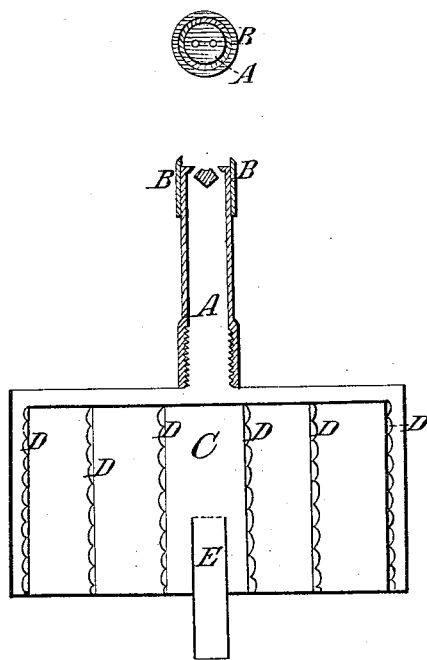


J. A. Bassett,

Carbureter,

N^o 46,770.

Patented Mar. 14, 1865.



Witnesses.

M. B. Mansfield

J. B. Russell

Inventor.

John A. Bassett.

UNITED STATES PATENT OFFICE.

JOHN A. BASSETT, OF SALEM, MASSACHUSETTS.

IMPROVEMENT OF BURNERS FOR CARBURETED AIR.

Specification forming part of Letters Patent No. **46,770**, dated March 14, 1865.

To all whom it may concern:

Be it known that I, JOHN A. BASSETT, of Salem, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Burners for Burning Carbureted Air; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings.

The nature of my invention consists in the application to an ordinary fishtail burner of a collar or ring fitting tightly around the top of the burner and projecting a short distance above it for the purpose of burning carbureted air, in combination with a carburetor.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same.

It is well known to those who have had experience in this matter that it is impossible to obtain a good light through an ordinary fishtail-burner with carbureted air. Heretofore no burner has been used except an Argand having large orifices. Attempts have been made to use a fishtail burner with large slits, but the result has been very unsatisfactory; and the object of this burner is to give a clear, steady flame without resorting to a chimney or other similar devices.

The flame, through an ordinary fishtail-burner (if, indeed, it can be made to burn at all) is flickering, unsteady, goes out frequently, and possesses but little lighting qualities. On the application of this collar or ring the flame at once becomes brilliant, steady, and not liable to be blown out. It is necessary that the

collar should project above the top of the burner about an eighth of an inch in order to secure this result.

In the drawing, A is a common fishtail-burner made in the usual manner. B is the collar placed around the top, and fitting closely to it. The burner I prefer to make of brass or copper. C is the carbureting apparatus which I prefer to use for this purpose. It consists of a series of perforated cylinders or diaphragms, D, arranged concentrically around the inlet-pipe E, and covered with a fibrous material of great capillary power, by which it becomes saturated with the hydrocarbon liquid used, and through which the air is compelled to pass, becoming thoroughly impregnated, so as to furnish an illuminating-gas. The carburetor may be placed close to the burner, as shown, or it may be placed at a distance, (as in the cellar, for convenience,) and thus one carburetor may answer for a number of burners. Air may be supplied by any suitable means, of which I prefer to use an air-pump actuated by a train of gearing and a weight.

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

The combination of the burner A with a carbureting apparatus used to produce an illuminating-gas in the manner specified, the whole operating together for the purpose substantially as set forth.

JOHN A. BASSETT.

Witnesses:

M. B. MANSFIELD,
T. B. RUSSELL.