

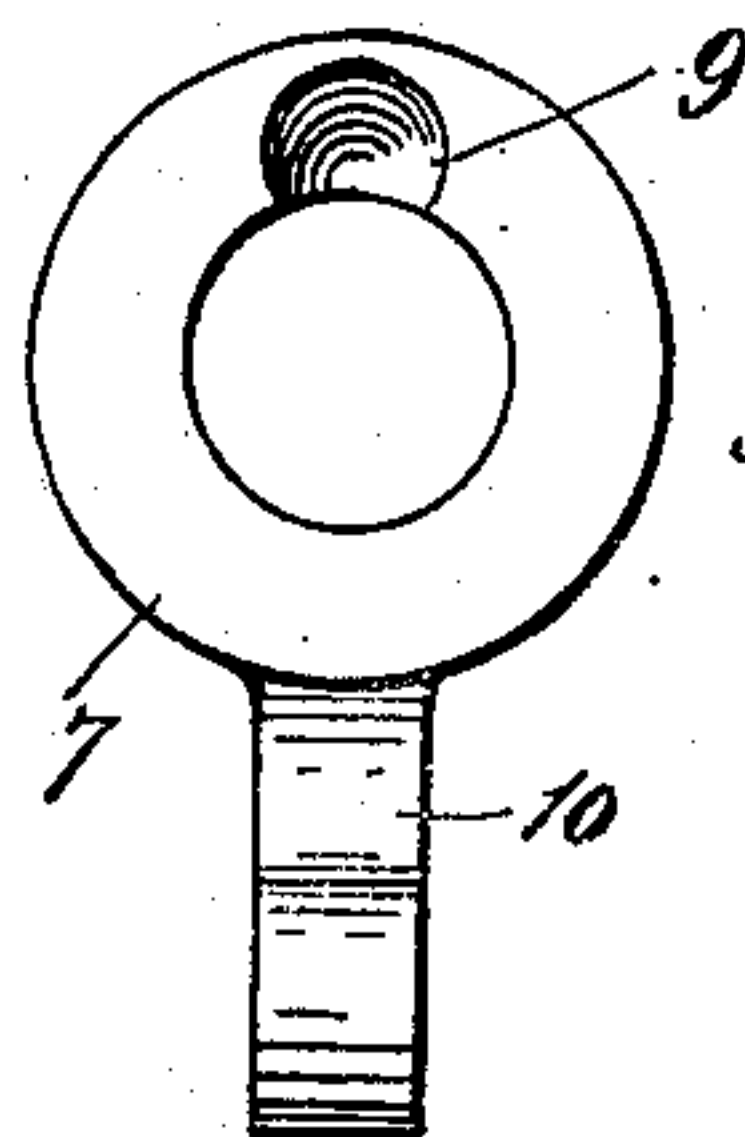
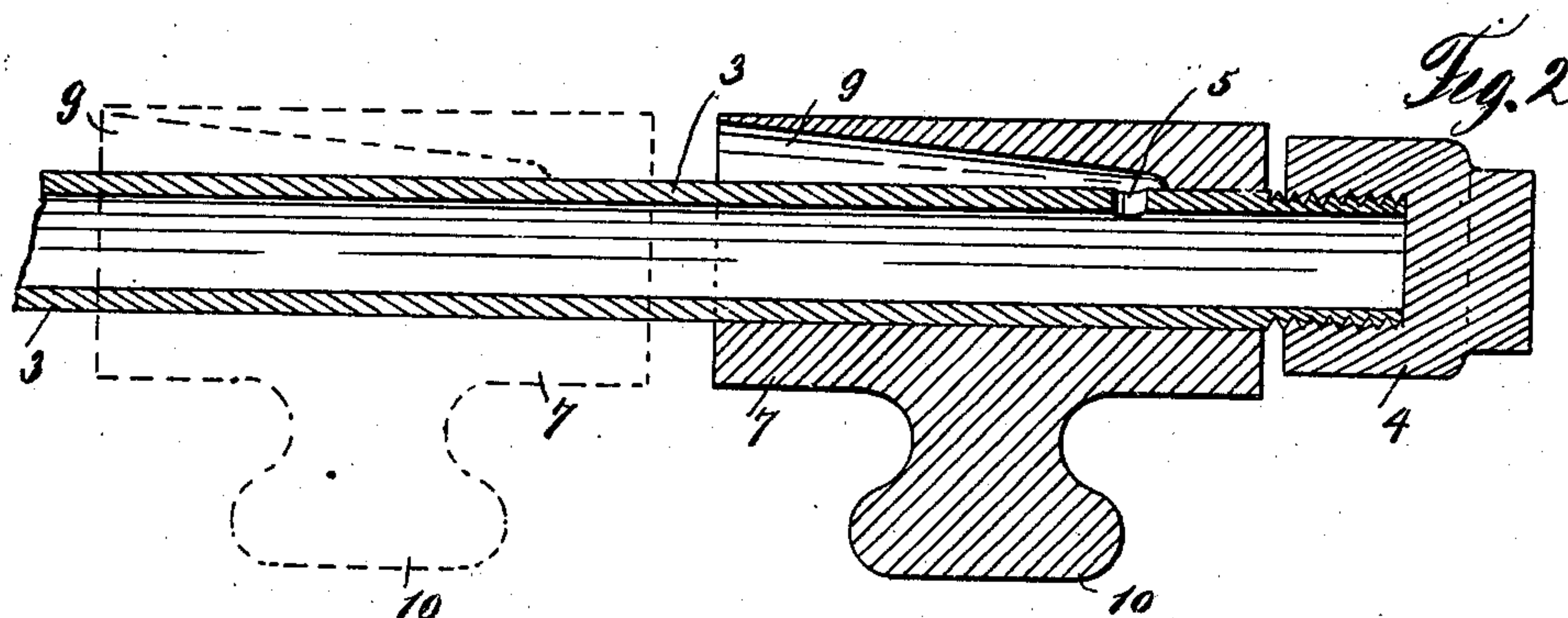
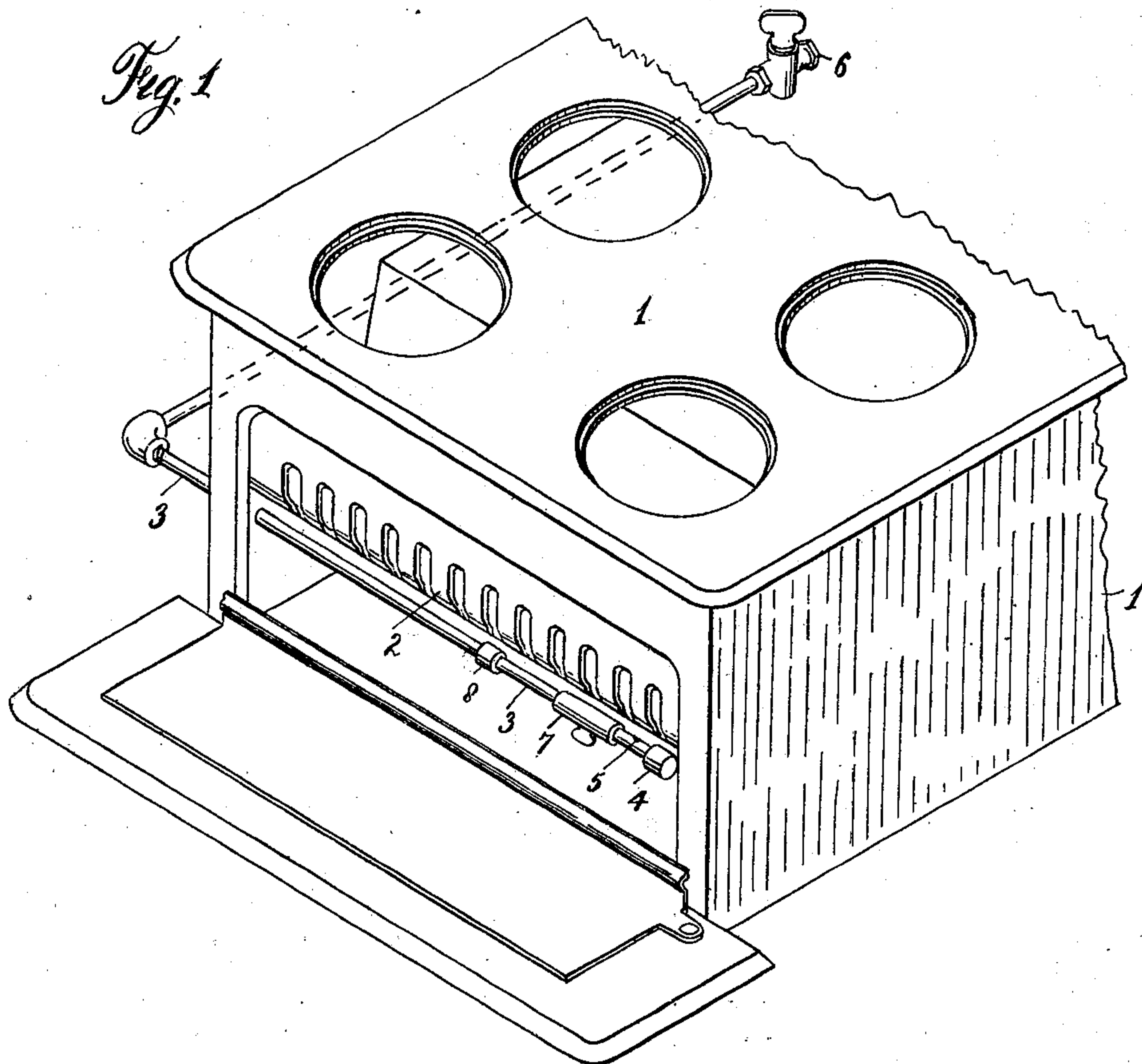
No. 702,049.

Patented June 10, 1902.

T. B. DRAPER & G. T. LYON.
FIRE STARTER OR GAS HEATER.

(Application filed July 25, 1901.)

(No Model.)



WITNESSES:

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THOMAS B. DRAPER, OF SAN FRANCISCO, AND GEORGE T. LYON, OF EAST OAKLAND, CALIFORNIA.

FIRE-STARTER OR GAS-HEATER.

SPECIFICATION forming part of Letters Patent No. 702,049, dated June 10, 1902.

Application filed July 25, 1901. Serial No. 69,624. (No model.)

To all whom it may concern:

Be it known that we, THOMAS B. DRAPER, a subject of the King of Great Britain, residing at San Francisco, in the county of San Francisco, and GEORGE T. LYON, a citizen of the United States, residing at East Oakland, in the county of Alameda, State of California, have invented certain new and useful Improvements in Fire-Starters or Gas-Heaters, of which the following is a specification.

Our invention relates to an improved device for starting fires in stoves or grates, the object of our invention being to provide improved means for starting a fire by the combustion of gas thereunder, thereby dispensing with the use of kindling heretofore generally used.

A further object of the invention is to provide a device which can also be used in an ordinary coal cook-stove as a gas-heater when desired, thus dispensing with the necessity of buying a gas-heater to be used as a substitute for the coal-stove in hot weather or on occasions when it is not desired to burn coal.

Our invention therefore resides in the novel construction, combination, and arrangement of parts for the above ends, hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a cook-stove equipped with our improved device. Fig. 2 is a section of the terminal portion of the device, the spreader being shown in full lines in the position for spreading the flame and in dotted lines in the position when not in use; and Fig. 3 is an end view of the spreader.

Referring to the drawings, 1 represents a portion of the body of the cooking-stove, and 2 the fire-grate. A gas-pipe 3 leads from the outside of the stove into the ash-pit and is closed at its end by a cap 4. In said pipe near the end is an orifice 5, from which the gas escapes, said orifice being located centrally below one of the holes in the top of the stove. Gas is admitted into the pipe 3 by means of a stop-cock 6, located at a considerable distance from the orifice. If the orifice 5 is uncovered, the flame rises straight up and may be used in the place of a gas-stove to heat a vessel placed on the hole 3 immediately above

it. When it is desired to spread the flame over a considerable extent of heated surface, which is desirable for starting a fire, this is effected by means of a spreader 7, which slides upon the tube 3, being limited in one direction by the cap 4 and in the other direction by a ring 8 on said tube. Said spreader has formed therein an extension 9 from the central bore thereof, said extension when the spreader is in place lying over the orifice and being enlarged or tapering toward the end of the spreader, so that the gas emerging from the orifice issues in a rearward direction from the spreader and the flame is thereby distributed under the greater portion of the fire-box. The spreader also serves the purpose of protecting the orifice from the entrance of dust or ashes when the device is not lighted. A lug 10 depending from the spreader permits the spreader to be readily moved in one direction or the other, as desired. Said lug also serves to bring the extension to the highest point, so that it may register with the orifice.

We claim—

1. In a device of the character described, the combination with the grate of the fire-box of a coal-stove, of a gas-pipe fixedly secured immediately below the grate, said gas-pipe being closed at one end, and connected at the other end with a pipe from the source of supply, said pipe having an orifice near the closed end, said orifice discharging upwardly into said grate, and a shield or cover removably covering said orifice, substantially as described.

2. In a device of the character described, the combination with the grate of the fire-box of a coal-stove, of a gas-pipe fixedly secured immediately below the grate, said gas-pipe being closed at one end, and connected at the other end with a pipe from the source of supply, said pipe having an orifice near the closed end, said orifice discharging upwardly into said grate, and means for removably covering said orifice from ashes and for spreading the flame, substantially as described.

3. In a device of the character described, the combination with the grate of the fire-box of a coal-stove, of a gas-pipe fixedly secured immediately below the grate, said gas-pipe being closed at one end, and connected at the

other end with a pipe from the source of supply, said pipe having an orifice near the closed end, said orifice discharging upwardly into said grate, and a shield or cover removably
5 covering said orifice and suitably conformed on its under surface to deflect and discharge the gas issuing from said orifice when so covered, substantially as described.

4. In a device of the character described,
10 the combination with the grate of a fire-box of a coal-stove, of a gas-pipe leading beneath the fire-box and fixedly secured thereunder, and having an orifice, and a sleeve sliding on the pipe to cover the gas-orifice, the inner
15 surface of said sleeve being suitably conformed to deflect and distribute the gas issuing from said orifice when the latter is surrounded by the sleeve, substantially as described.

20 5. In a device of the character described, the combination with the grate of a fire-box

of a coal-stove, of a gas-pipe leading beneath the fire-box and fixedly secured thereunder, and having an orifice discharging upwardly beneath said fire-box, a sleeve sliding on the
25 pipe to cover the gas-orifice, said sleeve having a flaring groove in its inner surface arranged to register with the orifice and distribute the gas issuing from said orifice, said sleeve having likewise a lug to extend from
30 the outer surface thereof, the position of which indicates the position of said orifice, substantially as described.

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

THOMAS B. DRAPER.
G. T. LYON.

Witnesses:

FRANCIS M. WRIGHT,
M. T. BEGLEY.