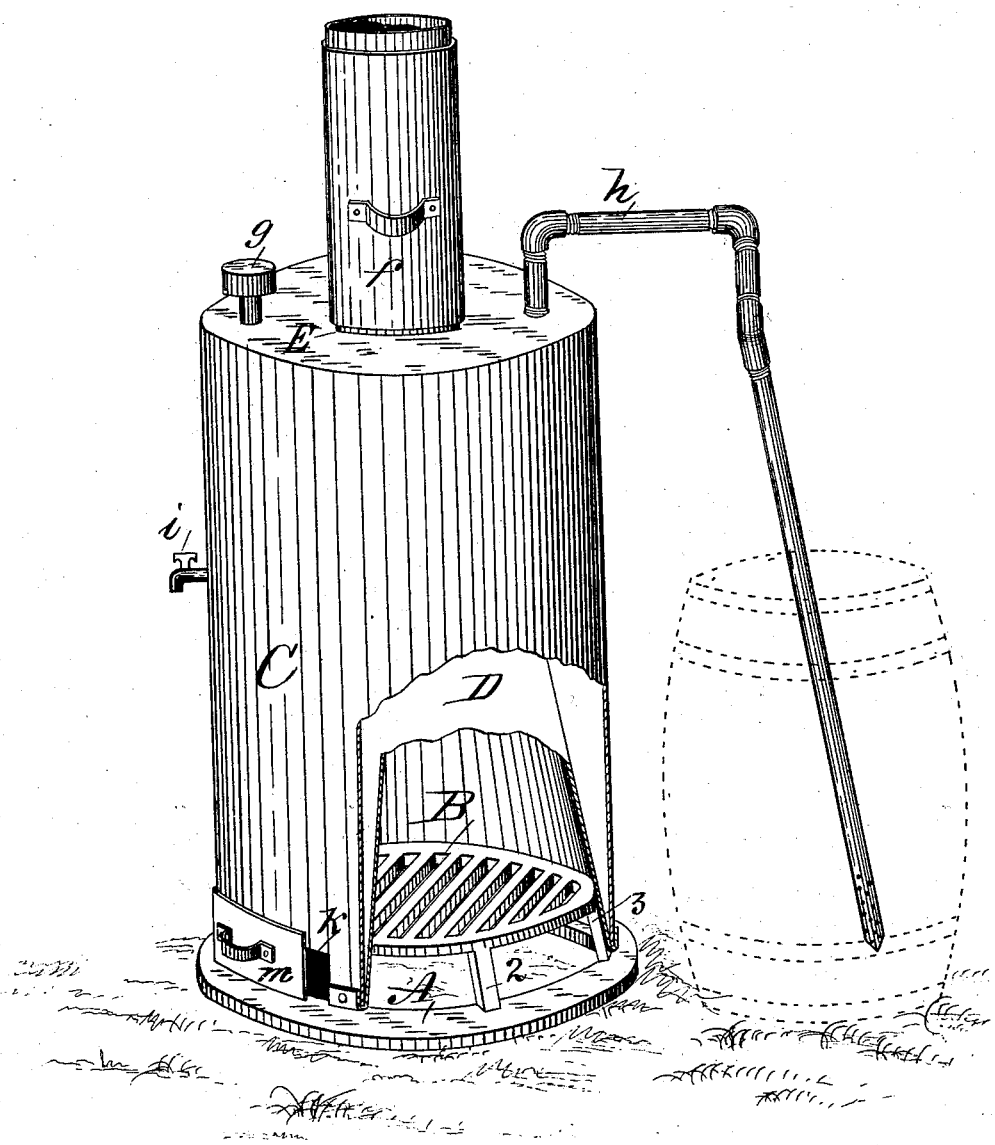
(No Model.)

J. K. PURINTON.

AGRICULTURAL BOILER AND FEED STEAMER.

No. 264,101. Patented Sept. 12, 1882.



Witnesses
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UNITED STATES PATENT OFFICE.

JUDSON K. PURINTON, OF DALLAS CENTRE, IOWA.

AGRICULTURAL BOILER AND FEED-STEAMER.

SPECIFICATION forming part of Letters Patent No. 264,101, dated September 12, 1882.

Application filed March 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, JUDSON K. PURINTON, of Dallas Centre, in the county of Dallas and State of Iowa, have invented an Improved Portable Steam-Generator and Feed-Cooking Apparatus, of which the following is a specification.

The object of my invention is to save time and labor by the construction of a combined furnace and boiler and complete steam-generator, and to provide a complete apparatus that is specially adapted for heating water and cooking feed in barrels or other suitable vessels that may be placed in various places convenient for the purpose.

It consists in forming a base-plate and furnace-grate integral with each other, as hereinafter fully set forth, in such a manner as to adapt a combined vertical boiler and furnace-chamber to be simply placed over the combined base and grate to produce a complete boiler-furnace and steam-generator in an instant in the stable-yard, field, or wherever desired, to be expeditiously put in operation and readily and safely used by any person of ordinary intelligence to advantageously accomplish the results contemplated.

My accompanying drawing is a perspective view of my base and furnace grate and boiler combined, and illustrates the construction, operation, and utility of my complete invention.

A represents my base in the form of a circular plate, that is open in its center, and has a series of posts, 1 2 3, formed integral therewith in such a manner that they incline inwardly to conform with the inner surface of the upright boiler that is to rest upon the base when in use.

B represents a furnace-grate formed integral with the base A and posts 1 2 3, and extends horizontally between the top ends of the series of posts, to be thereby retained in an elevated position in such a manner as to produce a vacant space and ash-pit underneath it in the complete furnace when the boiler is placed over it.

C is the outside wall of a boiler of common form. It is preferably made of galvanized iron, uniform in diameter, and of any size desired.

D is the inside wall of the boiler, of tapering or conical form. It is also made of sheet metal, preferably doubled over the wall A at its bottom, and riveted and soldered fast thereto, to produce a water and steam tight connection. At its top and small end it extends through the closed top of the boiler and terminates in a flue, E. The annular chamber between the walls A and D forms a water-reservoir at its lower end immediately around the combustion-chamber of the furnace, and the upper portion a steam-chamber surrounding the upper portion of the inner wall, D, through which the products of combustion pass upward. The entire inner wall is thus utilized as water and steam heating surface.

f represents an adjustable door, through which fuel is introduced to drop down upon the furnace-grate.

g represents a safety-valve.

h represents a jointed and flexible steam-eduction tube, through which steam is conveyed into a barrel to cook feed, (as indicated by a figure in broken lines,) or to any place where the steam may be desired.

i represents a stop-cock and water-gage.

k is an opening formed in the lower edge of the boiler to extend through both the walls A and D, as required, to provide a draft for the furnace.

m represents a detached and adjustable door, adapted to close, or partly close, the opening *k*, as required, to regulate the draft of the furnace.

In the practical operation of my invention thus constructed, I simply place my combined base and furnace-grate flat upon the ground wherever desired, and then set the vertical boiler over the elevated grate so that the inclined inner wall will engage the inclined series of posts and the bottom edge rest firmly upon the horizontal circular plate, as shown in my drawing. I then fill water into the boiler through the safety-valve or some other suitable feed device, and start a fire on the grate. Steam will then be rapidly generated to be ap-

plied through the flexible eduction-tube for cooking feed, heating water, or any other purpose for which it can be utilized.

I claim as my invention—

The improved steam-generator and feed-cooking apparatus, consisting of the portable boiler-base and furnace-grate A B, having a series of inwardly-inclined posts, 1 2 3, the upright cylindrical boiler C, having an inclined inner wall, D, a smoke-flue, E, at its top, and an opening, *k*, at its bottom, and a flexible steam-eduction tube, *h*, adapted to enter a barrel, substantially as shown and described, to operate in the manner set forth.

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