No. 646,310. Patented Mar. 27, 1900.

L. PAGEL.

DEVICE FOR CONVENIENT FILLING OF LAMPS.

(No Model.) (Application filed June 26, 1899.)

Fig. 2.

Fig. 4.

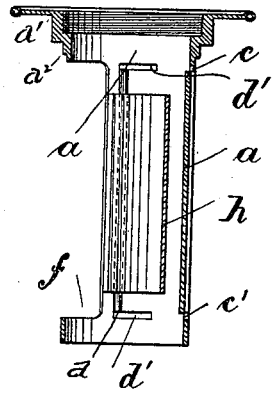
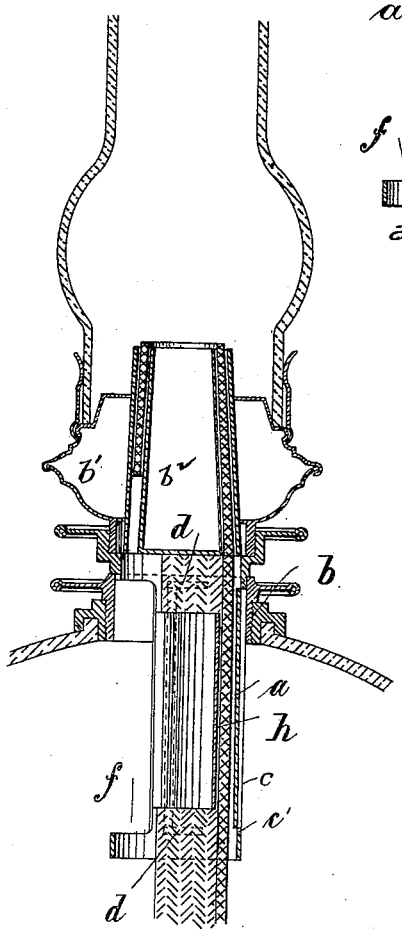


Fig. 1.



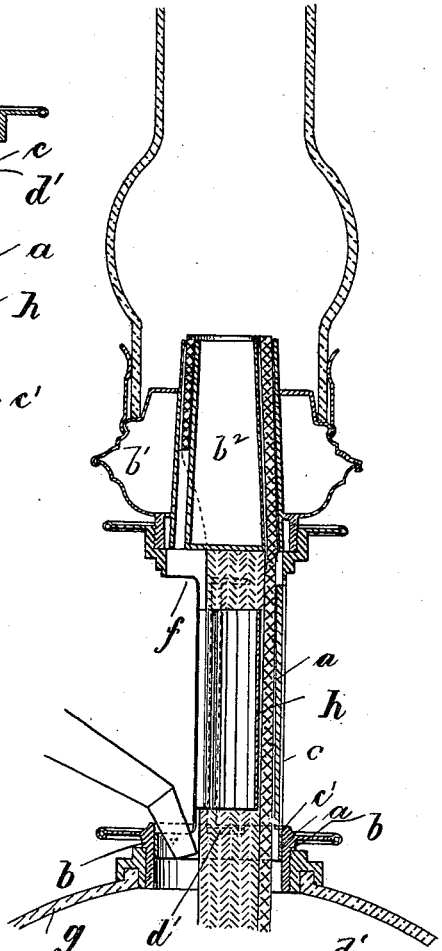
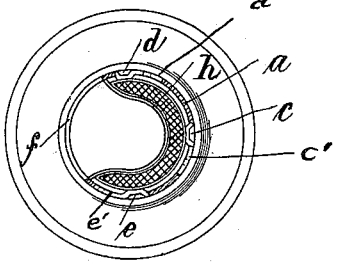


Fig. 3.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR CONVENIENT FILLING OF LAMPS.

SPECIFICATION forming part of Letters Patent No. 646,310, dated March 27, 1900.

Application filed June 26, 1899. Serial No. 721,979. (No model.)

To all whom it may concern:

Be it known that I, LEOPOLD PAGEL, a subject of the King of Prussia, Emperor of Germany, residing at Kattowitz, in Upper Silesia, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Devices for Enabling the Convenient Filling of Lamps, (for which I have applied for a patent in Germany, dated January 26, 1899,) of which the following is a specification.

My invention relates to lamp-fillers, my object being to provide a simple and efficient device for filling lamps burning hydrocarbon or other oils, and especially for those lamps that use a circular or tubular wick instead of the flat wick.

It is one purpose of my said invention to provide a filling device in combination with a guide for the wick so constructed and arranged that the wick or that portion of the same extending below the burner-tube shall be prevented from obstructing the inflow of a stream of oil from the nozzle of a filling-can and shall be protected also from any displacement laterally or otherwise when the filling device is moved upward in the neck of the lamp to give access to the inlet-opening, and particularly when said device is returned to its normal position by pushing it downward in the neck of the lamp or in a collar seated in said neck.

It is my object also to provide by the same construction a strong and rigid connection between the burner which sustains the chimney and chimney-base and the neck of the lamp in which the filling device is vertically adjustable, whereby the said chimney and burner may be firmly and safely supported in their raised position during the operation of filling.

The invention consists in the novel features of construction and new combinations of parts hereinafter fully explained and then particularly pointed out in the claims.

For the purposes of the following description reference is had to the accompanying drawings, in which—

Figure 1 is a central longitudinal section through the burner, wick-tube, and filler and the neck of a lamp, showing my invention. Fig. 2 is a similar section showing the filler in its raised position with the nozzle of the filling-can inserted in the inlet-opening. Fig. 3 is a horizontal section taken near the upper end of the filler, and Fig. 4 is a central longitudinal section of the filling device removed from the lamp and the wick taken out.

As shown in said drawings, the filling device consists, substantially, of a segment of a cylinder a, having circular ends f of a size to fit within a ring b, which is screwed into the neck of the lamp or oil-reservoir g. Between the circular extremities $f\,f$ a longitudinal portion of the cylinder a is removed upon one side to form an opening for the entrance of oil.

At its upper end the filling device is formed with a ring a', having a shoulder a^2, which rests upon the ring b. The ring a' has a female thread, into which a threaded neck on the chimney-base b' is screwed. The wick-tube b^2, upon which the chimney-base is mounted, is thus brought so that its lower end lies just within the circular part f at the upper end of the filler a.

Upon the interior of the filler a is a concave strip h, arranged concentrically with that portion of the cylinder remaining between the circular ends f, the space between being in line with the wick-tube b^2 above. The edges of the strip h are curved outward and brought up to the edges of the part a, so as to close the two narrow vertical openings, as shown in Fig. 4. The round or tubular wick is divided longitudinally on one side in such manner that its two cut edges can be drawn away from the filling-opening, as indicated by dotted lines in Fig. 2.

The filling device a is movable vertically in the ring b and is provided with three vertical channels c, d, and e, the two last being close to the edges of the filling-opening and the channel c being in the center or midway between d and e, as shown in Fig. 3. At the upper and lower ends of these vertical channels are horizontal channels or short slots c', d', and e', communicating with the vertical channels which engage with projections upon the ring b. The vertical channels guide the filler in its vertical movements in the ring b, while the horizontal slots at the lower end sustain it in its raised position, (shown in Fig.

2,) the horizontal slots at its upper end serving to lock it in the position shown in Fig. 1, and thereby prevent the escape of oil should the lamp *g* be accidentally overturned.

The manner of using the device is so evident from Figs. 1 and 2 of the drawings as to require no explanation.

The wick is not divided or slitted throughout its length, but only from its lower end to a point a little above the lower end of the wick-tube b^2, as seen in Fig. 2, so that its cut edges may be separated a distance equal to the width of the opening for the nozzle of the filling-can, said edges converging after they pass the top of the wick-guide *h*, as shown by the dotted lines in Fig. 2.

By my invention the tubular wick is prevented from offering any obstruction to the ready insertion of the nozzle of the filling-can and is also so protected by the guide *h* that it cannot become displaced by the vertical movements of the filling device *a*. Moreover, by the addition of said wick-guide and the union of its vertical edges with the edges of the filling device *a* the latter is reinforced and stiffened, so that a strong and stable support is given to the burner, chimney-base, and chimney when the filling device is raised to the position shown in Fig. 2. The formation of the vertical channels *c*, *d*, and *e* also has a marked effect in imparting rigidity and strength to the filler and enables the manufacturer to use sheet metal of much lighter weight than would otherwise be necessary.

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

1. A lamp-filler, consisting of a segment of a cylinder having circular ends, and provided with a seat for the burner, and a wick-guide arranged concentrically with the segmental portion, substantially as described.

2. The combination with a lamp, of a ring threaded into its neck, a segment of a cylinder having circular ends movable vertically in said ring, a wick-guide in said segment, and means for locking the segment in either its raised or its lowered position, substantially as described.

3. The combination with a lamp having a ring screwed into its neck, of a filling device movable vertically in said ring and consisting of a segment of a cylinder having circular ends, a burner mounted on the upper end of said filling device, and a wick-guide between the circular ends of the filling device and concentric with the latter the edges of said wick-guide being turned outward to meet the edges of the segmental portion of the wick-guide, said portion having vertical channels communicating with horizontal slots and engaging projections on the ring within which the filling device moves, substantially as described.

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

LEOPOLD PAGEL.

Witnesses:
HERMANN BARTSCH,
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