing for the suspension nut which is interposed between the shoulder and the finger-button, substantially as set forth.

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

W. C. HOMAN.

Witnesses:
ALFRED DUNLOP,
W. L. BABCOCK.