M. B. OLIVER.

Feed-Cooker and Steam-Generator.

No. 210,350. Patented Nov. 26, 1878.

Fig. 1.

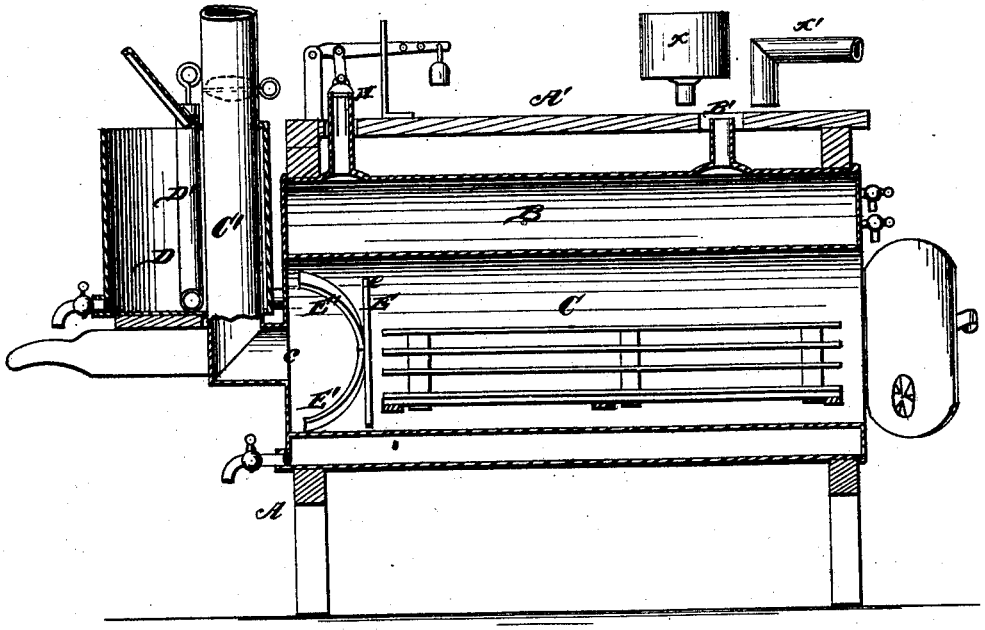
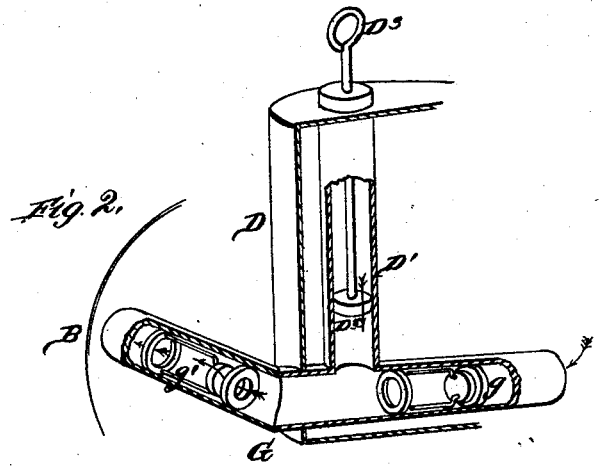


Fig. 2.



WITNESSES

Robert Everett.

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INVENTOR.

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

MILTON B. OLIVER, OF OSCEOLA, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO S. P. AYRES, OF SAME PLACE.

IMPROVEMENT IN FEED-COOKERS AND STEAM-GENERATORS.

Specification forming part of Letters Patent No. **210,350**, dated November 26, 1878; application filed October 26, 1878.

To all whom it may concern:

Be it known that I, MILTON B. OLIVER, of Osceola, in the county of Clarke and State of Iowa, have invented a new and valuable Improvement in Feed-Cookers and Steam-Generators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal central section of my cooker and generator, and Fig. 2 is a transverse sectional view of the reservoir.

My invention relates to a steam-generator and steam cooker; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and pointed out in the claims.

In carrying out my invention I arrange the water-reservoir at the exit end of the furnace and have the exit smoke-stack pass through the volume of water therein, which arrangement imparts heat to the water. An upright cylinder and piston connects the water in the reservoir with the water in the boiler by means of a tube having open ends, intervening valves preventing a back flow from the boiler.

The boiler is of ordinary construction, having the furnace within and suitable grates, door with register, steam and water gages, &c., and safety-valve provided, as shown.

A steam-outlet is adapted to receive a cooker, as shown, or a connecting-elbow.

Referring to the drawing, A represents the frame supporting the apparatus, and A′ a table or plate covering the boiler B, which table is perforated to receive the steam-exit and safety-valve connection. The boiler B is of ordinary construction, with inclosed furnace C, having exit *c* and escape-flue C′, which is situated within the reservoir D, as shown.

To prevent the coals, &c., from obstructing the draft, a plate, E, having recessed surface *e* and spring-arms E′, is provided, which, while allowing the draft over the upper portion, holds back the volume of fuel.

A steam-exit tube, B′, is adapted to receive a cooker, *x*, or a connecting-elbow, *x′*, as desired, the elbow allowing attachment to a flexible tube or other means for connecting with barrels and the like in cooking food for animals.

D represents the water-reservoir, through which passes the tube C′, and through this the products of combustion escape, and D^1 represents the cylinder therein, having piston D^2. This cylinder connects with a pipe, G, which, in turn, connects the body of water in the reservoir with the water in the boiler. Valve-seats are arranged upon each side of this cylinder, one to operate with a valve, *g*, which admits water from the reservoir upon the upstroke of the piston, and the other, *g′*, opens connection with the boiler upon the downstroke. The piston is worked from the outside by means of a handle, D^3. H represents the safety-valve.

What I claim as new, and desire to secure by Letters Patent, is—

1. The fuel-fender E, having recess *e* and spring-arms E′, constructed and adapted to operate in relation to the furnace C and its exit *c*, as and for the purpose set forth.

2. The cylinder D^1, piston D^2 D^3, pipe G, and valves *g g′*, as shown, in combination with the reservoir D and boiler B, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

MILTON B. OLIVER.

Witnesses:

J. N. BALLOU,

J. M. LINDER.