June 12, 1951 H. M. REEVES 2,556,445

STOVE TOP CONSTRUCTION

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Fig. 1

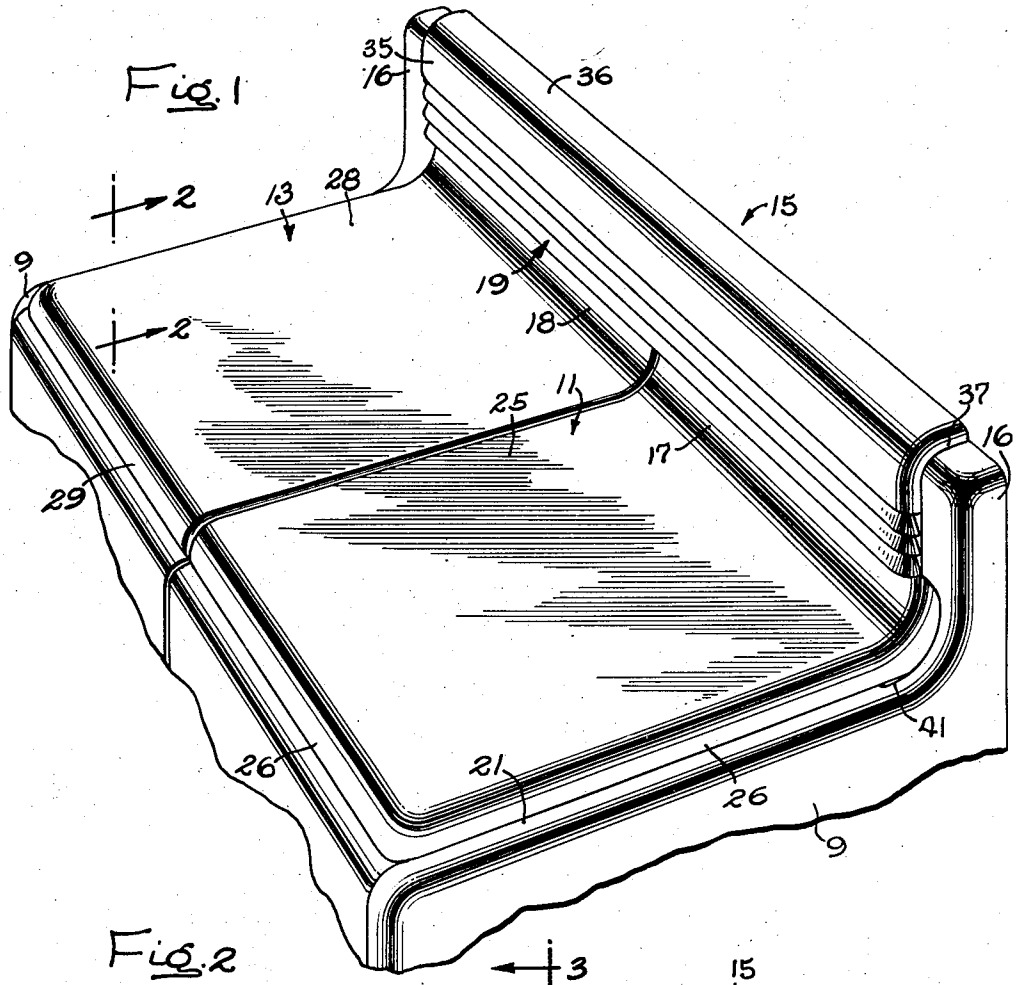
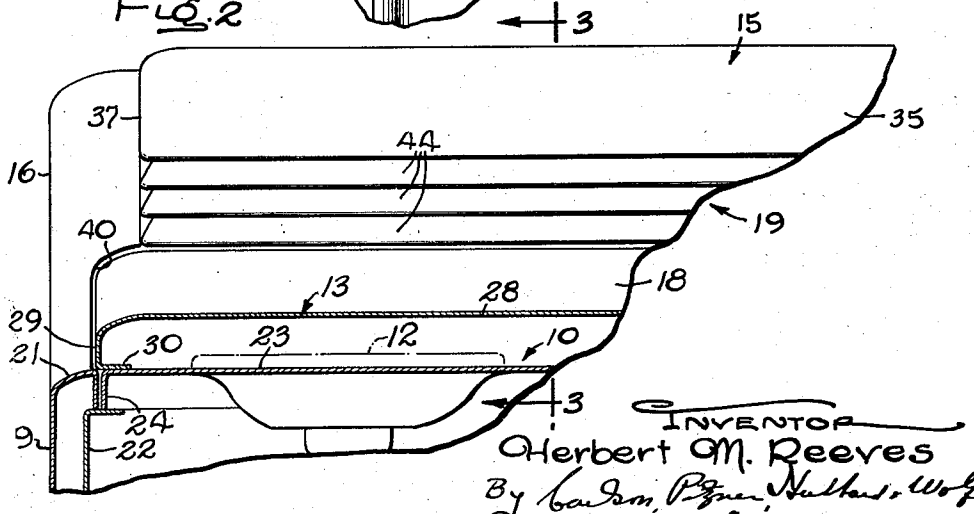


Fig. 2



INVENTOR
Herbert M. Reeves
By Cushman, Darby, Nutter & Wolfe.
ATTORNEYS

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Fig. 3

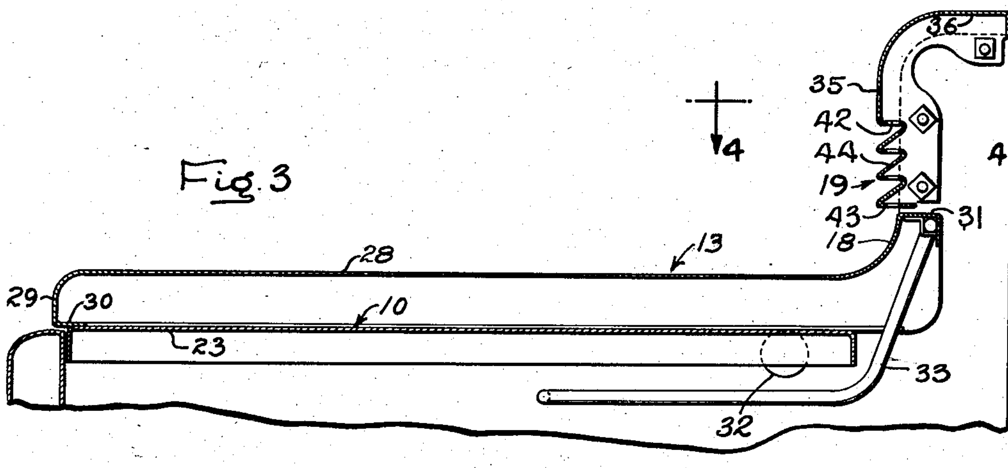
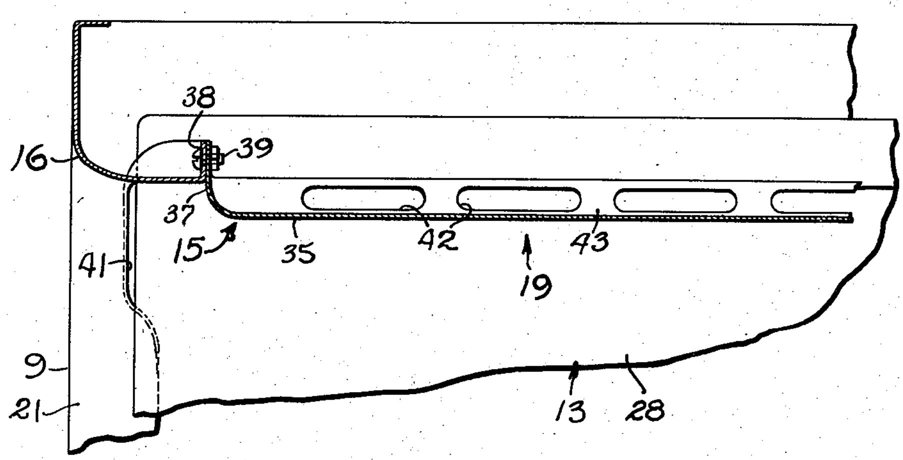


Fig. 4



INVENTOR
Herbert M. Reeves
By Carlson, Pitzner, Hubbard & Wolfe
ATTORNEYS

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2,556,445

STOVE TOP CONSTRUCTION

Herbert M. Reeves, Kankakee, Ill., assignor to Florence Stove Company, Gardner, Mass., a corporation of Massachusetts

Application January 31, 1947, Serial No. 725,658

3 Claims. (Cl. 126—214)

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The invention relates generally to cookstoves of the table type, and more particularly to an improved top construction for such stoves.

One object of the invention is to provide a stove top construction for stoves of the above general character which is attractive in appearance, easy to keep clean, and inexpensive to manufacture.

Another object is to provide a top construction for cookstoves which provides for adequate venting of the space at the back of the stove and for dispersing the vented air and gases in a manner which renders them unobjectionable to a person working at the stove.

Another object is to provide an improved back guard for cookstoves which is simple and rugged in construction, inexpensive to manufacture, and attractive in appearance.

A further object is to provide an improved arrangement for mounting the back guard on the stove structure.

Other objects and advantages of the invention will become apparent from the following detailed description of the preferred embodiment illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a stove top embodying the features of the invention.

Fig. 2 is a sectional view taken in a vertical plane substantially on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken in a vertical plane substantially on the line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken in a horizontal plane substantially on the line 4—4 of Fig. 3.

While the invention is susceptible of various modifications and alternative constructions, I have shown in the drawings and will herein describe in detail the preferred embodiment, but it is to be understood that I do not thereby intend to limit the invention to the specific form disclosed, but intend to cover all modifications and alternative constructions falling within the spirit and scope of the invention as expressed in the appended claims.

For purposes of illustration, the invention has been shown as embodied in a table type cookstove having a generally rectangular body closed at opposite ends by sheet metal end panels 9 and supporting at its upper end a cooking top 10 (Fig. 2) and a working top 11 (Fig. 1) arranged in side-by-side relation. The cooking top is formed with suitable openings for the accommodation of conventional heating elements or burners 12 and is provided with a removable cover 13 adapted to be closed down over the burners, as shown in Figs. 1 and 3. The cooking top is preferably stepped or offset downwardly from the working top 11 to permit the cover when closed to lie flush with the working top and thus present a flat horizontal surface over the entire top of the stove. An upright back guard 15 is provided along the rear

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edge of the stove body to protect the adjacent wall from splashing grease or the like.

The back guard 15 is supported and the working top 11 and cover 13 are shaped for cooperation therewith in a manner which effectually eliminates square corners and exposed joints between the guard and the top elements of the stove. To this end the back guard is supported above and in vertically spaced relation to the working top surface of the stove by upright extensions 16 formed on the end panels 9. The working top 11 and the cover 13 are formed adjacent their rear edges with upwardly and rearwardly sweeping curved portions 17 and 18 adapted to closely underlie the back guard member, as shown in Figs. 1 and 3. With this arrangement the joint between the back guard and the top elements of the stove is raised substantially above the working surface which terminates at the rear of the stove in a gently rounded corner in which there is no tendency for dirt, dust or grease to become lodged and which, moreover, is easily cleaned. This novel and advantageous relationship of the parts is disclosed and claimed in my copending application Serial No. 725,657, filed January 31, 1947.

In accordance with the present invention, the back guard 15 is formed with louvers 19 which provide for venting the space in back of the stove and which likewise effectually conceal the joint between the guard and the stove body elements. The louvers are shaped so that the vented air and gases are directed downwardly and forwardly over the stove top and thus disperse without being perceptible to a person standing in front of the stove.

Referring more in detail to the drawings, the end panels 9, cooking top 10, working top 11, cover 13 and back guard 15 are formed as sheet metal stampings and are preferably finished with a coating of vitreous enamel in accordance with the usual practice of the art. As these parts are relatively small, they can be produced economically with simple, inexpensive dies and forming apparatus. Relatively light gauge metal can be used without sacrifice of strength or rigidity, and with a corresponding reduction in cost. Moreover, scrap losses are reduced as compared with those experienced in the production of larger parts.

In the exemplary stove, the end panels 9 are provided at their upper and front edges with inwardly and downwardly turned flanges 21 (Fig. 2) adapted for engagement with the framework 22 of the stove. When assembled in the stove structure, the flanges 21 lie substantially flush with the cooking top 10.

The cooking top 10, as herein shown, comprises a flat metal sheet 23 having a downwardly turned marginal flange 24 by which the top is supported on the stove frame. In the particular stove illus-

trated, the cooking top is dimensioned so that its rear edge is disposed somewhat forwardly of the front face of the back guard 15, as shown in Fig. 3, to permit the cover to be shifted from the horizontal closed position to an upright open position with its rear edge portion projecting into the stove body.

The working top 11 is formed from a flat generally rectangular metal sheet 25 and is provided with downwardly turned marginal flanges 26 along its front and side edges. Preferably the corners at the front and outside edges of the member are alined to present a pleasing streamlined appearance, while the inside edge is formed with a square corner to permit a close fit with the cover 13. Adjacent its rear edge the top sheet 25 merges into an upwardly and rearwardly sweeping curved portion 17 which forms a generally rounded sanitary corner along the back edge of the working top.

The cover 13 is preferably complementally shaped with respect to the working top member 11. Thus, the cover comprises a flat top sheet 28 with depending front and side flanges 29. As shown in Figs. 2 and 3 of the drawings, the marginal edge portions of the flanges 29 are turned inwardly to provide wide bearing surfaces 30 for supporting the cover on the cooking top 10. The top sheet 28 merges into the upwardly curved rear portion 18 which has its marginal edge turned back and then downwardly, as indicated at 31 (Fig. 3). Rollers 32 journaled in the stove frame cooperate with hinge members 33 connecting between the frame and the cover to guide the latter in its movements between open and closed positions.

In conformity with the novel relationship between the back guard 15 and the top elements of the stove above described, the guard member is stamped or drawn to provide a vertical front plate 35 with a rearwarly turned flange 36 along its upper edge and rearwardly turned flanges 37 at each end for attachment to the extensions 16 of the end panels. The extensions 16 in turn are deeply drawn from integral portions of the end panels 9 to form massive posts of generally rectangular cross section presenting flat front, side and top walls connected by generally rounded corner portions, as shown in Fig. 1. Inturned flanges 38 (Fig. 4) on the front and top walls of the extensions 16 are adapted to register with the end flanges 37 of the guard member, which in the assembled stove are secured thereto, as by stove bolts 39.

To provide clearance for the raised rear edge portions of the working top member 11 and the cover 13, the front walls of the extensions 16 are formed with rounded recesses 40 (Fig. 2) and the adjacent wall portions are merged with the flanges 21 of the end panels in a smooth graceful curve. One of the flanges 21 and the underlying portion of the stove frame adjacent the cooking top end of the stove are also recessed slightly, as indicated at 41 (Fig. 4) to provide clearance for the cover 13 in its movements between open and closed position. A similar recess is provided in the other panel for symmetry.

To provide for flush against the wall installation of the stove, the upper flange 36 of the back guard and the side walls of the extensions 16 and the adjacent edge portions of the panels 9 are extended rearwardly of the stove body for cooperation with the room wall in forming a relatively deep chamber for circulating cooling air between the stove and the wall. Air is admitted to the lower end of the chamber in well known manner to mix with hot gases in the oven, and the air and gases are discharged through louvers 19 in the front wall of the back guard 15 and are directed to discharge air and gases forwardly and downwardly over the stove top.

The louvers 19 are constructed so that they are enabled to perform their venting and gas-deflecting functions efficiently, and additionally to impart substantial strength and rigidity to the back guard. As shown in Fig. 3 of the drawings, the louvers are formed by a series of longitudinal grooves or corrugations of generally Z-shaped cross section stamped in the front plate 35 of the back guard member. Thus, each of the corrugations comprises a horizontally disposed web 43 joined at its rear edge to a forwardly and downwardly inclined web 44, which in turn joins the horizontal web of the next adjacent corrugation at its front edge. Openings 42 (Fig. 4) in the horizontal webs 43 provide outlets for the ventilating chamber. The air and gases from the chamber are, of course, discharged downwardly through the openings, but are deflected forwardly by the inclined webs 44 so that the gases are effectually dispersed over the cooking top in a manner such that they are hardly perceptible and in no way objectionable to a person standing in front of the stove.

The exemplary back guard structure is formed with three louver corrugations, but it will be appreciated that the number may be varied in accordance with the requirements of the particular stove involved. Preferably, the lowermost louver is extended the full length of the back guard so that it may effectually conceal the joint between the member and the top elements of the stove.

It will be apparent from the foregoing that the invention provides a stove top construction of novel and advantageous character. The improved stove top includes a back guard having integrally formed louvers which provide adequate venting for the chamber at the back of the stove, which serve to disperse the vented air and gases in an efficient and desirable manner, which impart strength and rigidity to the guard member, and which effectually conceal the joint between the member and the adjacent stove parts. The back guard is supported in a novel manner, which improves the appearance of the stove and which greatly facilitates the assembly of the parts. By reason of the improved construction the various parts forming the stove top are of relatively small size and capable of being produced by simple, inexpensive forming dies. Thus the advantages of attractive appearance, efficient venting and maximum strength and rigidity are obtained at minimum cost.

I claim as my invention:

1. In a cookstove having a generally rectangular body, a sheet metal panel providing a horizontal working top surface, a cooking top located at one side of said panel, a movable sheet metal cover for said cooking top presenting when closed a horizontal working surface substantially flush with said working top, sheet metal end panels at opposite ends of the stove body, each of said panels having adjacent its rear edge an integral extension shaped to form a massive upright post projecting above the top of the stove, an elongated sheet metal back guard member having a vertical face with rearwardly turned flanges along its upper and side edges, and means for securing the side flanges of said member to the extensions of

said end panels to support the member substantially above and parallel to the rear edges of the cooking and working tops, said cover and said working top panel having raised portions adjacent their rear edges adapted to fit closely adjacent the lower edge of said guard member.

2. In a cookstove having a generally rectangular body, a sheet metal panel providing a horizontal working top surface, a cooking top at one side of said panel, a movable sheet metal cover for said cooking top presenting when closed a horizontal working surface substantially flush with said working top, sheet metal end panels at opposite ends of the stove body, each of said panels having adjacent its rear edge an integral extension shaped to form a massive upright post projecting above the top of the stove, an elongated sheet metal back guard member having a vertical face with rearwardly turned flanges along its upper and side edges, said side flanges of the member being secured to the extensions of said end panels to support the member above and parallel to the rear edges of the cooking and working tops and said guard member having an opening in its front face for ventilating the space behind the stove, and louvers on the front face of said guard member concealing said opening and the joint between the member and the cover and the working top panel.

3. In a cookstove having a generally rectangular body with a horizontally disposed top surface, in combination, sheet metal panels closing opposite ends of the stove body, each of said panels

having adjacent its rear edge an integral extension shaped to form an upright post projecting above the top surface of the stove, said extension having a flange presenting an inwardly facing fastening surface, an elongated sheet metal back guard having a generally vertical front face with rearwardly turned flanges along its upper and side edges, and means for securing the side flanges of said guard member to the flanges on the extensions of said end panels to support the guard member substantially above and parallel to the top surface of the stove adjacent the rear edge of the stove body, said top surface having its rear edge portion offset upwardly to fit closely adjacent the lower edge of said guard member.

HERBERT M. REEVES.

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