

No. 713,768.

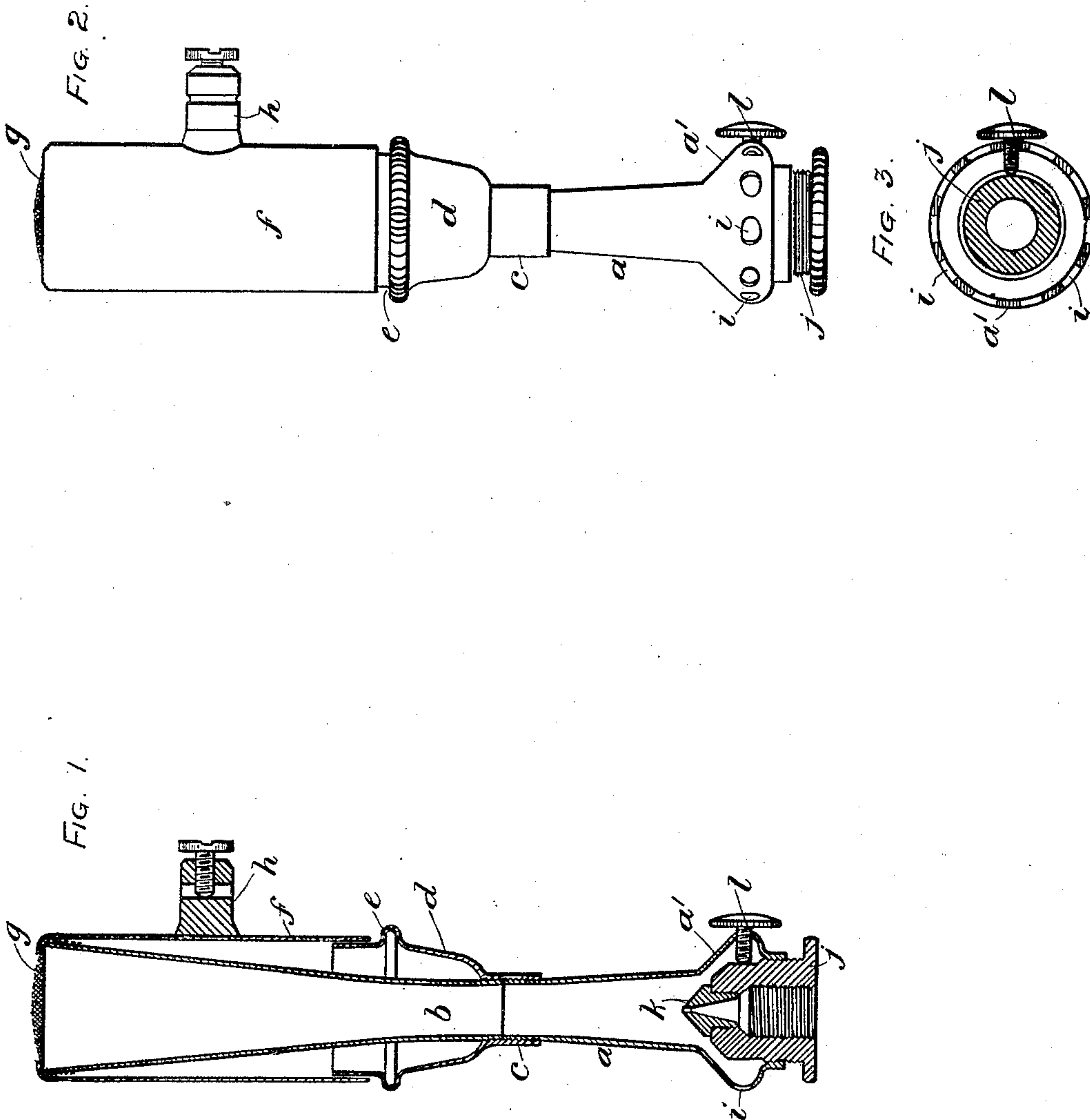
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J. & G. KEITH.

HIGH PRESSURE BURNER FOR INCANDESCENT LAMPS.

(Application filed June 24, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JAMES KEITH AND GEORGE KEITH, OF LONDON, ENGLAND.

HIGH-PRESSURE BURNER FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 713,768, dated November 18, 1902.

Application filed June 24, 1902. Serial No. 113,011. (No model.)

To all whom it may concern:

Be it known that we, JAMES KEITH and GEORGE KEITH, subjects of the King of the United Kingdom of Great Britain and Ireland, residing at 27 Farringdon avenue, London, England, have invented certain new and useful Improvements in High-Pressure Burners for Incandescent Lamps, (for which application for patent has been made in Great Britain, No. 26,198, dated December 23, 1901, and in Germany, (Gebrauchsmuster,) No. 170,504, dated January 8, 1902,) of which the following is a specification.

This invention relates to improvements in burners for high-pressure incandescent gas lighting; and it has for its object to simplify the construction of such burners and to adapt the body parts to be stamped and drawn or spun from sheet metal.

In the accompanying drawings, which illustrate the invention, Figure 1 is a vertical sectional elevation, Fig. 2 a vertical elevation, and Fig. 3 a sectional plan, of the improved burner.

As shown in the drawings, the burner-body is made up of two tapered tubes or long truncated cones *a* and *b*, whose narrow ends abut and are united by a thimble *c*, fitting closely over the joint, the said thimble being expanded upward into cup-like form at *d* and having a ring or shoulder *e* formed on it to serve as a support for the mantle-holder *f*, which is of cylindrical tubular form and is slipped over the upper truncated cone *b*, which carries the usual wire-gauze *g* and fits onto the top part of said cup part *d*. The mantle-holder is formed or fitted with a boss *h*, having a screw for holding the usual wire mantle-support. The lower truncated cone *a* is swelled out to larger diameter near its lower end at *a'* and has a number of air-admission

orifices *i*, formed in the swelled part. The extreme end under the swelling is screw-threaded internally and into this screw-threaded portion is screwed the cone *j* with interchangeable nipple *k*, through which the gas-supply is admitted. The adjustment of the air-supply is obtained by screwing the burner-body *a* up or down on this cone *j*, (which latter is attached to the gas-supply fitting in the usual way,) whereby the annular space between the cone *j* and the swelled part *a'* of the burner-body is increased or diminished. This annular space, owing to the conical formation of the gas-admission cone *j* and nipple *k* and of the swelled part of the burner-body, is of such a form as to introduce the air at an angle of about forty-five degrees to the center line. When the proper adjustment is obtained, the burner-body is fixed and held by a screw *l* passing through it and bearing on the cone.

Having now described the invention, what we claim, and desire to secure by Letters Patent, is—

A high-pressure burner for incandescent lamps composed of two tapered, seamless tubes, a cup-shaped thimble uniting said tubes, a mantle-holder supported on the thimble, the lower tube being formed with a perforated swelling, a gas-admission cone adjustably engaged with the lower tube and projecting into the swelled portion thereof, and a nipple adjustably engaged with the cone.

In witness whereof we have hereunto set our hands in presence of two witnesses.

JAMES KEITH.
GEORGE KEITH.

Witnesses:

WALLACE FAIRWEATHER,
JNO. ARMSTRONG, Junr.