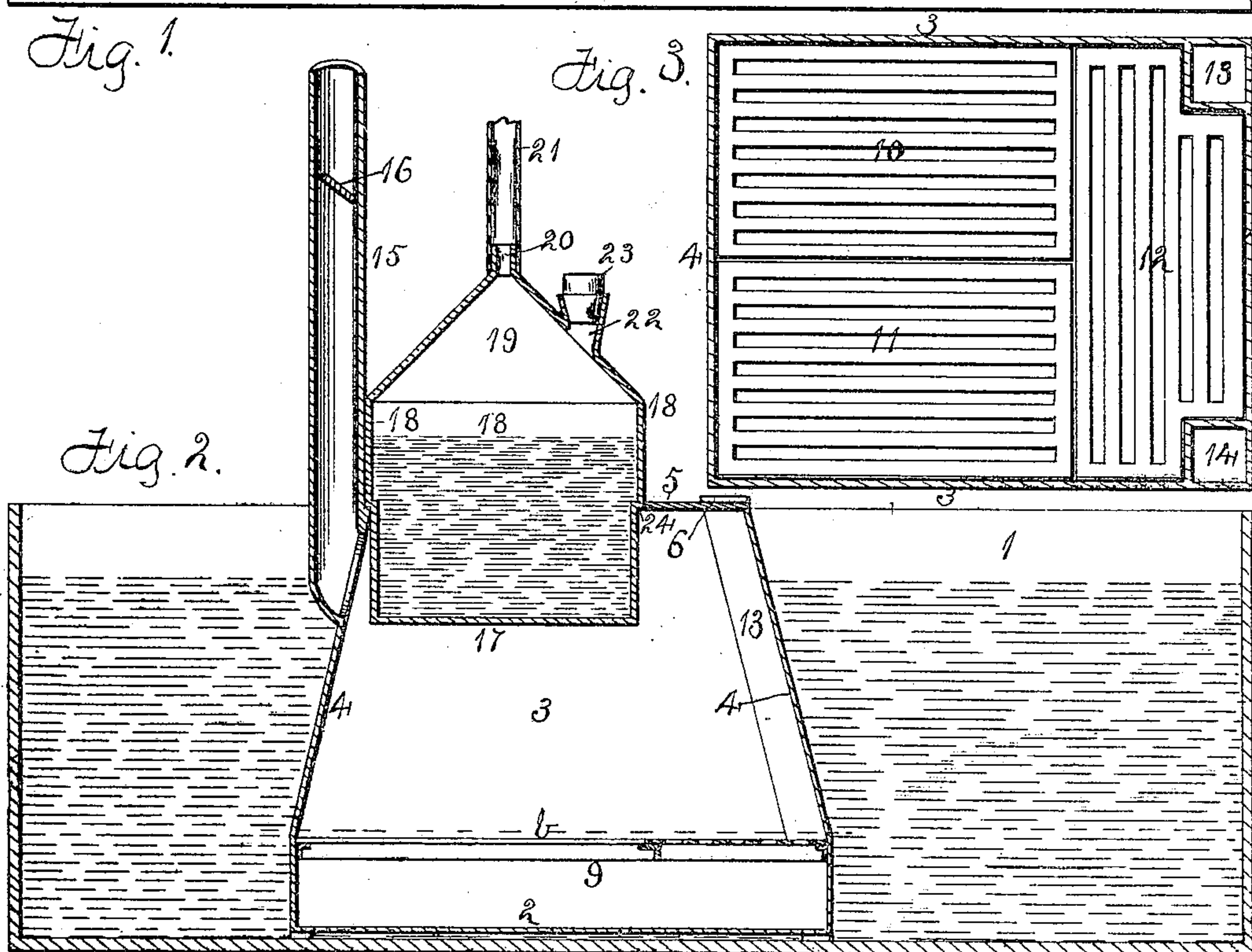
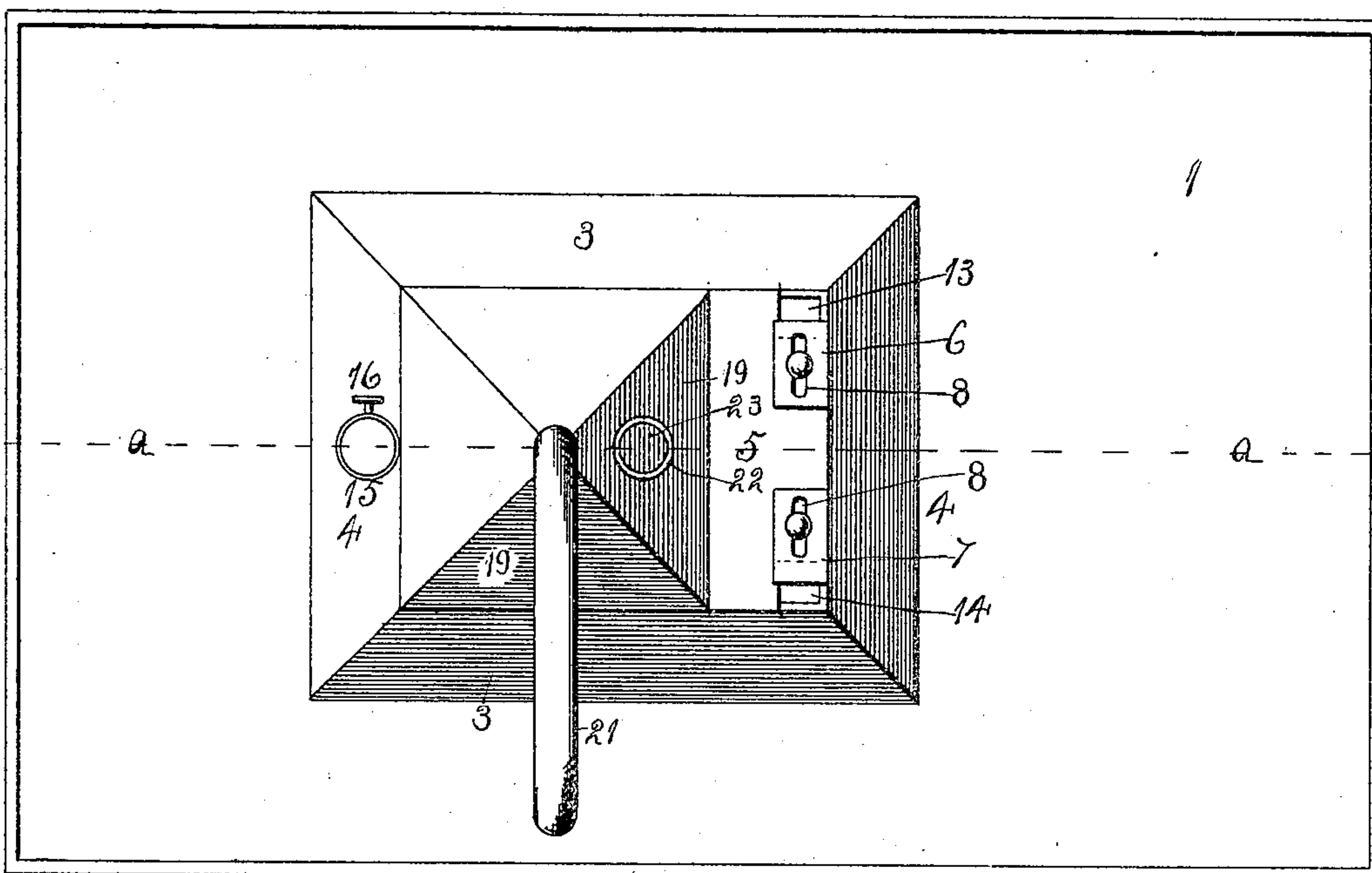


No. 808,360.

PATENTED DEC. 26, 1905.

W. S. GRIFFITHS.
TANK HEATER AND FEED COOKER.

APPLICATION FILED JUNE 19, 1905.



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UNITED STATES PATENT OFFICE.

WILLIAM S. GRIFFITHS, OF ROSCOE, ILLINOIS.

TANK-HEATER AND FEED-COOKER.

No. 808,360.

Specification of Letters Patent.

Patented Dec. 26, 1905.

Application filed June 19, 1905. Serial No. 265,958.

To all whom it may concern:

Be it known that I, WILLIAM S. GRIFFITHS, a citizen of the United States, residing at Roscoe, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Tank-Heaters and Feed-Cookers, of which the following is a specification.

The object of this invention is to construct a combined tank-heater and feed-cooker.

In the accompanying drawings, Figure 1 is a plan view of my improved tank-heater and feed-cooker located in a tank. Fig. 2 is a lengthwise vertical section on dotted line *a*, Fig. 1. Fig. 3 is a horizontal section through the heater above the grate on dotted line *b*, Fig. 2.

The tank 1 may be of any construction and made of any suitable material.

My improved tank-heater and boiler is made of sheet material in order to be of light weight, but may be made of cast material, if desired. From the bottom 2 extend the two sides 3 and two ends 4. The top is open with the exception of a space covered by the plate 5, which has two cut-away portions. Two slides 6 and 7 are arranged to close or partially close the cut-away portions. Each slide has a lengthwise slot 8, through which a guiding-rivet extends.

A grate is located some distance above the bottom 2 of the heater and rests on the supports 9. This grate is in three sections 10, 11, and 12 in order that they may be taken out through the top of the heater, so that the ashes may be removed.

In two corners of the heater are formed vertical air passage-ways 13 and 14, which communicate at their upper ends with the cut-away portion of the plate 5, and their lower ends communicate with the space beneath the grate.

A smoke-pipe 15 communicates with the interior of the heater and has a connection with the upper portion of the end 4. A damper 16 is located in the smoke-pipe.

A boiler is composed of the bottom 17, sides 18, and tapering top 19, to the apex of which

is connected a tube 20. A section of flexible tubing 21 has a connection with the tube 20. An opening 22 is formed in the top of the boiler and is closed by the plug 23. The sides 18 of the boiler are enlarged above the top of the heater and form an offset 24, which rests upon the top of the heater.

The plate 5 is removable in order that fuel may be placed on the grate. After the fire is started air is admitted below the grate through the vertical air passage-ways 13 and 14, and the quantity of air admitted is regulated by the slides 6 and 7. This draft is regulated by the damper 16, located in the smoke-pipe 15.

The same fire that is used to heat the water in the tank 1 will heat the water in the boiler to a boiling-point, and the tubing 21 being inserted in the vessel containing the feed the feed will be cooked. By this arrangement I can heat water in the tank and cook feed at the same time, and when I am not cooking feed the end of the tubing can be turned into the water in the tank and assist the heater in heating the water.

When the heater is submerged in the water in the tank, access can be had to the fire by removing the plate 5 without disturbing the boiler.

I claim as my invention—

In a combined tank-heater and feed-cooker, the combination of the heater proper closed except at or near its top having an open upper end, a removable plate closing a portion of the opening, a grate supported above the bottom of the heater, air passage-ways leading from the top of the heater to the space below the grate, a smoke-pipe communicating with the upper portion of the heater, a boiler supported by the upper portion of the heater, and a flexible tube connected with the upper portion of the boiler, said removable plate being situated at one side of the boiler.

WILLIAM S. GRIFFITHS

Witnesses:

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