

(No Model.)

W. C. HOMAN.

AIR DISTRIBUTER FOR CENTRAL DRAFT LAMPS.

No. 556,980.

Patented Mar. 24, 1896.

Fig. 1

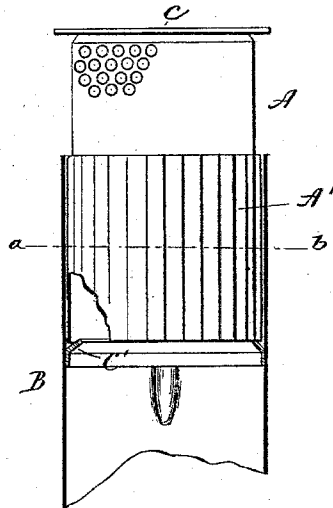


Fig. 2

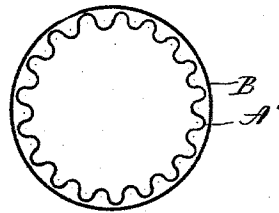
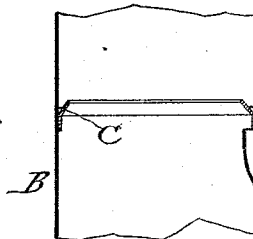


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM C. HOMAN, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
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AIR-DISTRIBUTER FOR CENTRAL-DRAFT LAMPS.

SPECIFICATION forming part of Letters Patent No. 556,980, dated March 24, 1896.

Application filed January 18, 1892. Serial No. 418,428. (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 Air-Distributers 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 an air-distributer constructed in accordance with my invention and shown in position in an inner wick or draft tube which is represented in vertical section; Fig. 2, a detached view of the distributer in transverse section through its lower end on the line *a b* of the preceding figure. Fig. 3 is a broken view in vertical section on the line *x x* of Fig. 1, showing the construction of the tube for the discharge of the trough.

My invention relates to an improved air-distributer for the draft-tubes of central-draft lamps, the object being to produce a simple, cheap, strong, and effective device.

With these ends in view my invention consists in an air-distributer having certain details of construction, as will be hereinafter described and pointed out in the claim.

The upper portion, A, of my improved distributer is perforated and smaller in diameter than its cylindrical lower portion, A', which is imperforate and separated from the said upper portion by a shoulder A² and made of an external diameter substantially corresponding to the internal diameter of the central-draft tube B and vertically corrugated by continuous inwardly-projecting corrugations.

The distributer may be drawn from a single piece of sheet metal, or it may be composed of two or more pieces united together. Its corrugations are formed by forcing portions of its imperforate lower portion inward. The lower portion of the distributer being imperforate is stiffened rather than weakened by corrugating it, and the annular shoulder between the upper and lower portions of the distributer serves also to stiffen the same. Therefore, although the distributer may be

made of quite thin metal, it will be stiff enough when finished not to get out of shape in any ordinary usage of it. The corrugations being forced inwardly may all be made at the same time, and hence very cheaply. Obviously, the making of the imperforate lower portion of the distributer of larger diameter than its upper portion facilitates the corrugation of the former.

Inasmuch as the lower portion of the distributer substantially corresponds to the internal diameter of the draft-tube the distributer will be firmly held against lateral displacement therein with no opportunity to move about or tip. Furthermore, as only the exterior high points of the corrugations of the distributer engage with the draft or wick tube, the area of contact between the two parts is so reduced that the thickening of oil between the two parts, or corrosion, will not prevent the distributer from being readily removed and replaced. At the same time the space between the interior surface of the wick or draft tube and the exterior surface of the distributer is so divided up by the continuous vertical corrugations of the latter that the draft of the lamp is quite undisturbed. If currents of air rise through the passages formed by the corrugations, such currents being small and regular will not disturb the flame. The interior of my improved air-distributer is open and unincumbered for the free upward passage of the main body of air rising through the tube, just the same as in ordinary air-distributers for central-draft lamps. As herein shown, also, a disk C forming a spreader is attached to the upper portion of the distributer and overhangs the same; but the use of this spreader is optional, for the distributer is effective without it.

While my improved distributer may be used in wick-tubes of any approved construction, I find that very excellent results are secured by employing it in connection with a tube having an inwardly-projecting catch-flange C' located near its upper end, the corrugations of the distributer being proportioned in depth and the flange being proportioned in its inward extension, so that the vertical passages formed between the interior of the tube and the exterior of the distributer

will be contained, so to speak, within the range of the flange, which will catch any oil seeking to escape downward through the draft-tube.

I do not limit myself to constructing the catch-flange in any particular way for use in connection with an air-distributor made in accordance with my present invention, but as an instance of a suitable construction refer to United States Patent No. 494,863, granted April 4, 1893, on my application.

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

I am aware that a prior patent shows an air-distributor having its lower portion corrugated for the purpose of breaking up the air into a number of small currents. I am also aware that it is old to construct an air-distributor so that a space will be formed between the exterior surface of its lower portion and the interior surface of the draft-tube and that friction has been relied upon to hold an air-distributor in place. I am also aware that it is not new to corrugate one tube so as to make it elastic, and thus adapt it to form a tight joint with another tube. I am also aware that it is not new to outwardly upset

the lower end of a perforated tube in the midst of its perforations, so as to form vertically-elongated isolated bumps which act as steadiments for the distributor. I do not therefore claim any of those constructions broadly; but,

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

The herein-described hollow air-distributor for central-draft lamps, having a perforated upper portion, and a cylindrical imperforate lower portion, larger in diameter than the said upper portion from which it is separated by an annular horizontal shoulder, corresponding substantially in diameter to the internal diameter of the draft-tube in which it is to be used, and the said imperforate portion having formed in it by setting portions of its surface inward, a continuous series of inwardly-projecting vertical corrugations extending throughout or substantially throughout its length, substantially as described.

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

WILLIAM C. HOMAN.

Witnesses:

ALFRED DUNLOP,
R. B. PERKINS.