No. 728,296. PATENTED MAY 19, 1903.

A. B. REDELL.

BUNSEN BURNER.

APPLICATION FILED MAR. 17, 1902.

NO MODEL.

Fig 1

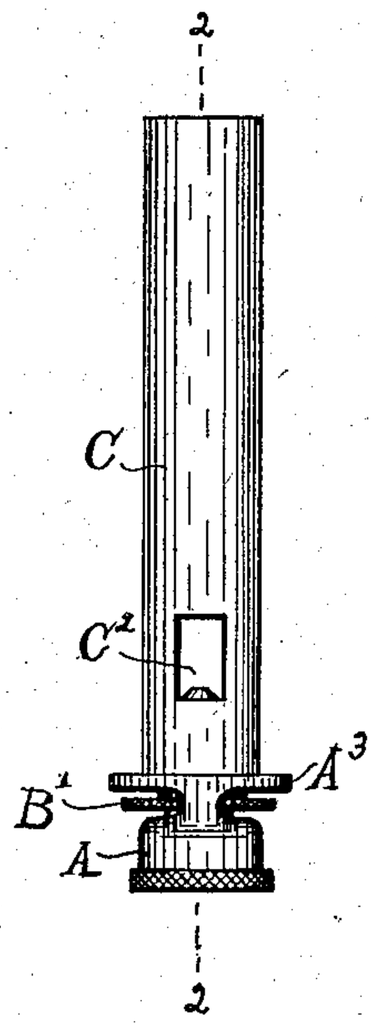


Fig 2

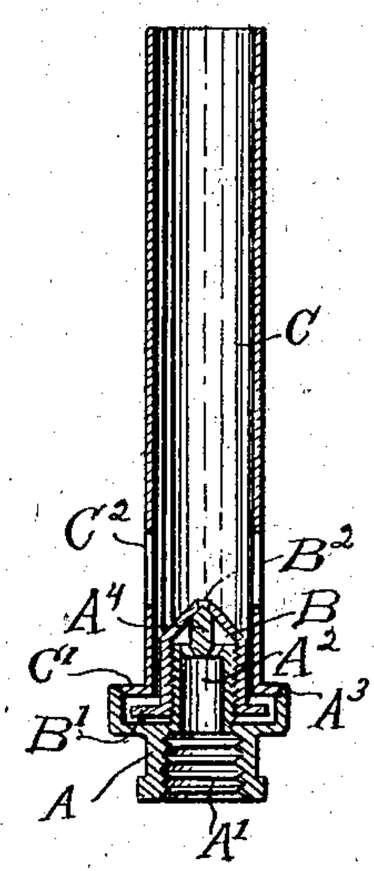


Fig 3

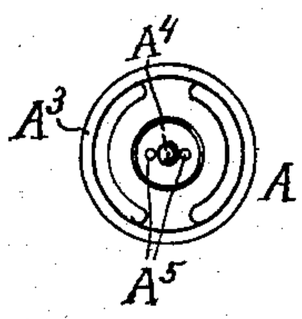
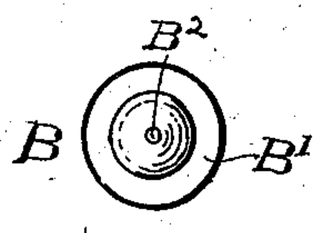


Fig 4



WITNESSES:

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No. 728,296. Patented May 19, 1903.

UNITED STATES PATENT OFFICE.

ALVIN B. REDELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHARLES R. LINDSAY, JR., OF CHICAGO, ILLINOIS.

BUNSEN BURNER.

SPECIFICATION forming part of Letters Patent No. 728,296, dated May 19, 1903.

Application filed March 17, 1902. Serial No. 98,614. (No model.)

To all whom it may concern:

Be it known that I, ALVIN B. REDELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bunsen Burners, of which the following is a specification.

The object of this invention is the production of a Bunsen burner embodying the improvements hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of a Bunsen burner embodying my improvements. Fig. 2 is a section on dotted line 2 2 of Fig. 1. Fig. 3 is a top plan view of the body portion of said burner. Fig. 4 is a similar view of the cap by means of which the flow of gas is regulated.

In the construction of a Bunsen burner embodying my invention I provide a body portion A, having the internally-screw-threaded socket A′ at its lower end for securing said body portion upon a fixture or gas-pipe, the tubular stem A^2, alined with said socket, which tubular stem is externally screw-threaded, and a ring A^3, internally screw-threaded. The tubular stem A^2 is provided at its upper end with a central conical stud A^4 and has two openings A^5 communicating with the interior of said tubular stem. A cap B, substantially cylindrical in form, of cone shape at its upper end and having the integral knurled flange B′ at its base, is internally screw-threaded to correspond with the screw-threads upon the exterior of the tubular stem A^2 and is adapted to be rotated on said stem by means of the knurled flange B′. The cap B is provided at its upper end with a central orifice B^2, adapted to be entered and closed by the conical upper end of the stud A^4.

C refers to a mixing-tube, having at its lower end the integral flange C′, screw-threaded upon its periphery to correspond with the screw-threaded interior of the ring A^3. The mixing-tube C is intended to be rigidly secured to the body portion A by means of this screw-thread connection.

C^2 refers to air-openings formed in opposite sides of the mixing-tube C. I have sometimes provided three openings; but the number of openings manifestly will be governed by the size of each and the amount of gas used.

In use my improved burner is secured upon the end of a gas-supply pipe by means of the socket A′. Gas passing through said pipe enters the socket A′, passes through the tubular stem A^2, and escapes through the openings A^5 in the upper end of said tubular stem and through the orifice B^2 into the mixing-tube C. The flow of gas is regulated by raising or lowering the cap. Air enters the mixing-tube through the openings C′, and an inflammable mixture of air and gas is produced in said tube. To shut off the gas, the cap B is turned upon the screw-threads of the tubular stem A^2 until the conical stud A^4 closes the orifice B^2 at the apex of the conical top of said cap.

I am aware that many slight changes may be made in the embodiment herein shown of this invention without departing from the spirit and scope thereof. I therefore desire to have it understood that I do not limit myself to the specific construction herein set forth.

I claim as my invention—

1. In a Bunsen burner, in combination, an integral body portion having a tubular externally-screw-threaded stem provided at its upper end with a central conical stud and a discharge-opening, and a ring screw-threaded upon its inner circumference; a cap having a screw-thread engagement with said stem, said cap being provided with a central opening adapted to coincide with said stud; and a mixing-tube having a screw-thread connection with said ring.

2. In a Bunsen burner, in combination, an integral body portion having a tubular stem provided at its upper end with a stud and a discharge-opening, and a ring screw-threaded upon its inner circumference; a cap having a rotative engagement with said stem and provided with an opening adapted to coincide with said stud; and a mixing-tube having a flange at one end, said flange being screw-threaded to engage the screw-threads upon the inner circumference of said ring.

3. In a Bunsen burner, in combination, an integral body portion having a socket for securing said body portion upon a gas-supply pipe, a tubular externally-screw-threaded stem provided at its upper end with a stud and a discharge-opening, and a ring screw-

threaded upon its inner circumference; a cap for inclosing the upper end of said stem, said cap being internally screw-threaded to correspond with the external screw-threads of said stem, said cap also having an opening in its upper end adapted to be closed by the stud upon said stem; and a mixing-tube having a flange at one end, said flange being screw-threaded to engage the screw-threads upon the inner circumference of said ring, said tube also having an air-opening in its wall.

ALVIN B. REDELL.

Witnesses:
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