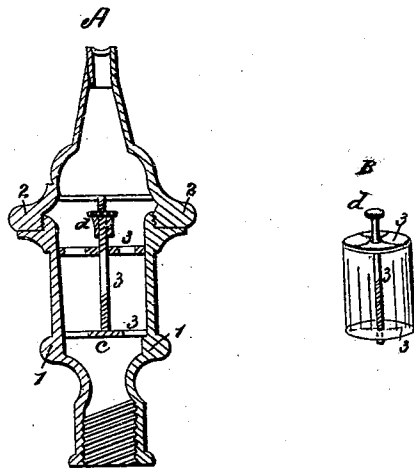


H. WHEELLOCK.

Gas Regulator.

No. 13,020.

Patented June 5, 1855.



UNITED STATES PATENT OFFICE.

HIRAM WHEELLOCK, OF BOSTON, MASSACHUSETTS.

GAS-REGULATOR.

Specification of Letters Patent No. 13,020, dated June 5, 1855.

To all whom it may concern:

Be it known that I, HIRAM WHEELLOCK, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Filter-Regulating Gas-Burner for the Purpose of Filtering, Regulating the Pressure of, and Burning Gas; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, which make a part of the specification.

Gas is known to contain more or less coal tar, steam, &c., which are prejudicial to its use, and fill up or clog the burners. Hitherto no burner has been invented, as your petitioner verily believes, which will filter the gas, regulate its pressure, and which is not liable to fill up, or which will burn all the carbon. This new invention obviates all these defects in the manner hereinafter described.

Figure A, is a longitudinal vertical section, showing the general arrangement and construction of the filter regulating gas burner, with all the parts thereof in their appropriate places. 1, 1, is the base, being an open cylinder, large at the top, with a small hollow stem at the bottom, through which to admit the gas; in this stem is a thread or screw cut by which to connect the burner to the supply pipe; near the bottom of the inside of this cylinder is a seat, upon which the filter regulator B, (hereafter described) rests, leaving an open space below marked *c*, for the reception of a small quantity of loose packing, and for the circulation of the gas. 2, 2, is the dome or cap of the burner (with a common fishtail tip inserted at the top) which is connected by a thread and screw to the top of the base 1, 1, and forms the gas chamber above the filter regulator. 3, 3, 3, is the filter regulator (hereafter described and marked B,) in its appropriate place.

Fig. B, is a perspective view of the filter regulator, and is formed by two flat circular perforated heads, connected by a small rod made fast to the center of the lower head, which rod projects upward and passes through the center of the upper head, and has a thumb nut marked *d*, attached by a

screw at the top: The two heads and the rod above described are marked 3, 3, 3. This forms the adjusting principle of the burner, and to render it complete, must be fitted or packed and adjusted as hereafter described; the packing may consist of any kind of fine, elastic fibrous material, such as sheep's wool, goat's hair, &c; the three last mentioned must be cut in rings or washers of a size to fit the inside of the cylinder, and placed evenly one upon the other, the rod 3, passing through the center of the packing in all cases.

Mode of adjusting.—First, place a small quantity of loose packing in the open space *c*, at the bottom of the cylinder, 1, 1; second, place the lower head marked 3, (with attached connecting rod marked 3, pointing upward) upon the seat in the inside, near the bottom of the base or cylinder 1, 1, above the loose packing; third, fill the base 1, 1, above the lower head 3, evenly and full with packing. Fourth, place the upper head 3, upon the packing (the rod 3, passing through its center) attach the thumb nut *d*, to the top of the rod 3, and turn it down until the packing is so compressed as to filter and regulate the pressure of the gas and prevent all blowing and smoking; fifth, connect the dome 2, 2, with the base 1, 1, and the whole burner with the supply pipe by the use of the screw in the stem of the base 1, 1, and it is ready for use.

The filter regulator may be used successfully in connection with all common gas burners, and all common burner tips may be used in connection with the filter regulating gas burner.

The above described filter regulating gas burner may be made of copper brass iron or composition metals. Having thus described my invention I will state my claim.

What I claim and desire to secure by Letters Patent is,

The use of textile or fibrous substances for packing the chamber of a gas regulator, constructed and arranged in the manner herein set forth.

HIRAM WHEELLOCK.

In presence of—

R. R. BISHOP,
R. H. BUCK.