No. 706,750. Patented Aug. 12, 1902.

R. GALBRAITH.

COOKING STOVE.

(Application filed Aug. 5, 1901.)

(No Model.) 2 Sheets—Sheet 1.

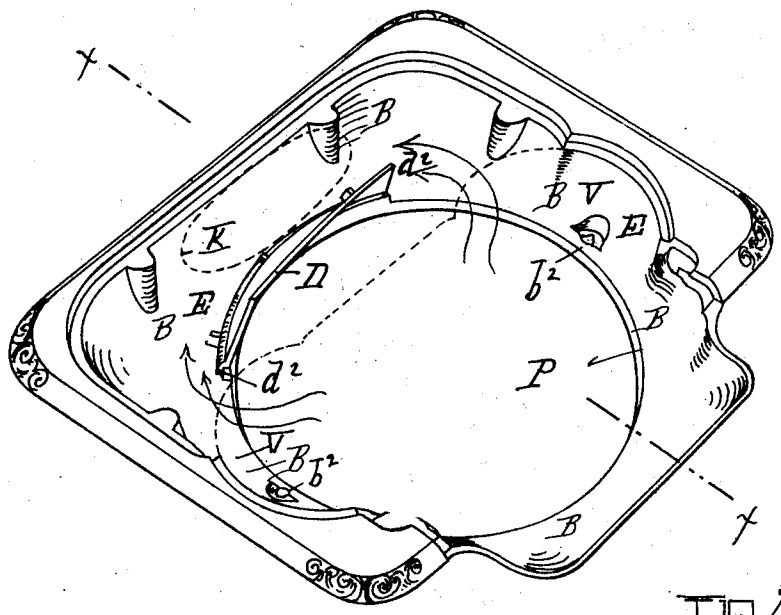
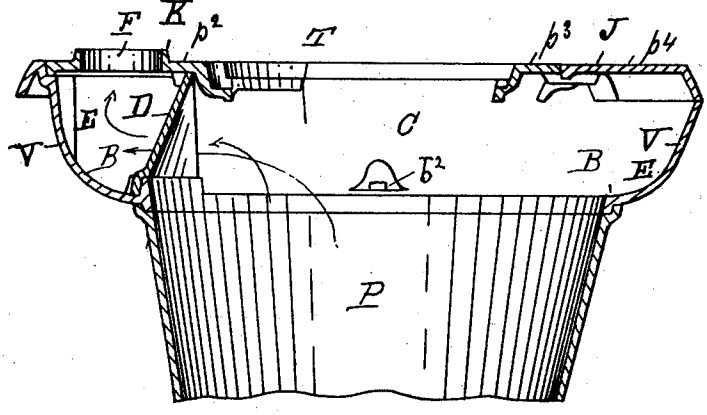


Fig 1

Fig 3



WITNESSES

William A. Swett

Charles S. Brimhall

INVENTOR

Robert Galbraith

by W. E. Hagan atty

No. 706,750. Patented Aug. 12, 1902.

R. GALBRAITH.

COOKING STOVE.

(Application filed Aug. 5, 1901.)

(No Model.) 2 Sheets—Sheet 2.

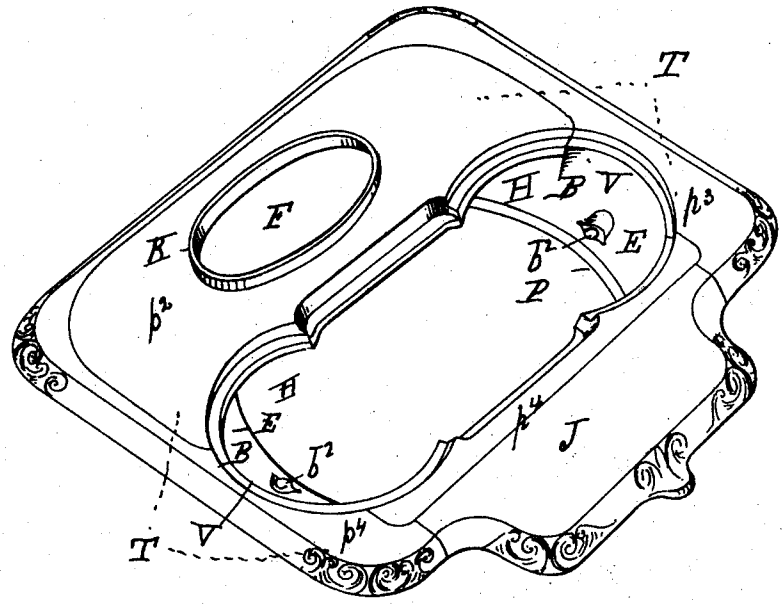


Fig 2

WITNESSES
William A. Sweet
Charles S. Brimhall

INVENTOR
Robert Galbraith
by WE Hagan atty

UNITED STATES PATENT OFFICE.

ROBERT GALBRAITH, OF TROY, NEW YORK, ASSIGNOR TO THE GREAT WESTERN STOVE COMPANY, OF LEAVENWORTH, KANSAS.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 706,750, dated August 12, 1902.

Application filed August 5, 1901. Serial No. 70,920. (No model.)

To all whom it may concern:

Be it known that I, ROBERT GALBRAITH, of the city of Troy, county of Rensselaer, and State of New York, have invented new and useful Improvements in Cooking-Stoves, of which the following is a specification.

My invention relates to cooking-stoves, and more particularly to that class of them which have a boiler-hole top section arranged upon a fire cylinder or pot with said boiler-hole top section made to extend laterally over and beyond the fire-cylinder, so as to inclose a combustion chamber or flue thereat which projects horizontally beyond the fire-cylinder with which it connects; and the object and purpose of my invention is to give to the heat and burning gases ascending from the fire an indirect movement to the exit-pipe, and thus to better the distribution of heat to vessels placed in the boiler-hole top for culinary purposes.

Accompanying this specification to form a part of it there are two plates of drawings containing three figures illustrating the application of my invention with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 is a perspective of that part of the boiler-hole top of a stove which forms the base and sides of the lateral extension of the combustion-chamber over and beyond the edge of the fire pot or cylinder on which the top is mounted with what forms the interior parts of the boiler-hole top proper, together with that part of the latter wherein the feed-door is mounted omitted. Fig. 2 is a top view of the stove, and Fig. 3 is a section taken on the line $x\ x$ of Fig. 2.

The several parts of the stove thus illustrated are designated by letter reference, and the function of the parts is described as follows:

The letter P designates the fire-pot, which is cylindrical in form and in which the fuel is burned, and the letter B designates the base-plate of the stove-top, which is made to extend outwardly and horizontally beyond the fire-pot at L and therefrom to extend upwardly vertically at V, so as to form the horizontal extension E of the combustion-chamber C in connection with the boiler-hole top plate T. This last-named plate consists of the plate p^2, in which the exit-flue F and the pipe-collar K are arranged and also the centrally-located plate parts p^3 and p^4, forming the pot-holes H and that part of the boiler-hole top plate proper in which the feed-door J is illustrated as mounted.

The letters b^2 designate bolts connecting the base-plate B of the top extension with the top rim of the fire pot or cylinder.

All of the before-named parts are well-known elements of stove structure and apart from their combination in coöperating function with my improved means for making more uniformly effective the heat evolved are not my invention.

To cause the heat and gases evolved from the fire-cylinder to pass through the lateral extension E of the combustion-chamber C and by which indirect passage to act more directly upon vessels placed in the pot-holes of the top T or on the latter, I employ a deflecting-plate D, which is made to extend vertically from the top edge of the fire-cylinder P to connect with the under side of the boiler-hole top part p^2, in which latter back of the deflecting-plate D the exit-flue F is located, there being arranged at each end of the plate D, as indicated, a passage-way d, through which the heat and gases will be compelled to move into and through the lateral extension E of the combustion-chamber C to reach the exit-flue F. Without this vertically-placed plate D the heat evolved from the fire will pass directly to the exit-flue under the draft influence.

I am aware that the front wall or plate of the rear ascending flue of a three-flue cooking-stove has been cut away at each of its ends to form an opening in the upper end of each of the descending corner flues located thereat. This construction differs from that of mine herein shown, in which the plate D forces the heat and gases to pass laterally to the exit-flue and not to a descending flue.

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

1. The combination with the fire-cylinder of a stove having a combustion-chamber that

is partly directly over, and in part horizontally extended beyond the upper edge of the fire-cylinder, to encircle the same thereat; and is provided with an exit-flue in the rear of the boiler-hole top inclosing said combustion-chamber; of a deflecting-plate that is upwardly projected from the top edge of the fire-cylinder at the rear thereof to connect with the boiler-hole top in front of said exit-flue; a passage at each end of said deflecting-plate whereby the heat and gases evolved from the fire in the fire-cylinder are caused to pass through said lateral extension of the combustion-chamber to reach the exit-flue, substantially as, and for the purposes set forth.

2. The combination with the fire-cylinder P, of the combustion-chamber C, arranged above the latter, and having the laterally-arranged combustion-chamber extension E, provided with the exit-flue F, at its rear; the deflecting-plate D, upwardly projected from the rear edge of said fire-cylinder at its top to connect with the under side of the boiler-hole top of the combustion-chamber; and the passage *d*, at each end of said deflecting-plate whereby the heat and gases evolved from the fire-cylinder will be forced to pass through the lateral extension of the combustion-chamber to reach the exit-flue, substantially as, and for the purposes set forth.

Signed at the city of Troy, New York, this 10th day of June, 1901, in the presence of the two witnesses whose names are hereto written.

ROBERT GALBRAITH.

Witnesses:

CHARLES S. BRINTNALL,

W. E. HAGAN.