

(No Model.)

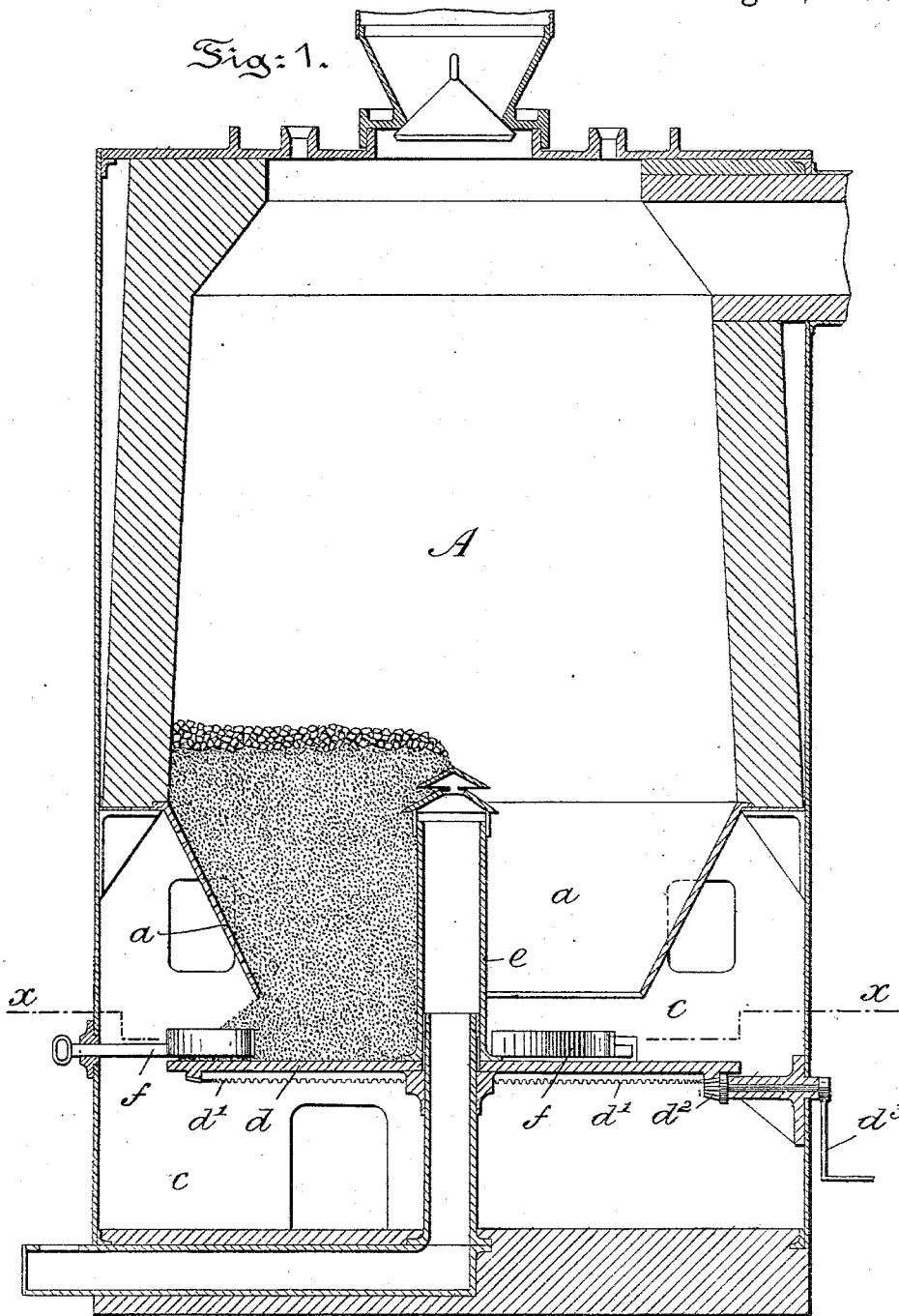
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W. J. TAYLOR.
GAS PRODUCER.

No. 565,048.

Patented Aug. 4, 1896.

Fig: 1.



Witnesses:

Wilhelm Vogt
Henry E. Ewing.

Inventor:

William J. Taylor,
By J. Walter Dinglass
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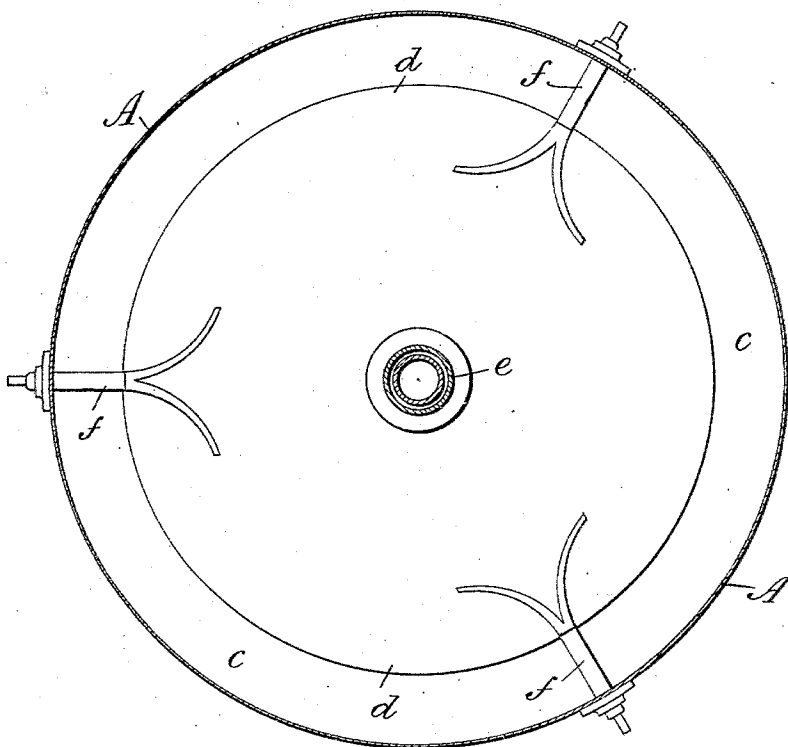
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W. J. TAYLOR.
GAS PRODUCER.

No. 565,048.

Patented Aug. 4, 1896.

Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM J. TAYLOR, OF BOUND BROOK, NEW JERSEY, ASSIGNOR TO THE
TAYLOR GAS PRODUCER COMPANY, OF CAMDEN, NEW JERSEY.

GAS-PRODUCER.

SPECIFICATION forming part of Letters Patent No. 565,048, dated August 4, 1896.

Application filed October 16, 1895. Serial No. 565,877. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. TAYLOR, a citizen of the United States, residing at Bound Brook, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Gas-Producers, of which the following is a specification.

My invention relates to a gas-producer, and has for its object the prevention of waste or fuel in the ash and the attainment of greater uniformity in the operation of the producer.

My invention, stated in general terms, consists of a gas-producer constructed and arranged for operation in substantially the manner hereinafter described and claimed.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a vertical central section through a producer embodying features of my invention, and Fig. 2 is a transverse section on the line *xx* of Fig. 1.

Referring to the drawings, A is the producer, provided with a hopper *a*, preferably perforated and forming the lower portion of the ash and fuel holding chamber and extending into a normally-closed ash and clinker discharging chamber *c*.

d is a revoluble ash and fuel supporting table located beneath the lower portion of the hopper *a* and at a sufficient distance from the same to permit of the removal of ash and clinker therefrom.

d' and *d''* represent a rack and a pinion operated by a crank *d'''* for permitting of the rotation of the table *d*.

f is one of a series of curved bifurcated scrapers, each supported in a slot or opening in the wall of the producer and movable in a radial direction above the table *d* to permit by the rotation of said table in either direction removal of ash or other extraneous matter therefrom.

e is a centrally-arranged vertical pipe or twyer through which a blast of air or steam and air are injected into the fuel or ash and fuel in the upper portion of the hopper *a*.

Hitherto in gas-producers of the Taylor type the diameter of the lower portion of the

hopper *a* and diameter of the revolving table *d* have been such relatively to each other, combined with the proper distance of the table from the hopper, as to cause the natural slope assumed by the ash when the table was at rest to come to the periphery thereof to permit by the revolving of the table the ash to flatten or spread out through its falling or running over the periphery into the ash-chamber *c* beneath.

In practical operation, in the use of anthracite fuel, such as pea or buckwheat coal, it has been found that clinker will lodge at times in the hopper *a*, and in revolving the table the ash will fall away therefrom, leaving channels or openings through which the fuel would fall or run down onto the table *d*. The natural slope assumed by the hot fuel being flatter than that of the ash, it does not stop at the table, but continues to run over the edge of the table into the ash-chamber *c*, in which it mingles with the ash and is wasted. To entirely obviate such loss of fuel is the main object of my present invention, and to construct the revolving table *d* of such diameter relatively to the diameter of the lower portion of the hopper *a* as that the distance apart of one with respect to the other will effectually prevent the fuel, ash, or clinker from falling over the periphery of the table and into the ash-chamber *c* until removed therefrom by means of the scrapers *f*, which are arranged so as to be forced into the ash a greater or less distance in a radial direction about the upper surface of the table *d*, as required, and which, when the table is revolved, scrape off at the will of the attendant the extraneous matter or ash into the chamber *c* beneath.

It will be obvious that the producer may be provided with a number of such scrapers and one or more employed at a time, as requirements demand. The scrapers are preferably bifurcated and curved at their inner ends, as shown in Fig. 2, in order to scrape off the ash or similar matter as the table is revolved in either direction.

It is to be understood that the revolving table and the bottom of the ash-hopper are so proportioned relatively to one another as to make the angle of repose extend beyond that of the fine hot anthracite fuel, so that

such fuel cannot be discharged from the table even when revolved unless the scrapers are pushed in by the attendant to permit of their action upon the bed of ash. The object of this is twofold. First, it prevents the loss of fuel in running, and, second, to allow of the table being revolved for loosening the ash and fuel, when both become tight from any cause, without discharging any of the ash from the table, which is a great advantage, as practice has demonstrated, in the making of gas from anthracite fuel for various purposes.

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

A gas-producer having in the lower part an ash-supporting hopper, a revoluble table located beneath said hopper, bifurcated

scrapers interposed between said hopper and table, the diameter of said table relatively to that of said hopper is such, that the distance apart of one from the other prevents extraneous matter resting upon the same from falling over the periphery thereof until removed by said scrapers adapted to be forced into said matter in a radial direction, all arranged as shown and described and for the purposes specified.

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

WILLIAM J. TAYLOR.

Witnesses:

J. WALTER DOUGLASS,
THOMAS M. SMITH.