W. & W. S. BEDELL.

GAS-BURNERS.

No. 193,845. Patented Aug. 7, 1877.

Fig: 1

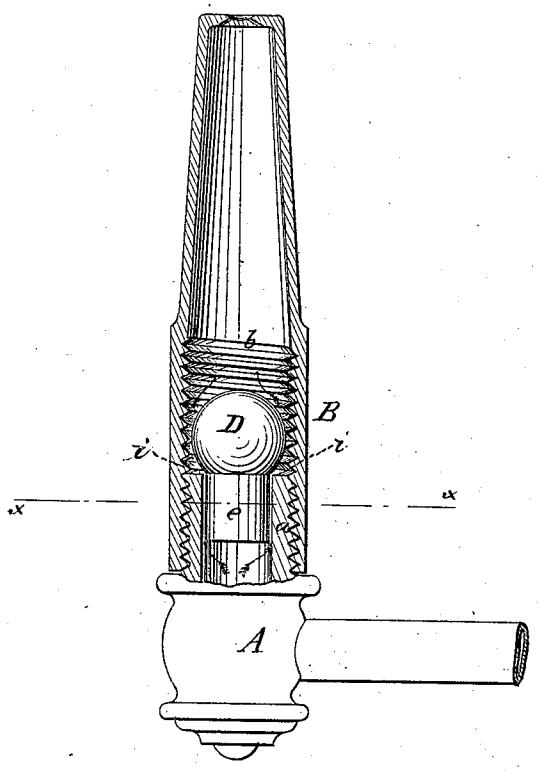
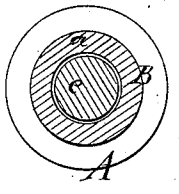


Fig: 2.



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WILLIAM BEDELL AND WINFIELD S. BEDELL, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **193,845**, dated August 7, 1877; application filed July 13, 1877.

To all whom it may concern:

Be it known that we, WILLIAM BEDELL and WINFIELD S. BEDELL, of the city, county, and State of New York, have invented a new and Improved Gas-Burner, of which the following is a specification:

This invention relates to gas-burners; and the nature of our invention consists in combining a valve which has a guide-stem or tail formed on it, with a square seat formed on the upper end of the lower section of a two-part burner, whereby there is a double check to the flow of gas into the upper section of the burner, and a uniform supply of gas, automatically regulated, is obtained, as will be hereinafter explained.

In the annexed drawings, Figure 1 is a diametrical section through the entire upper section, and through part of the lower section of a gas-burner, showing our improved check-valve applied to it. Fig. 2 is a section taken horizontally through dotted line *x x*.

Similar letters of reference indicate corresponding parts.

In the annexed drawing, A designates the lower tubular section of the burner, which receives the supply of gas through a suitable pipe, and is constructed with an external or male screw-threaded portion, *a*, adapted to receive the upper section B of the burner, as shown in Fig. 1. This upper section may be constructed with discharge-orifice, a slit, or any other desirable form of exit may be adopted.

D designates a ball, which is of less diameter than the internal diameter of the gas-chamber *b*, so that it will offer no serious obstruction to the upward passage of gas. This ball D is constructed with a cylindrical neck or guide-stem, *e*, which is loosely applied inside of the male tubular portion *a* of the lower burner-section A, and preferably constructed with a flat bottom, although a slight concavity or convexity of the bottom will not be objectionable. This check-valve may be made of lead, an alloy of lead and tin, or of any other suitable metal.

The spherical portion D rests upon the angular edge *i* of the flat top of section A, and is held down by its own weight and the weight of guide-stem *e*.

Gas rising through the lower section A first impinges against the lower end of the stem *e*, and is uniformly spread outward. The gas then rises and is again spread outward all around the ball D into the chamber *b*. Thus we have two checks for the gas ascending through the burner, which will render the flow regular even under varying pressures or heads.

Our invention is applicable to a great variety of gas-burners without in any manner changing their construction.

We are aware that valves with guide-stems to them are not new *per se*, and therefore we lay no claim to such devices.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

A gas-burner constructed of two detachable tubular sections, and having combined with it a regulating-valve, D, on which is constructed a tail or guide, *e*, forming an auxiliary regulator, substantially in the manner and for the purpose specified.

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