

J. A. STEPHENS & W. J. SHENK.
COMBINATION GRATE AND BURNER.
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1,016,236.

Patented Jan. 30, 1912.

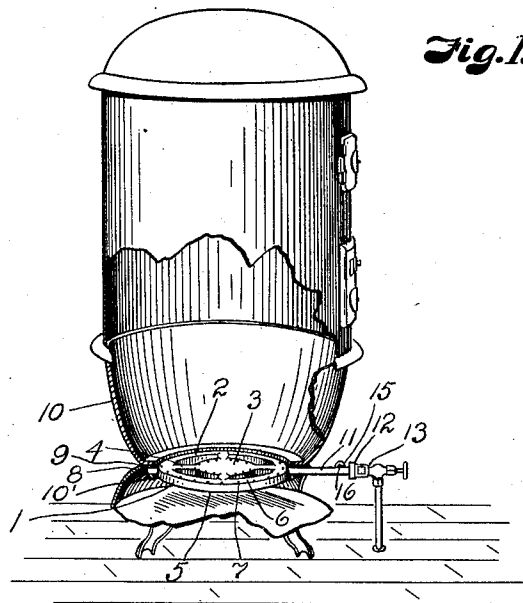


Fig. I.

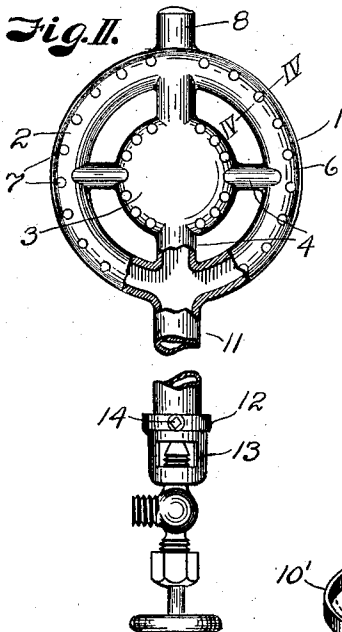


Fig. II.

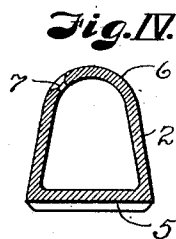


Fig. IV.

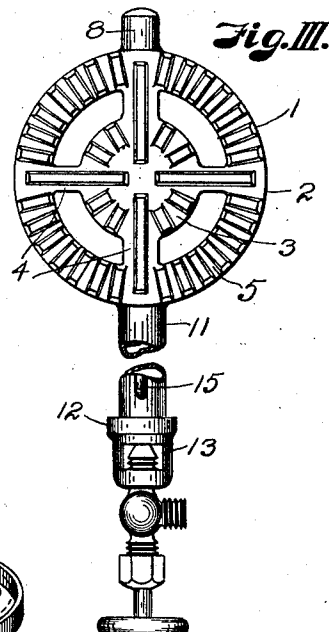


Fig. III.

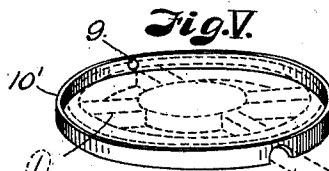


Fig. V.

WITNESSES:

Arthur H. Caps.
Frydrik M. Jackson.

INVENTORS.
JOHN A. STEPHENS.
WILLIAM J. SHENK.

BY
Arthur C. Brown
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN A. STEPHENS AND WILLIAM J. SHENK, OF KANSAS CITY, MISSOURI.

COMBINATION GRATE AND BURNER.

1,016,236.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN A. STEPHENS and WILLIAM J. SHENK, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Combination Grates and Burners; and we 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 and figures of reference marked thereon, which form a part of this specification.

Our invention relates to a combination stove grate and gas burner, and has for its object to provide a device of that character for use in heating or other stoves, whereby the stove may be adapted for burning coal or by reversing the grate for burning gas. In accomplishing this object we have provided the improved details of structure hereinafter described and illustrated in the accompanying drawings, wherein,

Figure I is a perspective view of a heating stove provided with one of our improved combination grate and gas burner devices, a part of the stove casing being broken away to illustrate the interior arrangement. Fig. II is a plan view of the combined device, showing the gas burning face, a part of the material being broken away to show the channeled construction. Fig. III is a bottom plan view of the device showing the grate face. Fig. IV is a sectional view on the line IV—IV, Fig. II. Fig. V is a detail view of the ring within which the device is mounted in the stove.

Referring more in detail to the parts:—1 designates a grate which is preferably of cast metal formed into the ring 2 and plate member 3 with the connecting ribs 4. One face, 5, of the grate is flat and is cast solid to provide a coal grate, while the opposite face, 6, is rounded and provided with the apertures 7 through which fluid fuel may be delivered. The ring and plate are hollow and communicate with each other through the

ribs 4. At one end the grate is provided with a gudgeon 8 which is adapted to turn in a socket 9 in the ring 10 of the stove bowl 10. At the opposite end the grate is provided with a tube 11 which communicates with the outer ring chamber. The outer end of the tube is projected into the neck 12 of a mixer 13, of any suitable construction, where it may be held rigidly by a set screw 14. On the tube 11 is a lug 15 having a slot 16, through which a tool may be projected to assist in turning the grate.

To use the grate for burning coal, the solid, corrugated face is turned upwardly so that ashes will not enter and clog the gas burner ports. The grate then answers the purpose of the grate in an ordinary coal burning stove. When it is desired to burn gas in the stove, the set screw is loosened, the grate turned half around, and the set screw again tightened to hold it in position. With the device in this position the gas supply valve is opened and gas admitted to the burner, so that it escapes through the ports 7 and is burned in the usual manner.

Having thus described our invention, what we claim as new therein and desire to secure by Letters-Patent is:—

In a combination grate and burner, a body comprising a hollow plate member, a hollow ring surrounding said plate member, hollow ribs connecting the plate member and ring and forming means of communication between the interiors thereof, one face of the ring and plate member being imperforate and the other face provided with ports having communication with the interiors thereof, a gudgeon extending from one side of the ring, a pipe member on the opposite side of said ring having communication with the interior thereof, and means for supplying fuel to said pipe member, for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN A. STEPHENS.
WILLIAM J. SHENK.

Witnesses:

MYRTLE M. JACKSON,
ARTHUR W. CAPS.