No. 724,957. PATENTED APR. 7, 1903.

N. SHAEFFER.

BURNER.

APPLICATION FILED JAN. 5, 1903.

NO MODEL.

Fig. 1

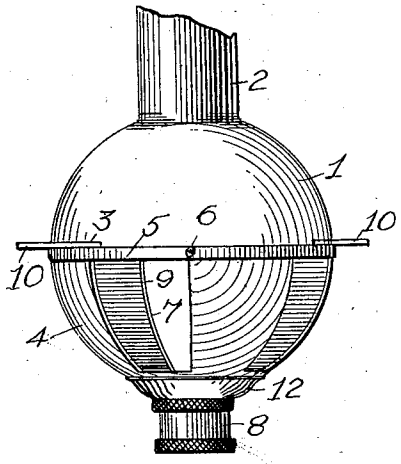


Fig. 2

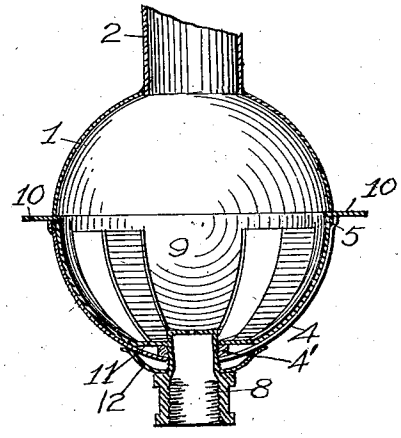
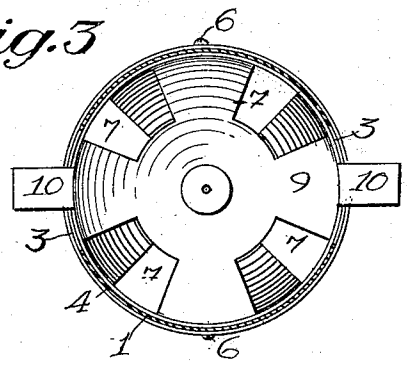


Fig. 3



Witnesses:
Geo. B. Rowley.
E. E. Potter

Inventor:
Nohae Shaeffer
By H. C. Evarts & Co.
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NOHAE SHAEFFER, OF PITTSBURG, PENNSYLVANIA.

BURNER.

SPECIFICATION forming part of Letters Patent No. 724,957, dated April 7, 1903.

Application filed January 5, 1903. Serial No. 137,858. (No model.)

To all whom it may concern:

Be it known that I, NOHAE SHAEFFER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Burners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in air-regulating devices for Bunsen burners, and has for its main object the construction of a simple and efficient device by means of which a quantity of air admitted for mixture with the gas may be controlled, so as to obtain a more perfect combustion.

Briefly described, my invention comprises a substantially spherical shell which is interposed between the Bunsen tube and the base or spud of the burner. The shell comprises two substantially semicircular members which are suitably connected together, one being joined to the Bunsen tube and the other to the base or spud. The lower member or section of the spherical shell is provided with a plurality of air-openings, and mounted within the lower section or member for partial rotation therein is an inner shell which has integral finger-pieces adapted to operate in slots provided therefor in the upper section or member. The inner section or member is adapted when rotated in one direction to close the air-ports and when moved in the opposite direction to open said ports for the admission of air.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation showing the air ports or vents partially opened. Fig. 2 is a central vertical sectional view. Fig. 3 is a horizontal sectional view.

As stated, the device comprises an upper semicylindrical section or member 1, which may be cast integral with the Bunsen tube 2. Near its lower edge this upper member or section 1 is provided at opposite sides with slots 3 3. The lower section or member 4 is substantially hemispherical in shape, flanged outwardly at its rim or upper edge 5 to receive therein the lower edge of the upper member or section 1, and after being so fitted together the sections or members are rigidly secured together by small screws 6 6 or like equivalent means. The lower section or member 4 is provided with a plurality of air-ports 7 7, the section being divided into equal proportions of open spaces and solid spaces therebetween—that is, each open space being of a size equal to the solid space between each two of the openings. The lower section or member 4 is securely fitted to the base or spud 8, which is adapted to connect onto the gas-bracket. (Not shown.) Mounted within the lower section 4, to partially rotate therein, is a gate or closure member 9, which, like the lower section or member 4, is composed of a series of solid portions separated by the spaces. With two of the solid portions forming the gates or closures for the openings in the lower section or member 4 are formed two outwardly-extending fingers 10, which operate in the slots 3. When these fingers are forced in one direction, the solid portions of the gate or closure member 9 will be placed over the openings 7 in the lower section or member 4, and when the gate or closure is rotated in the opposite direction the openings or ports 7 will be vacated by the solid portions of the gate, whereby air is admitted to commingle with the gas before reaching the point of combustion. The bottom 11 of the gate or closure member is preferably made flat to rotate freely on the neck of the base or spud upon the threaded portion thereof, the lower section or member 4 being threaded onto said neck. In order to give support to the lower section or member, I may employ a supporting-bracket 12, cup-shaped in its form, which is placed over the neck of the base or spud prior to inserting the lower section or member thereon.

The lower section or member 4 is held on the base or spud by means of a nut 4′, which is placed over the neck of the base or spud prior to placing the gate or closure member in position over the neck.

It will be noted that various changes may

be made in the details of construction without departing from the general spirit of my invention.

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

1. An air-regulating device for Bunsen burners comprising a substantially spherical shell, composed of two members connected together, a tube connecting the upper member and made integral therewith, the opposite sides of the said upper member being provided with slots, the lower member being provided with air openings or vents embodying substantially half of the said lower member, a base upon which said shell is mounted, a gate or closure mounted for rotation in the lower member, fingers made integral with the said lower member and adapted to project through the said slots, and a nut for holding the said lower member in place substantially as described.

2. An air-regulating device for Bunsen burners comprising a substantially spherical shell, composed of two members connected together, the lower member being provided with air openings or vents embodying substantially half of the lower member, a base upon which said shell is mounted, and a gate or closure mounted for rotation in the lower member and provided with integral fingers projecting through slots provided therefor in the upper member, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

NOHAE SHAEFFER.

Witnesses:
H. C. EVERT,
A. M. WILSON.