(No Model.)

C. J. EDMONDS.

COOKING STOVE.

No. 461,953. Patented Oct. 27, 1891.

Fig. 2

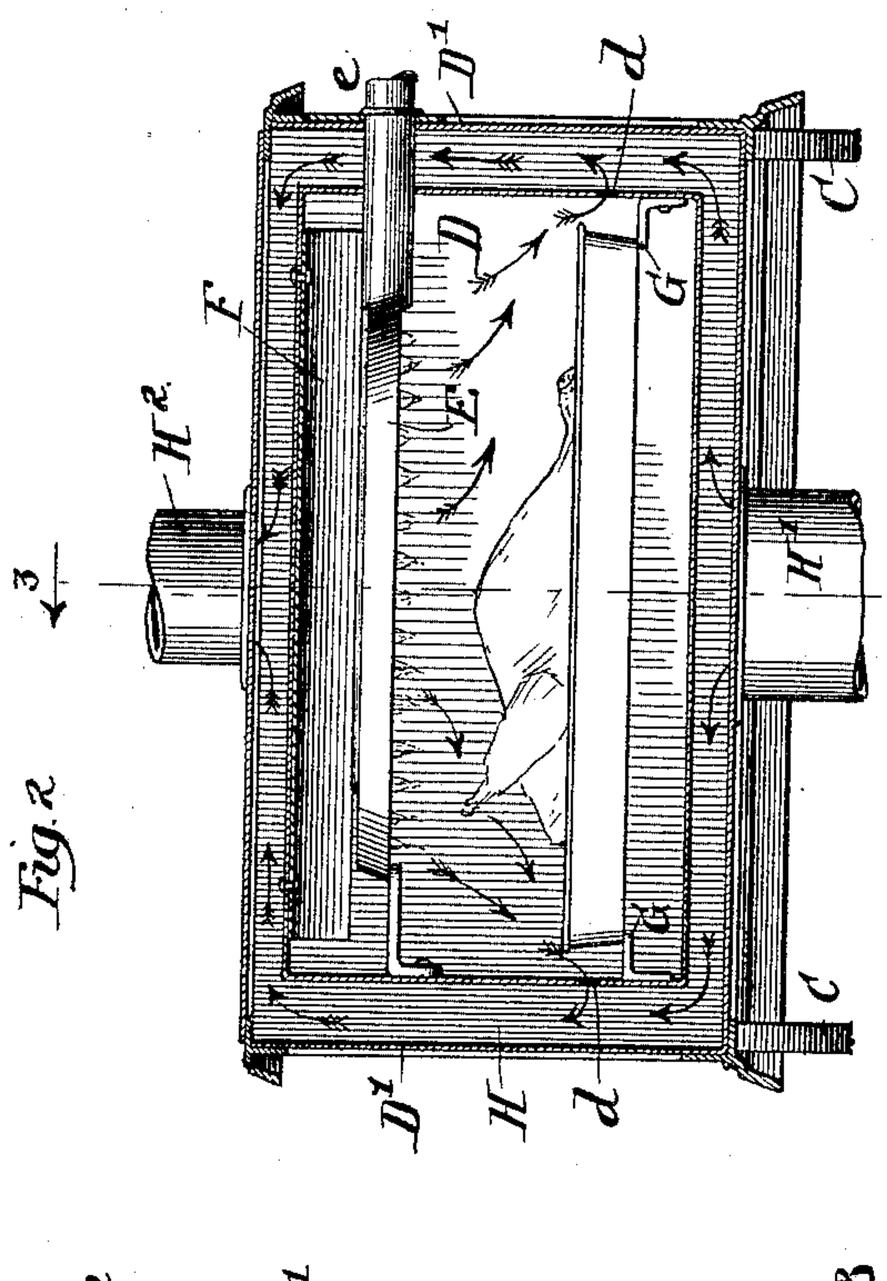


Fig. 3.

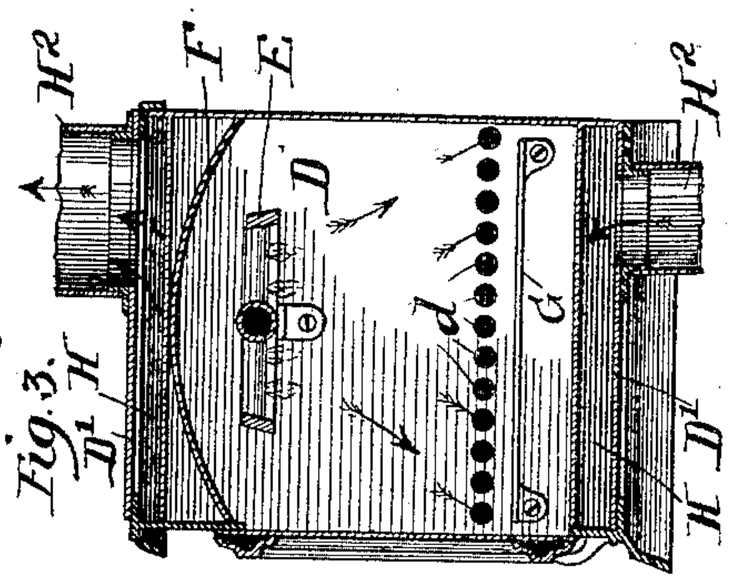
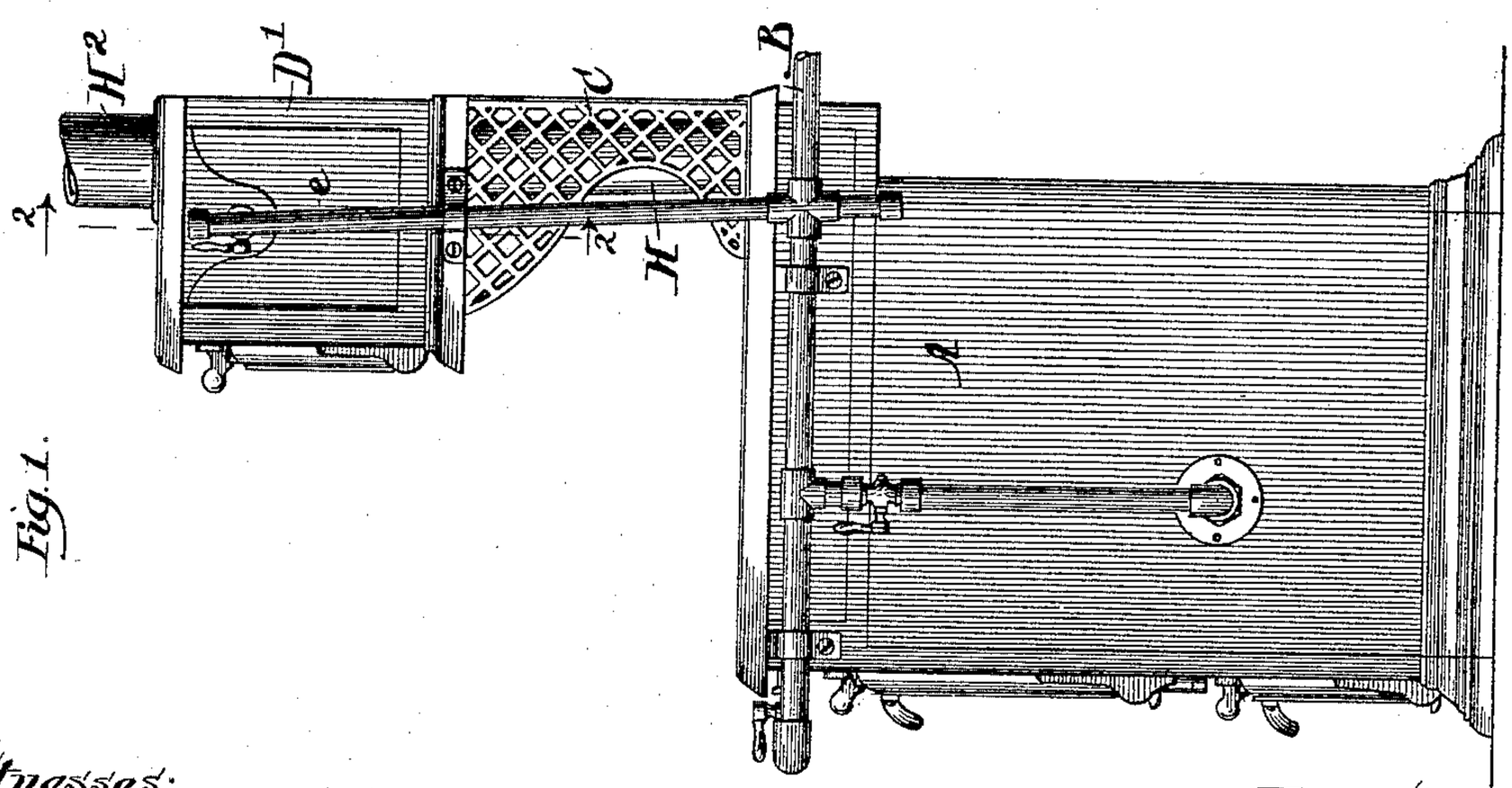


Fig. 1.



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UNITED STATES PATENT OFFICE.

CHARLES J. EDMONDS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE MASON & DAVIS COMPANY, OF SAME PLACE.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 461,953, dated October 27, 1891.

Application filed February 5, 1891. Serial No. 380,266. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. EDMONDS, a citizen of the United States, residing at Grand Crossing, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cooking-Stoves, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention has relation more particularly to that class of cooking-stoves commonly known as "gas-stoves," in which the cooking is effected by heat from a gas-burner in proximity to the food to be cooked. I do not wish my invention to be understood, however, as restricted to this class of stoves, as the main features of the invention can be employed in connection with stoves in which the heat is generated in other manner than by means of gas-burners—as, for example, by superheated steam or other convenient heat-generating mechanism. In this class of devices, so far as I am aware, it has been heretofore the practice to effect the broiling or cooking of the food by exposing the same in close proximity to the gas-burners, so that the cooking is effected by the direct radiation of heat from the burners. In such devices the full benefit of the heat was not realized, because of the tendency of the heat to rise to the top of the cooking or broiling chamber.

The object of my invention is to provide means whereby the downdraft within the cooking-chamber shall be accomplished so as to better direct the heat upon the food to be cooked.

To this end my invention consists in the combination, with a stove, of a suitable heater or burner extending above and across the space to be occupied by the food to be cooked, the cooking-chamber of said stove being provided with means for creating a downdraft therein.

A further object of my invention is to increase the downdraft within the cooking-chamber; and to this end my invention consists in connecting the discharge vent or openings of the cooking-chamber with the flue or passage, whereby the products of combustion are carried away from the main body of the stove.

A still further object of invention is to better utilize the heat of the products of combustion from the burning of gas within the main body of the stove, and this object I accomplish by causing such products of combustion to pass around the elevated chamber before they are delivered into the discharge-pipe that leads to the chimney.

Figure 1 is a view in side elevation of a gas-stove embodying my invention. Fig. 2 is a view in vertical section on line 2 2 of Fig. 1. Fig. 3 is a view in vertical section on line 3 3 of Fig. 2.

A designates the main body of the gas-stove, into which leads the supply-delivery pipe B, that serves to supply the gas to the burners within the stove in well-known manner. Above the body of the stove, and preferably supported upon suitable brackets C, is sustained the elevated cooking-chamber D. Within the upper portion of this cooking-chamber is located a gas-burner E, receiving the supply of fuel from the delivery-pipe *e*, this burner being arranged to deliver its flame in downward direction, as shown in Figs. 2 and 3 of the drawings. The side walls of the cooking-chamber D are provided with a suitable vent or discharge consisting, preferably, of a series of perforations *d*, (although a single continuous vent *d* might be used,) these perforations being located at a distance below the burner E or other source of heat. By preference a deflecting-plate F extends across the upper part of the cooking-chamber, in order to better deflect the heat down into the chamber and upon the food to be cooked. My purpose in arranging the perforation *d* at a point below the line of the burner E is to insure a downdraft of the heat from the burner, thereby causing the heat to be better directed upon the food to be cooked than would be possible if the heat were allowed to rise to the upper part of the chamber and to pass away therefrom. The interior of the cooking-chamber may be provided with suitable brackets G, on which will be supported the pans or gridirons whereon the food will rest.

In order to increase the downdraft within the cooking-chamber, I prefer to connect the discharge-openings *d* of the cooking-chamber with a passage or eduction-flue H, that conducts the products of combustion from the main portion of the stove, so that as the products of combustion rise through this flue or passage they will increase the downdraft of heat within the cooking-chamber. In the preferred form of my invention the passage-way H for the products of combustion is formed by the wall of the cooking-chamber D and the walls of an outer chamber or jacket D′, the passage-way H being connected with the main body of the stove by a pipe H′, and being furnished with a pipe H^2, leading to the chimney. By this preferred arrangement not only is a more effective downdraft obtained in the cooking-chamber, but the heat from the products of combustion from the main body of the stove is utilized in warming this chamber. This feature of causing the products of combustion from the main body of the stove to pass around the chamber D will be found of advantage not only when the chamber D is employed for cooking, but also when this chamber is used simply as a warming-chamber. By locating the cooking-chamber D at a distance above the top of the stove not only am I able to utilize the products of combustion from the main body of the stove, but a very material advantage is gained in that the cooking of the food can be readily observed without the necessity of the cook constantly stooping over for this purpose, as would be the case if the broiling-chamber were located in the main body of the stove, as in the prior constructions.

The details of construction above set out may be greatly varied without departing from the spirit of my invention, and to such details, therefore, I do not wish the invention to be understood as restricted.

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

1. A stove comprising a cooking-chamber and a burner or heater for supplying heat to said chamber, located within the upper portion of said chamber and extending above and across the space to be occupied by the food to be cooked, said chamber having a vent or discharge for the products of combustion or the like at a distance below the said burner or heater, whereby the food to be cooked will be subjected not only to the direct radiation from the burner or heater, but also to a direct downdraft from said burner or heater, substantially as described.

2. A stove comprising a cooking-chamber, a burner or heater for supplying heat to said chamber, extending above and across the space to be occupied by the food to be cooked, said chamber having a vent or discharge at a point below the burner or heater for the products of combustion from the main body of the stove, said passage being connected with a vent or discharge for the cooking-chamber, substantially as described.

3. A stove comprising a cooking-chamber D, a burner located in the upper portion of said chamber, said chamber being furnished with a vent or discharge in its lower portion, and a jacket D′, forming with said chamber D a passage H for the products of combustion from the main body of the stove, substantially as described.

CHARLES J. EDMONDS.

Witnesses:
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