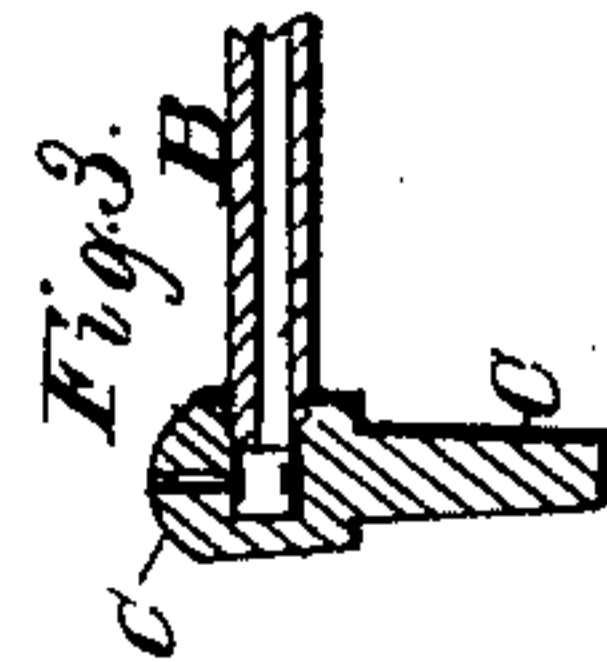
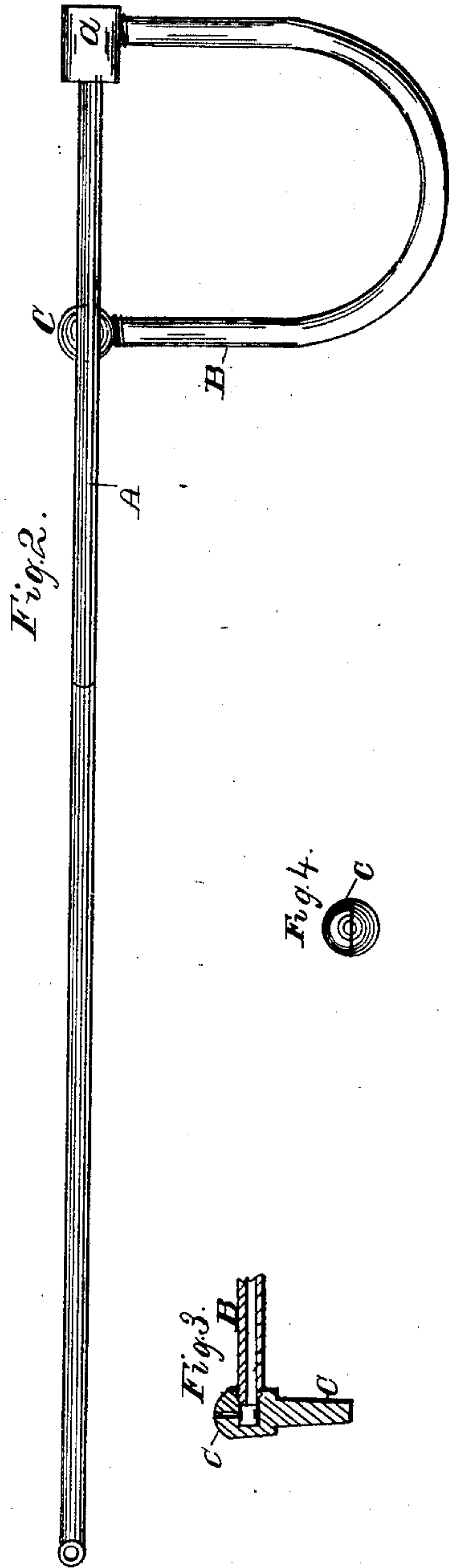
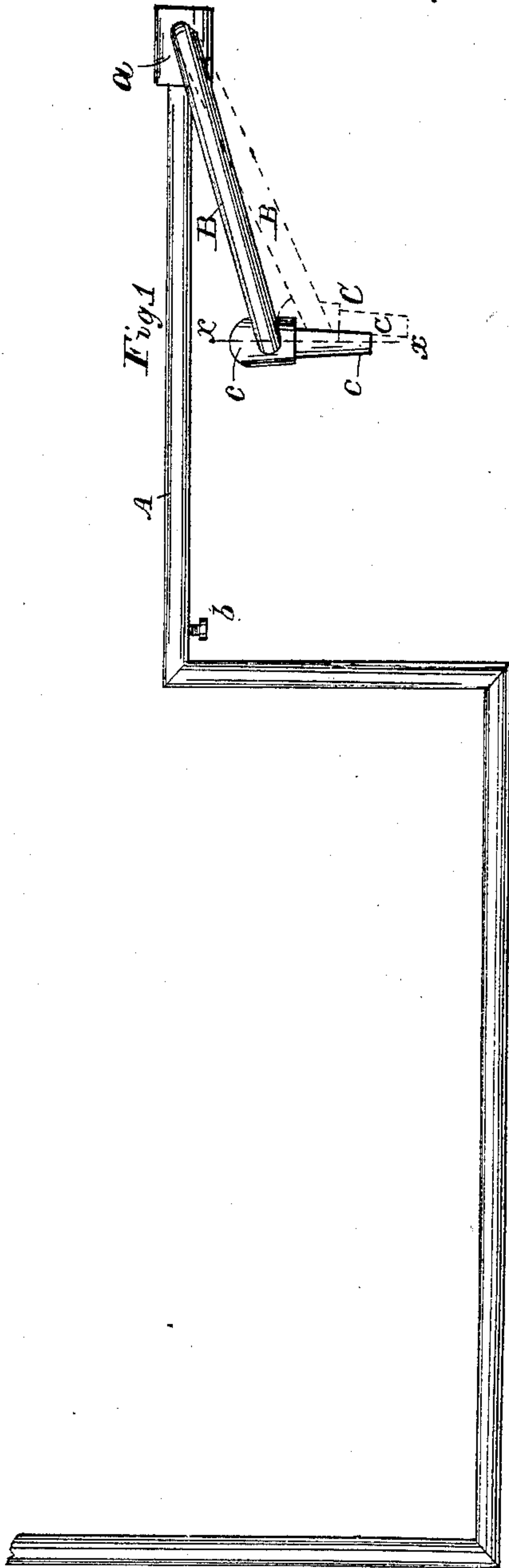


J. K. O'NEIL.
Vapor Burner.

No. 20,296.

Patented May 18, 1858.



UNITED STATES PATENT OFFICE.

JNO. K. O'NEIL, OF KINGSTON, NEW YORK.

BURNER FOR VAPOR-LAMPS.

Specification of Letters Patent No. 20,296, dated May 18, 1858.

To all whom it may concern:

Be it known that I, JOHN K. O'NEIL, of Kingston, in the county of Ulster and State of New York, have invented a new and Improved Vaporizing Lamp-Burner; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification; Figure 10 1 being a side elevation of my improved burner connected with a tube for conveying the fluid thereto; Fig. 2, a plan of the same; Fig. 3, a vertical section in the plane indicated by the line *x x*, Fig. 1; Fig. 4, 15 top view of a part detached.

Like letters designate corresponding parts in all the figures.

The fluid is vaporized in the tube A, being introduced therein by a wick, by pressure from a fountain, or in any other known and convenient manner. If introduced in any other way than by a wick, the quantity introduced may be regulated either by the fountain itself, or by a faucet *b*; and the 25 tube should be so arranged that no fluid will escape to the burner pipe. To the end *a*, of the tube A, the burner pipe B, is jointed, so as to turn up or down, being of the form shown, or of any other form suitable to convey the generated vapor to the burner proper C. Said burner is also jointed to the pipe B; and it may have a handle *c*, by which it may always be adjusted to a vertical position, as it is moved up and down. 30 It is situated directly beneath that part of the tube A, where the vapor is to be generated by its heat. The joint, by which the vapor pipe B, is connected with the tube A, enables this burner to be brought nearer 40 to said tube, so as to increase the heat communicated thereto, as indicated by black lines in Fig. 1; or be removed farther from said tube, and thus diminish the heat imparted to it, as indicated by red lines in the 45 same figure, and as the quantity of vapor

generated is in proportion to the heat applied to the tube A, it follows that the nearer the burner is brought to said tube, the more vapor is produced, and the larger the flame of the burner; and vice versa. 50 Thus, in the most simple manner, the flame and light are increased or diminished, at pleasure, and the amount of vapor generated is always just sufficient to produce the amount of light given, none being wasted, 55 and by turning down the burner far enough, the vapor will cease to be formed, and the lamp will be extinguished. By this means, an adjustable burner is produced, by which the light can be increased or diminished at 60 pleasure, and the vapor generated be always just sufficient to supply the burner, the adjustment of both being regulated at the same time, by the eye.

The burner may be arranged so as to receive a shade or chimney in any usual manner. 65

The form and arrangement may be varied in any manner, provided the essential feature above described and herein claimed, 70 shall be retained.

What I claim as my invention and desire to secure by Letters Patent, is—

The arrangement of the burner beneath the vaporizing tube or chamber in such a 75 manner as to be movable or adjustable to different distances therefrom, whereby the amount of light produced and of vapor generated may be exactly and in all degrees regulated simultaneously and be mutually 80 dependent on each other, in the manner specified.

The above specification of my improved vaporizing lamp burner, signed by me this sixth day of April, 1858.

- JOHN K. O'NEIL.

Witnesses:

D. L. DECKER,
O. VANDERVORT.