

(No Model.)

L. KAHN.
Cooking Stove.

No. 233,863.

Patented Nov. 2, 1880.

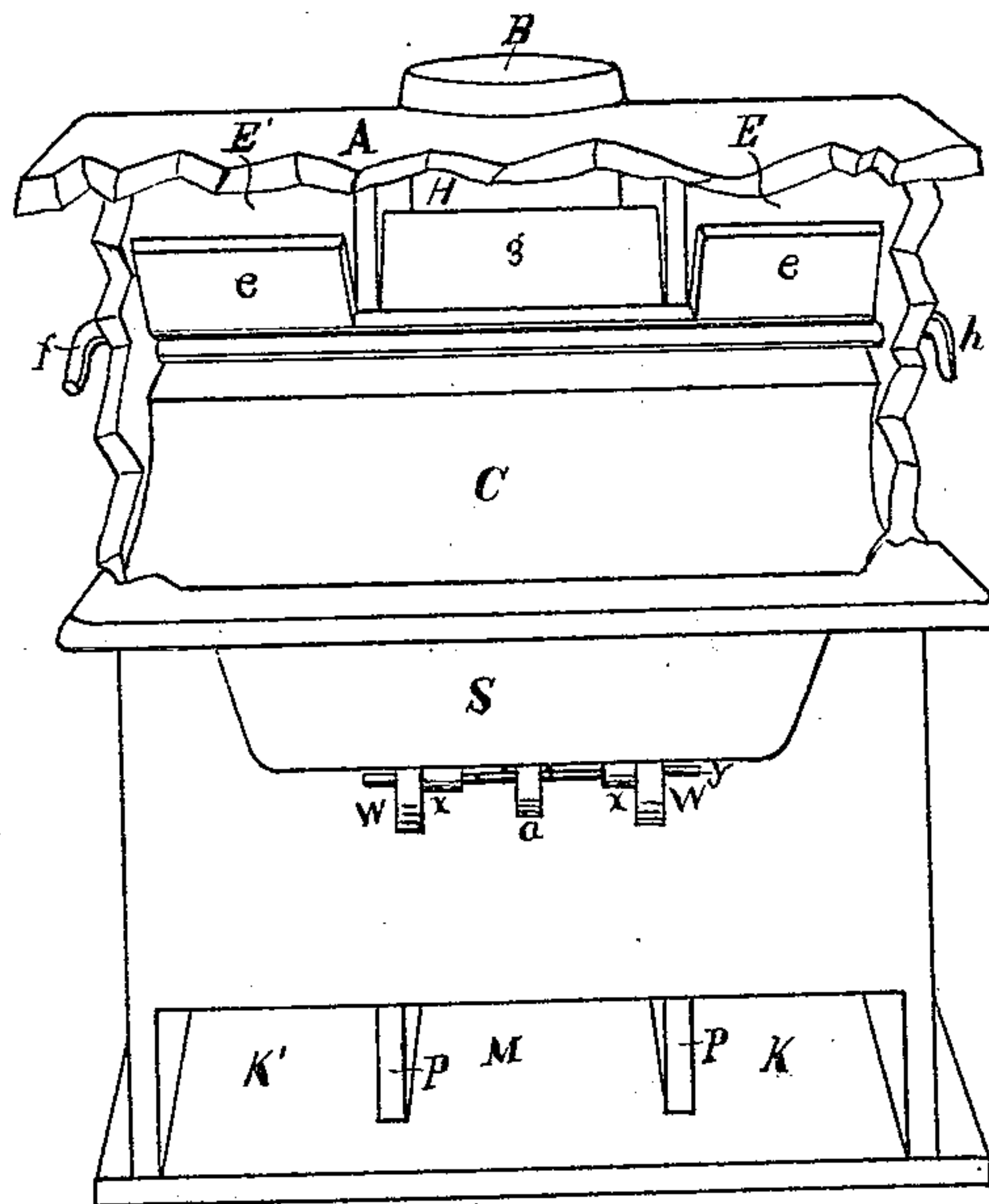


Fig. 1.

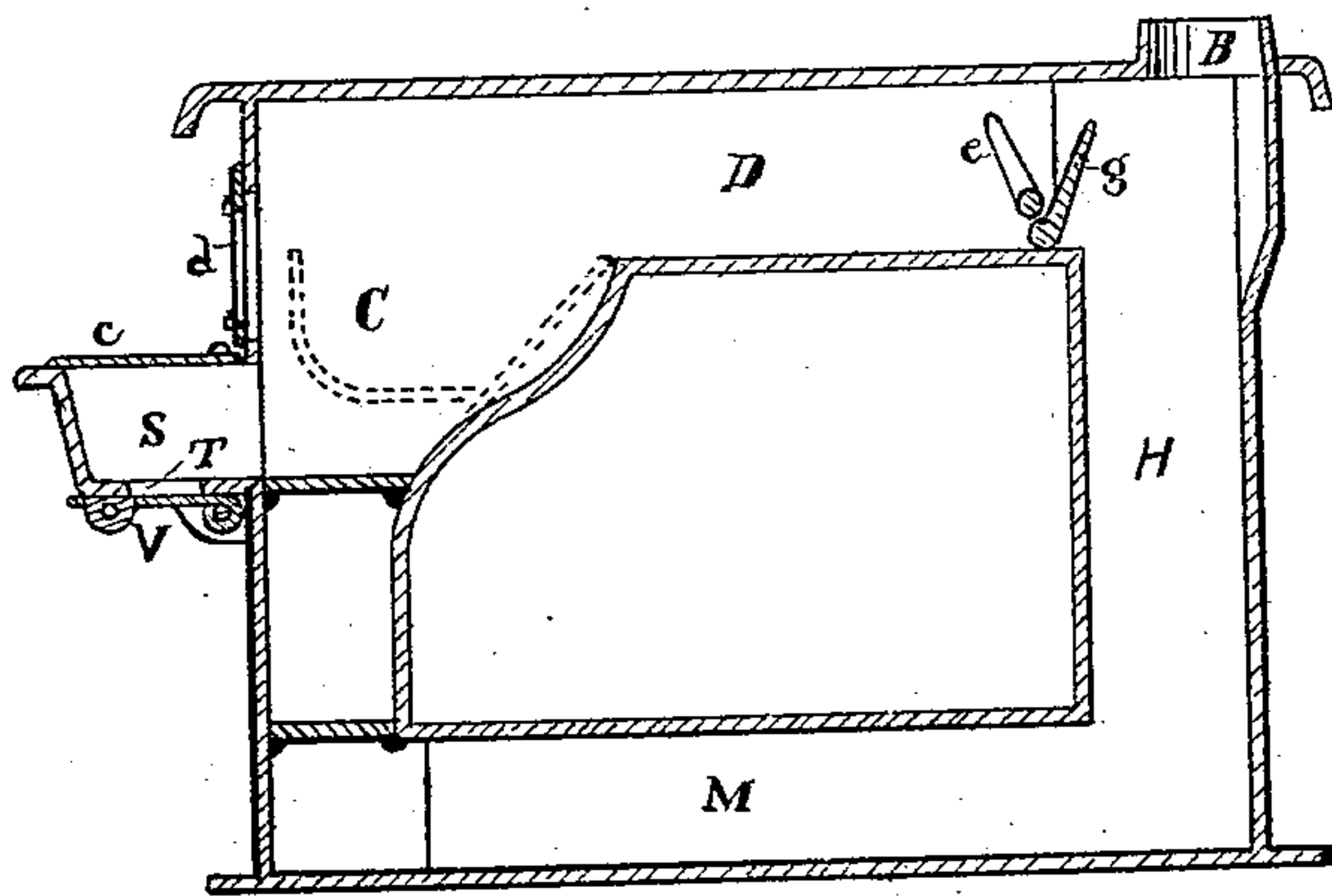


Fig. 2.

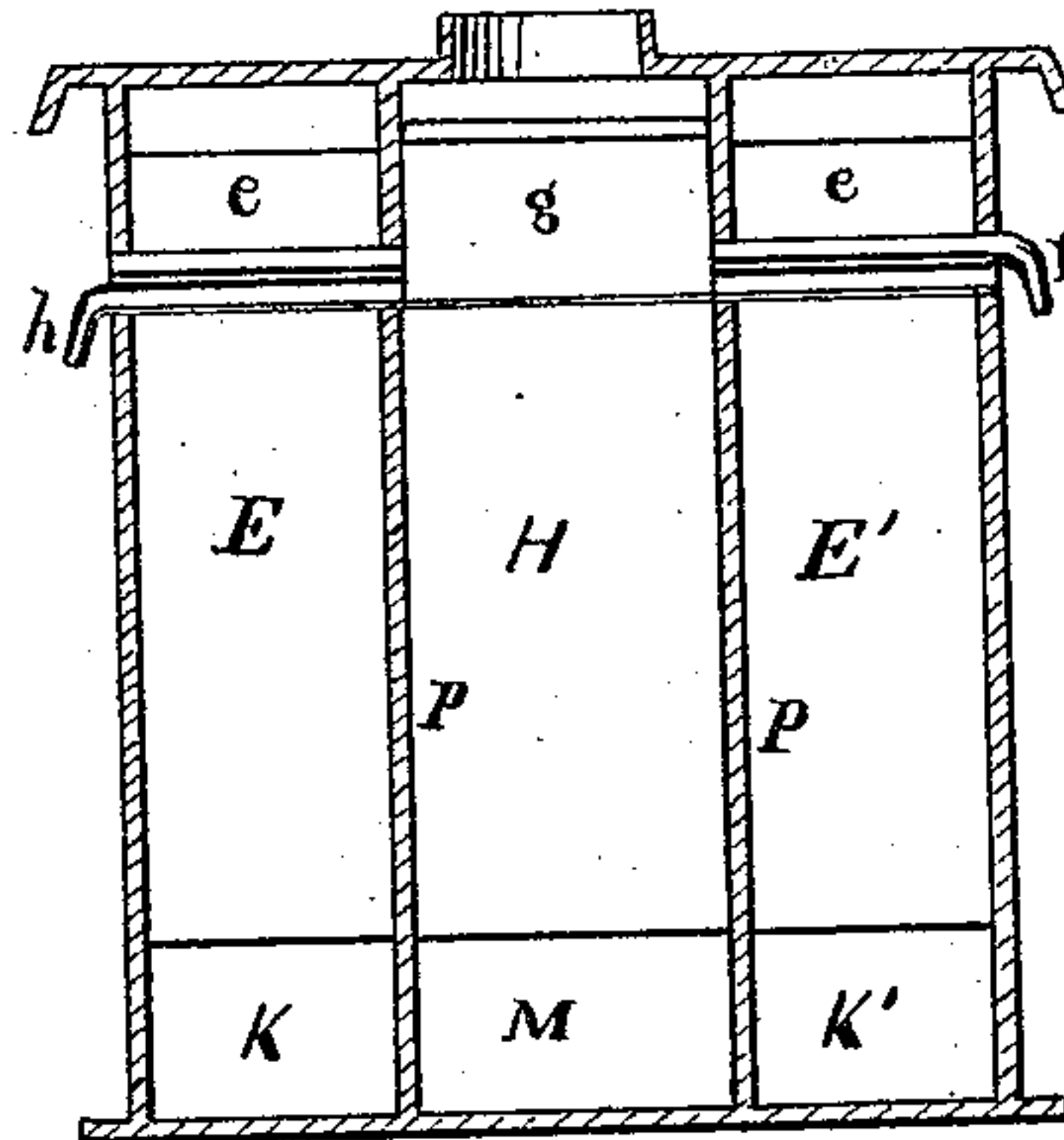


Fig. 3.

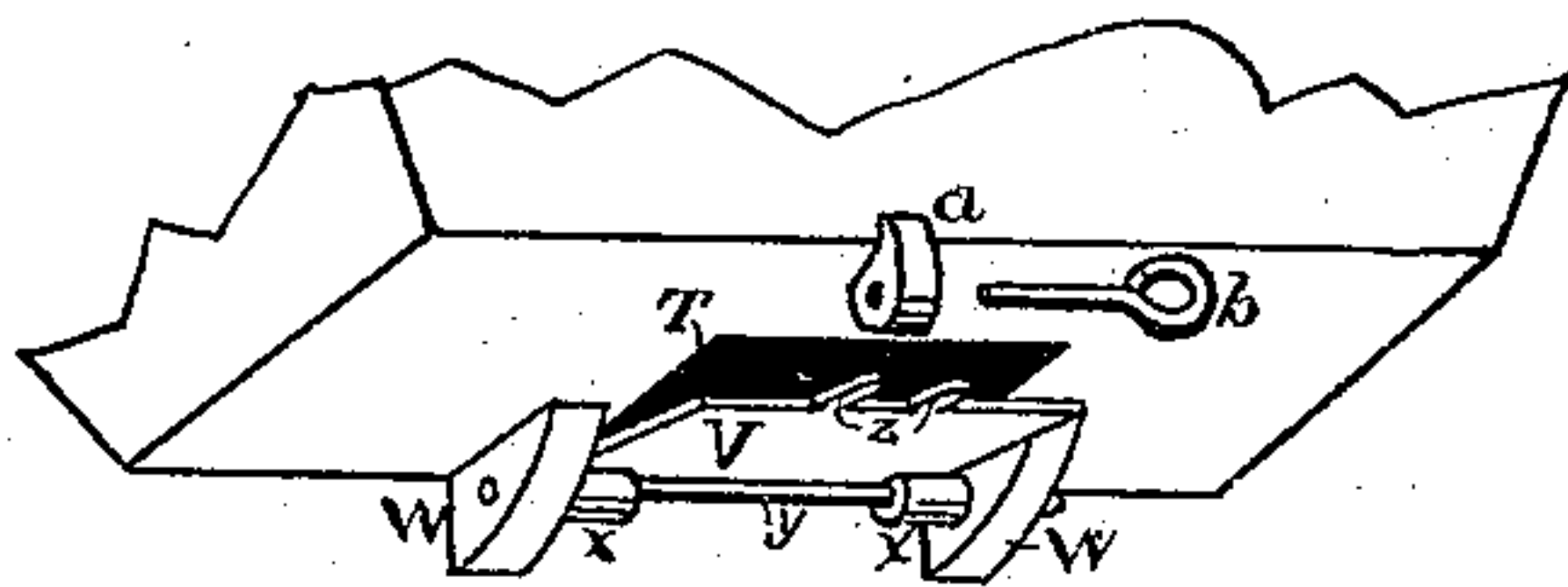


Fig. 4.

Attest.

Wm. H. Hubbell
Jno. W. Strehli

Inventor.

Lazard Kahn
per Wm. Hubbell Fisher,
Atty

UNITED STATES PATENT OFFICE.

LAZARD KAHN, OF CINCINNATI, OHIO.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 233,863, dated November 2, 1880.

Application filed April 5, 1880. (No model.)

To all whom it may concern:

Be it known that I, LAZARD KAHN, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cook-Stoves, of which the following is a specification.

The principal feature of my invention consists in a novel construction and arrangement of dampers, hereinafter fully described, and used in connection with a cook-stove having the ordinary flues, whereby the draft may be caused to pass over the oven and directly out through the chimney, or be first caused to pass behind and underneath the oven before passing into the chimney.

In the accompanying drawings, making a part of this specification, Figure 1 is a view, in perspective, of the front and top of a cook-stove embodying my invention, and in which the top as far back as the rear sides of the rear cooking-holes and the upper portion of the sides for the same distance back are broken away to exhibit the dampers and the upper ends of the vertical flues. The lower portion of the front end of the stove is also shown removed to show the location and arrangement of the horizontal bottom flues. Fig. 2 is a vertical central section of the same stove. Fig. 3 is a sectional view of the rear of the stove, the back end being removed to exhibit the vertical flues and the dampers connected therewith, the section being taken at the line X X of Fig. 2. Fig. 4 is a view of the lower portion of the ash-pan, which is provided with a door for the purpose of increasing or diminishing draft or facilitating the removal of ashes.

The stove A is provided with the stove-pipe smoke-exit flue B, for connecting the stove to the chimney or other outlet.

The fire-chamber C is located at the forward part of the stove, and is connected with the exit-flue B and the vertical flues E E' of the return indirect draft by flue D, which latter passes directly beneath the stove-holes.

The vertical rear flue, E, is connected at bottom with a horizontal flue, K, located at the left-hand side of the stove and extending along above the bottom of the stove, under the oven, from the rear to the front of the stove,

and the vertical rear flue, E', is connected at bottom with a horizontal flue, K', located at the right-hand side of the stove, and extending along above the bottom and under the oven from the rear to the front of the stove.

The rear vertical flue, H, of the indirect draft extends to the lower portion of the stove, where it is connected with the horizontal flue M, extending from the rear of the stove, above the bottom and under the oven, to the front of the stove. At this latter point both flues K and K' open into and connect with flue M. Elsewhere flues E and E' and K and K' are separated from flues H and M by suitable partitions, as P.

At the front of the stove is located an ash-pan, S, whose bottom is provided with an aperture, T, to permit the passage of ashes and to assist in regulating the draft. This aperture is closed by a door, V, located on the under side of the bottom of the ash-pan and hinged to the latter in any suitable manner. The door V is provided with a suitable latch, whereby it can be kept securely against the bottom of the ash-pan when it is desired to keep the aperture T closed.

The front of the fire-chamber is closed in the usual manner, and provided at *d* with the usual draft-register. The top of the ash-pan is closed by a hearth or other suitable plate, *c*. The aperture which connects the vertical flues E E' with the flue or draft-space D is provided with two dampers, *e*, preferably operated by one rod, *f*, and rigidly attached at one end to and operated by said rod *f*, lying at the junction of the top and back oven-plates. These dampers *e e*, when in the position to leave the aperture between the flues E E' and the flue D open, lie on the top oven-plate, thus not impeding the draft through said flues D or E E'. Likewise the aperture between flue H and the flue-space D is provided with a damper, *g*, to control the passage of the products of combustion and heated air through the same. This damper is operated by a rod, *h*, rigidly attached to the lower edge of the damper, and journaled in journal-bearings in or affixed to the partitions P at the junction of the top and back oven-plates, and one end extending through the side of the stove and

terminating in a handle, whereby the rod and damper are operated. These dampers are shown in the drawings partly elevated.

The mode in which the various features of my invention operate is as follows, viz: The fuel in the fire-chamber being ignited, the door V is opened; at the same time the damper *g* is opened and the double damper *e* is closed. The draft of air coming through the aperture T and register *d* is introduced under the fire-bed, thus igniting the fuel and sustaining the fire. The products of combustion pass directly through flue D and through exit-flue B to the chimney. Meanwhile, the dampers *e e* being closed, all heat and smoke are prevented from entering the flues E E', and thus the lower portion of the stove is kept cool. Without these dampers *e e* more or less of the heated air and smoke will descend into said flues E E' and circulate through the bottom flues, K K', and heat the lower portion of the stove.

When it is desired to more fully utilize the heat and heat the oven the damper *g* is closed and the dampers *e* are opened.

The products of combustion, together with the heated air, pass through flue D into the vertical flues E E'; thence down said flues into the flues K K'; thence through said flues to the front of the stove; thence into flue M, through which latter they return to the rear end of the stove, and thence ascend through flue H and pass out of the exit-flue B into the chimney.

When for any reason it becomes desirable to have but little heat in the room wherein

the stove is situated, as is especially the case in summer, the dampers *e* are closed and the damper *g* opened. The heat will then be confined to the top of the stove, and no heat will be radiated from the lower portion, and the heat passing through the flue D and the outlet B will be found sufficient for all the purposes of summer cooking, baking, &c.

As hereinbefore stated, the aperture T is very advantageously used as a means of discharging the ashes collecting under the grate and in the pan into a suitable vessel for removing them.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a cooking-stove, the dampers *e e*, located at the inlet-orifices of flues E E', and at the front side thereof, which flues are for the conduction of the indirect draft, and are provided with suitable return-conduit, in combination with outlet-orifice B and damper *g*, located at the mouth of said orifice, substantially as and for the purposes specified.

2. In a cooking-stove provided with an oven, the combination of rear flues, E E', bottom flues, K K', return bottom flue, M, and rear return-flue, H, and outlet B, and flue D, and dampers *e e* and *g*, said dampers being located at the upper orifices of the flues E, E', and H, and at the front side thereof, substantially as and for the purposes specified.

LAZARD KAHN.

Attest:

L. H. PUMMILL,
E. R. HILL.