

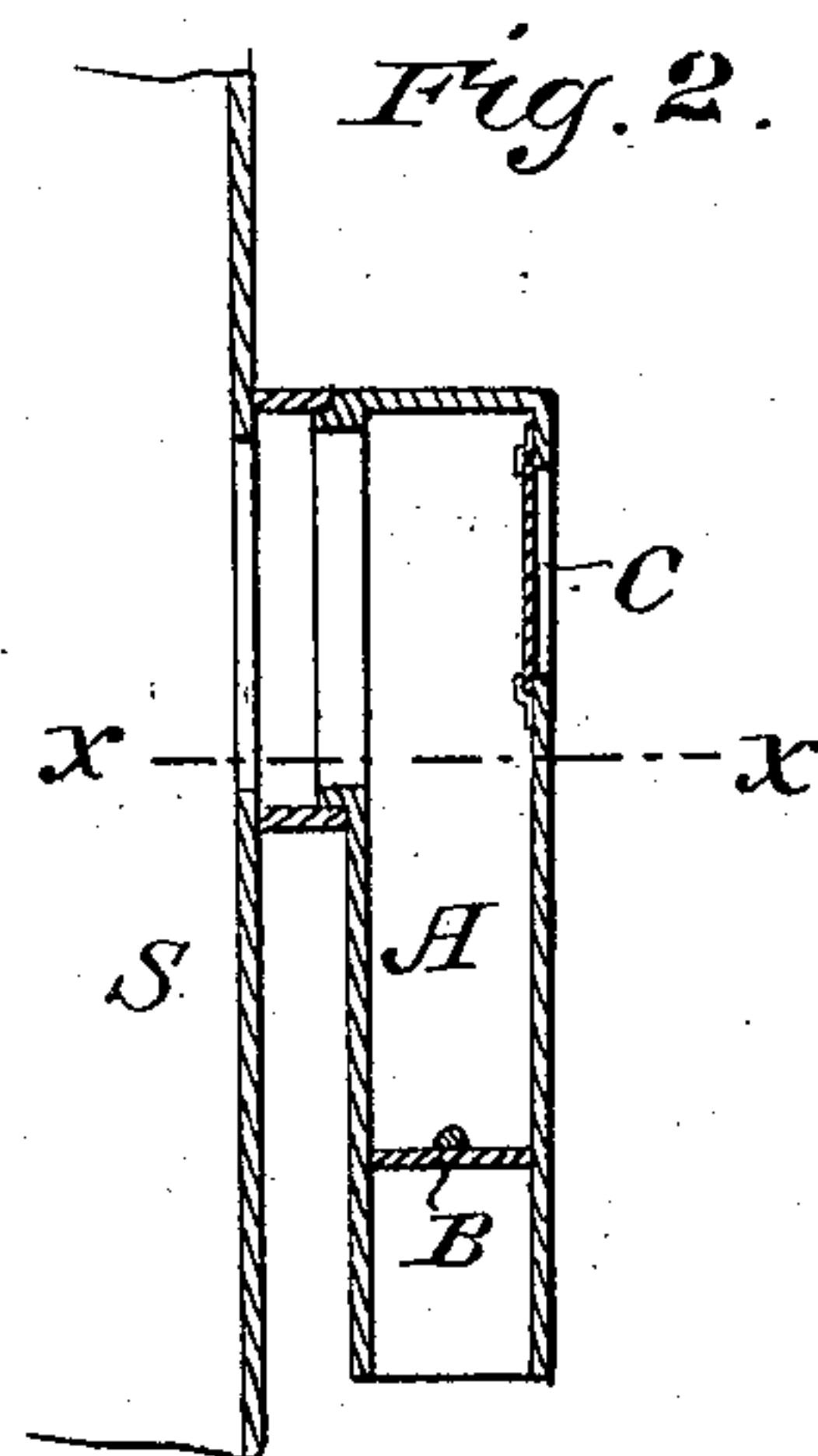
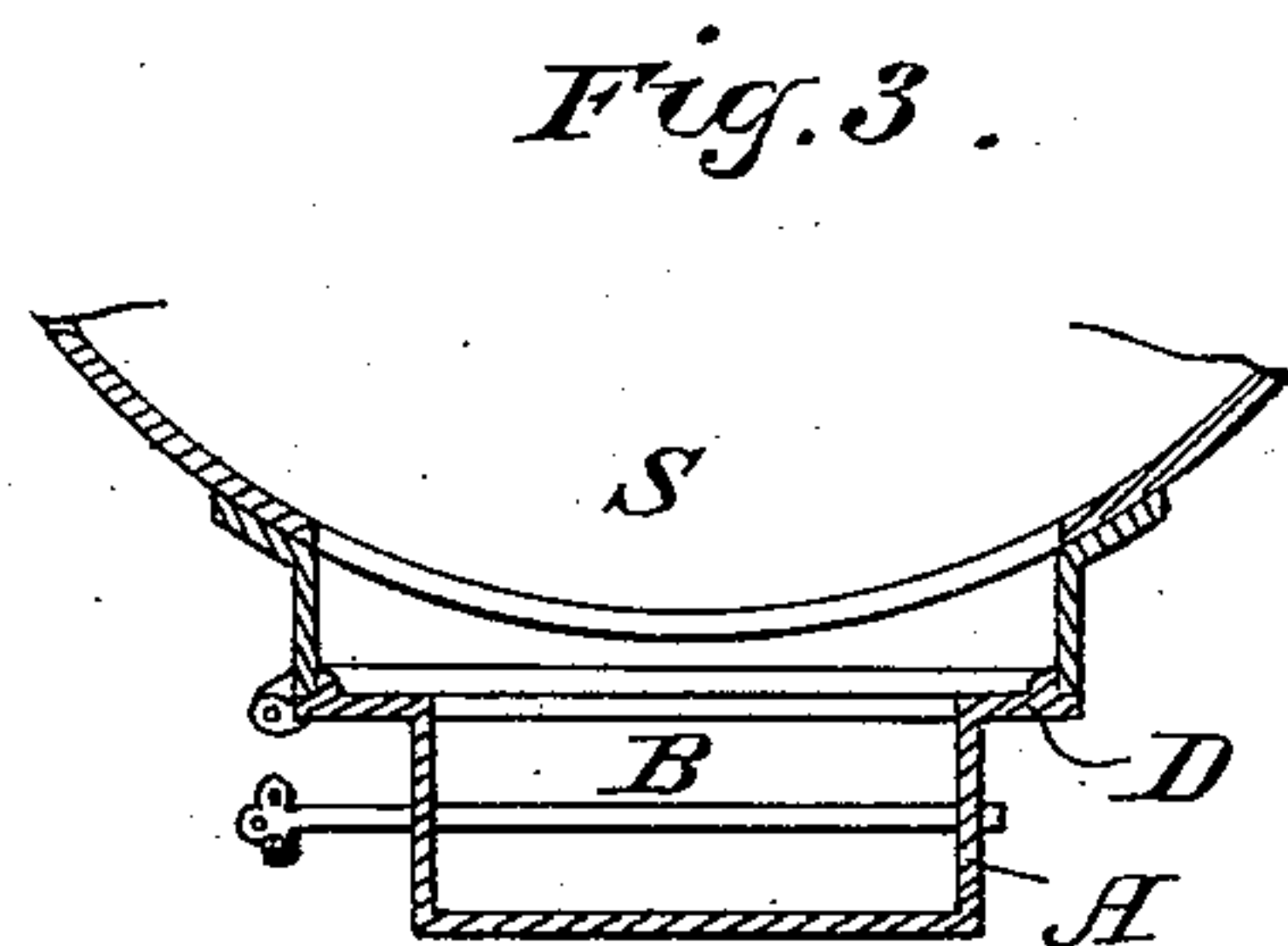
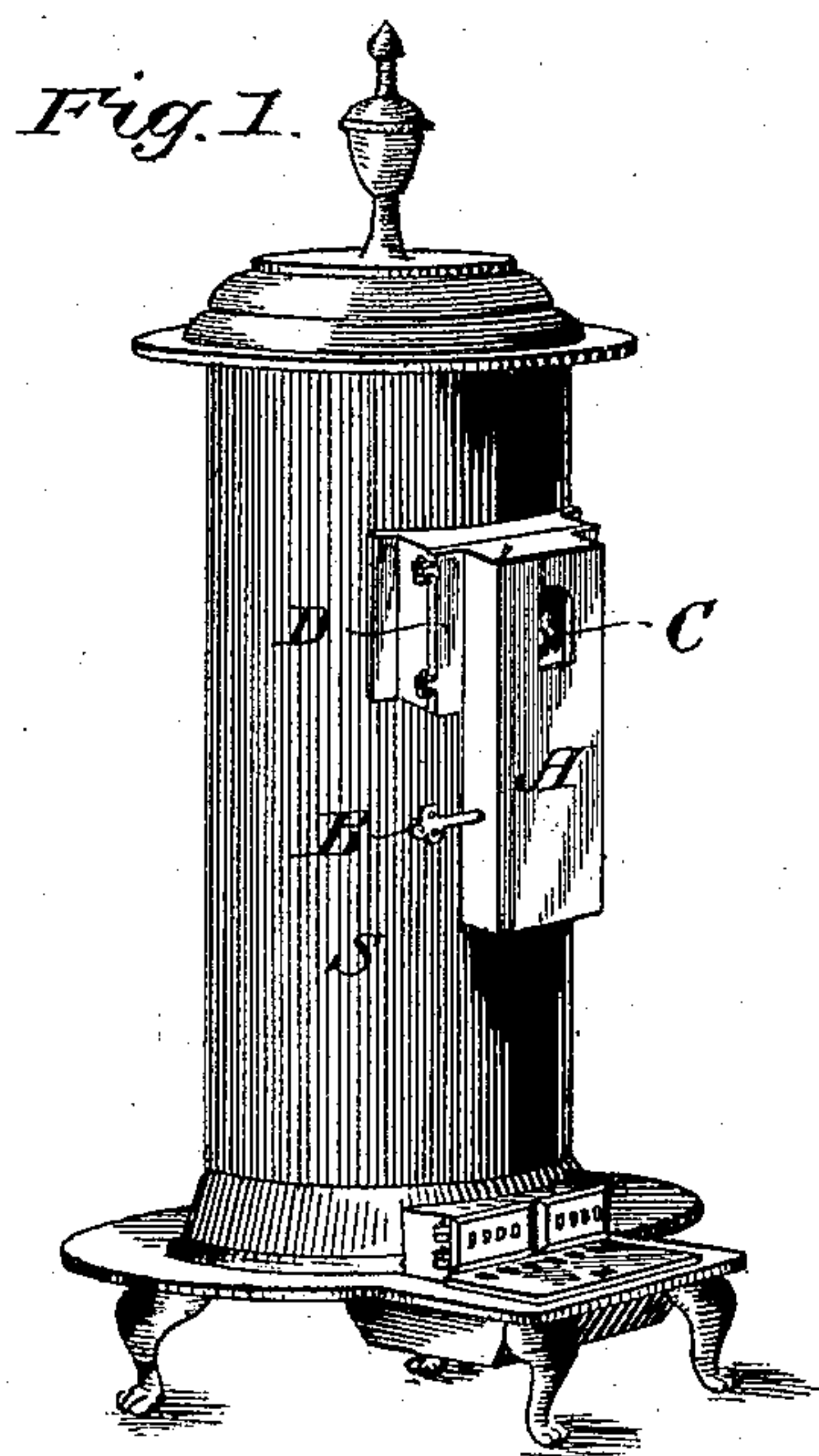
(No Model.)

S. W. JACKSON.

STOVE OR FURNACE REGULATING DEVICE.

No. 322,610.

Patented July 21, 1885.



Witnesses:
Jas. H. Stockitt.
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Inventor.
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UNITED STATES PATENT OFFICE.

SAMUEL W. JACKSON, OF CHICAGO, ILLINOIS.

STOVE OR FURNACE REGULATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 322,610, dated July 21, 1885.

Application filed December 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. JACKSON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Regulators for Stoves and Furnaces; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has for its object to provide a stove or furnace with an attachment for its usual swinging door, by means of which, when the door is closed, air can be admitted directly to the upper surface of the fire without allowing the escape of gas, thereby giving, essentially, the effect of opening the door to admit air to the top of the fire to retard combustion, and at the same time preventing the outflow of gaseous products of combustion from the stove or furnace to the room.

To such end the invention consists, essentially, in a stove or furnace provided with a tube attached to and depending from its usual swinging door. This tube is open at its lower end to the outer air, and at its upper end communicates through the door with the interior of the stove or furnace when the door is closed. The said tube is preferably provided with means suitable for closing or varying the area of its passage when it is desired to cut off or regulate the upper draft, and to such end a butterfly-valve, constituting a damper, is arranged within the tube. This attachment to the usual door of a stove or furnace permits the said door to be opened in the usual way to permit fuel to be passed into the stove or furnace, and is susceptible of being advantageously employed in connection with all stoves and furnaces provided with hinged swinging doors.

In the drawings, Figure 1 shows a stove of familiar construction having a door above the fire-box and having a device constructed in accordance with my invention applied to the said door. Fig. 2 is a central vertical section of the door and the device attached thereto. Fig. 3 is a horizontal section of the door, taken upon line *xx* of Fig. 2.

S indicates a stove or furnace having a

doorway, closed by a door, D, situated above the fire-box.

A denotes a tube, which is attached to a door, D, and communicates at its upper end with the interior of the stove by means of a central opening through the said door, the said tube being open at its lower end for the admission of air. This arrangement of the air-inlet opening is found to prevent the escape of gas or products of combustion, while freely admitting air to the surface of the fire, this result being assured by extending the tube A below the said door, as indicated.

A valve, B, is desirably provided in the tube A, by which as much air may be admitted as desired; and to afford a view of the fire-surface a mica-closed opening, C, is made in the tube opposite the opening through the door.

The tube A may be either of sheet metal or cast-iron, and when of the latter material may be either attached permanently to the door or cast integral therewith, as desired.

The particular shape of the tube is obviously immaterial to the operation of the device, and it may be cylindric, rectangular in shape, as shown, or of any other desired form.

Heretofore a blower adapted for an open fire-place containing a grate has been provided with a draft-passage leading from its top edge to a point above the base of the blower, at which point said passage communicates with the outer air by means of a series of openings that can be opened or closed by a sliding damper; and in another instance a furnace has been provided with a casing hung alongside the doorway, for which an ordinary door is provided, said casing being adapted to be swung in front of the doorway when the usual door is open, and to then constitute a draft-passage for carrying up dust which may make its escape from the ash-pit at the time of shaking the fire and conducting said dust to and through the doorway.

My invention embraces features of novelty in view of both of the devices mentioned, for the reason that in the one instance the blower could not be used on a stove or furnace door; and in the other instance, the casing hung at one side of a furnace-doorway, at the opposite side of which the usual door is hung, necessi-

tates either the hinged casing or the door being at all times open or swung away from the doorway.

I claim as my invention—

5 1. A stove or furnace provided with a tube, A, attached to and depending from its usual swinging door, said tube being open at its lower end to the outer air and communicating at its upper end through the door with the interior of the stove or furnace, substantially as
10 and for the purpose set forth.

2. A stove or furnace provided with a tube, A, containing a valve and attached to and depending from the usual swinging door of

the stove or furnace, said tube being open at its lower end to the outer air and communicating at its upper end through the door with the interior of the stove or furnace, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

SAMUEL W. ^{his} X JACKSON.
mark.

Witnesses:

C. CLARENCE POOLE,
JESSE COX, Jr.