

(No Model.)

T. B. GILMOUR.

DRAFT DEVICE FOR AIR TIGHT HEATING STOVES.

No. 568,609.

Patented Sept. 29, 1896.

Fig. 1.

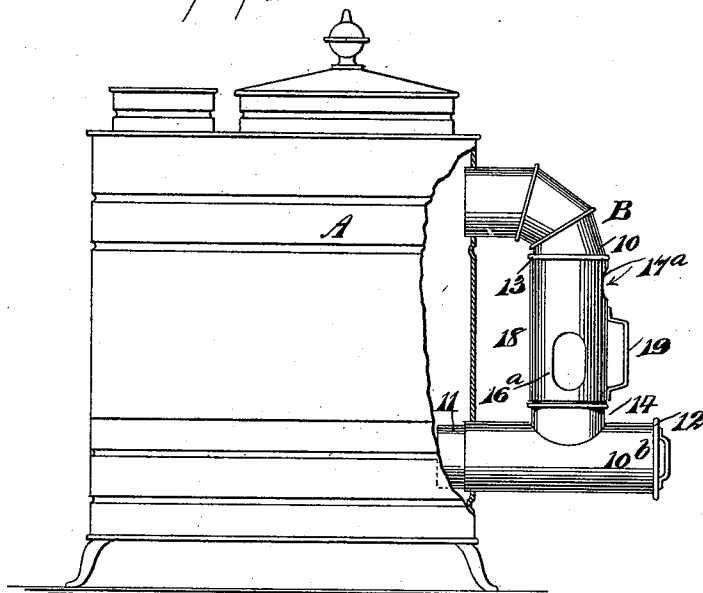


Fig. 2.

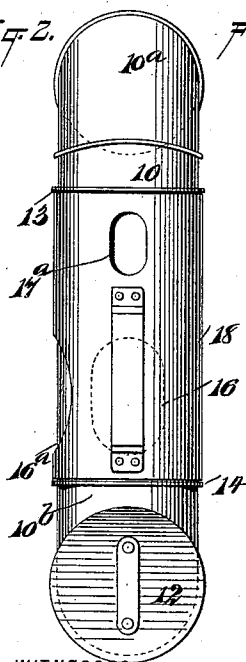


Fig. 3.

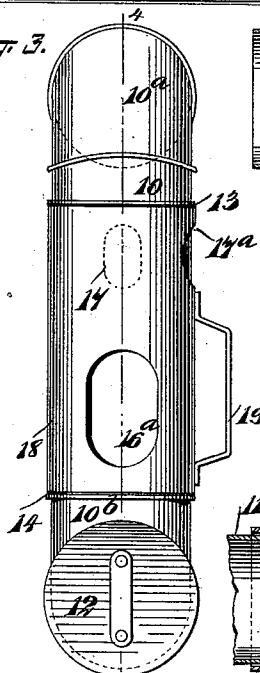
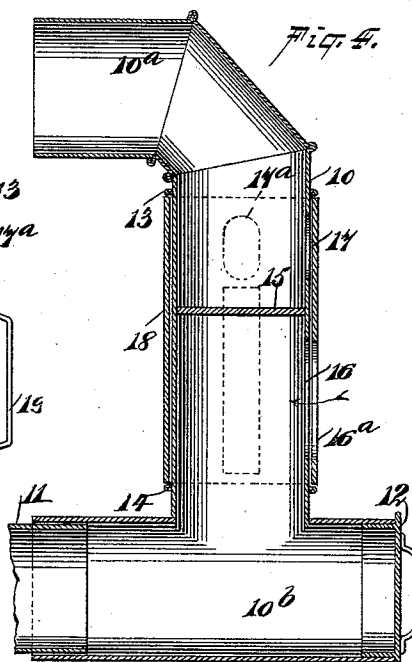


Fig. 4.



WITNESSES:

William P. Goebel.
J. H. Schaefer.

INVENTOR

T. B. Gilmour.

BY

Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS B. GILMOUR, OF DAYTON, WASHINGTON.

DRAFT DEVICE FOR AIR-TIGHT HEATING-STOVES.

SPECIFICATION forming part of Letters Patent No. 568,609, dated September 29, 1896.

Application filed February 11, 1896. Serial No. 578,909. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. GILMOUR, of Dayton, in the county of Columbia and State of Washington, have invented a new and Improved Draft Device for Air-Tight Heating-Stoves, of which the following is a full, clear, and exact description.

The object of the invention is to provide a draft device for air-tight heating-stoves through the medium of which air may be supplied to the fuel to promote combustion or applied over the fuel to retard combustion, the device being so constructed that at one movement of a damper or sleeve the air may be supplied to the bottom of the stove and the supply of air be cut off from the top, and vice versa, the flue adapted to conduct the air being divided in an air-tight manner between the openings provided to admit the air.

Another object of this invention is to so construct the draft device that while attached to the stove the ashes or other sediment or refuse in the stove may be readily cleaned out therefrom.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the air-tight stove, a part being broken away, and a side elevation of the draft attachment, illustrating the attachment as arranged for the admission of air to the stove above the fire. Fig. 2 is a front elevation of the draft attachment or device, its parts being in the position shown in Fig. 1. Fig. 3 is a view similar to Fig. 2, the damper or sleeve, however, having been so shifted as to cut off the supply of air to the upper portion of the flue, admitting the air at the lower portion of the same; and Fig. 4 is a vertical section through the attachment, the said section being taken substantially on the line 4 4 of Fig. 3.

In carrying out the invention the stove A is an ordinary air-tight stove and may be of any type of such. The draft attachment B is preferably located at the front of the stove, and it consists of a tubular flue 10, which is in

the nature of a pipe, being preferably circular in cross-section. The top portion of the said flue is in the form of an elbow 10^a, and is made to enter the stove at a point near the top thereof, as shown in Fig. 1. The lower portion of the flue is in the form of a horizontal drum 10^b, and this drum is made to enter an opening at or near the bottom of the stove, as shown in Fig. 1, and since the lower portion of the flue or its drum-section is brought quite close to the fire it is liable to become burned or so injured as to render the joint between it and the bottom portion of the stove defective. To prevent such an occurrence, a nipple 11 is introduced into the inner end of the drum-section 10^b of the attachment, as shown in Figs. 1 and 4, which nipple will extend a predetermined distance within the interior of the stove and will receive the action of the heat instead of the drum, and as the nipple becomes damaged by the heat it may be expeditiously and conveniently replaced by a perfect one.

The outer end of the drum-section of the flue is provided with a removable cap or cover 12, and when desired the fire may be lighted from this drum-section, and the drum-section is advantageously employed as a medium through which the ashes may be removed when the stove is to be cleaned.

Near the top portion of the body of the flue 10 an exterior collar 13 is produced, and a similar collar 14 is exteriorly made upon the same portion of the flue near its connection with the drum 10^b, and the said body portion of the flue, as shown particularly in Fig. 4, is divided about centrally by means of a horizontal partition 15, secured therein in an air-tight manner.

Ordinarily in the front of the body portion of the flue below the partition 15 an opening 16 is made. This opening is ordinarily quite large, as through it the material may be introduced for lighting the fire, and a smaller opening 17 is made in the front of the body portion of the flue above the said partition 15, as is also best shown in Fig. 4.

A sleeve or a tubular damper 18 is held to slide loosely around the body portion of the flue between the ribs 13 and 14, and this sleeve or damper is provided with a handle 19 to facilitate moving the same. The sleeve

or damper is provided with two openings, a lower opening 16^a and an upper one 17^a, the two openings being out of vertical alinement, and when one opening is at the front of the draft-flue the other opening will be at the side. The lower opening 16^a is of corresponding size and of such location that when brought to the front it will register with the lower opening 16 in the draft-flue, and at that time the opening 17^a in the sleeve or damper will have passed the upper opening 17 in the flue, and consequently that opening will be closed. Thus it will be observed that when the two upper openings 17 and 17^a are in registry the two lower openings 16 and 16^a will be out of registry, the lower opening 16 in the flue being closed.

When it is desired to supply air to the flue to promote combustion, the lower openings 16 and 16^a are brought in registry and air is supplied to the fire through the drum-section 10^b. When the heat becomes too great, the fire may be deadened or reduced by bringing the upper openings 17 and 17^a in registry, whereupon the lower opening will be closed and air will be supplied over the top of the fire to retard combustion.

The supply of air over the fire prevents the accumulation of gases, and thereby prevents the cover or top of the stove from being blown off, which event often happens under the ordinary system of supplying air, and the upper supply of air likewise prevents the stove-pipe from sweating.

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

1. A draft-regulating attachment for air-tight stoves, consisting of a flue adapted to enter the stove at a point near the fire and at a point some distance above the fire, the said flue being provided with a horizontal partition dividing it into an upper and into a lower compartment, both the upper and lower compartments being provided with an opening, and a sleeve loosely mounted upon the flue, extending above and below the partition therein, the said flue-sleeve being provided with an upper and a lower opening arranged to register with the corresponding openings

in the compartments of the flue, the openings in the sleeve, however, being so placed that when one is in registry with a flue-opening the other will be out of registry with the flue-opening with which it is adapted to register when occasion demands, as and for the purpose specified.

2. A device for regulating the draft in air-tight heating-stoves, consisting of a flue the top of which is of elbow form, the bottom being in the form of a drum having a removable outer head and a nipple at its inner end, the nipple portion of the drum-section of the flue and the elbow-section being adapted to enter the stove, the drum-section at the lower portion and the elbow-section at the upper portion of the said stove, the body portion of the flue being provided with a horizontal partition and an opening above and below the said partition, the said openings being in vertical alinement, and a sleeve held to revolve around the body portion of the flue, and provided with an upper and a lower opening arranged for registry with the corresponding openings in the flue, the openings in the sleeve, however, being out of vertical alinement, substantially as shown and described.

3. The combination, with an air-tight stove, of a draft attachment, the said draft attachment consisting of a flue the top of which enters the said stove near its top, the bottom of the said flue connecting with a drum having a removable outer cover and a removable nipple in its inner end, the drum being adapted to enter the lower portion of the stove, the body portion of the said flue having a partition formed therein and alining openings above and below the partition, and a sleeve mounted to slide loosely around the body portion of the flue, having openings corresponding in number to the said flue-openings and being adapted to register therewith, the openings in the sleeve being out of vertical alinement, as and for the purpose specified.

THOMAS B. GILMOUR.

Witnesses:

R. A. ROWLEY,
S. HOLMES.