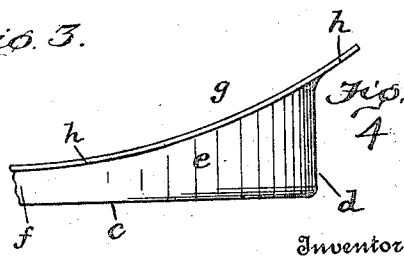
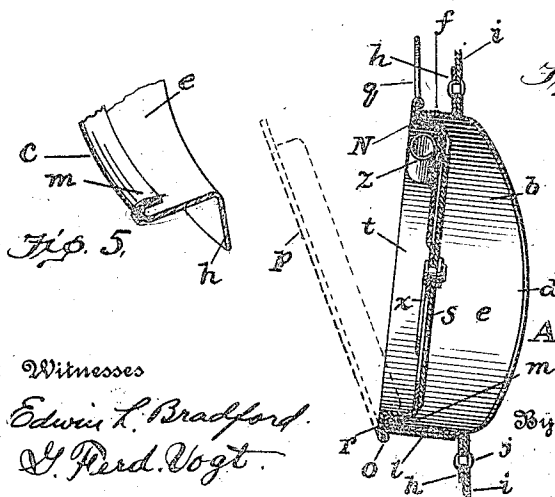
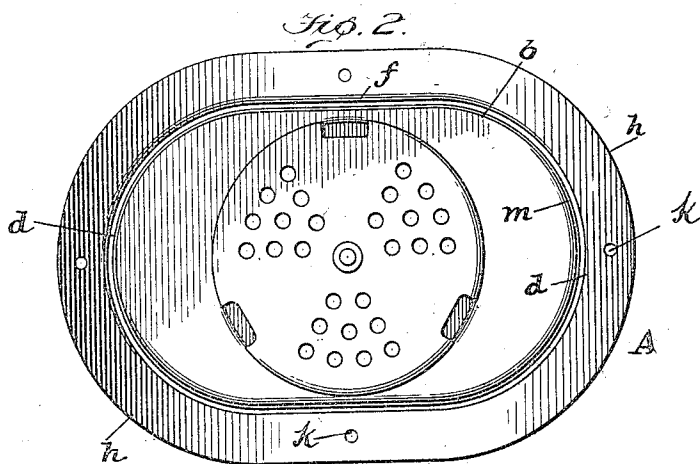
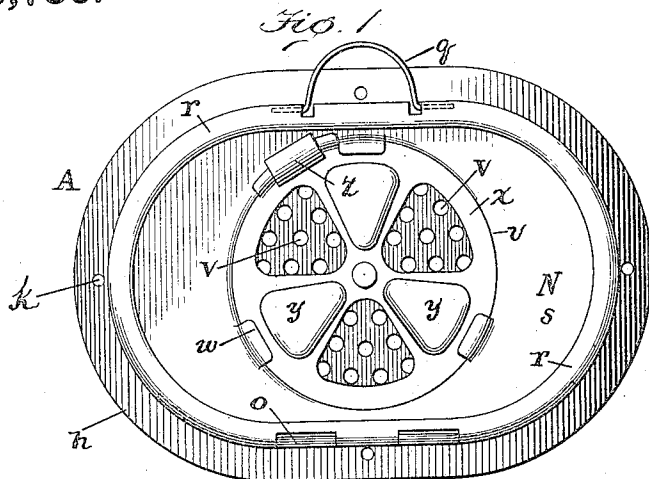


J. P. HALLER.
STOVE DRAFT DEVICE.
APPLICATION FILED MAY 29, 1912.

1,045,786.

Patented Nov. 26, 1912



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STOVE DRAFT DEVICE.

1,045,786.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed May 29, 1912. Serial No. 760,303.

To all whom it may concern:

Be it known that I, JOHN PAUL HALLER, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Stove Draft Devices, of which the following is a specification.

This invention relates to a combined sheet-metal draft device and door for wood-burning stoves.

In stoves for burning wood exclusively it is desirable to have in the wall of the stove and near the bottom of the fire-chamber, a door whereby access to the interior may be had for the insertion of a pair of tongs or other instrument, when occasion arises for a person to replenish a fire that has become low. But ordinarily such doors form a crack around the border edge that permits air to enter the stove and create a draft that causes a bright fire to burn when a smothered fire is desired.

The object of this invention is to provide for wood-burning stoves an improved construction of door-opening and door whereby the door will close the opening with an air-tight fit around its edge, and mounting in the door an air-inlet device by which to regulate the entrance into the stove of the exact volume of air that will best suit the particular condition of the wood fire.

In the accompanying drawing, Figure 1 is a front or outside elevation of the stove draft device door—the door being shown closed. Fig. 2 is a back or inner side elevation of same. Fig. 3 is a central vertical section through Fig. 1, looking from the right-hand side toward the left, and in broken lines indicating the door partly open. Fig. 4 is a top edge view of one half of the door frame. Fig. 5 is a perspective section view of a fragment of the door-frame.

The device is made of sheet-metal whose parts are cut by dies and stamped up and is shaped so as to be applicable to the wall of an upright cylindric or oval-shaped wood-burning stove.

The door-frame, A, has an oval or oblong opening, b, whose exterior front edge, c, against which the door closes is in the same plane at all its parts.

The sheet-metal at the edge, c, of this

door-opening of the frame is bent back and turned inward into the said door-opening as at, m, and forms in cross-section a U-shaped packing that is sufficiently elastic to insure an air-tight fit when the door is closed. The wall, e, that forms the oval door-opening is narrowest at the top and center, f, or midway between the two ends, d, and said two ends of the wall, e, are the widest; this gives the back part of the door frame or wall, e, a curve, g, from end to end see Fig. 4, and from this curved back part a lateral flange, h, extends all around said oval door-opening. This flange, h, in practice is placed against the exterior surface of the curved wall, i, of a wood-burning stove which wall must have an oval-shaped hole of size equal to the door-opening through wall, e; the said flange, h, is secured to the stove wall, i, by rivets, j, through holes, k, in the flange.

The wall, e, that forms the oval door-opening is narrower at the top and center, f, than the corresponding part at the bottom and center, l, as shown in Fig. 3; and this construction produces the result of tilting or inclining the door frame, A, so that the bottom of the door frame will project out from the vertical wall, i, of the stove farther than the top of the frame. This inclination of the door-frame of the draft device facilitates the use of a pair of tongs or other instrument that may be entered through the door-opening at a time when the wood fire is low, to bunch together the hot embers or live coals in the bottom of the stove to rebuild the fire.

The door, N, has an oval shape and closes the said opening in the door-frame, A; a hinge, o, at the bottom of the door secures the latter to the lower part of the frame; the inclined broken lines, p, in Fig. 2, indicates the door when it is partly open. At its top edge the door has a wire loop, q, that serves as a handle by which to pull the door open. The outer side of the door has all around its border edge a continuous flat rim, r; within this border rim is a depressed panel, s, and a wall, t, surrounds the depressed panel with which it has a right-angled position and this wall connects the outer flat rim, r, and the depressed panel. When the hinged door, N, is closed said surrounding wall, t, has an air-tight fit

within the U-shaped elastic metal packing, *m*, and there is no crack around the door edge to admit air; this snug fit also avoids the necessity for a catch or other fastening device. When the door is entirely open its hinges, *o*, will permit it to hang downward.

The door-panel, *s*, on its outer side has a circular depression, *u*, which is provided with air-draft holes, *v*, grouped in three series; tangs, *w*, are punched from the sheet-metal of this circular depression and said tangs are spaced equidistant around the circle and are bent outwardly so as to loosely engage at the front edge of a movable disk, *x*, that fits in the said circular depression; a stud or pin is fixed in the center of the depression and loose through the disk, and insures that the disk may turn or swivel back and forward. The disk has three solid panels, *y*, and also three large openings; when the disk is turned one way the solid panels will cover and close the three series of air-draft holes, *v*; when the disk is turned the opposite way, the large openings in the disk will coincide in position with the series of air-draft holes, *v*, in the door panel, as seen in Fig. 1, or with only a part of said air-draft holes. The disk at its front has a handle, *z*, formed at the circular edge by a coil of metal. By grasping this coiled handle, *z*, the air-regulating disk, *x*, may be turned to open more or less of the air-draft holes, *v*, and thus the exact volume

of air to suit the particular condition of the fire, may enter the stove.

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

A combined door-frame and air-draft device for wood-burning stoves, comprising a sheet-metal frame having a door-opening whose edge is bent back into said opening and forms around the opening an elastic packing U-shaped in cross-section; a sheet-metal door, *N*, hinged at its bottom to the lower part of said frame and having a border edge rim, a panel whose outer surface is depressed within said border edge and forms a continuous surrounding wall at a right-angle with respect to the surface of the panel - which wall fits into said elastic packing when the door is closed and produces an air-tight joint; and a draft-air inlet regulator mounted on said door-panel, whereby access may be had into the stove when the door is open, and the draft-air that may enter the stove when the said door is closed will be restricted to such volume as the said regulator may be adjusted to admit.

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

JOHN PAUL HALLER.

Witnesses:

ISABELLA HAGAN,
GEORGE MONGIAME.