

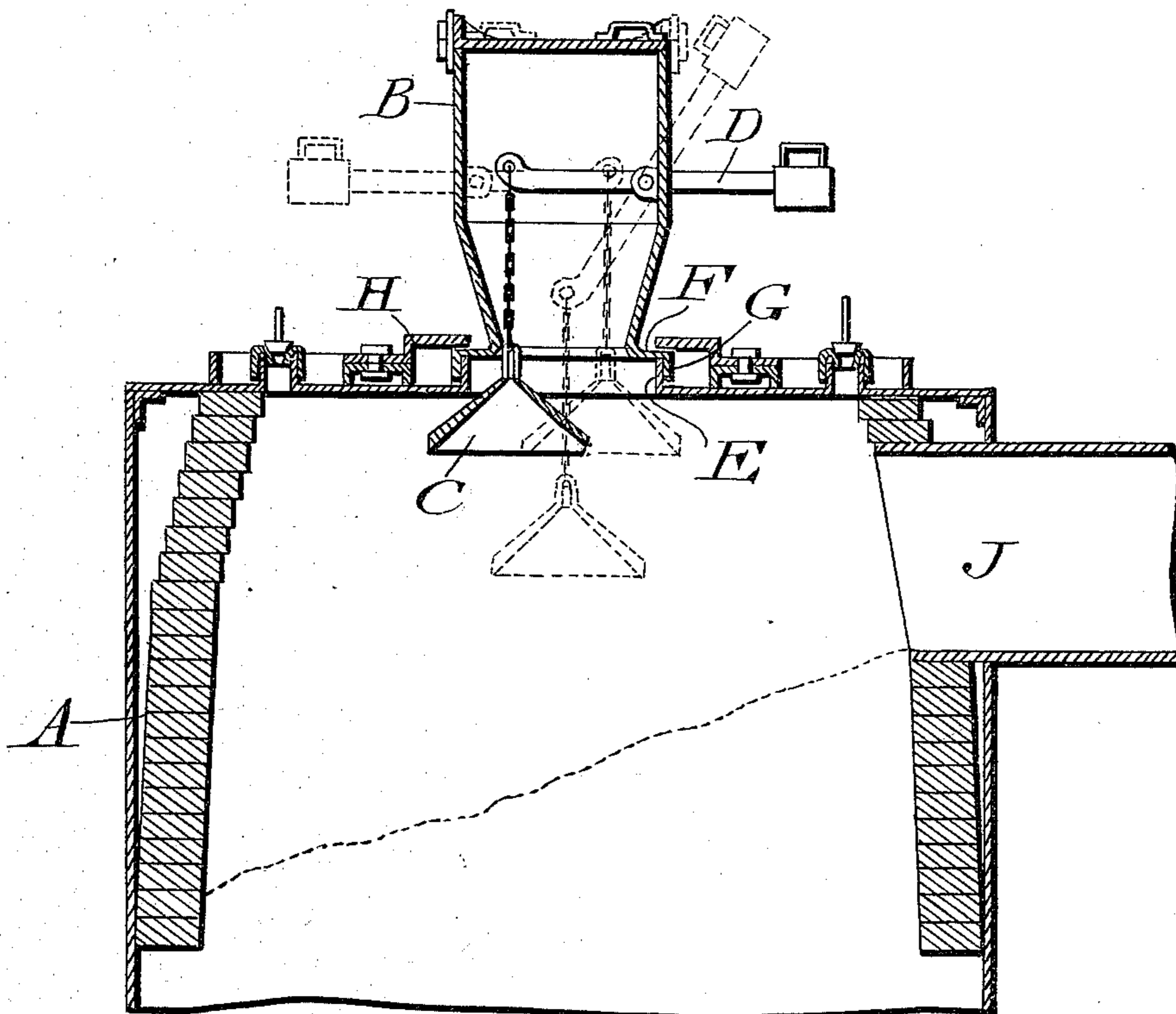
No. 735,495.

PATENTED AUG. 4, 1903.

J. W. GAYNER.  
GAS PRODUCER.

APPLICATION FILED SEPT. 18, 1902.

NO MODEL.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN WILLIAM GAYNER, OF SALEM, NEW JERSEY, ASSIGNOR TO AMERICAN PRODUCER-GAS FURNACE COMPANY, A CORPORATION OF NEW JERSEY.

## GAS-PRODUCER.

SPECIFICATION forming part of Letters Patent No. 735,495, dated August 4, 1903.

Application filed September 18, 1902. Serial No. 123,812. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM GAYNER, a citizen of the United States, residing in the city and county of Salem, State of New Jersey, have invented a new and useful Improvement in Hoppers for Gas-Producers, of which the following is a specification.

My invention consists of a novel construction in a hopper for gas-producers, the object being to provide a construction whereby the fuel can be distributed within the gas-producer in a manner to preserve an even bed.

The invention further consists of details of construction hereinafter described and claimed.

The accompanying drawing represents a vertical sectional view of the upper portion of a gas-producer provided with a hopper constructed in accordance with my invention.

Referring to the drawing, A designates a gas-producer, and B the hopper, which is rotatable and is provided with a deflecting-valve C, which is movable with respect to the hopper and is shown in the drawing as being suspended from the lever D, the outer end of which projects beyond the hopper in the usual manner. The said hopper is rotatably mounted upon the gas-producer in any suitable manner, in the instance shown being mounted upon the uprising annular flange E, surrounding the opening through which the fuel is fed. The lower end of the hopper B is provided with an outwardly-extending plate F, that rests upon the upper end of the flange E, while a flange G depends from the periphery of the plate F and surrounds the flange E of the gas-producer. The hopper thus rests freely upon the flange E and is held in place by clips H, fastened to the top of the gas-producer, and whose inner ends overhang the plate F. The length of the inner end of the lever D, situated within the hopper, is such that when the lever is standing in a horizontal position, as shown in full lines, its inner end, from which the valve C is suspended, extends beyond the center of the hopper, and the length of the connection between the valve C and the lever D is such that when the

outer end of the lever D is depressed it raises the inner end of the lever until it stands in line with the axis of the hopper and the valve C is closed against its seat.

The operation is as follows: I have shown by dotted lines in said drawing the manner in which the bed of the fuel within the gas-producer usually becomes highest at the side of the producer A, from which the outlet J extends. It is desired, of course, to maintain an even bed, and by manipulating the hopper B, as will now be described, the fuel will be distributed to any portion of the gas-producer. In full lines I have shown the manner in which the valve is opened to direct the fuel toward the outlet side J. The position of the lever D and valve C (shown in dotted lines, where the valve is lowermost) is the position to which the valve is moved when it is desired to distribute the fuel evenly on all sides of the gas-producer. When, however, it is desired to direct the greatest portion of the fuel toward the bed opposite the outlet, the hopper is given a half-revolution, conveniently by using the lever as a handle, to bring the outer end of the lever to the left-hand side of the gas-producer, as shown in the drawing, and then the lever is moved half-way or to a horizontal position, which brings the valve C to the position where it is shown uppermost in dotted lines. This then directs the fuel to the opposite side of the gas-producer. It is further understood, of course, that by rotating the hopper to any position, as desired, the greater portion of the fuel can be directed where it is needed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A gas-producer provided with a rotatable hopper, and a deflecting-valve attached to said hopper and adapted to divert the fuel to different parts of the gas-producer.

2. A gas-producer provided with a rotatable hopper, and a deflecting-valve attached to said hopper and which is movable with respect to said hopper to divert the fuel to different parts of the gas-producer.

3. A gas-producer provided with a hopper, a deflecting-valve attached to said hopper and means for operating said valve to divert the fuel from said hopper to different parts  
5 of the producer.

4. A gas-producer provided with a rotatable hopper having a deflecting-valve attached to said hopper, and means for moving said valve to one side of the hopper-outlet when it is  
10 opened to divert the fuel to different parts of the gas-producer.

5. A gas-producer having a rotatable hopper provided with a deflecting-valve attached thereto, and a lever from which said valve is  
15 suspended, the length of said lever being such

that when the valve is partially opened it is situated to one side of the hopper-outlet.

6. A gas-producer having a rotatable hopper, a lever extending through the side of the hopper and pivoted thereon, and a valve sus- 20  
pended from the inner end of said lever, the length of the inner end portion of the lever being such that when the lever stands about midway between the limits of its movement, the inner end thereof from which the valve 25  
is suspended stands to one side of the hopper.

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Witnesses:

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