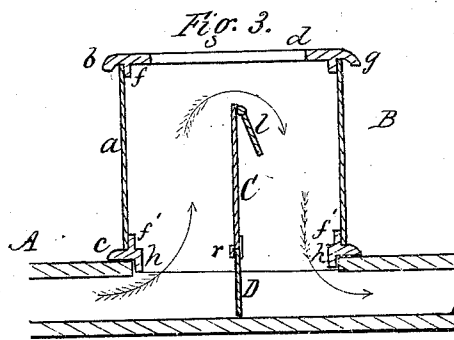
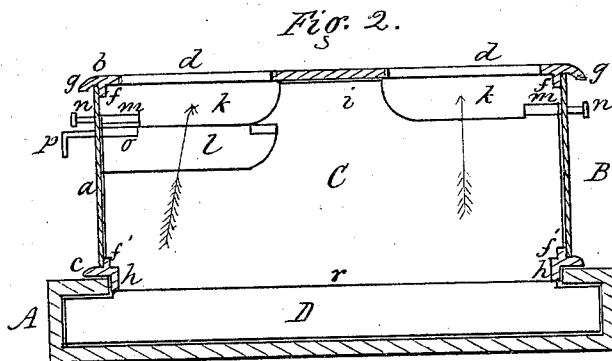
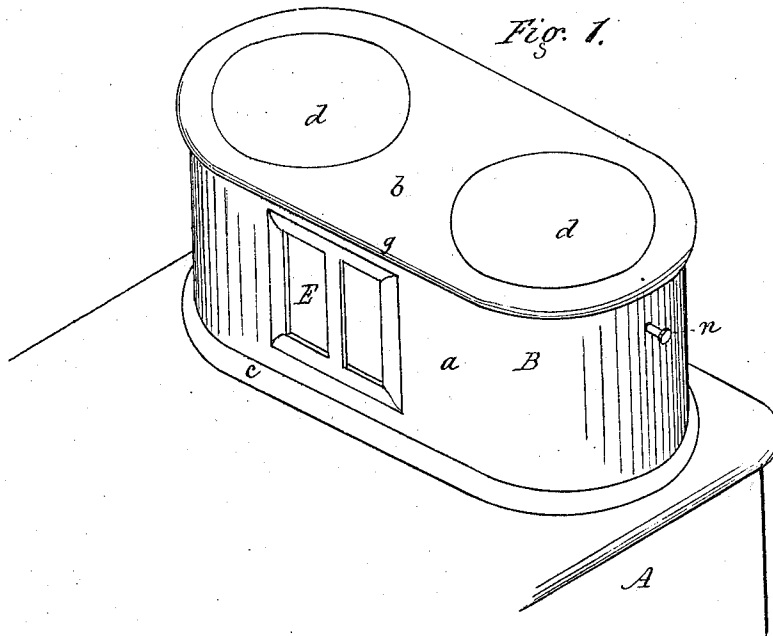


J. DAY.

Supplemental Attachments for Cooking-Stoves.

No. 140,252.

Patented June 24, 1873.



Witnesses.
Chas. J. Dayton.
A. B. Torrie.

Inventor.
Justus Day
per R. F. Osgood,
att'y.

UNITED STATES PATENT OFFICE.

JUSTUS DAY, OF HOLLEY, NEW YORK.

IMPROVEMENT IN SUPPLEMENTAL ATTACHMENTS FOR COOKING-STOVES.

Specification forming part of Letters Patent No. **140,252**, dated June 24, 1873; application filed April 8, 1873.

To all whom it may concern:

Be it known that I, JUSTUS DAY, of Holley, in the county of Orleans and State of New York, have invented a certain new and useful Improvement in Cooking Attachments for Stoves; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

My invention consists of a supplemental attachment for a cook-stove capable of being set into the griddle-holes of the stove, and otherwise constructed, arranged, and operating as hereinafter described.

In the drawings, Figure 1 is a perspective view of my improvement applied to the back griddle-holes of a stove; Fig. 2, a longitudinal vertical section of the same; Fig. 3, a vertical cross-section.

A represents a cook-stove of any ordinary form, and B is the air-heating attachment which forms the subject of my invention. This attachment is made separate from the stove, and forms no part of it, but is adapted in size and form to fit over the griddle-holes, either in front or rear. For this purpose it is preferably made in the oval form shown, and consists of the outer drum *a* and top and bottom plates *b c*. The top plate is provided with supplementary griddle-holes *d d*, and has a vertical flange *f*, in addition to the bead *g*; said flange serving as the attachment for the riveting of the outer drum or case. The bottom plate consists simply of a rim formed to rest upon the stove top, around the griddle-holes, with the bead corresponding with that above and with a vertical flange, *f'*, for the riveting of the drum at the lower edge. It also has a bottom flange, *h*, at each end, set in from the ends, for forming the bearing in the griddle-holes, and still allowing the ends of the attachment to project beyond to get the proper capacity. The flange *h* may pass all around, or be located only at the ends; serving in the latter case to fit those stoves in which the division-plate between the griddles is not removable. Across the longitudinal axis of the drum is located a central vertical diaphragm, *C*, which slips in through notches formed in the bottom plate *c*. The central part *i* of the diaphragm rises to the top of the drum, and fills the space between the two

griddle-holes of the attachment. On each side of this are ports or passages *k*, formed by cutting away the top of the diaphragm, and thereby leaving a free passage for the draft. In one of these parts is hung a damper or valve, *l*, which, when turned up, closes the port and forces the draft to pass through the other port, and thereby to concentrate the heat under one griddle-hole. The upper part of the diaphragm, at each end, has a socket, *m*, into which passes a loose pin, *n*, inserted from the outside to hold the diaphragm in place. The outer end of the damper *l* also has a square socket, *o*, in which is inserted from the outside a crank-pin, *p*, with a square end to fit the socket and a round bearing portion to allow it to turn in its bearing. The opposite end of the valve is rigidly hinged to the diaphragm.

The object of this arrangement of the sockets and loose pins is to allow the diaphragm to be removed from the attachment whenever desired. It is only necessary to withdraw the pins, when the diaphragm, with the damper attached, can be slipped bodily from place. At the lower edge of the diaphragm is formed a longitudinal groove or socket, *r*, formed by riveting on a piece of sheet metal, or in any other desired manner. In this fits a removable damper-plate, *D*, of a size just sufficient to fill the cross-area of the flue-space for the passage of the draft between the oven-plate and top-plate of the stove. When fitted in place the damper-plate cuts off the passage of the draft over the oven, forces it to pass up the passage between the diaphragm and front of the drum; thence (when the valve *l* is closed) longitudinally through the drum-space; and thence over the top of the diaphragm into the rear space of the attachment, and finally down into the flue-space of the stove again, when it finally escapes. In some kinds of stoves the damper-plate *D* might be hinged in the flue-space of the stove, over the oven, so as to turn up and down.

This damper-plate is used only when the heating attachment is used over the rear griddle-holes of the stove, and assists materially not only in giving an indirect draft to produce a greater heating capacity, but also, in connection with the damper *l*, in concentrat-

ing the whole heat which passes through directly under one griddle-hole, so that boiling or cooking may be done.

A door or window, E, may be used in front of the attachment, if desired, so arranged as to rise and fall by suitable hooks or claws at the bottom, which form hinges. Mica sections may be inserted for the purpose of illumination.

The attachment above described may be used either upon the front or the back of the stove top, and employed either for heating alone, or for heating and boiling or cooking. In the latter case the diaphragm C, damper *l*, and damper-plate D are essential. If used in front these parts may be removed from the interior of the attachment, as before described, thereby allowing large sticks of wood to be burned without difficulty. The arrangement of these interior parts whereby they are thus removable is a matter of importance, and is an essential feature in my invention. This attachment adds much to the heating capacity of the stove, not only by giving a greater radiating surface, but also by staying the draft and giving it an indirect passage.

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

1. The attachment B, constructed of the top and bottom plates *b c* and drum *a*, when said top and bottom plates have vertical flanges *ff'* for the riveting of the drum in place, and the bottom-plate has an additional

vertical flange, *h*, set in from the others, for holding the attachment in the griddle-holes, as herein shown and described.

2. In combination with the attachment B, the longitudinal diaphragm C, provided with the ports *k k*, when said diaphragm is fitted loosely in place, and is held by pins or equivalent, passed from the outside of the drum into sockets of the diaphragm, as herein shown and described.

3. In combination with the attachment B and diaphragm C, provided with the ports *k k*, the hinged damper *l*, arranged to cover one port and force the draft through the other port, and directly beneath the griddle, as herein shown and described.

4. In combination with the attachment B and diaphragm C, the damper-plate D, when made to fit said diaphragm, and to be removable therefrom, and closing the flue-space between the oven-plate and top plate of the stove, as and for the purpose specified.

5. In combination with the attachment B, the diaphragm C, damper *l*, and damper-plate D, when arranged to operate in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JUSTUS DAY.

Witnesses:

R. F. OSGOOD,
A. H. NORRIS.