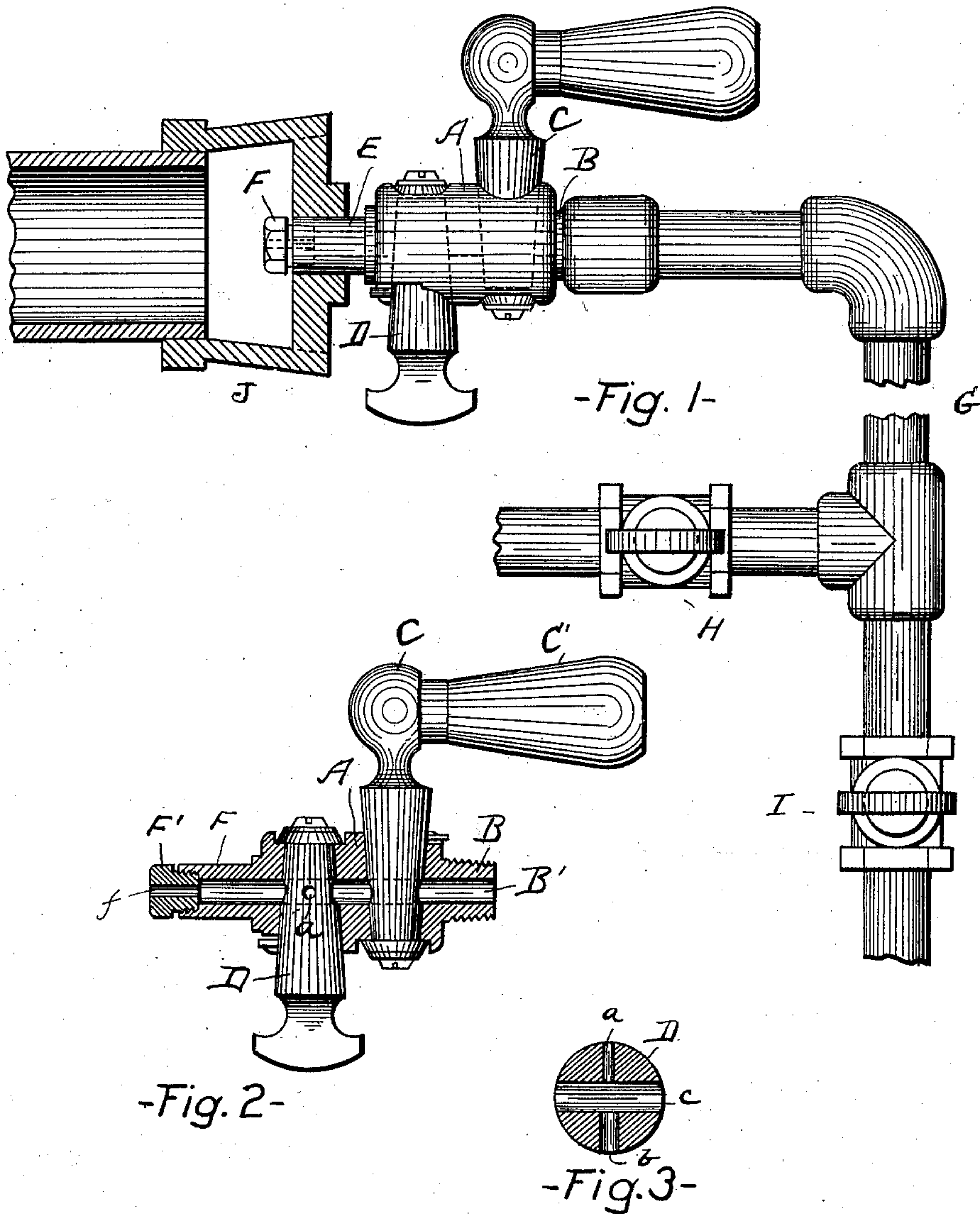


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PATENTED DEC. 8, 1903.

A. M. GUMMER.
GAS REGULATING COCK.
APPLICATION FILED MAY 9, 1903.

NO MODEL.



WITNESSES:
Matthew Liebler
C. M. Theobald.

August M. Gummer.

INVENTOR

BY R. J. McCarty.
ATTORNEY

UNITED STATES PATENT OFFICE.

AUGUST M. GUMMER, OF DAYTON, OHIO.

GAS-REGULATING COCK.

SPECIFICATION forming part of Letters Patent No. 746,500, dated December 8, 1903.

Application filed May 9, 1903. Serial No. 156,393. (No model.)

To all whom it may concern:

Be it known that I, AUGUST M. GUMMER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Gas-Regulating Cocks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in regulating-cocks for fuel-gas burners; and it consists of a combination-cock through which natural and artificial gases may be admitted to a burner at different times.

The object of my invention is to provide means for converting a natural-gas stove or range into an artificial-gas stove or range, and vice versa, or, in other words, my object is to provide a regulating-cock by means of which any disconnections of the gas-supply pipes and burners, pipes, and connections may be obviated in changing from one kind of gas to another—for example, from artificial gas to natural gas, and vice versa. In those localities where natural gas is used for fuel purposes the increased demand upon the same during the cold seasons causes more or less depreciation in the supply of such gas, and in various localities throughout the natural-gas regions of the country the supply becomes so completely diminished in the winter seasons that a sufficient amount cannot be obtained for the ordinary household uses, and other means of fuel is necessarily resorted to—for example, artificial gas for cooking purposes. My improved regulating-cock is designed for emergencies of this kind, whereby when the flow of natural gas becomes diminished to such an extent the artificial gas may be introduced to the burner by manipulating the regulating-cock.

Preceding a detailed description of the invention reference is made to the accompanying drawings, of which—

Figure 1 is a side elevation of my improved gas-regulating cock, showing the same connected up with a valve-controlled supply-pipe

and an ordinary mixer. Fig. 2 is a sectional elevation of the regulating-cock. Fig. 3 is a transverse section of the regulating-plug through which the cock is placed in a condition to admit either artificial or natural gas.

In a detail description of the invention similar reference characters indicate corresponding parts.

A designates the body of the cock, the same having a longitudinal bore B', an exteriorly-screw-threaded portion B, adapted for connection with the supply-pipe G, a stem or prolonged portion F with interior screw-threads adapted to receive an exit-tip F', which has an opening therein of a suitable diameter for the particular burner. The stem F is projected into an ordinary mixer J. The body of the cock has two oppositely-disposed openings providing seats for plugs C and D, the former of which is provided with an operating-handle C' and is interposed between the supply-pipe G and the regulating-plug D. The port c in the valve-plug C is of a similar size or diameter to the bore B' and is designed to admit the full pressure to plug D from the supply-pipe G. The plug D constitutes the means for regulating the admission of the gas to the mixer J, and the same has ports a, b, and c extending at right angles, so that a quarter-turn of the said plug will bring either the port b or the port c in a position to register with the bore B' in the main body of the cock.

From Fig. 3 it will be observed that the exit-bore a is of less diameter than the entrance-bore b. This is owing to the size of gas-burner to be used in connection with the regulating-cock. The bores a and b furnish a passage through the cock for the natural gas. The same having a greater volume of pressure under normal conditions, its passage must be regulated in accordance with the size of the burner used. The port c is designed for the passage of the artificial gas. The cock is provided with means for attaching detachable exit-tips F', which are provided with proper diameters of ports f in accordance with the size of each burner. The tip F' is detachable in order that they may be replaced with tips of larger or smaller diameters in cases where a change of burners might take place. It will be understood, how-

ever, that the present regulating-cock is designed for the manufacturers of gas stoves and ranges, who provide such stoves and ranges with the complete fixtures constituting the burners, mixers, and regulating-cocks united. Therefore the regulating-plug D and the exit-tip F' are given the necessary openings for the particular burners. H and I designate valves through which the artificial and natural gases may be admitted to or excluded from the supply-pipe G.

The operation of my improved regulating-cock is as follows: Assuming that valve H is in a position to admit natural gas to the supply-pipe G and the valve I is in a position to exclude the admission of artificial gas, the regulating-plug D is moved to a position to effect a registration between the port *b* and the bore B', through which the gas passes to the exit-tip F'. Should the supply of natural gas become exhausted, the valve H is closed and the artificial-gas valve I is opened. The plug D is then turned to bring the port *c* in line with the bore B'. In changing from one fuel-gas to another the valve C is first closed. It will be understood that the said valve C is also manipulated in shutting off or admitting the gas to the burner. The regulating-plug D cannot cut off the gas at any time, its main object being to admit either form of gas to the burner. It will be borne in mind that artificial gas and natural gas are of two entirely different pressures.

Having described my invention, I claim—
 1. In a gas-regulating cock, a body having two oppositely-positioned valve-plugs arranged in proximity to each other, one of said plugs controlling a uniform admission of gas to the other, the other of said plugs regulating the supply of gases of different pressures to the burner, and a detachable

exit-tip having a bore corresponding to at least one of the bores of the regulating-plug, substantially as set forth.

2. In a gas-regulating cock, a body having a central longitudinal bore therein, and a prolonged end which is adapted to penetrate a mixer, two valve-plugs projected into said body in proximity to each other, one of said plugs controlling the admission of gas to the other of said plugs, and the other of said plugs constituting a regulating-valve to regulate the discharge of gas to the burner, said regulating-plug having ports, one of which is adapted to admit gas of lower pressure, and the other of which is adapted to admit gas of a higher pressure, and a detachable exit-tip, through which either pressures of gas is admitted to the burner, substantially as set forth.

3. In a regulating-cock for gas stoves or ranges, the combination with a supply-pipe, two valve-controlled pipes adapted to admit gases of different pressures to said supply-pipe, of a gas-regulating cock consisting of a body having a longitudinal bore and terminating in a prolonged portion adapted to enter the mixer of a gas-burner, two oppositely-positioned valve-plugs, one of which has two separate ports therein designed to admit to the burner different pressures of gas, and the other of said valve-plugs having a single port therein and adapted to control the admission of either pressures of gas to the regulating-plug, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST M. GUMMER.

Witnesses:

R. J. MCCARTY,
 CAROLYN M. THEOBALD.