June 3, 1930. G. H. COLE 1,761,654

REFRACTOR BOWL

Filed July 5, 1928

Fig. 1.

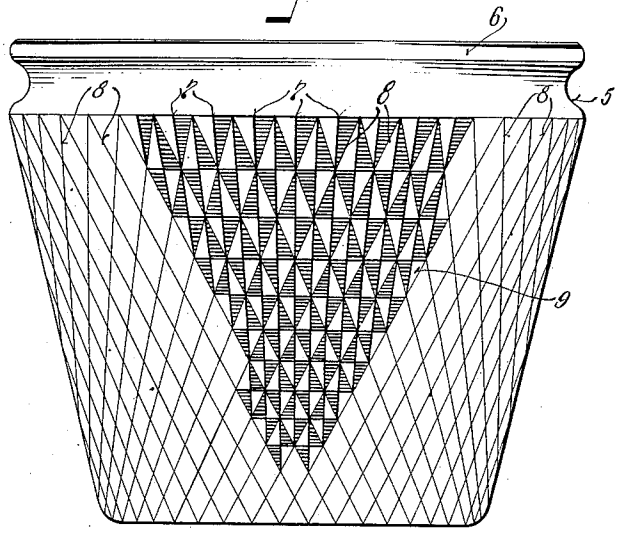


Fig. 2.

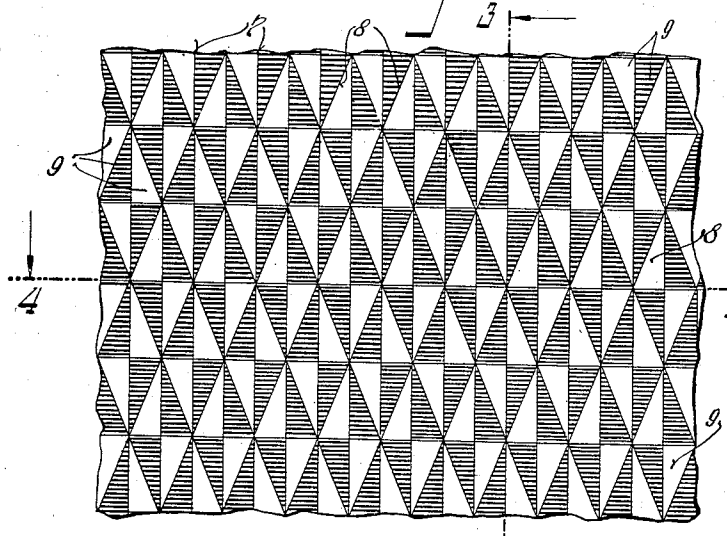


Fig. 3.



Fig. 4.



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Patented June 3, 1930 1,761,654

UNITED STATES PATENT OFFICE

GEORGE H. COLE, OF MILWAUKEE, WISCONSIN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO LINE MATERIAL COMPANY, OF SOUTH MILWAUKEE, WISCONSIN, A CORPORATION OF DELAWARE

REFRACTOR BOWL

Application filed July 5, 1928. Serial No. 290,466.

This invention relates particularly to the formation of the surface of refractor bowls and the like and has as an object to provide a refractor having a substantially diamond shaped, raised pattern with intersecting veins or grooves which provide a direct path for rain falling on the refractor and thus reduce the surface resistance of the refractor bowl to a minimum.

Another object of this invention resides in the provision of an improved refractor bowl having its surface so formed that the rays of light are diffused in four different directions and thus the intense brightness of the lamp filament reduced.

And a further object of this invention resides in the provision of an improved refractor having a raised diamond shaped pattern which is symmetrical with the vertical axis of the bowl and with any horizontal plane through the bowl.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a side, elevational view of a refractor bowl embodying my invention;

Figure 2 is an enlarged, fragmentary, elevational view illustrating the surface of the refractor in detail;

Figure 3 is a cross-sectional view taken through Figure 2 on the plane of the line 3—3; and

Figure 4 is a transverse, sectional view, taken through Figure 2 on the plane of the line 4—4.

Referring now more particularly to the accompanying drawing, in which like numerals designate like parts throughout the several views, 5 designates a refractor bowl which may have any desired contour, having an upper flange 6 by which the bowl may be attached to its holding means, not shown. The surface of the refractor is formed of a multiplicity of substantially diamond shaped pyramids 7 being formed by intersecting V-shaped grooves 8. The pyramid shaped configurations are arranged symmetrically about the bowl and are tapered to conform to the contour thereof which in the present instance is substantially inverted cone shape, the pyramids adjacent the top of the bowl being proportionately larger than those adjacent the bottom thereof.

As illustrated in Figures 3 and 4, the thickness of the glass is uniform throughout so that the inner surface of the bowl is shaped to correspond with the outer surface, the trangular shaped flat faces 9 of the pyramids on either side of the glass being parallel.

The formation of the surface of the refractor into the substantially diamond shaped pyramids as described, produces a multiplicity of means for diffusing a light with which the rafractor is used in four directions by which the lamp filament or center of light intensity is broken up in four directions to thus decrease the intense brightness of the lamp which is irritable to the eye.

The grooves 8 which extend obliquely from top to the bottom of the refractor bowl form paths for the rain striking the refractor and thus reduce the surface resistance to a minimum and permit the rain to wash the outer surface most advantageously.

What I claim as my invention is:

1. A refractor bowl formed of glass of equal thickness throughout and having its surface composed of a multiplicity of substantially diamond shaped pyramids arranged with their major axes substantially vertical and whereby the rays of light are broken up and the resistance of the outer surface of the bowl to rain is considerably reduced.

2. A refractor bowl formed of glass of equal thickness throughout and having its surface composed of a multiplicity of substantially diamond shaped pyramids forming intersecting oblique grooves, whereby the rays of the light are broken up and the resistance of the outer surface of the bowl to rain is materially reduced.

In testimony whereof I hereunto affix my signature.

GEORGE H. COLE.