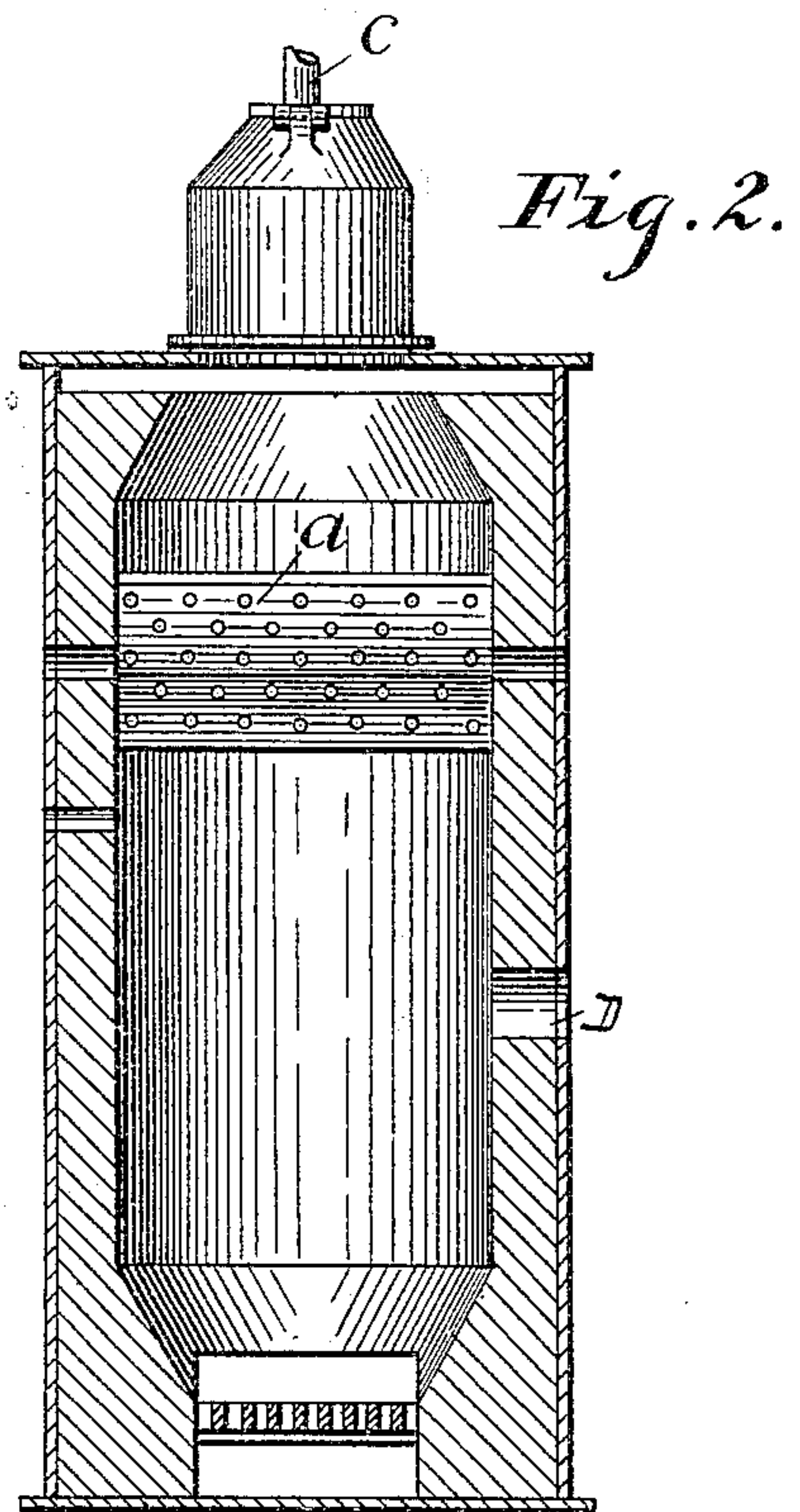
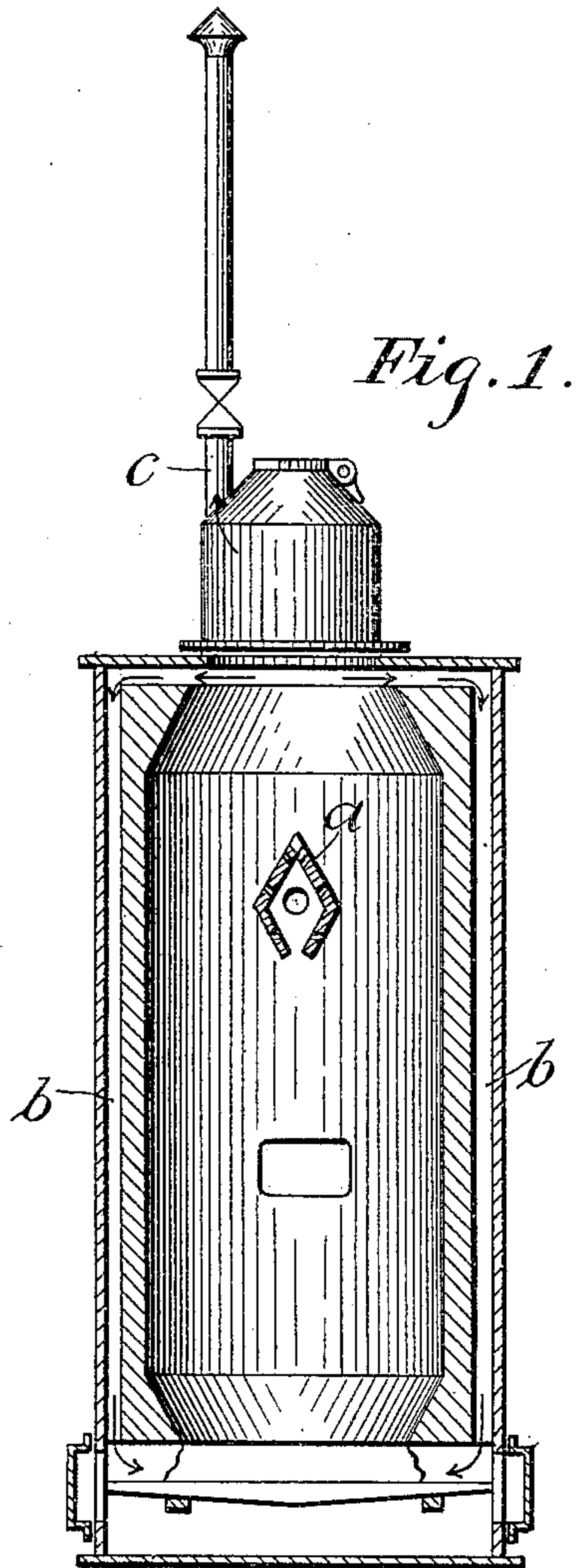


F. MÜLLER.
GAS PRODUCER.

APPLICATION FILED DEC. 7, 1906.

931,460.

Patented Aug. 17, 1909.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRITZ MÜLLER, OF DARMSTADT, GERMANY.

GAS-PRODUCER.

No. 931,460.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed December 7, 1906. Serial No. 346,766.

To all whom it may concern:

Be it known that I, FRITZ MÜLLER, engineer, subject of the Emperor of Germany, residing at Darmstadt, Grand Duchy of Hesse, Empire of Germany, have invented certain new and useful Improvements in and Relating to Gas-Producers, of which the following in a specification.

In the accompanying drawings forming part of this specification, Figure 1 is a vertical sectional view of a gas generator embodying my invention. Fig. 2 is a similar view taken on a line substantially at right angles to the section line of Fig. 1.

In order to be able to produce gas from very wet fuel in gas producers with combustion above and below, arrangements must be adopted, which allow of a portion of the water being expelled from the fuel before it comes within reach of the upper zone of combustion, as otherwise the upper fire would be put out by the water in the fuel.

My invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

For this object by the present invention a hollow body *a* provided on all its free sides with openings or apertures, or formed as a grate of separate bars, is constructed above the upper fire, which body *a* communicates at its ends with the external air and the surfaces of which are so steeply inclined that the fuel cannot remain sticking on it but must slide down its walls. External air enters into the hollow body *a* and also gases of combustion derived from the upper fire, so that the last named are burned in the hollow body *a*. The water is partially expelled from the downwardly sliding fuel lying above and at the side of the hollow body, by the heat resulting from this combustion. In the case of very large gas producers several of these hollow bodies may be employed. An opening *D* is provided in

the side wall of the generator, through which the manufactured gas may escape. The watery vapor given off from the fuel may be conveyed in the ordinary way through passages or flues *b* to the under fire or when it is formed in too large quantities, allowed to escape into the open air through the chimney *c*.

I declare that what I claim is:—

1. A gas generator, comprising an upright receptacle and a grate in the lower part thereof, the walls of said receptacle at its upper and lower ends being contracted and its intermediate walls being vertical substantially, and a hollow body arranged transversely of the generating chamber between the middle portion thereof and its upper end and the walls of said body flaring outwardly from the top toward the middle portion thereof and inwardly from the middle portion toward the bottom thereof, and said walls having perforations therein, and the interior of said body communicating with air intake ports provided in the walls of said generator, substantially as described.

2. The combination, with a gas generator, of a hollow body arranged transversely of the generating chamber, the walls of said body being inclined outwardly from the top toward the longitudinal center of said body and inwardly from the center toward the lower portion of said body, and the ends of said body communicating with air intake openings provided in the walls of said generator, and the walls of said body having a series of perforations therein, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRITZ MÜLLER.

Witnesses:

ROYAVE WOUCK,
KARL KUV.