April 23, 1929. R. HOFFMAN 1,710,023

STOVE TOP

Filed Nov. 9, 1925

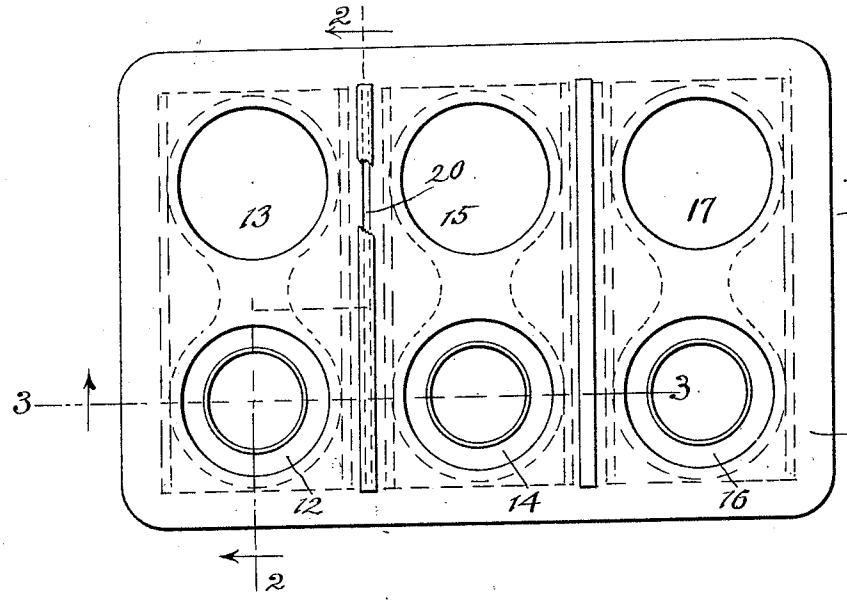


Fig. 1.

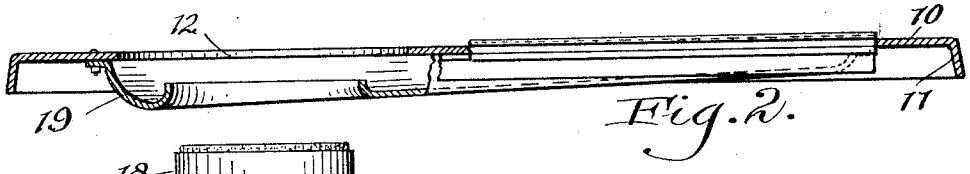


Fig. 2.

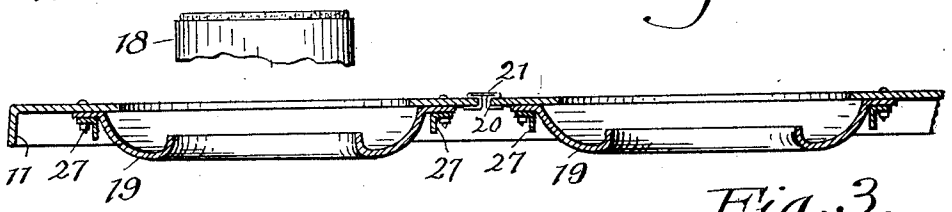


Fig. 3.

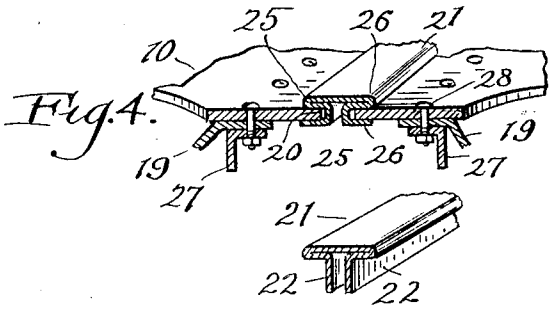


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

RUDOLPH HOFFMAN, OF CLEVELAND, OHIO.

STOVE TOP.

Application filed November 9, 1925. Serial No. 67,757.

This invention relates to stoves and more particularly to tops for cooking stoves employing oil as the fuel, although it is equally applicable to stoves which use other forms of liquid or gas fuels.

It is one of the objects of the invention to provide an improved form of construction of stove tops that will overcome the objections to present constructions on account of warping due to the heat to which the tops are subjected. In some forms of stove construction, it is customary to use tops that are stamped from sheet metal and to have a plurality of openings supplied with heat from a single burner. In the case of stoves in which a single burner supplies heat to a plurality of openings, much difficulty has been experienced because the hot gases are caused to travel under the stove top, and in contact therewith, thus heating the top to such an extent that it warps out of shape and becomes uneven and unsightly.

A preferred form of my invention is illustrated in the accompanying drawings, of which:

Fig. 1 is a plan view of a stove top;

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1;

Fig. 3 is an enlarged section on the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary view, partly in perspective and partly in section, the section being an enlargement of a portion of Fig. 3; and

Fig. 5 is a perspective view of the reinforcing element which is illustrated in the other views.

Referring to the drawings, 10 indicates a rectangular sheet-metal stove top having the depending marginal flange 11. It is customary to provide openings in the top, commonly called burner openings, through which the hot gases, which are generated in the burners, pass. In the drawings, these openings are indicated at 12, 13, 14, 15, 16 and 17. It is also customary to provide burners beneath some or all of these openings and I have indicated one of these burners, diagrammatically, at 18. In the particular form of stove top, illustrated, the openings are arranged in pairs, each pair of openings being supplied by one burner and these burners being located beneath the openings 12, 14, and 16 which are usually adjacent the front of the stove. The openings 12 and 13, constitute one pair, the openings 14 and 15 another pair and the openings 16 and 17 a third pair. There is secured to the underside of the top 10, in connection with each pair of openings, a pressed steel member 19 which forms, with the top, a flue for transferring gases from the burner, beneath the front opening of the pair, to the rear opening. Referring to Fig. 2, it will be seen that, when the opening 12 is covered, in any suitable way, the hot gases, from the burner 18, will be actuated through the flue, formed by the member 19, to the rear opening 13. The top of the stove is thus brought into direct contact with these hot gases which results in considerable expansion and warping unless the expansion is properly compensated for so as to prevent the warping.

For the purpose of preventing the top from warping, I form slots 20 therein, these slots being arranged between the different pairs of openings as will be apparent from Fig. 1. The slots 20, of course, tend to weaken the stove top but, to overcome this, I provide a reinforcing member in connection with each of the slots. This reinforcing member, in the preferred form of my invention, consists of a folded metal strip 21 of the form illustrated in Fig. 5 which shows the original form of the strip before it is applied to the stove top. The manner of application of this strip, will be clear from Fig. 4, the depending flanges 22 being inserted in the slot and then bent over to enclose the edges of the slot, as shown. In this manner, each of the edges is confined between laterally extending flanges, one pair of which is indicated at 25 and the other pair at 26. As will be obvious from Fig. 4, the edges of the slot are thoroughly reinforced and supported by the member 21 and yet these edges are free to move between the flanges 25 and 26 to compensate for contraction and expansion resulting in variations in the temperature of the metal. The member 21 also serves to cover the slot and provides an attractive finish for the stove top.

In addition to reinforcing the stove top by means of the members 21, I also provide reinforcing angles 27 along the edges of the members 19, these angles being secured to the top by bolts 28 or other suitable means, which also pass through the edge portions of the members 19 and secure the latter.

Having thus described my invention, what I claim is:

1. A stove top having a slot therein stop-

ping short of the edges of the top and a reinforcing strip bridging the slot and engaging the upper and lower surfaces of the top adjacent the edges of the slot, for the purpose described.

2. A stove top having a pair of openings for the heating gases, and a slot separating those portions of the top directly surrounding said openings, said slot having a reinforcing member arranged therein having laterally extending flanges engaging the upper and lower surfaces of the top adjacent the slot edges whereby the edges of the slot are free to move to compensate for expansion and contraction of the top.

3. In stove tops having a plurality of openings for the heating gases, a burner under one of said openings, a member secured to the underside of the top and forming therewith a flue through which gases from said burner may be transferred to another of said openings, said top having a slot therein extending substantially parallel to the general direction of said flue, and a member covering said slot and having pairs of flanges along its opposite edges each of which pairs of flanges encloses and supports one of the longitudinal edges of the slot and permits movement thereof to compensate for expansion and contraction of the top.

4. In stove tops having a plurality of openings for the heating gases, a burner under one of said openings, a member secured to the underside of the top and forming therewith a flue through which gases from said burner may be transferred to another of said openings, a reinforcing member secured to the top at one edge of the first-mentioned member, said top having a slot adjacent said reinforcing member and extending lengthwise thereof, and a member covering said slot and having flanges extending downwardly therethrough and beneath the edges thereof to support said edges and permit them to move to compensate for expansion and contraction of the top.

5. In stove tops having a plurality of pairs of openings for heating gases, a burner arranged below one of the openings of each of said pairs, members secured to the underside of the stove top and forming therewith flues connecting the openings of each pair, said stove top having a slot therein between adjacent pairs of openings, and a member in said slot having laterally projecting flanges enclosing and supporting the edges of the slot as and for the purpose described.

In testimony whereof, I hereunto affix my signature.

RUDOLPH HOFFMAN.