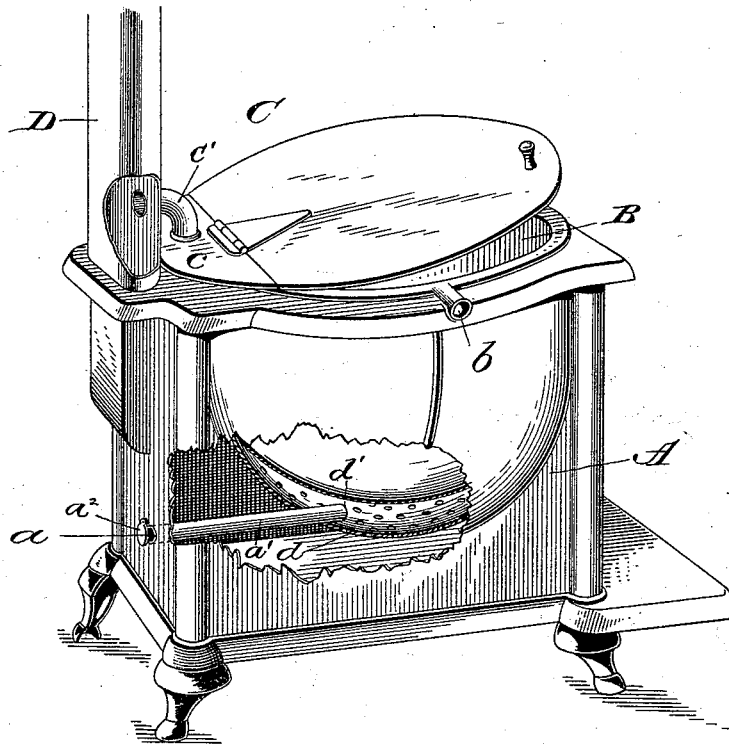


(No Model.)

T. CASCADEN, Jr.  
COMBINED RENDERING KETTLE AND FURNACE.

No. 522,586.

Patented July 10, 1894.



WITNESSES

*L. S. Elliott.*  
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— by *[Signature]* Attorney

# UNITED STATES PATENT OFFICE.

THOMAS CASCADEN, JR., OF WATERLOO, IOWA.

## COMBINED RENDERING KETTLE AND FURNACE.

SPECIFICATION forming part of Letters Patent No. 522,586, dated July 10, 1894.

Application filed March 30, 1893. Serial No. 468,355. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS CASCADEN, JR., a citizen of the United States of America, residing at Waterloo, in the county of Black Hawk and State of Iowa, have invented certain new and useful Improvements in a Combined Kettle and Furnace; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which forms a part of this specification.

The object of this invention is to provide a cheap, convenient and effective combined furnace and kettle, which is especially adapted for the use of butchers in frying out animal fats and for other purposes; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawing, forming part of this specification, I have illustrated my invention by a perspective view, in which—

A designates a stove or furnace, which is constructed in the usual manner and is provided at its rear end with an opening, *a*, from which extends a pipe or tube *a'* leading from beneath the kettle. The upper part of the furnace or heater is provided with an opening adapted to receive the kettle B, the trunnions *b* on the kettle resting upon the top of the furnace, as does also the outwardly projecting rim formed around the upper edge of the kettle.

C designates a two-part cover, which is adapted to be placed over the kettle, the part *c* thereof having an aperture from which extends a pipe *c'* to the chimney or smoke-stack D, so that the odors given off from the contents of the kettle may escape up the chimney and be carried off with the products of combustion.

The sides of the furnace bulge outward, so that a space is provided between said side walls and the kettle.

The kettle B is made up in the usual manner and is provided with trunnions *b* which rest in recesses formed in the top of the furnace, and the upper edge of the kettle is flared outward to bear upon the furnace. Rigidly attached to the kettle B is a perforated false

bottom *d*, the perforations admitting the heat to the bottom of the kettle and preventing the direct contact of the flames therewith. This perforated or foraminous bottom *d* has an aperture *d'* through which passes the pipe *a'*, said pipe leading from the aperture *a* in the furnace to a point beneath the central portion of the true bottom of the kettle. By providing this pipe the influx of air therethrough tends to keep the lower portion of the true bottom of the kettle at an equal temperature with the sides. The aperture *a* is provided with a suitable damper or cut-off *a<sup>2</sup>* whereby the supply of air beneath the true bottom of the kettle may be regulated.

By providing the pipe *a'* which leads from the aperture *a* in the rear wall of the furnace to beneath the central portion of the kettle there is no liability of the products of combustion passing out through the aforesaid aperture, as when the pipe is heated it will cause an influx of air through the same which is discharged beneath the central part of the true bottom of the kettle, and this part being the nearest to the fire would be the hottest part were it not for this provision.

The pipe *c'* which connects with the part *c* of the kettle top and the flue or chimney D can be readily removed, and in placing the parts together the cover or top is first placed in position upon the kettle before connection is made between the flue or chimney and kettle.

By means of the device herein shown and described I overcome the liability of burning the fat or other substance which is cooked or rendered in the kettle, as the air which is fed under the kettle will keep the lower portion at the proper temperature, and it is obvious that the pipe leading from the cover of the kettle to the chimney or flue will convey objectionable fumes from the kettle to the chimney.

In removing the cover of the kettle the pipe *c'* is lifted from the section *c*, and before removing the kettle from the furnace the pipe *a'* is partially withdrawn through the aperture *a* in the rear wall of the furnace so as to become entirely disengaged from the false bottom *d*.

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

1. In a combined kettle and furnace, the combination, of a furnace which is adapted to support a kettle, said furnace having an opening *a* in the rear wall thereof, a kettle B adapted to rest upon and be supported by the furnace, said kettle having a true bottom and a foraminous false bottom beneath the true bottom, the bottoms being of different curvatures so that the greatest distance between the bottoms will be at the center, a pipe *a'* supported at one end by the opening *a* in the rear wall of the furnace the other end passing through the foraminous bottom and terminating under the central portion of the kettle between the false and true bottoms, substantially as shown and for the purpose set forth.

2. In a rendering apparatus, a furnace A having a kettle B with a supplemental foraminous bottom attached thereto and a pipe which enters the space between the bottom of the kettle and the supplemental bottom thereof, said pipe leading through the outer wall of the furnace, and through an aperture *a'* in the foraminous bottom of the kettle sub-

stantially as shown and for the purpose set forth.

3. In combination with a furnace A having an aperture in one of the side walls thereof and a top having recesses and a pipe or flue D with an aperture therein, of a kettle B having trunnions *b* which bear in the recesses in the top, said kettle having below its true bottom a foraminous false bottom, the space between the true and false bottom being connected by a pipe with the aperture in the side wall of the furnace, together with a cover made up of two sections the smaller section having an opening and pipe which communicate with the aperture in the flue D, the complete device forming a portable rendering apparatus for the purpose set forth.

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

THOMAS CASCADEN, JR.

Witnesses:

THEODORE A. JENNEY,  
T. M. WATTS.