(No Model.)

W. PRICE.

ATTACHMENT FOR STOVES.

No. 480,828. Patented Aug. 16, 1892.

Fig. 1.

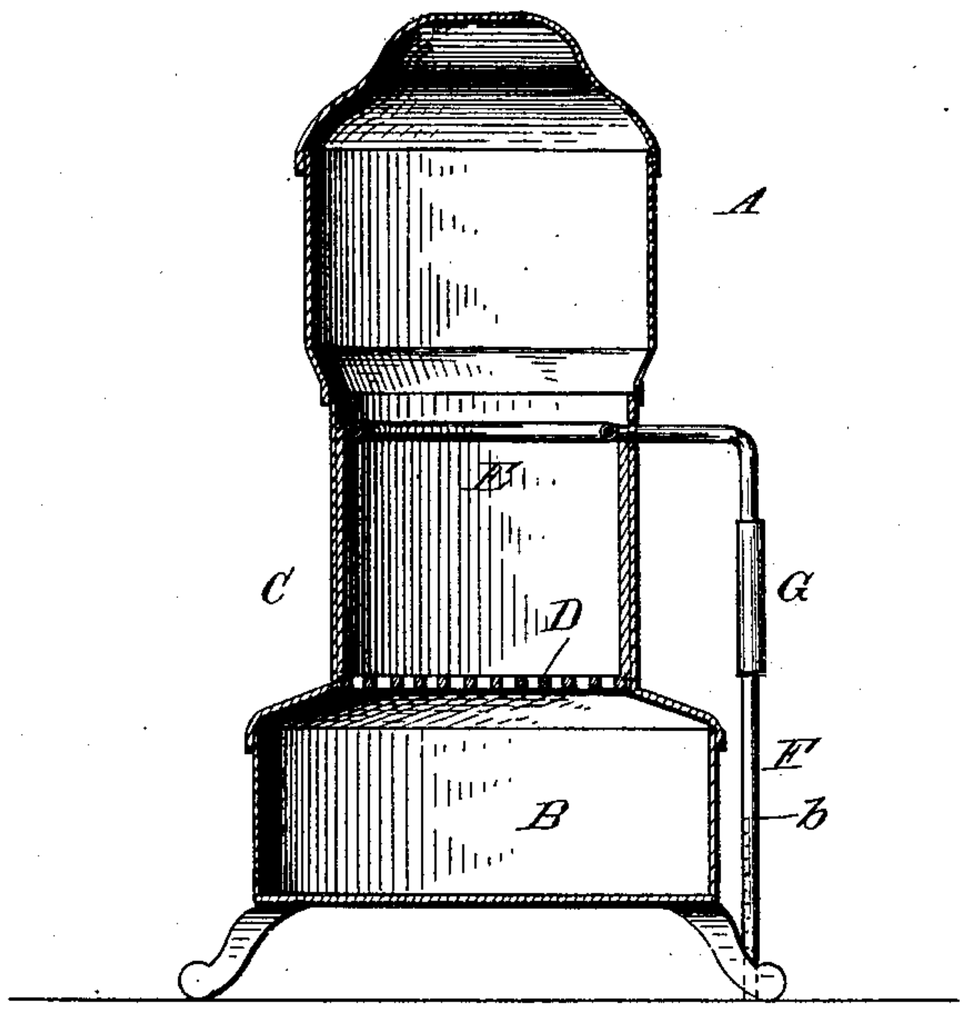
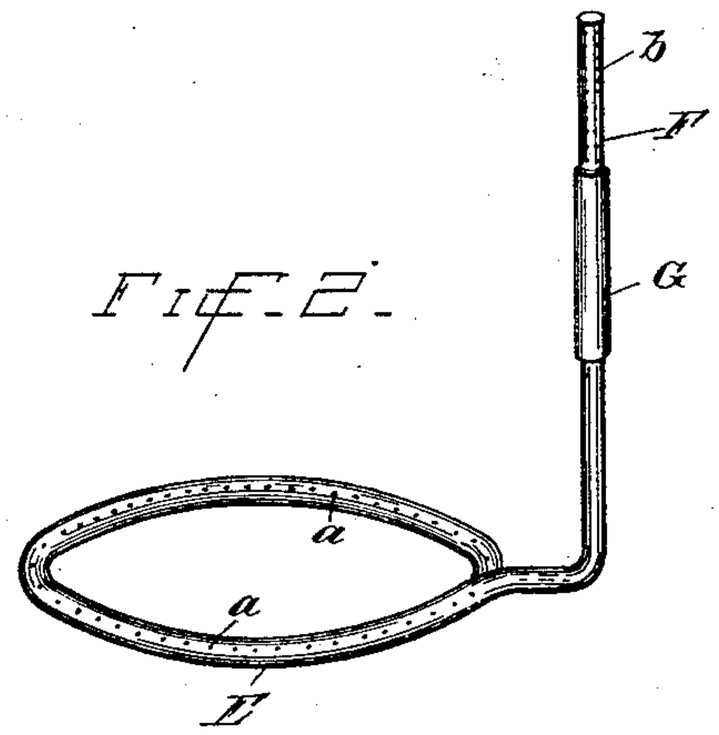


Fig. 2.



WITNESSES

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WILLIAM PRICE, OF MENDOTA, ILLINOIS.

ATTACHMENT FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 480,828, dated August 16, 1892.

Application filed April 28, 1891. Serial No. 390,782. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PRICE, a citizen of the United States, residing at Mendota, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Attachments for Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to various attachments to the ordinary coal-burning heating-stove, whereby a better combustion and heat will be obtained at the expenditure of a smaller amount of fuel than heretofore.

My improved attachment is extremely simple in construction and can be manufactured very readily and cheaply. Moreover, it may be quickly attached to any of the well-known forms of coal-burning heating-stoves without the necessity of making any material modifications therein. To accomplish these ends I make use of a perforated flue fitting around the interior of the stove directly above the fire and connected with another flue which extends outside of the stove down to point near the floor. The last-mentioned or outside flue is provided with a number of series of perforations near its lower end and with a sliding cap thereon, which may be moved up or down on the outside flue, so as to close or open a greater or lesser number of perforations. In this way the supply of air to the interior flue may be easily regulated with a high degree of accuracy. When a fire is built within the stove, it will heat the interior flue, so as to cause a circulation of cold air to pass up the outside flue into the interior flue. This cold air will then pass out through the perforations in the interior flue and will impinge against the fire in minute streams or jets. It has been found that these jets of cold air in flowing upon the fire greatly increase the heating qualities of the stove, probably for the reason that a much more perfect combustion is had than heretofore. The increase in the heating effects of a stove equipped with my improved attachment is probably further attributable to the fact that the jets of air will commingle with all gases generated by the combustion of the coal, particularly soft coal, and which will therefore be burned. This feature of the invention therefore not only renders the stove particularly effective, but it also makes the stove much safer than heretofore, for it will be remembered that when soft coal has been consumed in ordinary heating-stoves before my invention a considerable amount of gas was evolved, which, flowing out into the room, constituted a continual menace to life and property.

In addition to the fact that by the use of my invention a better combustion is obtained and consequently more heat is generated, I have found that a considerable economization of fuel is obtained, so that a stove may be operated more cheaply than heretofore. It will therefore be seen from the above that I have devised an invention which possesses many important advantages and which should therefore commend itself to the public.

For a better comprehension of my invention attention is directed to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a sectional view of an ordinary heating-stove, showing my invention attached thereto; and Fig. 2 a perspective view of my improved attachment detached from the stove.

For convenience the same parts of the device in both of the above views are designated by the same letters of reference.

A is an ordinary coal-burning heating-stove made of cast metal or sheet metal, or of both, if desired.

B is the fire-box of the stove, into which the ashes are shaken, as heretofore.

C is the body or radiating portion of the stove, which is provided with a door or opening, through which the coal or fuel is poured.

D is the grate of the stove on which the fire is built. This grate is made usually so as to be shaken or dumped, in order to be relieved of ashes. E is the interior flue, which I have heretofore referred to. This flue extends entirely around the inside of the stove directly above the fire-box, as shown in Fig. 1. I prefer to make this flue E of pipe, either of iron, copper, or other material and with one end closed. This flue is provided on its under side with small perforations *a a*.

F is the outside flue before mentioned, and

which connects with the open end of the interior flue. The outside flue F passes out through an opening in the side of the stove, as shown, and thence vertically downward to a point near the floor. The outside flue F is provided near its lower end with a number of small perforations *b*, through which air is admitted to the outside flue.

G is a cap, which fits over the lower end of the outside flue F with a considerable amount of friction, so that it will retain its position on any point of its path of movement. By moving the cap G up or down on the flue F a greater or lesser number of perforations *b* may be opened, whereby the amount of air passing to the flue F may be accurately regulated. The interior flue E is supported at one side by the horizontal portion of the flue F and on the other side by a lug or stop *c*, which is formed upon or secured to the inside wall of the stove.

The operation of my improved device will be readily understood and is as follows: The fire within the stove will heat the interior flue E, so that the air within the same will be driven out through the perforations *a a* upon the fire. The air will be replaced by cold air entering through the perforations *b b*, and which will in turn pass out through the perforations *a*. In this way a continuous circulation of air is maintained through the two flues with the effects before pointed out.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

An improved attachment for stoves, consisting of a tube closed at both ends, curved in the form of a circle or a part of a circle, and perforated on the inside of said bent portion of said tube and so arranged as to force the air in a downward direction and which is adapted to be placed above the grate and a part adapted to be placed outside of the stove and arranged in a perpendicular position and perforated near its lower extremity, in combination with a sleeve adapted to slide upon said perpendicular part of the tube, substantially as and for the purposes described.

WILLIAM PRICE.

In presence of—
L. B. CROOKER,
E. J. STATEN.