

No. 892,427.

PATENTED JULY 7, 1908.

W. B. HUGHES.  
GAS PRODUCER.

APPLICATION FILED SEPT. 8, 1906.

2 SHEETS—SHEET 1.

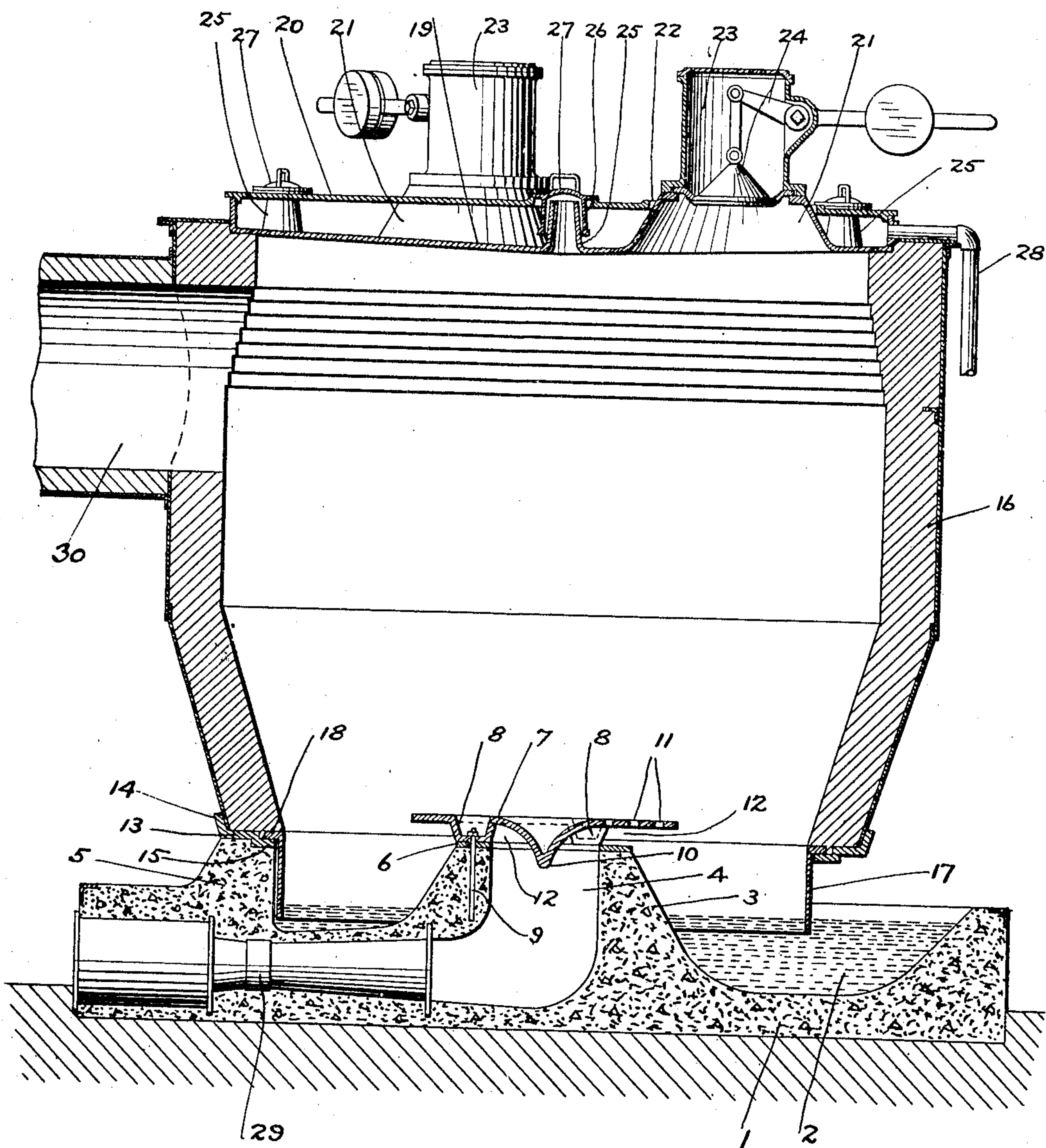


FIG. 1.

WITNESSES:  
*Jos. S. Denny, Jr.*  
*Robt. R. Kitchin*

INVENTOR  
*Wm. B. Hughes*  
BY  
*Charles N. Butler*  
ATTORNEY.

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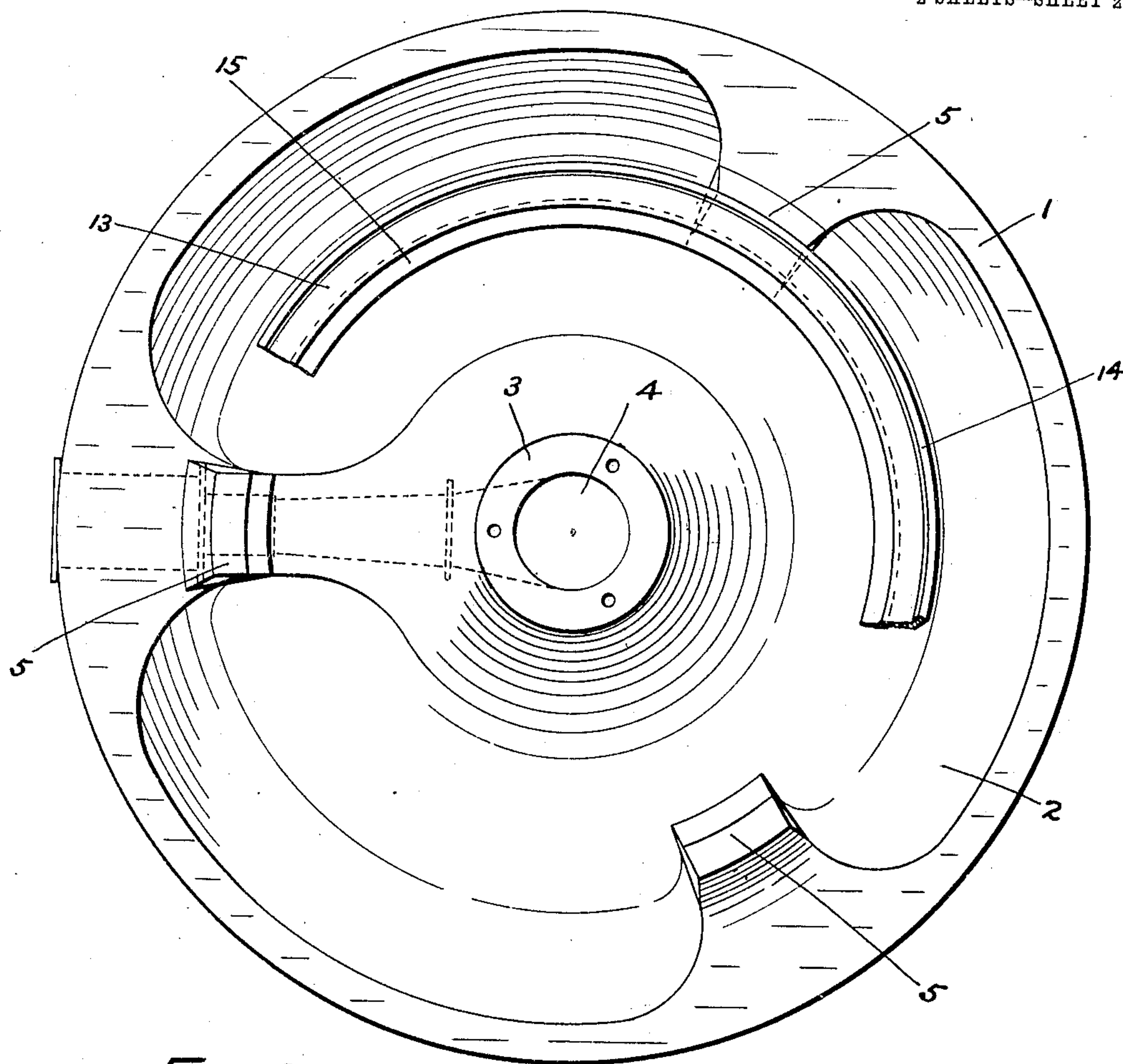


FIG. 2.

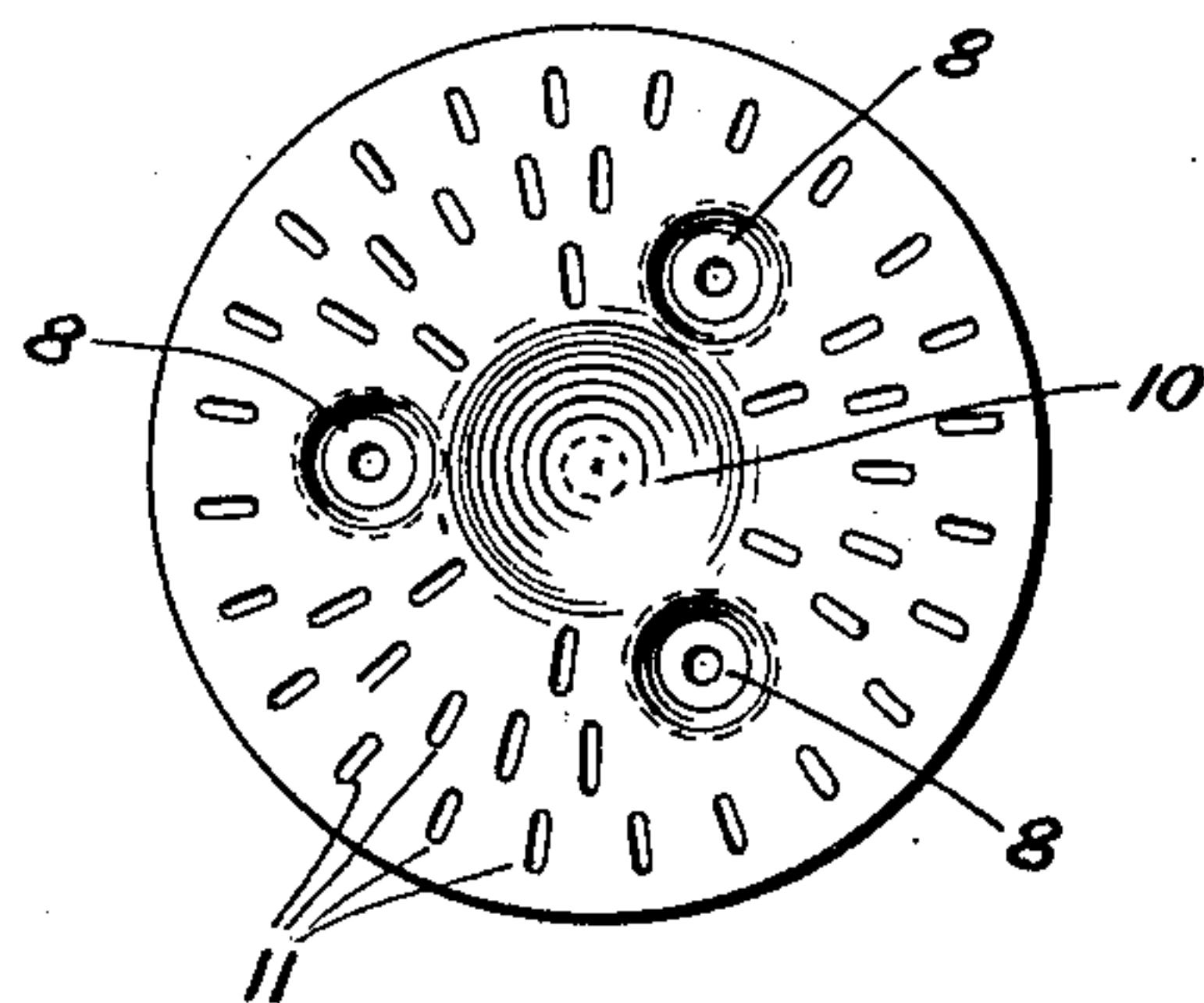


FIG. 3.

WITNESSES:

*Jos. G. Lemmy, Jr.*  
*Robt. R. Kitchin*

INVENTOR

*Wm. B. Hughes*  
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*Charles N. Butler*  
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# UNITED STATES PATENT OFFICE.

WILLIAM B. HUGHES, OF CLEVELAND, OHIO.

## GAS-PRODUCER.

No. 892,427.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed September 8, 1906. Serial No. 333,782.

*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.

This invention is a gas producer of simplified construction providing an efficient and durable mechanism at a low cost.

In the accompanying drawings, Figure 1 represents a vertical sectional view of the invention; Fig. 2 represents a plan view of the base with the body removed, and Fig. 3 represents a plan view of the twyer plate.

As shown in the drawings, the producer has a concrete base 1 in which is formed a channel 2 for holding water to form a seal, the dome 3 centrally disposed and rising above the channel to provide for a blast passage 4 formed therein and the piers 5 which rise above the general level of the channel wall and extend into the channel to provide supports for the producer body and the ash holder. A plate ring 6 resting on the top of the dome 3 supports a twyer plate 7. This plate has the depressed portions 8 forming bearings through which pass the anchor bolts 9 into the concrete, the centrally disposed core or deflector 10 extending downwardly into the blast opening 4, and the perforations 11 through which the open spaces 12 between the bearings 8 the blast is delivered. The piers 5 support the ring 13 having the exterior flange 14 and the interior step 15. This plate supports the producer body 16 and the ash holder 17, the latter having thereon a flange 18 engaging the step 15 and engaged by the body 16. As the piers project into the channel the ash holder is disposed in said channel and sealed by water therein.

The top of the producer comprises a basin 19 having a cover 20, the basin being provided with the pyramidal walls 21 rising from the bottom thereof through the openings 22 in the cover. The parts 21 support the hoods 23 and the valve mechanisms 24 by which fuel is introduced. Rising from the bottom of the basin 19 are the tubular walls 25 forming poke holes opening through

the holes 26 in the cover, these openings being covered by the removable hoods 27. A pipe 28 provides means for introducing water to the basin 19 for cooling the same.

A blower mechanism 29 is embedded in the base 1 and communicates with the blast opening 4, through which the blast is injected by way of the twyer plate, the latter distributing it to the fuel which is supported thereby and by the ashes contained in the water sealed holder and the channel beneath it. The gas produced is carried off through the usual outlet 30.

The ashes which pass through the holder can be withdrawn from the open channel very readily, since the only obstructions thereto are the piers which occupy an inconsiderable portion of the channel's outer wall.

Having described my invention, I claim:—

1. A gas producer having a body, a blast passage leading thereto, and a device with a downwardly extending part and a laterally extending part for dividing and spreading the blast, said laterally extending part being above said downwardly extending part.

2. A gas producer comprising an artificial stone base containing a channel and having an artificial stone dome rising above the general level thereof, in combination with a plate having a central depending portion and a laterally extending portion or portions for dividing and spreading the blast.

3. A gas producer comprising a base containing a curved channel and a dome having a passage within said channel, a deflector supported by said dome above said passage, said deflector having a downwardly extending conical part and wings extending laterally therefrom to divide and spread the blast issuing through said passage, and a body supported by said base above said dome, said body having a part depending into said channel.

In testimony whereof I have hereunto set my name this 5th day of September, 1906, in the presence of the subscribing witnesses.

WM. B. HUGHES.

Witnesses:

ELI S. SANDERSON,  
EDW. J. FISHER.