(No Model.) 2 Sheets—Sheet 1.

J. F. BROWN.

COMBINED RendERING KETTLE AND STOVE.

No. 583,453. Patented June 1, 1897.

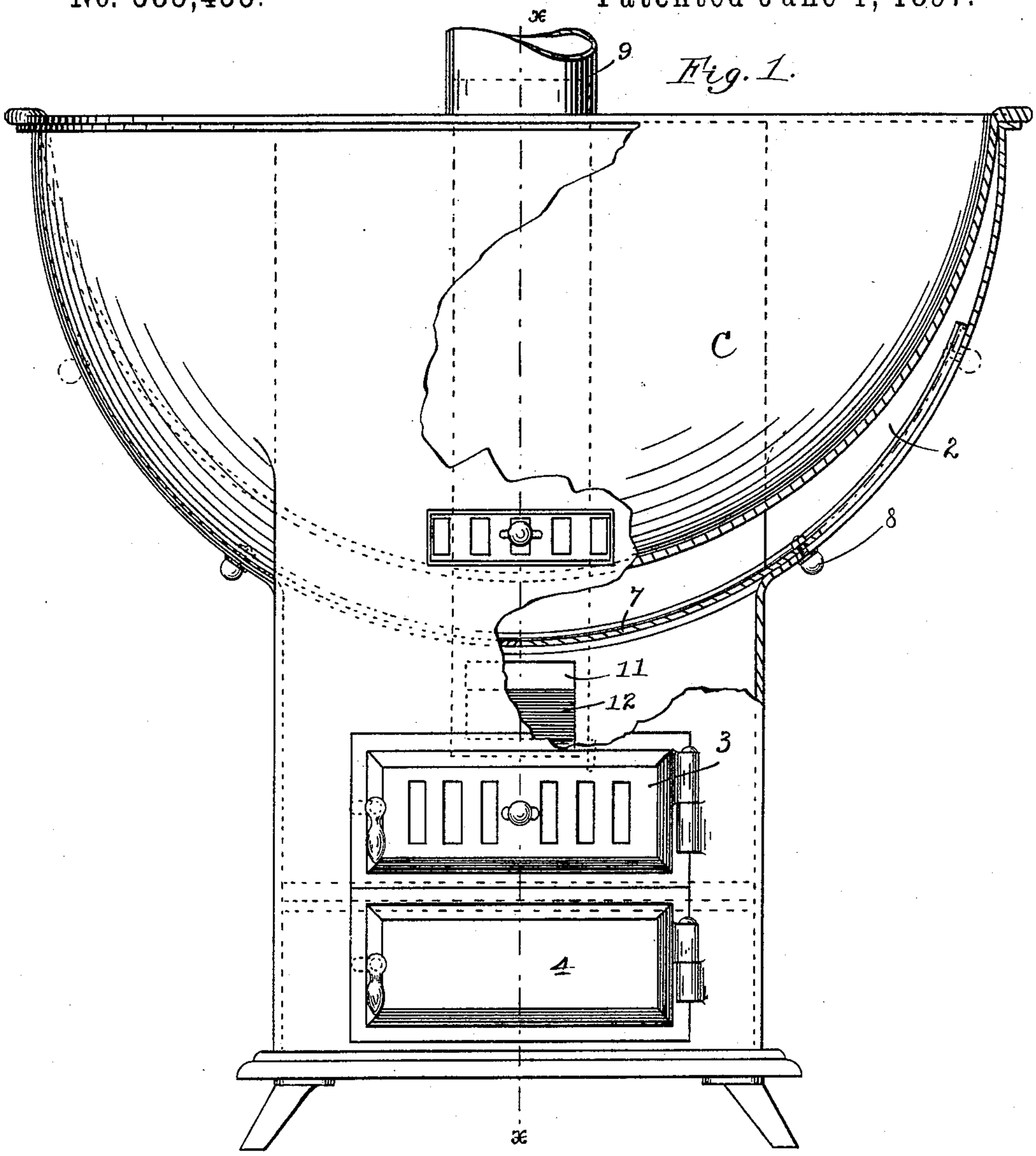

Fig. 1.

Witnesses:
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H. S. Johnson.

Inventor:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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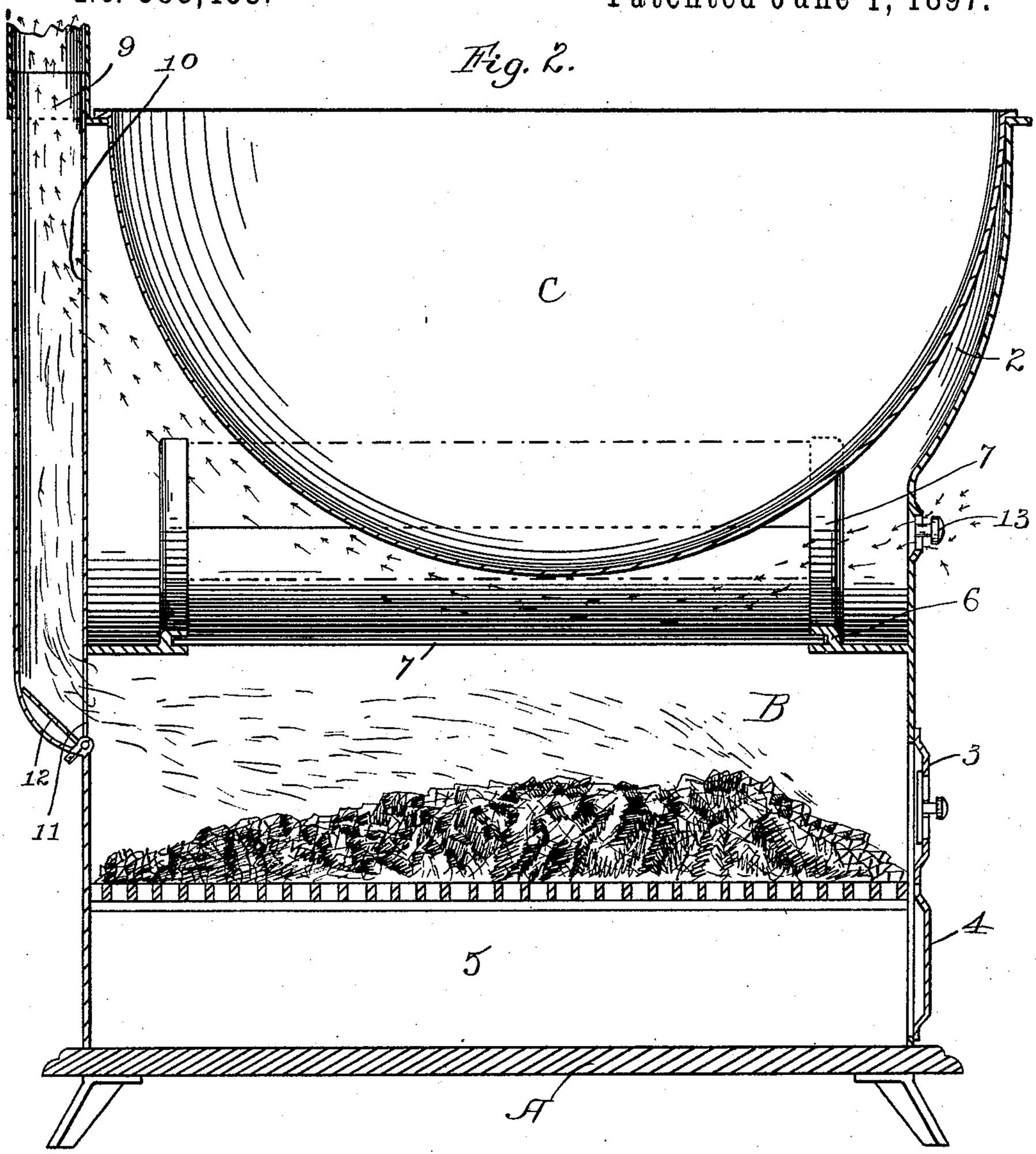
Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN F. BROWN, OF PRESCOTT, WISCONSIN.

COMBINED RENDERING-KETTLE AND STOVE.

SPECIFICATION forming part of Letters Patent No. 583,453, dated June 1, 1897.

Application filed April 17, 1896. Serial No. 587,971. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. BROWN, of Prescott, Pierce county, Wisconsin, have invented certain Improvements in a Combined Rendering-Kettle and Stove, of which the following is a specification.

My invention relates to improvements in that class of kettle-furnaces in which the kettle is suspended above the fire-box in direct contact with the fire beneath, its object being to provide means for closing the space between the fire-box and kettle to shut off the heat therefrom and directing it from the fire-box through an auxiliary outlet and at the same time allowing a current of cold air to pass underneath and around the kettle, thus quickly stopping the process of boiling without checking the fire in the furnace.

To this end my invention consists in providing sliding valves arranged upon opposite sides of the kettle and adapted to be carried underneath the same, so as to close the space between it and the fire-box and shut off the heat. The heat from the fire-box is then allowed to pass through an auxiliary outlet, and at the same time a current of outer air may be permitted to pass underneath and around the kettle, so as to quickly reduce the temperature of its contents. These valves are adapted normally to be held supported adjacent the sides of the kettle, so as not to interfere with the ordinary use of the furnace.

My invention further consists in the construction and combination hereinafter more particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of the kettle-furnace partially broken away to illustrate my invention. Fig. 2 is a central vertical section taken on line *x* *x* of Fig. 1.

In the drawings, A represents a kettle-furnace, of the general construction, provided with the fire-box B and the boiling-kettle C, hung in the opening 2 in the top of the furnace. The furnace is provided with the ordinary door 3 for the fire-box and the door 4, opening into an ash-pit 5 underneath.

Arranged upon opposite sides of the kettle and sliding in the grooved supports 6 are the valves 7. These valves are preferably curved in form, as shown, to conform to the side wall of the furnace and are adapted normally to be held supported adjacent the sides of the kettle by the handled stops 8, of suitable construction.

9 represents the smoke-outlet, having the usual opening 10 with the space directly underneath the kettle and also communicating at its bottom by means of the opening 11 with the fire-box. The opening 11 is normally kept closed by the valve 12, so that the heat from the fire-box is compelled to pass directly underneath and around the kettle to reach the outlet.

In ordinary use the valves 7 are supported in raised position adjacent the sides of the kettle. When it is desired to quickly reduce the process of boiling, as where there is danger of burning, the valves are allowed to slide downward and close the opening between the fire-box and kettle, as shown in Fig. 1. The valve 11 is opened at the same time, so as to allow the smoke and heat from the fire-box to pass through the outlet, and the upper draft-inlet 13 at the front of the furnace may also be opened, so as to allow a current of cold air to pass underneath and around the kettle. Thus the process of boiling is stopped without checking the fire. As soon as the temperature of the contents of the kettle has been sufficiently reduced the valves can be opened and the heat from the fire-box again allowed to pass underneath the kettle in the ordinary manner. By means of my invention it will be evident that it will be possible to stop the process of boiling at just the point desired, which is a result not possible of accomplishment with the ordinary construction.

I claim—

1. In a furnace of the class described, the combination with the fire-box, and the kettle supported above the same in direct contact with the fire, of the partition having sliding support upon the walls of the furnace, and adapted to be moved beneath the kettle to serve as a dividing-wall between the same and the fire-box, the auxiliary outlet connected with the fire-box, and having valve connection therewith, so that the products of combustion may be diverted from the fire-box through the same when said partition is closed.

2. In a kettle-furnace, the combination

with the fire-box, and the kettle supported above the same in direct contact with the fire, of the valves having sliding support in the walls of the furnace, and adapted to be moved underneath the kettle to separate the same from the fire-box, the auxiliary opening connected with the fire-box, through which the products of combustion are adapted to be diverted when the valves are interposed between the same and the kettle, and the draft-inlet in the furnace-wall for allowing a current of outer air to pass between the kettle and closed valves to cool said kettle.

3. In a kettle-furnace, the combination with the fire-box and the kettle supported above the same, of the valves arranged upon opposite sides of the kettle, the supports for said valves provided with grooves in which the same are adapted to slide, the means for holding said valves in raised or suspended position, or allowing the same to be closed underneath the kettle to serve as a dividing-wall between the same and the fire-box, and the valve-controlled auxiliary opening adapted to connect said fire-box with the smoke-outlet when the space between said fire-box and kettle is closed.

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

JOHN F. BROWN.

Witnesses:
T. D. MERWIN,
MINNIE L. THAUWALD.