F. KUP.

Gas Burner.

No. 50,431. Patented Oct. 10, 1865.

Fig. 1,

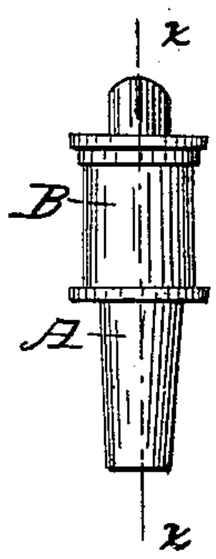


Fig. 3,

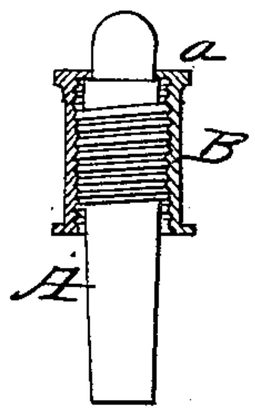


Fig. 5,

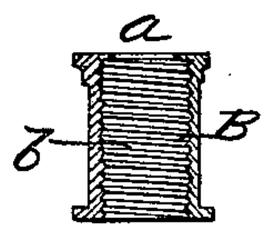


Fig. 2,

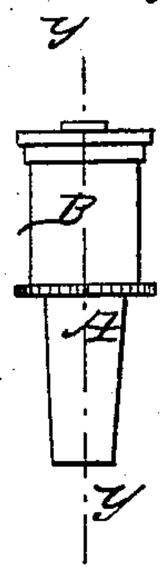


Fig. 4,

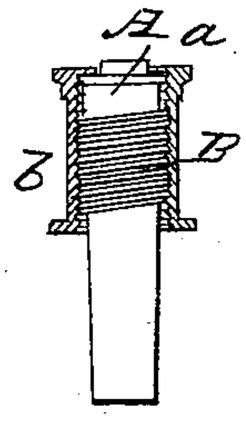
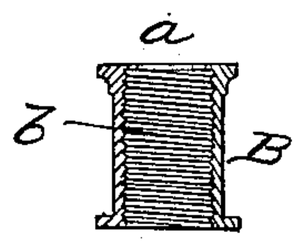


Fig. 6,



WITNESSES:

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UNITED STATES PATENT OFFICE.

FERDINAND KÜP, OF FRANKFORT-ON-THE-MAIN, GERMANY.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **50,431**, dated October 10, 1865.

To all whom it may concern:

Be it known that I, FERD. KÜP, of Frankfort-on-the-Main, Germany, have invented an Improvement in Gas-Burners; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 represent side elevations of this invention as applied to different gas-burners. Figs. 3 and 4 are vertical sections of the same, taken in the planes indicated by the lines *x x y y*, Figs. 1 and 2. Figs. 5 and 6 are detached sections of the adjustable jackets which constitute the subject-matter of this invention.

Similar letters of reference indicate corresponding parts.

The object of this invention is to arrange a gas-burner so that it allows of regulating at will the supply of atmospheric air required for imparting to the flame the greatest possible illuminating-power.

The invention consists in the application of an adjustable jacket or casing to a gas-burner of any desired description in such a manner that by shifting said jacket up or down the supply of atmospheric air to the flame can be regulated with the greatest precision and accuracy.

A represents the body of the burner, and B the jacket or casing. This jacket is made of iron, brass, or any other suitable material, and it is provided with an aperture, *a*, in its upper end, which fits nicely over the top end of the burner. The burner is made with a short tip, and if it is a fish-tail burner it projects but slightly through the jacket, as shown in Figs. 2 and 4; but if it is a bat-wing burner the jacket slips down over the tip below the slit. The jacket is adjusted on the burner by means of a screw-thread, *b*, or in any other suitable manner, and by adjusting the jacket higher or lower on the burner the quantity of atmospheric air admitted to the flame is decreased or increased, according to the existing pressure or to the quality of the gas. By screwing the jacket up so as to bring its top nearer to the discharge-opening of the gas the quantity of atmospheric air passing to the flame is diminished, and vice versa. If the pressure of the gas is high more air is required to produce complete combustion, and in the same manner the quantity of air requisite to produce combustion depends in a great measure upon the quality of the gas.

By my invention the quantity of air admitted to the flame can be regulated instantaneously and with the greatest ease, and the gas is consumed in the most economical manner.

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

An adjustable jacket or casing applied to a gas-burner, substantially as and for the purpose set forth.

FERD. KÜP.

Witnesses:

F. WIRTH,

GEORG ORTH.