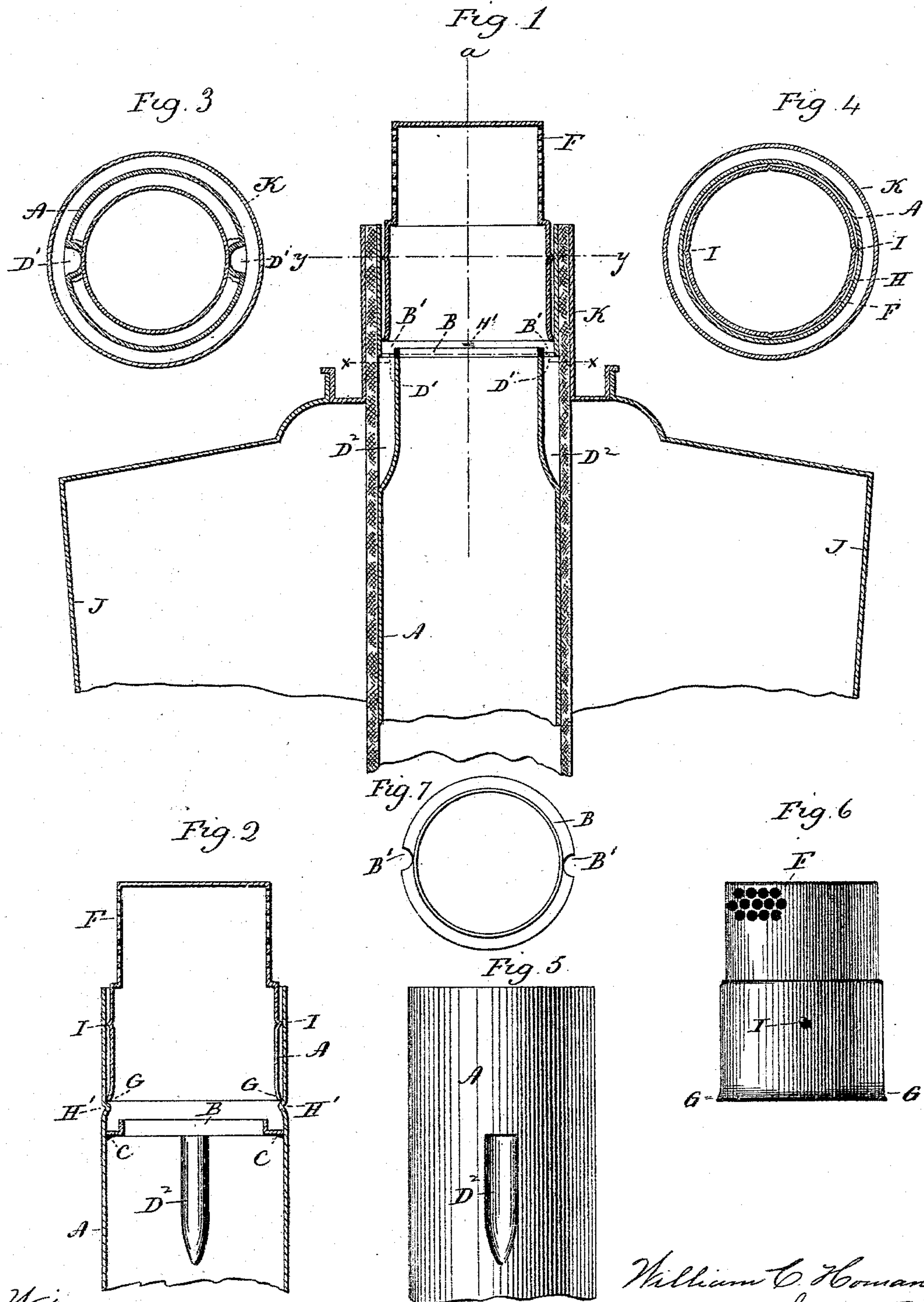


(No Model.)

W. C. HOMAN.
CENTRAL DRAFT LAMP.

No. 494,862.

Patented Apr. 4, 1893.



Witnesses.
J. H. Shumway
Lillian D. Kelley.

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UNITED STATES PATENT OFFICE.

WILLIAM C. HOMAN, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
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CENTRAL-DRAFT LAMP.

SPECIFICATION forming part of Letters Patent No. 494,862, dated April 4, 1893.

Application filed October 19, 1891. Serial No. 409,207. (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 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 broken view in central section through a draft-tube and air-distributor constructed in accordance with my invention and shown in combination with an ordinary lamp-fount and burner-socket; Fig. 2, a detached broken view of the draft-tube and air-distributor in vertical central section on the line *a—b* of Fig. 1; Fig. 3, a view in transverse section on the irregular line *x—x* of Fig. 1, showing the draft-tube, the air-distributor and the burner-socket; Fig. 4, a similar view on line *y—y* of the same figure; Fig. 5, a broken view showing the upper end of the draft-tube in side elevation; Fig. 6, a similar detached view of the air-distributor; Fig. 7, a detached plan view of the catch-flange.

My invention relates to an improvement in that class of central-draft lamps which have their draft-tubes constructed to intercept and dispose of any oil which may find its way into their upper ends, whereby the lamps are prevented from "weeping" as the saying is, and are especially adapted to the use of air-distributors which are set within the upper ends of their draft-tubes, instead of over the same. Heretofore the tubes of such lamps have been provided with inside annular troughs, constructed to intercept and retain the oil until the same can be disposed of through lateral openings formed in the tubes, and leading horizontally out of the troughs to the wick. Such old constructions have been found objectionable on account of the liability of the openings to clog up, causing the troughs to overflow, and also on account of the difficulty and expense of securing the troughs within the tubes, so that they will not leak.

The object of my present invention is to dispense with troughs such as have been be-

fore used, and by a simple and inexpensive construction, to make adequate provision for the interception and disposition of any oil which may find its way into the upper ends of the tubes of central-draft lamps.

With this end in view, my invention consists in a draft-tube for a central-draft lamp, having its outer surface forced inward to form one or more oil-pockets opening at its or their upper end or ends into the bottom of a catch-flange located within the tube.

My invention further consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

As herein shown, the exterior surface of the draft-tube A, which is of ordinary construction, is forced inward in any suitable manner to produce two comparatively wide and deep vertical oil-pockets *D² D³*, the upper ends of which open into the bottom of an annular catch-flange B, located within the tube, while their lower ends taper out and gradually merge into the full exterior diameter of the same. The said catch-flange B, is secured in place by solder C, and is constructed in its bottom with two discharge-openings *B' B'*, which align with the upper ends of the said oil-pockets, the same being opened into the inside of the tube by slitting the same transversely across their upper ends, as at *D' D'*, and forcing the metal below the said slits inward when the pockets are formed. I do not, however, limit myself to forming the catch-flange and establishing communication between the same and the oil-pockets in the manner described, my invention contemplating, broadly, oil-pockets produced in the exterior surface of a draft-tube, located below a catch-flange situated within the same, and communicating at their upper ends with the said flange. Each of the pockets formed in accordance with my invention as above described, is capable of containing a considerable amount of oil, so that the weight of the oil aids in its absorption by the wick, a large area of which is exposed by each pocket. Furthermore, the agitation of the oil confined in the pockets, and consequent upon the movement of the wick up and down, assists the

process of disposing of the oil. It should be noted, also, that the oil instead of being discharged laterally from the flange, flows directly downward from the bottom of the same, whereby the wash of the oil has the effect of keeping the flange clear and free of accumulations of debris. It will be readily seen that under my invention I am enabled to expose a larger area of the wick for the absorption of the oil of interception, than could be done in any arrangement of transverse openings leading laterally out of a trough through the tube to the wick, without weakening the tube, and probably interfering with the right action of the lamp.

In the operation of my improved draft-tube, the oil is simply caught by the flange, which immediately deflects it into the pockets formed in the exterior surface of the tube, where it is retained until it is disposed of by absorption by the wick, or by its return to the body of oil in the fount, whereas, under prior constructions the oil was retained in the trough to which my flange corresponds, only so far as the interception of the oil is concerned.

The air-distributor F, is preferably struck up from a single piece of metal, and has its upper end filled with perforations. Its lower end, though of larger diameter than its upper end, is made slightly smaller than the inner diameter of the draft-tube, to form a small annular space H, between them when it is in place. This space permits any surplus oil on the air-distributor to flow down between the same and the inner surface of the draft-tube, and be discharged into the catch-flange B. The extreme lower end of the air-distributor is made slightly flaring, as at G, and supported upon two inwardly projecting bumps H' H', formed by inwardly upsetting the tube, as shown by Fig. 2 of the drawings, at points just above the level of the said catch-flange. To steady the air-distributor it is constructed with four outwardly projecting bumps I, which are arranged at equi-distant points around it,

and which engage with the inner surface of the upper end of the tube and steady it, as shown by Figs. 1 and 2 of the drawings.

By means of my invention I am enabled to employ an inside air-distributor, and at the same time avoid any leakage or "weeping" of the oil through the inside of the draft-tube, as often occurs when inside air-distributors are used with draft-tubes of ordinary construction. I also avoid that interference with the wick which an air-distributor adapted to fit over the outside of the tube, entails.

My improved draft-tube may be used in combination with central-draft lamps of any approved construction. Herein I show nothing but a fount J, and a burner-socket K.

I would have it understood that I do not limit myself to the construction shown and described herein, but hold myself at liberty to make such changes and alterations therein 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. A draft-tube for a central-draft lamp, having its outer surface forced inward to form one or more oil-pockets each opening at its upper end into the bottom of an annular catch-flange located within the tube, substantially as described.

2. A draft-tube for a central-draft lamp, having its outer surface forced inward to form one or more deep vertical pockets each opening at its upper end into the bottom of an annular catch-flange located within the tube, substantially as described.

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

WILLIAM C. HOMAN.

Witnesses:

CHAS. E. HOMAN,
ALEXANDER PATTIE.