

W. B. HUGHES.
GAS PRODUCER.
APPLICATION FILED JUNE 11, 1910.

977,651.

Patented Dec. 6, 1910.

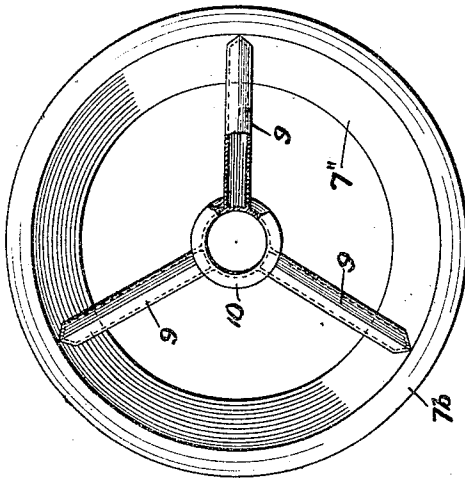


FIG. 2

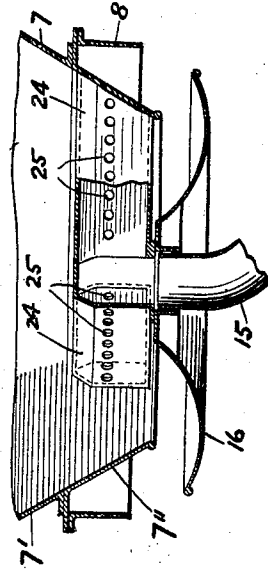


FIG. 3.

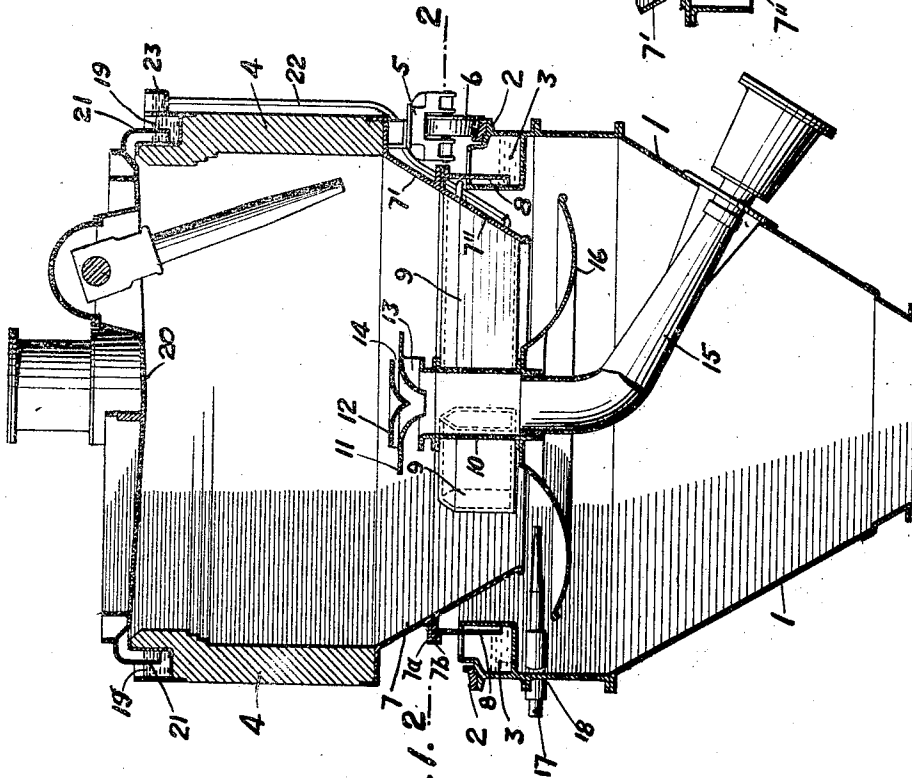


FIG. 1.

WITNESSES:

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WILLIAM B. HUGHES, OF CLEVELAND, OHIO.

GAS-PRODUCER.

977,651.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM B. HUGHES, a citizen of the United States, residing in the city of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain Improvements in Gas-Producers, of which the following is a specification.

My invention is an improved gas producer comprising a revolving body, which carries a blast box within and a table beneath its ash hopper, in combination with a stationary poker adapted to act between the hopper and the table.

The leading objects of my invention are to provide improved means for removing the ashes in a manner more satisfactory than has heretofore obtained, to avoid the grinding action of a stationary blast mechanism within a revoluble body, to seal the body efficiently and to provide a simple construction.

In the drawings, Figure 1 is a sectional elevation of a gas producer embodying my improvements, Fig. 2 is a sectional plan view of the lower part of the ash hopper taken on the line 2-2 of Fig. 1, and Fig. 3 is a sectional elevation of the lower part of a producer body having a modified construction.

The apparatus, as illustrated in Figs. 1 and 2, comprises the stationary ash receiver 1 having thereon the circular track 2 and therein the circular channel 3. The producer body 4 is supported revolubly by bearings 5 and wheels 6 journaled therein and revoluble on the track 2. The conical ash hopper 7, which depends from the body 4 into the receptacle 1, carries a cylindrical apron 8 extending into the channel 3 which contains water for sealing the connection between the receptacle and the body. Hollow radial arms or boxes 9 are supported by the hopper 7 and support the blast box 10 which carries the deflectors 11 and 12, the box discharging through the ports 13 and 14. A blast pipe 15 extends through the receiver 1 and discharges into the revoluble box 10.

A dished table 16 is fixed to the box 10 beneath the hopper 7 with which it revolves. A bar 17 is movable longitudinally through a bearing 18 carried by the receiver 1 and

is adapted to be inserted, when and as desired, between the hopper 7 and table 16 for the purpose of breaking up the bed of ashes and removing them gradually, so as to avoid the effect of previous operations which continuously grind or scrape out the ashes so as to drop and discharge the fuel.

The body is provided with a channel 19 and the top 20 has the apron 21 thereon which extends into water in the channel for sealing the connections, the top supporting the poker 20'. Pipes 22 connect a channel 23, into which the channel 19 overflows, with the boxes 9 which are thus water cooled.

As shown in Fig. 3, the hopper 7 is provided with radial boxes 24 which support the table 16 and communicate with the stationary blast pipe 15, the boxes having in the sides thereof the openings 25 through which blast is distributed within the revolving hopper.

The ash hopper is preferably made in two sections 7' and 7'' connected by flanges 7^a and 7^b thereon, the lower section having the parts 8, 9 and 24 fixed thereto.

Having described my invention, I claim:—

1. In a gas producer, a revoluble body, a blast box carried by said body, a bottom table carried by said body, and means acting between said body and table for breaking up and removing ashes.

2. In a gas producer, a revoluble body having an ash hopper, an ash table carried by said body beneath said hopper, and a stirring device disposed between said hopper and table.

3. In a gas producer, a revoluble body having an ash hopper, an ash table carried by said body beneath said hopper, and stirring mechanism comprising an adjustable bar disposed between said hopper and table.

4. In a gas producer, a revoluble body, arms carried by said body, and blast mechanism supported by said arms.

5. In a gas producer, a revoluble body, hollow arms carried by said body, and means supported by said arms whereby blast is introduced to said body.

6. In a gas producer, a revoluble body, blast mechanism carried by said body, and

means carried by said body for water cooling said blast mechanism.

7. In a gas producer, a revoluble body, hollow arms carried by said body, and means
5 for supplying water to said arms for cooling them.

In witness whereof I have hereunto set my

name this 9th day of June, 1910, in the presence of the subscribing witnesses.

WM. B. HUGHES.

Witnesses:

ROBERT JAMES EARLEY,
JOS. G. DENNY, JR.