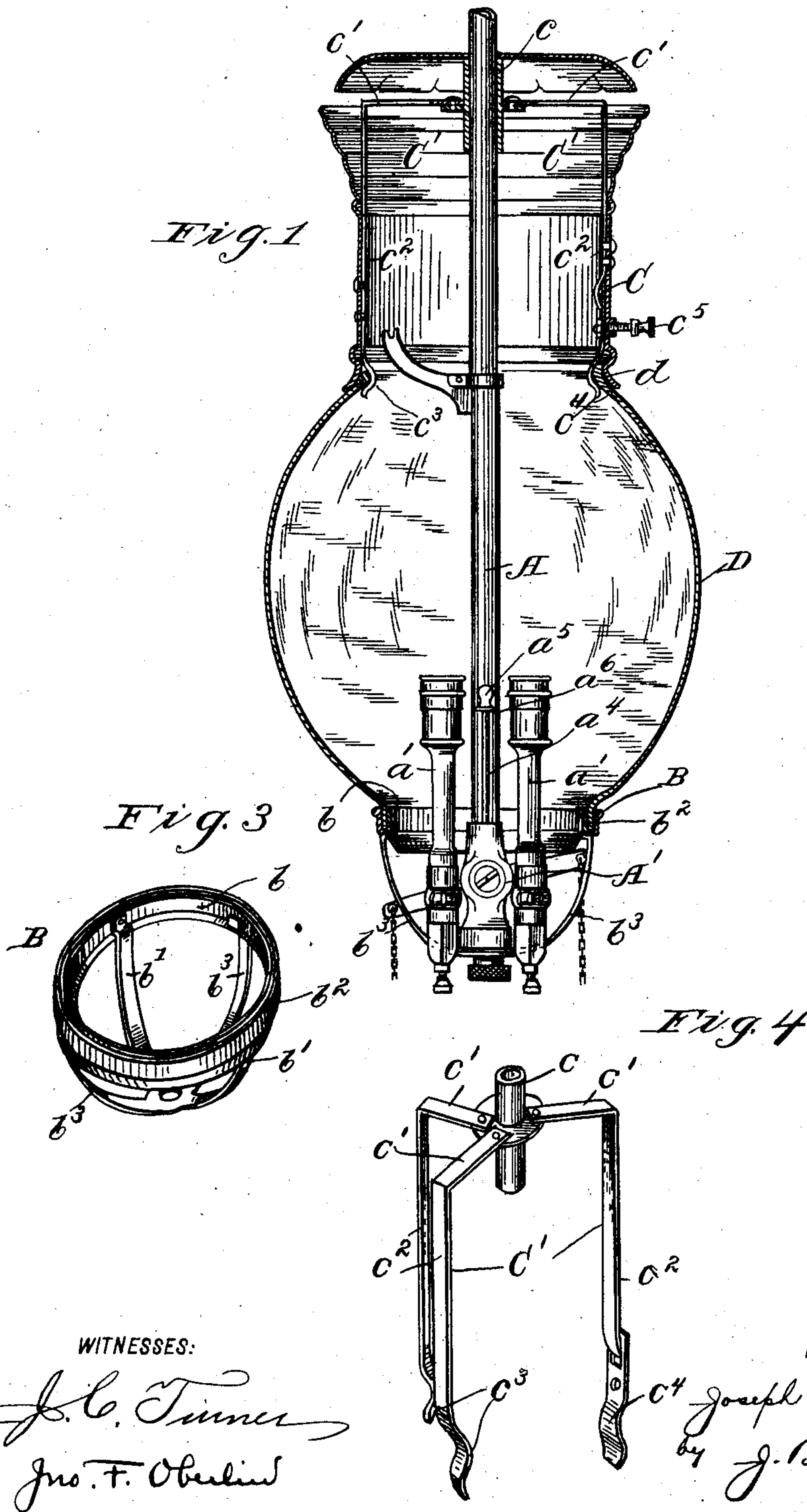


J. A. BRANDT.
GAS LAMP.
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919,312.

Patented Apr. 27, 1909.

2 SHEETS—SHEET 1.



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GAS-LAMP.

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To all whom it may concern:

Be it known that I, JOSEPH A. BRANDT, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Gas-Lamps, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The object of the improvements comprehended in the present invention is, in general, to provide an incandescent gas lamp, and particularly an incandescent gas lamp of the multiple burner type such as is largely used both for interior and exterior illumination, that will be found more simple in construction and easy of manipulation than prevailing designs.

More especially such improvements relate to the construction of the holder or gallery for the globe when in its normal lower position, and also to means for securing it to the stack or hood.

Included in one form of globe holder or gallery is a further feature designed better to adapt the lamp for exterior use, and in the same connection an improved construction of pilot burner with a similar object in view, is provided.

The foregoing means, as well as others that enter into said invention, are hereinafter fully described and particularly pointed out in the claims.

The annexed drawings and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings: Figure 1 is a vertical sectional view of a multiple burner incandescent gas lamp embodying my several improvements; Fig. 2 is a part vertical section and part side elevation of another form of such lamp, such form being more especially designed for exterior service; Fig. 3 is a perspective view of certain structural elements composing the globe holder or gallery in the construction of lamp illustrated in Fig. 1; Fig. 4 is a perspective view of certain structural elements that form a frame for supporting the stack and the globe from above; Fig. 5 is a side elevational view

of the modified form of globe holder or gallery utilized in the second type of lamp viz., that illustrated in Fig. 2; and Fig. 6 is a vertical sectional view of the pilot burner employed in such lamp.

As has been indicated, the lamp here chosen for the purpose of illustrating my invention is a cluster or multiple burner lamp, and it is to this kind of fixture that certain features of said invention are more particularly adapted. However, it will be evident from what follows that various features therein involved may be equally well incorporated in other types of gas lamps.

Referring to Figs. 1 and 2, then, the lamp structure proper will be seen to comprise the usual depending tube or pipe A, to the lower end of which is secured a valve casing for the control valve a , and on arms projecting from such casing, the burners, a' of which the number is a matter of indifference, such number being in the first instance four, and in the second two. Operation of such valve a is effected in the usual manner by a double lever arm a^2 to the ends of which are secured depending chains or rods a^3 whereby the burner may be entirely extinguished, or turned on partly or entirely as desired. That their lighting may be conveniently effected, a pilot burner a^4 is furthermore provided, such burner being closely associated with one or more of the main burners, so that when the gas is turned on to the latter, they will be ignited. Having thus described with sufficient detail for the present purpose the general arrangement of the lamp, attention will now be directed to the globe holding means. Such means comprises a gallery or holder B for supporting the globe D from below, and a stack or draft inducer C located above such globe, and secured at its lower end to the upper end of the same, whereby upon raising such stack, the globe will likewise be raised as is desirable when occasion arises for simply examining or attending to the burners. To cleanse the globe, however, it is necessary that the latter be readily detachable from this stack, and furthermore that it be removable over the gallery B, which, as has been remarked, normally serves to support the same. Such gallery, in the form of construction shown by Fig. 1, comprises an inner metallic ring b supported by two or more arms, b' see Fig. 3. Immediately without such ring, supported by one or two more re-

resilient arms b^3 is a second metallic ring b^2 having its lower edge turned inwardly, so as to form, when the two rings are assembled, a trough or groove adapted to receive and hold the base of the globe, Fig. 1. Such last named arms are not attached to the inner ring b at all, but being resilient, normally assume the position shown, wherein their upper ends, which are bent inwardly to form a sort of ledge, are positioned transversely of such inner ring b , and are thus adapted to support the outer ring b^2 and with it the globe D . To remove the globe, however, all that is necessary, is to spring such last named arms inwardly, whereupon the outer ring and the globe may be readily slipped downwardly free from the lamp.

For use out of doors, as in the case of the form of lamp shown in Fig. 2, I provide a cup shaped receptacle b^4 , the lateral imperforate walls of which rise up so as to inclose the lower portion of the several burners a' . In this case I modify the construction of globe holder just described, by substituting for the inner annular member b supported upon arms b' , a second receptacle b^5 fitted over the first receptacle, but having its lateral walls perforated, as at b^6 and spaced from the walls of such first receptacle. When the lamp is in operation, accordingly, the air for the burner passes through the perforations in such outer receptacle, thence up between the walls of the two receptacles, and finally down into the inner receptacle to supply the burners. In this way the influence of any drafts or currents of air without the lamp upon the burners is wholly eliminated, and an even, steady supply of air secured to all alike. Coöperative with the upper portion of the outer receptacle b^5 is a ring b^8 corresponding exactly with the ring b^2 of the previous structure described above, and in order to retain the same in its upper position, similar resilient arms b^7 , with their upper ends turned in, are likewise provided, the operation of such arms, when it is desired to remove the globe, being the same as before.

The means for securing the globe D to the stack or draft inducer C comprise the lower ends of frame members, C' preferably three in number and of inverted L-shape, having their inner ends c secured to a ferrule c' freely slidable up and down the central support of the lamp, and having attached to their vertical portions c^2 the hood or stack aforesaid. Two of such frame members lie more closely to each other than the third, and have their lower ends bent outwardly, and then inwardly, so as to conform with the upper inturned edge or lip d of the globe, which edge or lip may be engaged with the clips c^3 thus provided, and then with a third clip c^4 loosely attached to the lower end of the remaining frame member,

and adapted to be actuated inwardly and outwardly by a set screw c^5 . By thus securing the lip of the globe by means of clips c^3 c^4 that engage therewith from within, the frequent occasion of breakage due to expansion of the globe where such globe is secured from without, as is the prevailing construction, is entirely done away with. At the same time it will be evident that the globe is very easily attached or detached from the stack, as occasion may demand, by proper manipulation of the set screw c^5 connected with the movable clip c^4 .

The feature remaining to be described, is that of the pilot burner a^4 , of which two forms, as has been indicated, are shown, one in each of the two forms of lamp that are illustrated. In the first design, designed primarily for indoor use, there is provided immediately below the tip a^5 of the burner, a laterally projecting flange a^6 , see Fig. 1; while in the second form this flange is expanded into bell like form a^7 , so as to laterally surround the burner tip as well. Either construction serves to divert any upwardly ascending currents of air away from the burner proper, and so materially decreases the likelihood of the latter being blown out by a sudden gust or draft, which is not only annoying in that it necessitates considerable trouble frequently to relight the lamp, but permits a leakage of gas to occur at the same time.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any one of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In a lamp of the class described, the combination of a central support; burners secured to the lower end of the same; and a receptacle, open at the top only, likewise secured to such support end, the walls of said receptacle rising to laterally inclose the lower portions of said burners.

2. In a lamp of the class described, the combination of a central support; burners secured to the lower end of the same; and a cup-shaped receptacle likewise secured to such support end, said receptacle having an imperforate bottom and similar walls rising to laterally inclose the lower portions of said burners.

3. In a lamp of the class described, the combination of a central support; burners secured to the lower end of the same; a cup-shaped receptacle likewise secured to such support end, said receptacle having an imperforate bottom and similar walls rising to laterally inclose the lower portions of said burners; and means, spaced from the

edge of said receptacle, for supporting the lower edge of the lamp-globe.

4. In a lamp of the class described, the combination of a central support; burners 5 secured to the lower end of the same; a cup-shaped receptacle likewise secured to such support end, said receptacle having imperforate walls rising to laterally inclose the lower portions of said burners; and globe- 10 holding means comprising an annular member supported adjacent to, but spaced from, the edge of said receptacle, a second annular member fitted over said first member and adapted in conjunction therewith to support 15 the lower edge of a globe, and resilient arms adapted normally to engage said outer member and thereby retain said globe in place.

5. In a lamp of the class described, the combination of a central support; burners 20 secured to the lower end of the same; a cup-shaped receptacle likewise secured to such support end, said receptacle having imperforate walls rising to laterally inclose the lower portions of said burners; and 25 globe-holding means comprising a second receptacle inclosing said first receptacle and having perforated walls spaced from those of said first receptacle, an annular member fitted over said second receptacle and 30 adapted in conjunction therewith to support the lower edge of a globe, and spring arms having their upper ends bent over so as to engage said annular member and thereby retain said globe in place in the normal posi- 35 tion of said arms, displacement of the latter from such position releasing said globe, substantially as described.

6. In a lamp of the class described, the

combination with a stack, and a globe having its upper edge formed with a lip, of 40 means for securing said globe to said stack, such means comprising a plurality of clips attached to said stack and adapted to engage the inner face of the lip of said globe.

7. In a lamp of the class described, the combination with a stack, and a globe hav- 45 ing its upper edge formed with a lip, of means for securing said globe to said stack, such means comprising two clips fixedly, and one movably, attached to the inside wall 50 of said stack, said clips having their lower ends conforming with, and disposed to engage, the inner face of the lip of said globe.

8. In a lamp of the class described, the combination of a central support; burners 55 secured thereto; a frame mounted upon said support, said frame comprising three L-shaped members slidably secured to said support at their inner ends, two of said mem- 60 bers lying more closely to each other than to the third; a stack supported upon said frame; a globe for inclosing said burners, secured at its upper end to said frame, said globe having its upper edge formed with a 65 lip and the two closely lying frame members terminating in clips conforming with and adapted to engage the inner face of such lip; and a similar clip movably secured to the lower end of the remaining frame member.

Signed by me this 8th day of October, 70 1908.

JOSEPH A. BRANDT.

Attested by—

CHRISTINE E. ARNS,
JNO. F. OBERLIN.