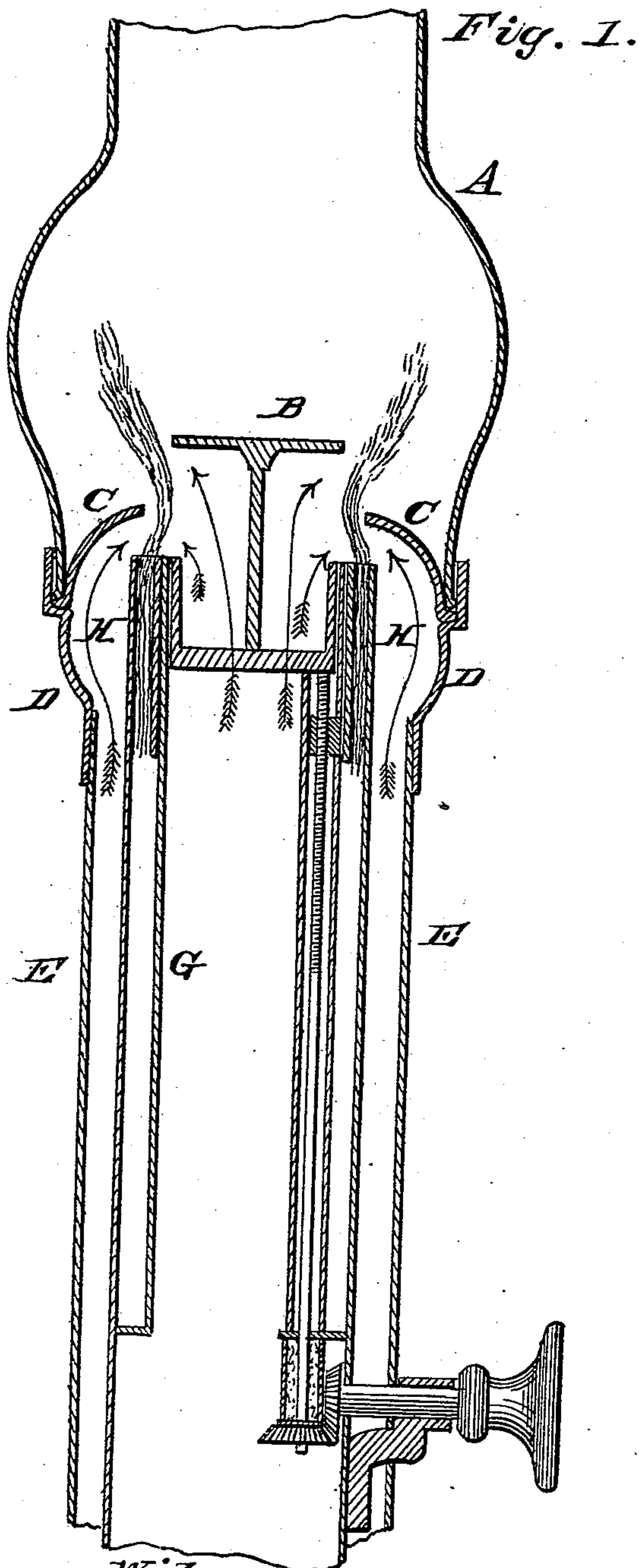


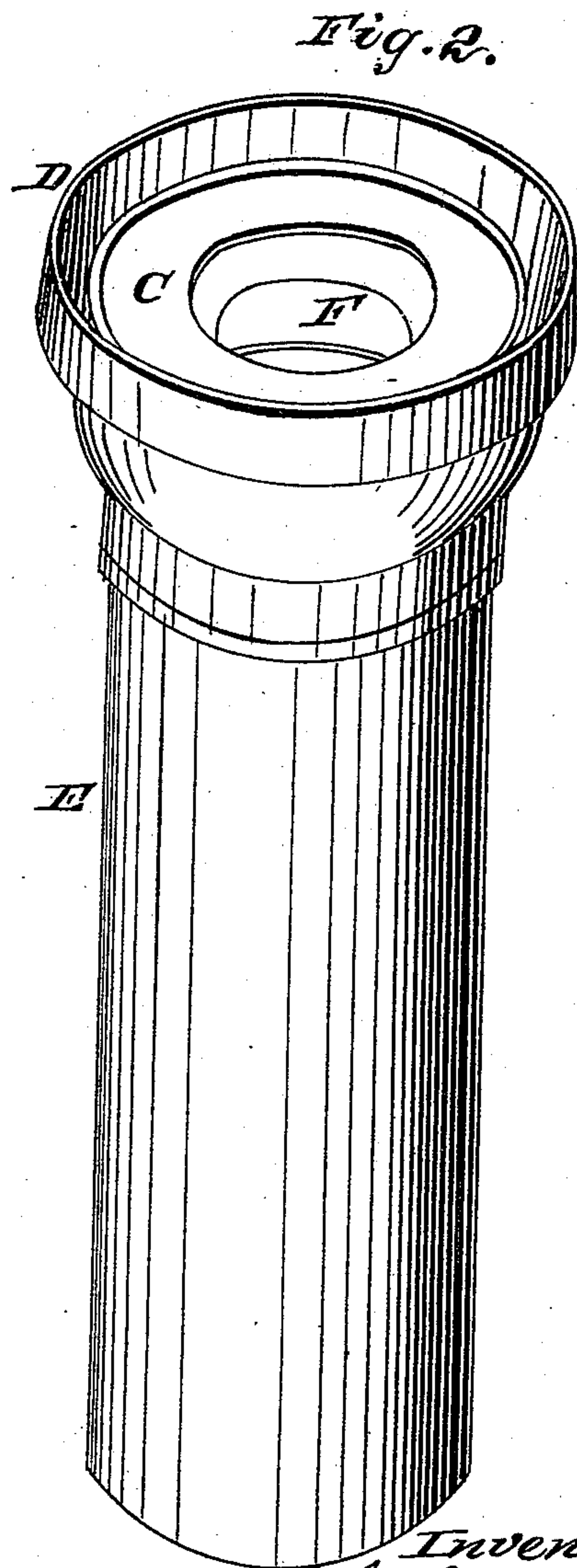
J. CARTON.
Railroad Lamp.

No. 36,602.

Patented Oct. 7, 1862.



Witnesses:
B. F. French
J. J. Newman



Inventor:
John Carton

UNITED STATES PATENT OFFICE.

JOHN CARTON, OF UTICA, NEW YORK.

IMPROVEMENT IN RAILROAD-LAMPS.

Specification forming part of Letters Patent No. 36,602, dated October 7, 1862.

To all whom it may concern:

Be it known that I, JOHN CARTON, of Utica, New York, have invented an Improvement in Railroad and other Lamps; and I do hereby declare that the following is an exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of the lamp, and Fig. 2 a perspective view of the improvement, together with the outer tube.

Letter A represents the glass globe or chimney; B, the button; C C', the upper part of the cap, and F the opening therein; D D', the lower half of the cap. E is the outer tube, and G the inner tube, and H the chamber formed by the cap.

The general principle of the lamp to which I apply my improvement, is so constructing the same as to prevent the outer air from striking the blaze, and also of heating the air before it reaches the flame. These principles are embodied in the patent granted to me for an improvement in railroad-lamps, bearing date May 1, 1860, and are therefore not claimed here. My improvement consists in adding the chamber H to such lamps. This is done by enlarging the upper end of the outer tube or the cap, and then causing it to curve inward, so that the upper aperture of the tube or cap shall be about the size of the circumference of the wick. A lamp constructed on this principle, with a straight outer tube, or without enlarging the cap, allows too little space for the air, after it has become heated, and the flow of air becomes irregular, causing flickering and diminished light. By enlarging the top of the outer tube, so as to form the chamber H, the proper curve may be given to the cap, so that the air may be easily and uniformly conveyed to any part of the flame.

The lamp on which this improvement may be used may be of almost any of the ordinary forms of railroad or similar lamps where the outer tube may be used. The outer tube and cap are made of thin metal. The tube should

be from about five-eighths of an inch in diameter greater than the inner tube or burner, and is supported in place by webs extending from the inner tube. For ordinary sized railroad-lamps, the tube and cap should be about eight inches in length. They may be in one piece or in two or three pieces. I make the outer tube plain, separate, as more convenient, with a snuff-box joint on its upper end for fitting on the cap, and about six and a half inches in length. The cap is made in two parts. The lower part, D, is made about two inches in length. Its lower end fits in the upper end of E. It is then caused to swell outward to form the lower half of the chamber H. Then two square shoulders are formed on it—the first outward and the next upward—to provide a support for the glass chimney, as seen in the drawings. The upper part of the cap is cup form, with the orifice F in the center, and it has a rim around the enlarged edge to enable it to be attached to D, as seen at H. The glass chimney rests on this rim or flange, and is held in place by C and D, as seen at H. C, when in place, should be about three-eighths of an inch above the wick. The button is placed about an inch above the wick. The arrows indicate the direction of the air, and the form of the flame is indicated in the drawings. Without the chamber H the air, when heated, seems to choke, and causes a very irregular and flickering flame and uncertain light; and the difficulty is not remedied by a change in the relative size of the parts; but it is, perfectly, by the use of the chamber.

I claim—

The outer tube, E, the cap thereof forming the chamber H, and the button B, all constructed and operating, substantially as described, in combination.

JOHN CARTON.

Witnesses:

B. F. FRENCH,
T. J. NEWLAND.