

No. 646,863.

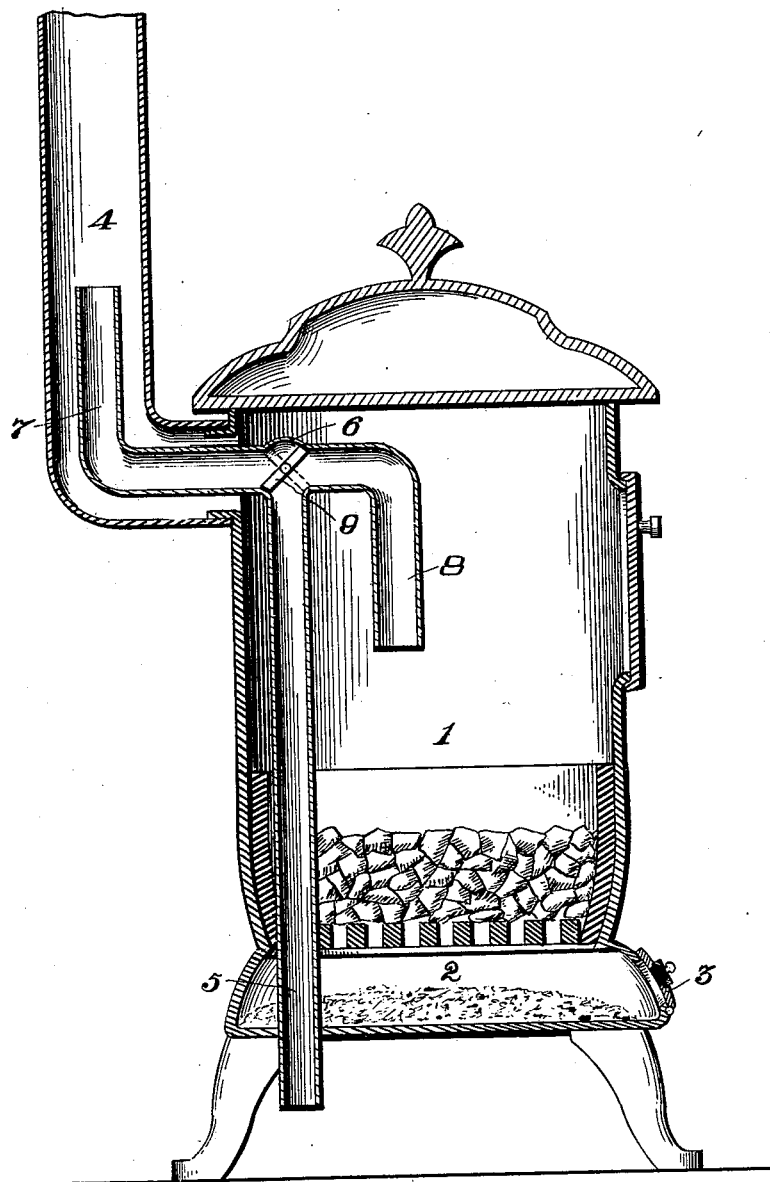
Patented Apr. 3, 1900.

P. McNAUGHTON & C. SCOTT.

HEATING STOVE.

(Application filed May 17, 1899.)

(No Model.)



Witnesses

John Maupin.
[Signature]

P. Mc Naughton
and *Charles Scott* Inventors

By *their* Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

PETER McNAUGHTON AND CHARLES SCOTT, OF CHARLOTTE, MICHIGAN;
SAID SCOTT ASSIGNOR TO SAID McNAUGHTON.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 646,863, dated April 3, 1900.

Application filed May 17, 1899. Serial No. 717,277. (No model.)

To all whom it may concern:

Be it known that we, PETER McNAUGHTON and CHARLES SCOTT, citizens of the United States, residing at Charlotte, in the county of Eaton and State of Michigan, have invented a new and useful Heating-Stove, of which the following is a specification.

Our invention relates to heating-stoves, and has for its primal object to provide a device of this class having improved ventilating means adapted for taking air from a point near the floor of a room in which the stove is arranged and conveying it either into the smoke or draft flue or into the fire-box or combustion-chamber of the stove.

A further purpose of the invention is to utilize the vitiated air for promoting combustion of the fuel by discharging the same directly on the surface of the live coals or embers, the inlet and the discharge pipes being located within the casing or body of the stove, so as to be hidden from view, to secure an increased draft.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim, it being understood that the improvement is susceptible of various changes in the form, proportion, size, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

The drawing represents a vertical central sectional view of a stove constructed in accordance with our invention.

In the construction illustrated the stove includes a fire-box or combustion-chamber 1, beneath which is arranged an ash-pit 2, having an air-tight draft-door 3, all of the ordinary form and arrangement, and in communication with the fire-box or combustion-chamber near its top is the usual smoke pipe or flue 4.

The ventilating device embodying our invention consists of an inlet-pipe 5, having its inlet end located beneath the ash-pit, and hence near the floor, and thence extending through the stove, including the ash-pit and the fire-box, and communicating with a damper-box 6, having oppositely-located dis-

charge-pipes 7 and 8. The discharge-pipe 7 is elbowed and extends into and longitudinally of the smoke or draft flue 4, while the pipe 8 extends in the opposite direction, is also preferably elbowed, and has a downwardly-extending arm terminating within the fire-box or combustion-chamber. In other words, the outlet or discharge pipes 7 and 8, which communicate with the inlet-pipe 5 of the ventilating device, extend, respectively, into the smoke-flue and into the combustion-chamber of the stove, the former terminating in an upwardly-extending arm and the latter in a downwardly-extending arm, as shown. At the junction of these inlet and outlet arms of the ventilating device is arranged a damper or adjustable deflector 9, capable of two adjustments. (Shown, respectively, in full and dotted lines in the drawing.) In its full-line position the damper is disposed to establish communication between the inlet-pipe 5 and that outlet or discharge pipe which communicates with the combustion-chamber of the stove, whereby cold air entering the pipe 5 passes upward through the fire-box, and thence is discharged downwardly toward the contents of the combustion-chamber. The discharge-pipe 7 is sufficiently smaller than the smoke-flue 4 to allow an annular space or passage for draft from the combustion-chamber to the smoke-flue. When the damper or deflector is in its dotted-line position to connect the inlet-pipe 5 with the discharge-pipe 7, the cold air entering the inlet-pipe passes thence into the smoke-flue directly without first passing through the combustion-chamber. In either case the draft through the inlet-pipe is induced by the heating of the upper portion of the latter and also by the draft within the stove and smoke-flue. That position of the damper wherein the air admitted to the inlet-pipe 5 is conveyed into the fire-box or combustion-chamber of the stove is preferred when the stove is used for burning soft coal or wood, whereas the other arrangement of the damper, whereby the air is conveyed directly to the smoke-flue, is preferred when the stove is used for burning hard coal. When the damper 9 is turned into the full-line position, the inlet-pipe 5 and the discharge-pipe 8 constitute a draft appliance for

supplying the air to keep the fire alive without recourse to the ordinary damper 3, which may be closed. These pipes 5 and 8, being located within the body or casing of the heater, 5 are directly affected by the intense heat of the zone in which they are placed and a strong draft is created therethrough. The downturn of the pipe 8 causes incoming air to strike the fire, and thereby promote combustion.

10 Having described our invention, what we claim is—

The combination with a heater, of a vertically-disposed air-pipe arranged within the casing or body of said heater and having its 15 lower end opening through the base thereof, a horizontal branch pipe having communication with the upper extremity of the said ver-

tically-disposed pipe and extending into the body of the heater and also into the smoke pipe or flue and provided with angular ends, 20 one of said ends depending into the body of the heater and the other extending upwardly through the smoke pipe or flue for a portion of the length of the latter, and a damper located over the point of junction of the vertically- 25 disposed pipe with the horizontal branch.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

PETER McNAUGHTON.

CHARLES SCOTT.

Witnesses:

CLAUDE CHAPPELL,

C. W. MORRELL.