Aug. 25, 1931. A. H. L. KLEMME 1,820,277

GAS STOVE

Filed July 2, 1928

Fig. 1.

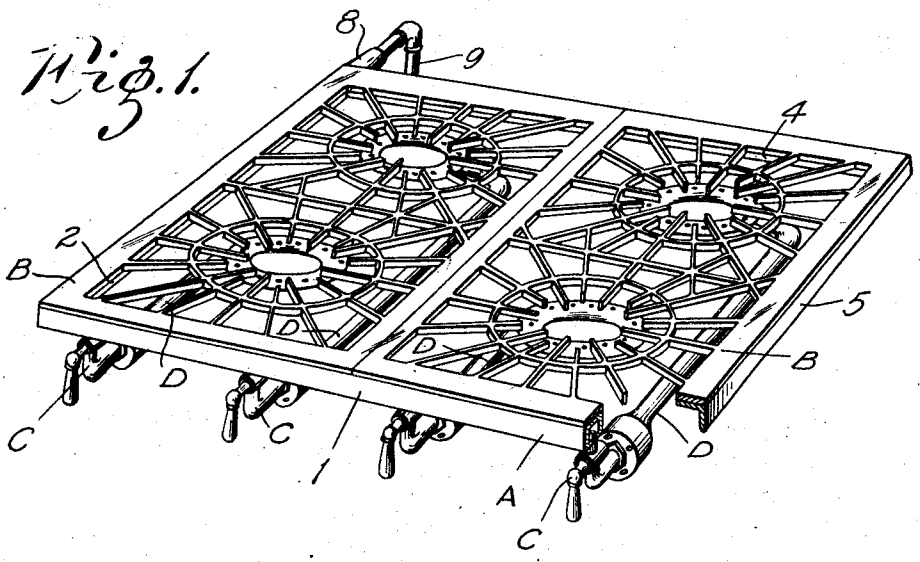


Fig. 2.

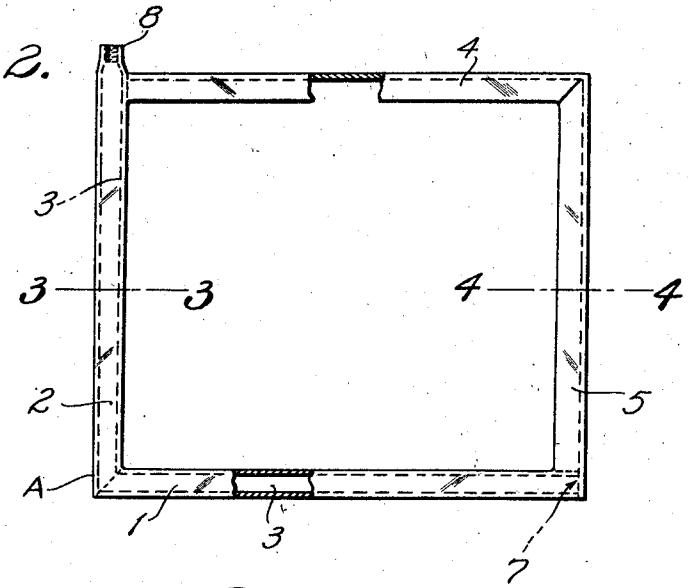


Fig. 3.



Fig. 4.



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UNITED STATES PATENT OFFICE

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GAS STOVE

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This invention relates to gas stoves of the kind wherein the grid supporting top frames are formed with conduits or passageways for supplying gas to the burners.

Heretofore such top frames have been made up of pipe and fittings or in the form of a casting having a cored gas supply passage therein. The principal objection to the pipe frame is that it presents an unsightly appearance, is expensive to manufacture, difficult to assemble and is liable to leak at the joints. The cored cast iron frame is objectionable by reason of its weight, cost, fragility and the danger of leakage due to blow holes in or sponginess of the coarse grained metal. The cast iron frame is also objectionable by reason of its tendency to warp and become twisted or distorted due to the heat from the burners.

The object of the present invention is to produce a strong, durable and rigid lightweight grid supporting top frame of simple and economical manufacture and compact design which will not leak or warp and which will present a neat and attractive appearance.

The invention consists in a grid supporting frame whose rear rail and one side rail are formed of angle iron and whose front and other side rail are formed of metal tubing. The invention also consists in the construction, combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, which forms part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a perspective view of my improved grid supporting gas stove frame, the grids and burners being shown in connection therewith;

Fig. 2 is a plan view of said frame with the burners and grids removed;

Fig. 3 is a vertical cross-section through the tubular portion of the frame on the line 3—3 in Fig. 2; and

Fig. 4 is a vertical cross-section through the angle iron portion of the frame on the line 4—4 in Fig. 2.

The accompanying drawings illustrate a metal top frame A for gas stove equipped with the usual utensil supporting grids B, gas cocks C communicating with a passageway in the front rail of said frame and discharging into the front ends of mixing tubes D leading to gas burners.

In accordance with the present invention, the front rail 1 and one side rail 2 of the grid supporting top frame A are made up of sections of steel tubing, preferably of rectangular section, disposed at right angles to each other with their adjacent ends mitered and welded together to form a continuous passageway 3 which extends longitudinally of said rails from end to end thereof. The rear and other side rail 4 and 5, respectively, of the grid supporting top frame A are made of a length of structural rolled steel, preferably of angle-shaped section, which is bent intermediate its ends to form two branches that are disposed at right angles to each other, the one branch forming the rear rail 4 and the other branch forming the side rail 5.

As shown in the drawings, the angle member which forms the rear rail 4 and the side rail 5 of the frame is arranged with one flange up and facing inwardly flush with the tops of the tubular front and side rails 1 and 2, respectively, of said frame, and with its depending flange located at the outer edge of said frame. The horizontal top flange of the angle member is of a width corresponding to the width of the tubular rails 1 and 2; and the depending flange of said angle is of a depth corresponding to the depth of said tubular rails. At the corner of the frame, where the angle side rail 5 joins the tubular front rail 1, the horizontal top flange of the angle side rail abuts against the inner face of the tubular front rail; and the depending flange of said angle side rail is extended across the open end of said tubular front rail, as at 7, to close the same, the adjacent ends of the angle side rail and the tubular front rail being rigidly secured together, preferably by welding. At the corner of the frame, where the angle iron rear rail 4 joins the tubular side rail 2, the end of the angle iron rear rail abuts against the inner side wall of the tubular side rail and is rigidly secured thereto,

preferably by welding. As shown in the drawing, the tubular side rail 2 is extended beyond the rear rail of the frame and terminates in a threaded end portion 8 adapted for connection with the main gas supply pipe 9.

Among the advantages of the hereinbefore described grid supporting frame are its light weight, durability, strength and rigidity, and its simplicity and cheapness of construction. It is also noted that an important advantage of my invention is that it resists any tendency for the rails to warp and become twisted or distorted by the heat from the gas burners and that the density of the metal of the steel tubing and the arrangement for closing the end of the tube which forms the front rail of the frame eliminate the danger of the escape of gas therefrom.

What I claim is:

A grid supporting top frame for gas stoves comprising front, rear and side rails, the rear rail and one side rail comprising a rolled structural steel member of substantially angle-shaped section, and the front rail and other side rail comprising sections of steel tubing of substantially rectangular section, the adjacent ends of said tube sections being welded together, the angle member abutting against the inner face of the tubing at one corner of said frame and being welded thereto, and the tubing extending beyond the angle-shaped rail at said corner of said frame and terminating in a threaded portion adapted to receive a pipe fitting, said angle member overlapping the adjacent end of the tube forming the front rail of said frame to close the same and being welded thereto.

Signed at St. Louis, Missouri, this 29th day of June, 1928.

ALVIN H. L. KLEMME.