June 10, 1924.

1,497,049

W. H. WALTER

BROODER STOVE

Filed Jan. 29, 1924

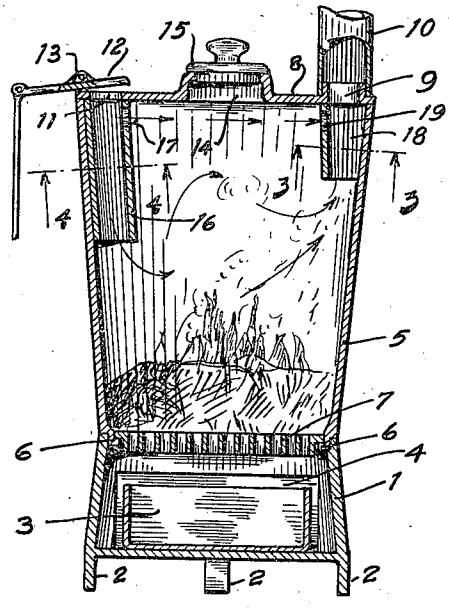


Fig. 1.

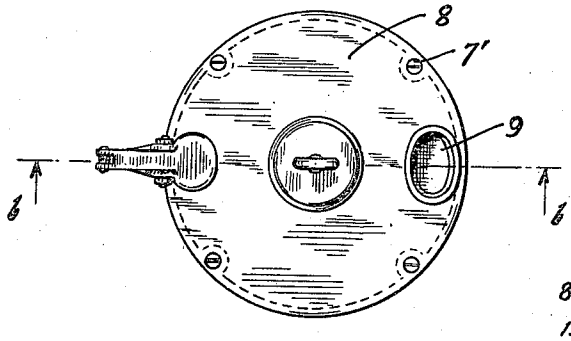


Fig. 2.

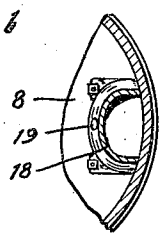


Fig. 3.

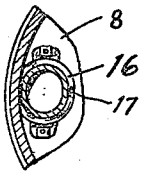


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WALTER, OF DENVER, COLORADO.

BROODER STOVE.

Application filed January 29, 1924. Serial No. 689,225.

To all whom it may concern:

Be it known that I, WILLIAM H. WALTER, a citizen of the United States, residing at Denver, county of Denver, and State of Colorado, have invented certain new and useful Improvements in Brooder Stoves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in brooder stoves of the type described and claimed in Patent No. 1,434,273, granted to me October 31, 1922.

It is the object of this invention to improve the burning qualities of my stove, to secure a better and more thorough combustion, and to attain a more uniform distribution of the heat.

The above and other objects that will become readily apparent as the description proceeds are attained by means of a construction and arrangement of parts which will now be described in detail reference for this purpose being had to the accompanying drawing in which the preferred embodiment of my invention is illustrated, and in which:

Fig. 1 shows a vertical section taken on line 1—1, Fig. 2;

Fig. 2 is a top plan view of the stove;

Fig. 3 is a section taken on line 3—3, Fig. 1; and

Fig. 4 is a section taken on line 4—4, Fig. 1.

Numeral 1 represents the base portion of the stove which rests on legs 2 and contains the ash pan 3 and is provided with a door 4 through which the pan can be removed when this becomes necessary. Resting upon the base portion is the body portion 5 of the stove. This portion is formed by a tapering cast-iron member which is provided at the bottom with inturned lugs 6 upon which the grate 7 rests.

Secured to the top of member 5 is a cover or top 8 that is secured to the same by bolts 7'. The cover top 8 has a flue opening 9 which connects with the stove pipe 10. Diametrically opposite from the flue opening is an air inlet opening 11 that is normally closed by a lid 12 hinged at 13 whose position is controlled by a thermostat (not shown). A central opening 14 serves as the feed opening and is closed by a cover member 15. Secured to the body member and held in place directly below the opening 11 is a pipe 16 that extends downwardly approximately half the length of the body member 5. This pipe has an opening 17 near its top. Directly beneath the flue opening 9 is a semi-circular portion 18 that I shall refer to as the fire distributer. This distributer extends downwardly from the top a distance somewhat less than half the length of pipe 16 and is provided with an opening 19 near its upper end.

Let us now assume that the stove is in operative position and connected to a stove pipe 10 that provides sufficient draft. A bed of coal is placed on the grate and ignited in the usual manner. As a result of the suction produced by the pipe 10, air will rush down through opening 11 into and through pipe 16. This air will impinge on the live coals and maintain combustion. The products of combustion will leave through member 17 and be carried away through pipe 10. A portion of the air that enters through 11 will pass through opening 17 into the upper part of the combustion chamber where it will mix with the products of combustion coming from the fire and will enter into combination with such unconsumed carbon as may be present. A portion of the gases from the top of the combustion chamber will enter the flue 9 through hole 19 and thereby prevent a pocket of gas forming in the top of the chamber. A stove constructed in the manner above described, produces a steady uniform heat on all sides of the stove, which is highly desirable when the stove is employed as a heater for brooders. The carbon in the gases given off by the coal will be entirely consumed by the air that enters through the opening 17, while member 18 produces a better distribution of the flame and heat within the stove. The hot air blast coming into the combustion chamber through pipe 16 produces a steady and complete combustion.

Having now described my invention, what I claim as new is:

1. A stove comprising, in combination, a combustion chamber, a grate near the lower end thereof, a top secured to the upper end thereof, said top having an air inlet and a gas outlet substantially diametrically located, a pipe member projecting downwardly

from the air inlet, a member projecting downwardly a short distance below the top so as to form a prolongation of the gas exit opening, said pipe and said downwardly projecting member having openings near their upper ends.

2. A stove comprising, in combination, a base member a body member forming a combustion chamber supported thereon, a grate secured to the lower end of the body member, a top secured to the upper end thereof, said top having an air intake opening on one side and a gas exit on the other side, a pipe extending downwardly below the air intake, means cooperating with the inside of the body member and with the top to form a downwardly extending passage below the gas exit opening, said pipe and said last-named means having openings near their upper ends.

In testimony whereof I affix my signature.

WILLIAM H. WALTER.