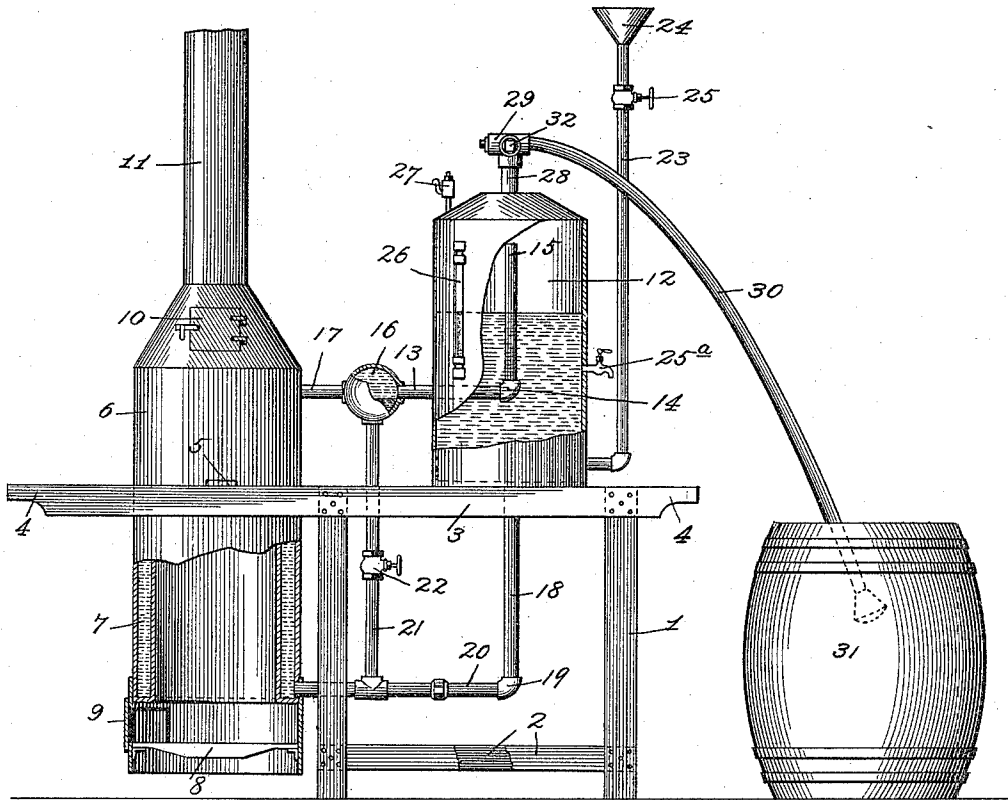


(No Model.)

W. RIPPLEY.
STEAM FEED COOKER AND EVAPORATOR.

No. 537,647.

Patented Apr. 16, 1895.



Attest
John L. Timmon
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By Higdon & Higdon & Longan, Attys.

UNITED STATES PATENT OFFICE.

WILLIAM RIPPLEY, OF GRAFTON, ILLINOIS, ASSIGNOR TO THE RIPPLEY
HARDWARE COMPANY, OF SAME PLACE.

STEAM FEED COOKER AND EVAPORATOR.

SPECIFICATION forming part of Letters Patent No. 537,647, dated April 16, 1895.

Application filed January 2, 1895. Serial No. 533,534. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RIPPLEY, of the city of Grafton, Jersey county, State of Illinois, have invented certain new and useful
5 Improvements in a Steam Feed Cooker and Evaporator, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part hereof.

10 My invention relates to an improved steam cooker, and consists in the novel construction, combination, and arrangement of parts, hereinafter described and claimed.

The object of my invention is to construct
15 an improved steam cooker capable of being easily and expeditiously transported from one point to another, said cooker to be extremely simple in operation and efficient in use.

In the drawing the figure is a side elevation of my complete cooker, a part thereof being broken away to more clearly illustrate the same.

Referring by numerals to the accompanying drawing, 1 indicates the legs or standards
25 of my improved cooker, there being four in number and the same framed together near their lower ends by cross-bars 2. Longitudinal bars 3 are fixed to the upper ends of the standards 1, the ends 4 of which are formed into handles. These bars 3 extend a slight
30 distance beyond one pair of the uprights 1 and have rigidly fixed between them by means of brackets 5 a vertical boiler 6, the same being of the double wall pattern, thereby forming a
35 water space 7.

Located beneath the boiler in the usual manner is a grate 8, access being had thereto through a hinged door 9. By means of a hinged door 10 in the upper end of the boiler
40 6, the proper fuel may be supplied to the interior of said boiler and upon the grate 8. A pipe or smoke stack 11 extends from the top of the boiler in the usual manner.

12 indicates a reservoir that is mounted upon
45 the frame work, the upper end of said reservoir being in a plane above the upper end of the boiler 6. A horizontally arranged pipe 13 extends through the wall of the reservoir 12 at a point slightly below the center thereof
50 and is joined by an elbow 14 to a vertical pipe

15 that extends to a point near the top of the reservoir 12.

On the outer end of the horizontally arranged pipe 13 is a separating chamber 16 that is connected to the upper end of the water space 7
55 by means of a horizontal pipe 17.

A pipe 18 extends vertically downward from the lower end of the reservoir 12 and is connected by an ordinary elbow 19 to a horizontal pipe 20 that communicates with the lower
60 end of the water space 7. A vertical pipe 21 is vertically arranged between and communicates from the separating chamber 16 to the horizontally arranged pipe 20, said vertical pipe being provided with a cut-off valve 22.
65 A vertically arranged pipe 23 extends from a point near the lower end of the reservoir 12 to a point above the top of said reservoir, where it is provided with a funnel 24.

A cut-off valve 25 is fixed in the pipe 23
70 above the reservoir 12 and adjacent the funnel 24. The reservoir is fitted with a faucet 25^a at a central point relative its height, and also with an ordinary gage-glass 26 and safety valve 27, said safety-valve being in the
75 top of said reservoir.

Extending vertically upward from the top of the reservoir 12 is a pipe 28, upon the upper end of which is fixed a T-coupling 29. One end of a flexible tube, such as a hose 30
80 is adapted to be positioned in one end of the T-coupling 29, the lower end of said flexible tube being adapted to discharge at any point desired, or in a suitable receptacle 31 in which the food to be steamed and cooked is placed.
85 The other end of the T-coupling 29 is adapted to receive one end of a flexible tube (not shown), but when a single tube leads from said T-coupling, a plug 32 is inserted in one
90 end of said T-coupling.

The operation is as follows: To fill the reservoir 12 the operator opens the valve 25 in the vertical pipe 23 which necessarily allows the water discharged into the funnel 29 to pass to the interior of the reservoir 12. From said
95 reservoir 12 the water passes through the pipes 18 and 20 into the water space 7 of the boiler 6. It is essential that a sufficient quantity of water be discharged through the pipe 23 to fill the water space 7 of the boiler 6 and
100

partially fill the reservoir 12. A fire being started upon the grate 8 within the lower end of the boiler 6 necessarily heats the water within the water space 7 of said boiler and said heated water rising will create a circulation through the pipe 17, separating chamber 16, pipes 21 and 20 back to the water space 7 of the boiler 6. While generating steam the valve 22 must be open. Thus within a very short space of time, the entire volume of water in the water space becomes heated and steam generated. As the steam generates it passes from the separating chamber 16 through the pipes 13 and 15 into the top of the reservoir 12, from thence through the pipe 28, T-coupling 29, flexible pipe or hose 30 by which it is discharged wherever desired, or into a suitable receptacle such as 31.

Should it be desired to generate steam, and heat the entire volume of water, the valve 22 is opened, and as the water in the water space 7 of the boiler 6 becomes heated, a circulation will be established from the reservoir 12 through the pipes 18 and 20 into the water space 7 of the boiler 6, from thence through the horizontal pipe 17 into the separating chamber 16, and from thence through the horizontal pipe 13 and vertical pipe 15 to the interior of the reservoir 12. Thus the entire volume of water becomes heated and the steam generated therefrom passes from said reservoir through the pipe 28, T-coupling 29 and flexible pipe 30, as hereinbefore described.

Should the steam pressure within the upper end of the reservoir 12 become too great, the safety-valve 27 will act in the usual manner. By means of the glass-gage 26 the height of the water within the reservoir can at any time be readily ascertained.

It is essential that the water line within the reservoir 12 never be allowed to get below the

pipe 13. The faucet 25^a is for the purpose of drawing a small supply of hot water that may be desired.

A steam cooker of this construction will generate steam in a very short space of time, is extremely simple in operation, and is especially applicable for generating small quantities of steam without unnecessary time, labor and expense.

What I claim is—

1. In a steam cooker, the combination of a steam boiler 6, a water reservoir 12 located in a plane approximately with that of the top of the boiler, tubular connections 13, and 14 and 16 from the reservoir to the boiler, an inlet tube 17 discharging into the lower end of the reservoir, an outlet tube discharging from the upper end of the reservoir, and a T-coupling located upon the tube extending from the upper end of the reservoir.

2. A steam cooker, comprising a suitable frame-work, a boiler mounted upon said frame work, a reservoir located in a plane approximately with that of the top of the boiler, tubular connections from the top of the water space of the boiler to the interior of the reservoir, tubular connections from the bottom of the water space of the boiler to the bottom of the reservoir, a separating chamber interposed in the tubular connection from the top of the water space to the reservoir, and tubular connections from the separating chamber to the tube that leads from the lower end of the water space to the lower end of the reservoir.

In testimony whereof I affix my signature in presence of two witnesses.

WM. RIPPLEY.

Witnesses:

DEXTER C. SLATEN,
JOHN B. THOMAS.