

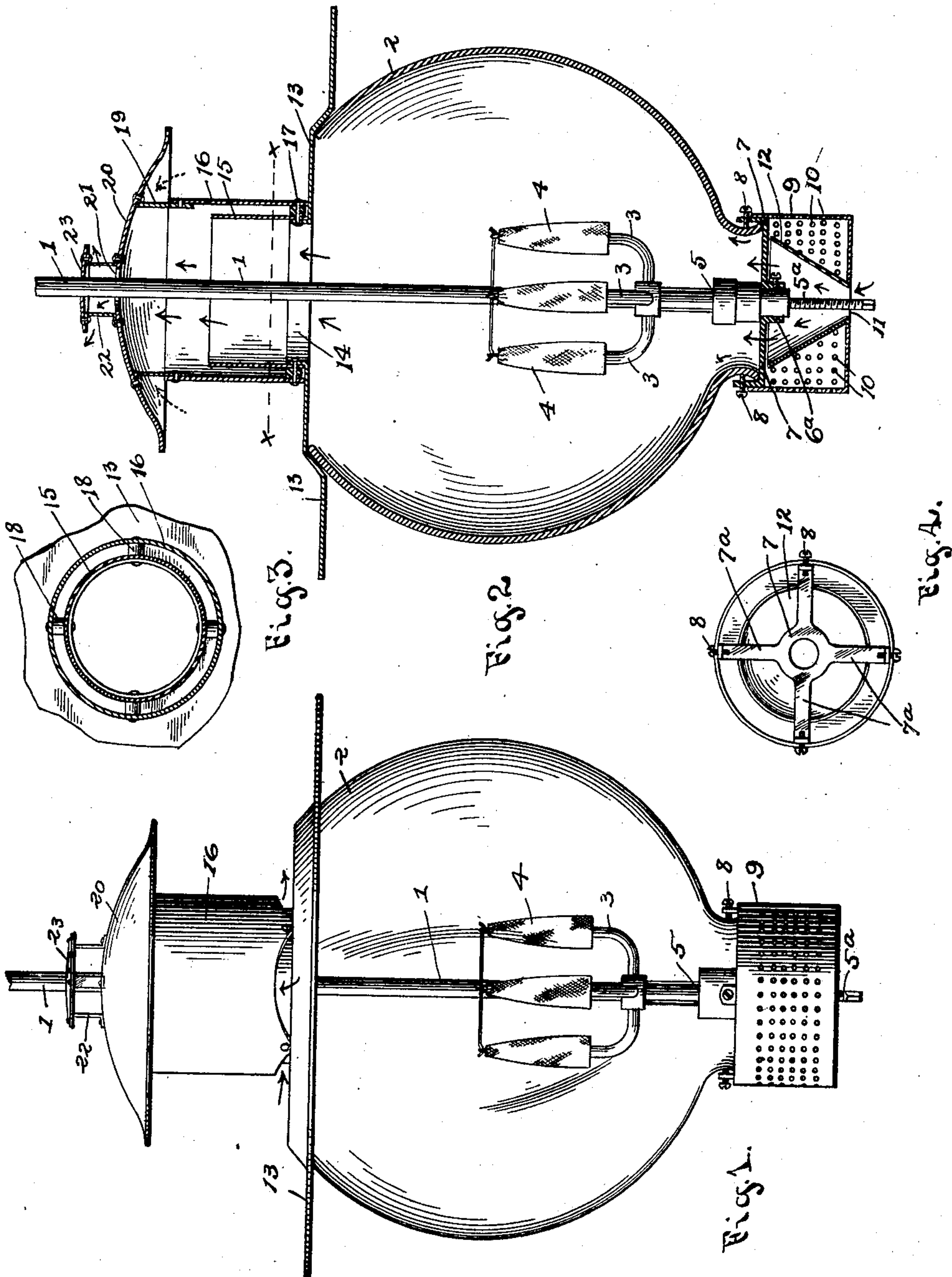
No. 678,207.

Patented July 9, 1901.

W. S. WANDELL.
GAS LAMP AND VENTILATOR.

(Application filed Mar. 8, 1901.)

(No Model.)



WITNESSES:

H. B. Bradshaw
A. L. Phelps

INVENTOR
Wilbur S. Wandell

BY
C. C. Shepherd
ATTORNEY

UNITED STATES PATENT OFFICE.

WILBER S. WANDELL, OF HEBRON, OHIO.

GAS-LAMP AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 678,207, dated July 9, 1901.

Application filed March 8, 1901. Serial No. 50,330. (No model.)

To all whom it may concern:

Be it known that I, WILBER S. WANDELL, a citizen of the United States, residing at Hebron, in the county of Licking and State of Ohio, have invented a certain new and useful Improvement in Gas-Lamps and Ventilators, of which the following is a specification.

My invention relates to the improvement of gas-burning lamps, and has particular relation to the improvement of the construction set forth in my former patent on street-lamp and ventilator, No. 665,817, dated January 8, 1901.

The objects of my present invention are to provide an improved construction and arrangement of the ventilating parts whereby the burners and mixer are provided with a proper supply of air from a direct source and whereby the globe incasing the burners is maintained in a comparatively cool condition, to provide an improved construction of lamp hood or top which will facilitate the withdrawal of the heated air from the lamp-body and provide such passage of air through the lamp as to insure a steady and brilliant flame without undue heat, and to produce other improvements in details of construction and arrangement of parts, which will be more particularly pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved lamp. Fig. 2 is a central vertical section of the same. Fig. 3 is a transverse section on line *x x* of Fig. 2, and Fig. 4 is a plan view of the lower ventilator.

Similar numerals refer to similar parts throughout the several views.

1 represents a vertical gas-supply pipe, which within a suitable form of transparent globe 2 is provided with the desired number of outwardly and upwardly extending burner-arms 3, each of the latter being provided with a suitable burner and having suspended over said burners gas-burning mantles 4 of the Welsbach type. The lower portion of the pipe 1, below the burner-arms, carries thereon a suitable mixer-body and valve-casing 5, the tubular downward extension of which is detachably secured in the central socket or downwardly-extending neck portion 6^a of a

horizontal bracket 7, this bracket 7 having formed with its central portion radially-arranged arms 7^a, the upturned ends of which are preferably provided with screw-holes and adapted to receive set-screws 8, which when turned inward engage the lower neck extension of the globe 2, which is seated on said bracket-arms 7^a. Fitting about the upturned ends of the bracket-arms 7^a and supported therefrom by friction with said arms is a depending ventilator-cup 9, the latter having its vertical wall suitably perforated, as shown at 10. Although the under side of said ventilator-cup is shown as having its greater portion closed, it is obvious that said under side may be also perforated, if desired. Rising from a central opening 11 in the bottom of the cup 9 is a flaring funnel-shaped casing 12, the upper side of which terminates below the bracket 7. Depending from the valve-casing 5 is a desirable form of valve-operating stem 5^a, the latter passing loosely through the central opening 11 and being adapted to receive a rotating key at its lower end.

Mounted upon or connected with the upper side of the globe 2 is a suitable top plate 13, this top plate being provided with a central opening which is continued upward in the form of a short vertical neck 14. Rising from this neck 14 is a comparatively short internal ventilator-casing or tubular body 15, this internal casing 15 being surrounded by an external casing 16 of greater circumference and height than the casing 15. The lower ends of the casings 15 and 16 are connected, as indicated at 17, with the upturned flange or neck 14 of the plate 13 through the medium of bolts or similar devices, washers 18 preferably being interposed between said inner and outer casings. As indicated more clearly in Fig. 1 of the drawings, the lower end portion of the outer casing 16 is preferably scalloped or recessed to form air inlet and outlet openings. From the upper end of the outer casing 16 rise at suitable intervals hood or cover supporting standards 19, the latter being surmounted by a concavo-convex hood or cover plate 20, which is of such circumference as to project beyond the casing 16. In the central portion of the cover-plate 20 is formed an opening 21, and from the upper side of said cover-plate, about said opening, rise standards 22, which

are surmounted by a smaller top plate or shield 23, the latter also being preferably arched, as shown. As indicated in the drawings, the gas-pipe 1 passes through and fits within a central opening formed in this shield-plate 23, thence loosely through the opening 21, through the centers of the casings 15 and 16, and into the globe.

In utilizing my invention it will be understood that the air which passes through the central opening 11 into the funnel-shaped casing 12 will be directed upward to the mixers and burners, while the air which enters the perforations of the ventilator-cup 9, owing to the flaring construction of the internal casing 12, is directed to the sides of the globe 2. The heated air rising from the cup following the direction of the full-line arrows in the upper portion of Fig. 2 passes upward through the central opening of the hood or cover plate 20 and thence outward beneath the top plate 23. This movement of the heated air is assisted, as will readily be understood, by the entrance of air from the outside beneath the outwardly-projecting portion of the hood 20, as indicated by the dotted-line arrows. It will also be observed that air which enters the annular space between the casings 15 and 16 may, as indicated by the arrows in Fig. 1, pass about said inner casing and out at a point opposite that of its entrance, thus contributing toward a circulation of cooler air about the internal casing 15 and within the external casing. It is obvious that the internal casing 15 will operate as a shield to prevent such air as may be blown into the casing 16 from the under side thereof from passing downward or interfering with the lights contained in the globe. From the construction herein shown and described it will be seen that the air which is drawn into the ventilator-cup 9 by being deflected toward the sides of the globe 2 serves to retain said globe in a comparatively cool con-

dition. It will also be observed that the construction of the upper ventilating mechanism is such as to not only prevent the undesirable effect of incoming wind or drafts on the light, but the same is so constructed as to insure a proper and unobstructed outlet of the heated air.

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

1. In a lamp, the combination with a gas-supply pipe, gas-burners supported therefrom and a globe surrounding said burners, of a plate 13 surmounting said globe, separated external and internal casings rising from an opening in said plate, the former having openings in its lower portion, a hood 20 supported above and from the external casing and a shield 23 supported above a central opening in and from the hood substantially as specified.

2. In a lamp, the combination with a gas-supply pipe, burners supported therefrom, a valve-casing and valve-stem depending from said burners, and an open-work bracket connected with said valve-casing, of a globe surrounding said burners and seated in said bracket, and a detachable perforated cup depending from said bracket, substantially as specified.

3. In a lamp, the combination with a gas-supply pipe, burners supported therefrom, a valve-casing depending from said burners and an open-work bracket connected with said valve-casing, of a globe surrounding said burners and seated in said bracket, a perforated ventilator-cup depending from the bracket and having a central bottom opening and an air-deflector rising from about said opening, substantially as specified.

WILBER S. WANDELL.

In presence of—

EDWARD M. TAYLOR,
A. L. PHELPS.