

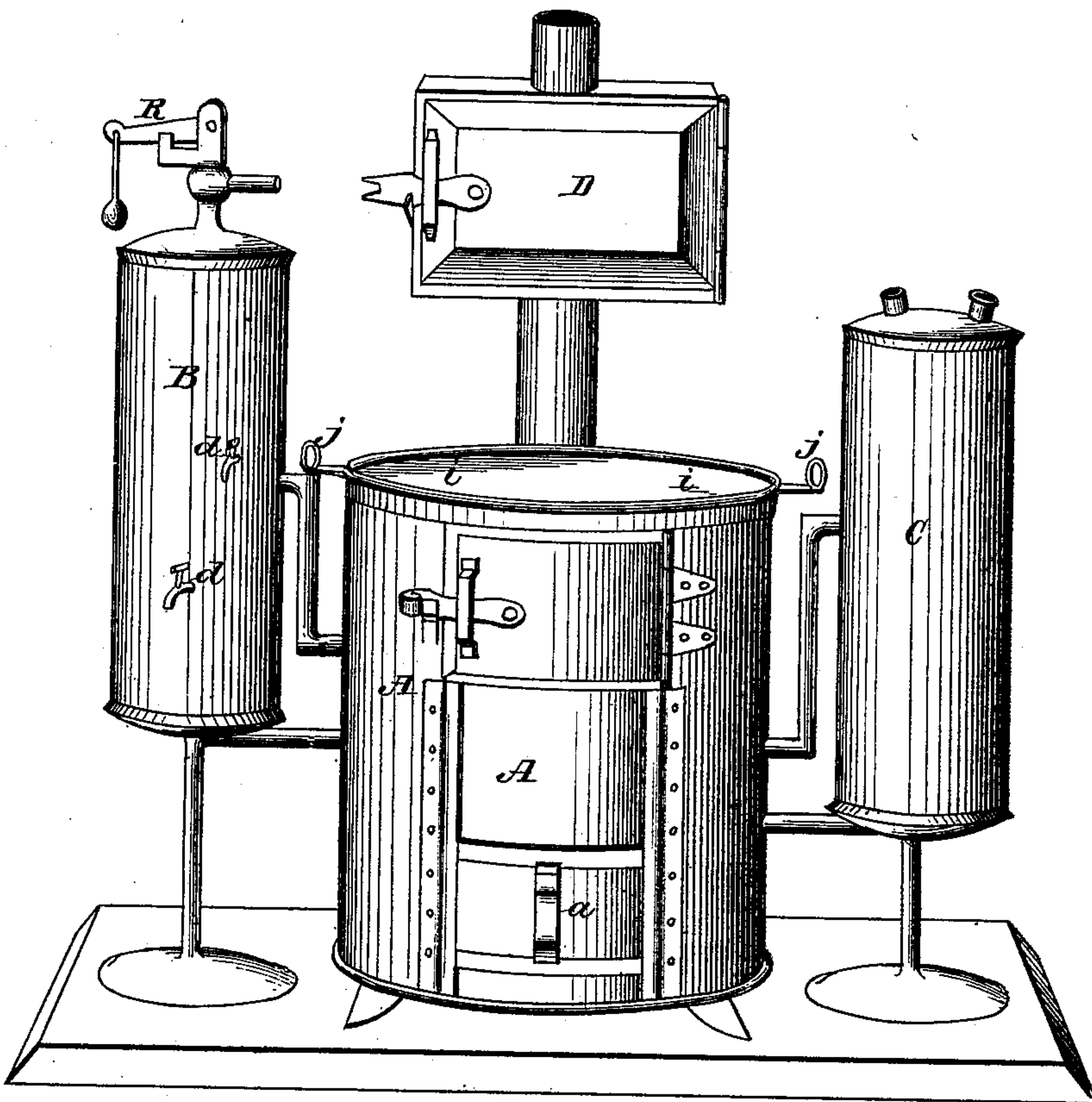
2 Sheets—Sheet 1.

H. TILLACK.  
COMBINED STEAM-DRUM AND COOKING APPARATUS.

No. 195,419.

Patented Sept. 18, 1877.

Fig. 1.



Attest.

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Fig. 2.

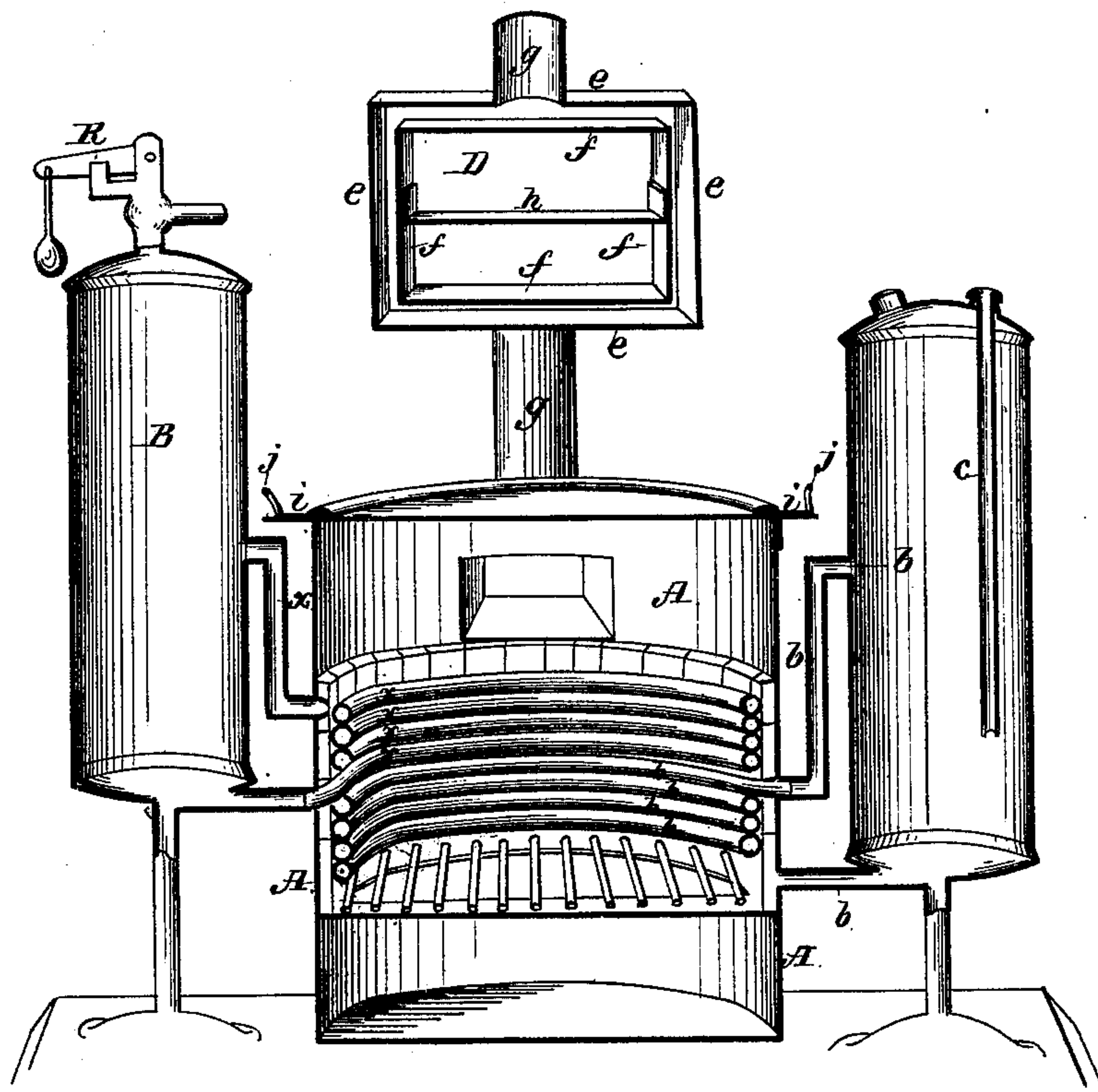
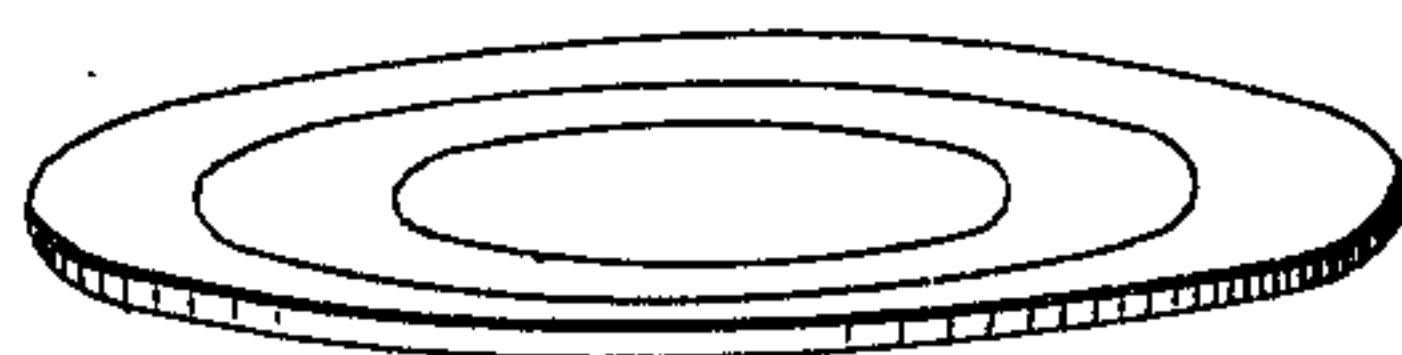


Fig. 3.



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# UNITED STATES PATENT OFFICE.

HERMANN TILLACK, OF NEW YORK, N. Y.

## IMPROVEMENT IN COMBINED STEAM-DRUM AND COOKING APPARATUS.

Specification forming part of Letters Patent No. 195,119, dated September 18, 1877; application filed July 30, 1877.

*To all whom it may concern:*

Be it known that I, HERMANN TILLACK, of the city of New York, and county and State of New York, have invented new and useful Improvements in a Combined Steam-Drum and Cooking Apparatus, which improvements are fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front view of the combined drum and apparatus; Fig. 2, a vertical cross-section of the same; and Fig. 3 a perspective view of the rings which may at pleasure be used on the top of the main furnace-drum.

The object of my invention is to furnish a combination of devices by which to facilitate cooking and other household operations.

In the drawings, A represents the main or furnace drum; B, the steam-drum; C, the water-heating drum; and D the oven for roasting, baking, &c.

The main drum A may be made of any desired size, and of any suitable material, such as sheet-iron, and put together in any suitable manner, and its interior lined with fire-brick or some suitable material, to prevent the great heat of the fire in the same coming in direct contact with the shell of the said drum. There is at or near the bottom of said drum A in front a sliding door or damper, as seen at *a*. This sliding door is placed just below the grate, which is shown in Fig. 2. This sliding door serves as a damper, shutting off the draft, as desired, thus regulating the amount of heat generated in the furnace, and also providing a way of cleaning out the ash-pit under the grate. This grate may be so constructed as to allow it to have an oscillating or dumping motion, when desired. Immediately above the grate, and inside of the brick lining, I place a suitable coil of pipe, as seen at *b* in Fig. 2. This pipe is, at its lower end, connected with the bottom of the water-heating drum C, and at its upper end enters the said drum at or near its upper end, and this drum is provided with a supply-pipe, *c*, which terminates near the bottom of the drum. This arrangement secures a gentle circulation of the water from the bottom of the drum, where it is coolest, through the coil of pipe surrounding the fire in drum A, where it is heated and returns to the drum C

near its top, and this circulation will continue so long as there is a difference in the degree of heat of the water at the bottom and at the top of the drum C. Just above the coil of pipe last mentioned I place a second coil of similar pipe, *x x x*, and connect it in a similar way to the steam-drum B, and as this last coil is placed higher up in the furnace than the first-mentioned one, it will be subjected to a much greater degree of heat, and thus steam is readily generated in this drum, and can with ease be drawn off by means of the faucets seen at *d*, and used for steaming in cooking operations, or for warming apartments, or for any desired purpose. On the top of this drum is shown, at R, a safety-valve, to prevent explosion. (See Figs. 1 and 2.)

The hot water in the drum C may be drawn off by means of faucets, as may be desired, for use. These drums B and C may be made of any suitable material. Heavy sheet-iron or copper or brass may be used, and they made of any suitable size and strength to resist the strain, and have the capacity to do the work which may be required of them.

The oven shown at D in Figs. 1 and 2 is made of any desired size, and is formed with double walls, or one box within the other, as seen at D, Fig. 2, where *e* represents the outer and *f* the inner box, leaving a space of one, two, or three inches between them, and the outer case or box is made with a hole in the center of its bottom, and another in the center of its top, for the reception of the smoke-pipes. (Shown at *g g* in Figs. 1 and 2.) These pipes penetrating the outer but not the inner box, leaves the smoke and heat passing from the furnace in A free to pass all around the inner box of the oven D, thus heating the same sufficiently to roast meat or bake bread. At *h* in Fig. 2 is shown a shelf upon which to place anything to be baked or roasted. This oven may be formed of tin or sheet-iron, or any desired metal.

At *i* in Figs. 1 and 2 is shown the movable top of the main cylinder A. This top is admirably suited to baking purposes, such as griddle-cakes and the like. This top has, at opposite sides, loops or rings, (shown at *j j* in Figs. 1 and 2,) for the purpose of facilitating its removal when desired, and at Fig. 3 is

shown a series of rings, each interior one fitting into the opening of the next exterior one. Thus, when they are all in place, as shown in Fig. 3, they constitute what may be used as a complete cover for the top of the furnace or cylinder A; thus, when the top or griddle *i* is removed and the series of rings seen at Fig. 3 is placed in its stead, any desired size of hole to suit any kettle or boiler that may be needed for use may readily be obtained by removing the corresponding plate or ring. Thus different sizes of boilers may conveniently be used therewith.

The necessary supply of water to the cylinders B and C is obtained in the usual way

from the hydrant-pipes, or from reservoirs suitably placed.

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

The combination of the two distinct coils of pipe *x x* and *b b*, one above the other, in the furnace A, the hot-water cylinder C, connected with the lower, and the steam-cylinder B with the upper, coil, all as and for the purpose set forth.

HERMANN TILLACK. [L. S.]

Witnesses:

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