

(No Model.)

3 Sheets—Sheet 1.

W. C. HOMAN.
ARGAND LAMP.

No. 491,965.

Patented Feb. 14, 1893.

Fig. 1.

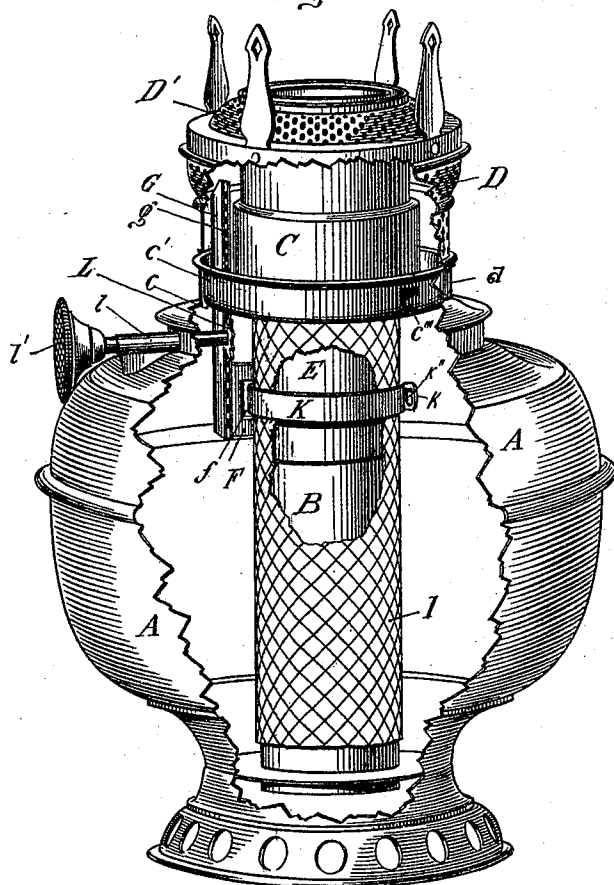
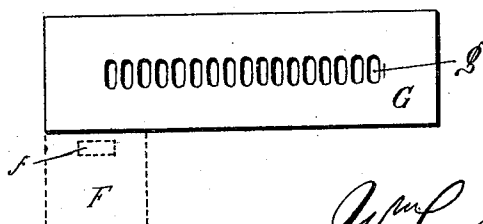


Fig. 4.



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Fig. 2.

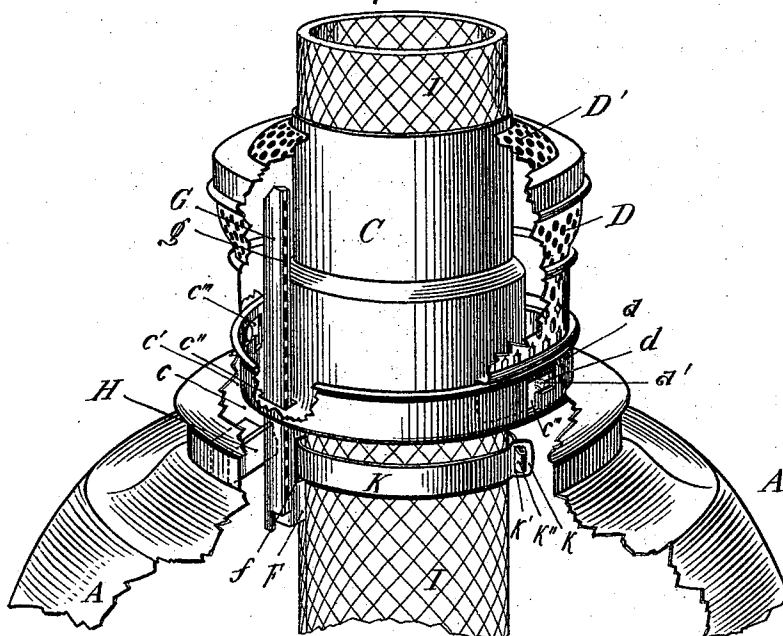


Fig. 3.

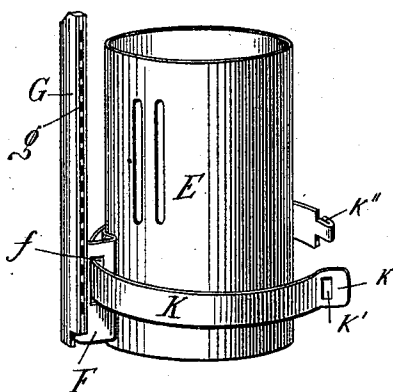
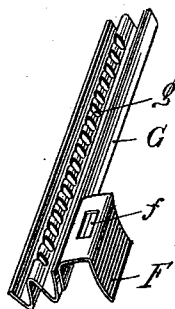


Fig. 5.



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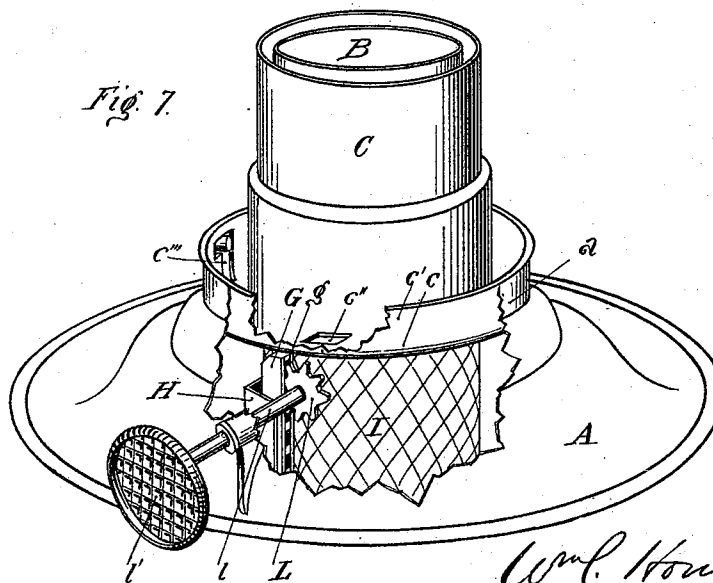
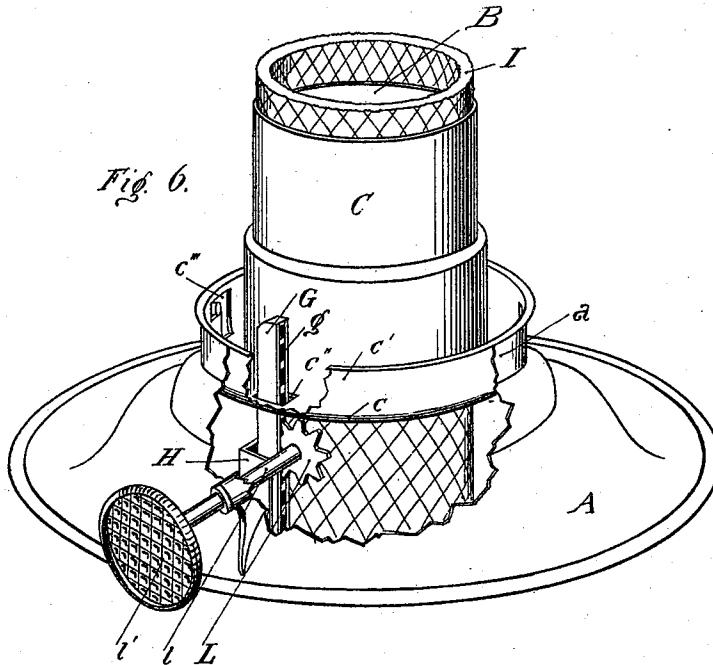
(No Model.)

3 Sheets—Sheet 3.

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WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM C. HOMAN, OF MERIDEN, CONNECTICUT.

ARGAND LAMP.

SPECIFICATION forming part of Letters Patent No. 491,965, dated February 14, 1893.

Application filed May 2, 1892. Serial No. 431,600. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HOMAN, a citizen of the United States, residing at Meriden, New Haven county, Connecticut, have invented a new and useful Improvement in Argand Lamps, of which the following is a specification.

My invention relates chiefly to a wick adjusting device for an Argand lamp and is intended to produce a simple, efficient and slightly construction.

In the accompanying drawings Figure 1 represents in perspective an Argand lamp embodying my invention partly broken away to show the internal construction, Fig. 2 also in perspective and broken away shows a part of the upper portion of the lamp, Fig. 3 also in perspective shows the wick adjusting device detached from the lamp, Figs. 4 and 5 show a portion of this device in process of construction. Figs. 6 and 7, in perspective and broken away show in detail another portion of my device.

The same letters refer to like parts in the several views.

A designates a lamp font or body; *a*, a collar in the lamp A; *a'*, an internal projection or lug in the collar *a*; B, an inner wick tube; C, an outer wick tube; *c*, a horizontal flange, *c'*, a vertical flange both on the wick tube C; *c''*, an aperture in the flange *c*; *c'''*, a bayonet slot in the flange *c'*; D, an outer skirt; *d*, a bayonet joint in the skirt D; D', a chimney gallery; E, a wick adjusting sleeve; F, an offset attached to the sleeve E; *f*, an aperture in the offset F; G, a drawbar; *g*, a rack in the drawbar G; H, a stop; I, a wick; K, a wick band or clamp provided with outturned portion *k*, aperture *k'* and tongue *k''*; L, a pinion; *l*, a shaft; *l'*, a button, both acting in conjunction with the pinion L.

In the example of my invention illustrated in the drawings the lamp font A, collar opening *a*, internal projections *a'* and inner wick tube B may be of ordinary or of any desired form. As shown the wick tube B serves the additional function of inner air supply or central draft tube, but it is evident that this is non essential to my invention. The outer wick tube C terminates at its lower end in a substantially horizontal portion or flange *c* which is turned upward to form a vertical

flange *c'*. In the flange *c* is cut an aperture *c''* the use of which will be hereinafter explained. In the vertical flange *c'* are cut bayonet slots *c'''* corresponding in number and position to the internal projections *a'* in the collar and adapted to engage therewith in the usual manner. The outer skirt D and chimney gallery D' are here shown as secured together. The skirt D is provided with bayonet joints *d* also corresponding in number and position to the projections *a'* in the collar *a*.

In operation the outer wick tube C is first locked into position by the engagement of the slots *c'''* with the projections *a'*. These projections *a'* are long enough to pass through the slots *c'''* and to engage with the bayonet joints *d* in the skirt D. The wick sleeve E is of an internal diameter corresponding to the external diameter of the wick tube B so as to slide freely thereon. It may be provided with any well known means of increasing frictional adhesion between itself and the wick I. Secured to the sleeve E is the radial offset F, which is provided with an aperture *f* as shown. Firmly attached to or integral with the offset F is the drawbar G provided with a rack *g*. It will be noted that the offset F is so short as to permit the bar G to play within the opening of the collar *a*. Hence the wick adjusting portions E, F, G and the wick I may be integrally inserted into or removed from the font A. To permit the upward motion of the bar G the aperture *c''* is cut through the flange *c*. Preferably I make the bar G of such a length as to pass below the level of the flange *c* when at its lowest point and the aperture *c''* of such a size and so placed as to permit the passage of the bar G only after the wick tube C has been locked in place. The bar G, on being raised, as it usually will be when the lamp is in use, forms an efficient stop to prevent the accidental unlocking of the tube C when the skirt D is removed the necessary rotary movement of the sleeve E on the inner tube B being prevented by the contact of the bar G with the stop H. The stop H is secured to the inner side of the font A so as to form a rear support and guide for the bar G thereby maintaining the rack *g* in engagement with the pinion L. This pinion L is mounted on a shaft *l* passing hori-

zonally through the fount A near the collar *a*. At the outer end of the shaft *l* is the usual button or thumb piece *l'*.

To secure the wick *I* to the sleeve *E* I use a band or clamp *K* adapted to surround the wick. To prevent vertical displacement of both wick *I* and band *K* on the sleeve *E* I pass the band through the aperture *f* in the offset *F*. The band *K* is formed with an outturned end *k* in which is punched an aperture *k'*. The other end of the band *K* is provided with a tongue *k''* adapted to pass into the aperture *k'* and to lock the ends of the band *K* together. As shown the tongue *k''* is bent back upon itself to form a catch. It is obvious, however, that the catch may be otherwise made.

The construction of the drawbar *G* is shown in Figs. 4 and 5 of the drawings. A blank is first cut from sheet metal and perforated to form the rack *g*. This blank may if preferred include the offset *F* as shown in dotted lines, Fig. 4. The blank is then drawn or stamped to the form shown in Fig. 5, in which it is shown as having a **W** shaped cross-section. It is then laterally compressed or closed together so that the sides of the blank form guards for the rack *g* as shown in Fig. 1 of the drawings. By means of the side guards so formed end play of the shaft *l* is prevented and positive engagement of the rack *g* and the pinion *L* secured.

It is clear that many mechanical alterations other than those specified may be made without departing from my invention.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows:

1. In an Argand lamp in combination an outer wick tube, an outturned flange at the lower end of said wick tube, an aperture in said flange and a wick adjusting device consisting of a sleeve and a drawbar, the arrangement of parts being such that said drawbar is capable of vertical movement through said aperture only when said wick tube is in its normal or locked position, substantially as described.

2. In an Argand lamp in combination a wick adjusting sleeve, a rack bar connected with said sleeve, said sleeve and said rack bar being wholly within said lamp, a pinion adapted to mesh with said rack bar, a shaft on said pinion passing out of said lamp and a stop or guide in said lamp adapted to bear against said rack bar and to maintain it in engagement with said pinion, substantially as described.

3. A rack bar consisting of a strip or blank of metal, provided with a central longitudinal line of perforations, folded longitudinally through said line of perforations, then folded in the opposite direction to, parallel with and on each side of said first named fold, substantially as described.

WILLIAM C. HOMAN.

Witnesses:

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BENJ. C. KENNARD.