Sept. 5, 1939. H. S. PLETCHER ET AL 2,171,632

STOVE CONSTRUCTION

Original Filed June 21, 1937

Fig. 1.

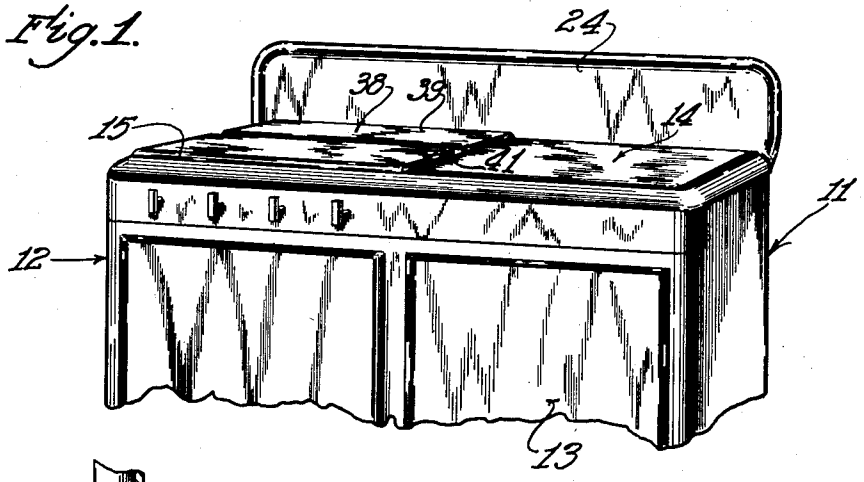


Fig. 2.

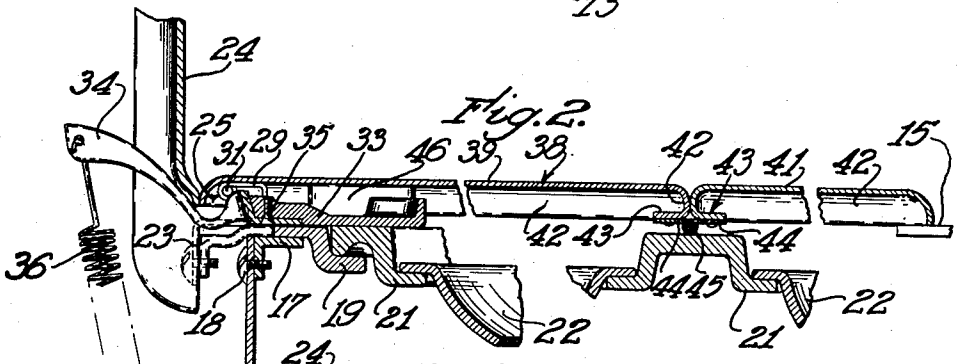


Fig. 3.

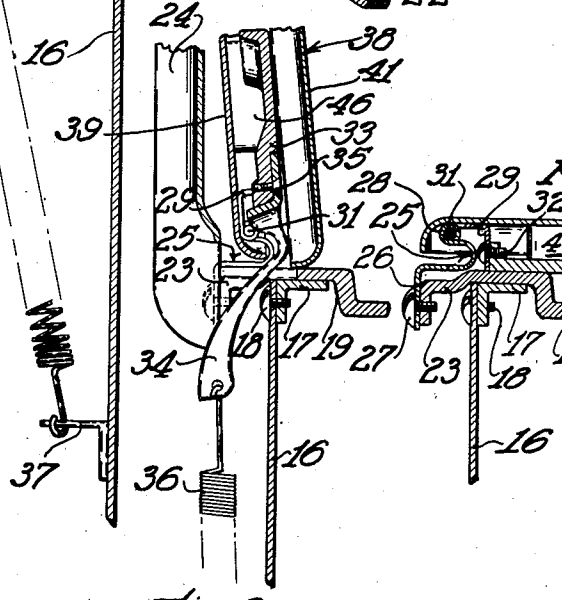


Fig. 4.

INVENTORS
Harry S. Pletcher
Charles F. Golans

BY Rasmussen & Brugman
ATTORNEYS.

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STOVE CONSTRUCTION

Harry S. Pletcher and Charles F. Gatons, Joliet, Ill., assignors to The Moore Corporation, Joliet, Ill., a corporation of Delaware

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6 Claims. (Cl. 126—214)

This invention relates in general to stove construction, and more particularly to an improved folding cover for the burner section of a fluid fuel range.

A principal object of the invention is the provision of a novel cover top for the burner section of a gas stove which is hingedly mounted in an improved manner on the stove for movement between closed and opened or folded positions.

Another important object of the invention is the provision of novel means for counterbalancing the movements of such a cover top which is also adapted to resiliently maintain the latter in opened or folded position.

A further object of the invention is the provision of such a folding cover top which is highly efficient in operation and serves to materially improve the appearance of the stove while being of simplified and durable construction.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

In the drawing,

Figure 1 is a perspective view of a portion of a fluid fuel stove embodying the features of the instant invention;

Fig. 2 is an enlarged vertical detail sectional view through the burner section of the stove of Fig. 1 showing the folding cover top in lowered or closed position;

Fig. 3 is a detail sectional view similar to Fig. 2 showing the cover top in open or folded position; and

Fig. 4 is a detail sectional view similar to Fig. 2 taken at a point spaced laterally therefrom.

Referring more particularly to the drawing, reference numeral 11 indicates in general a fluid fuel stove of any desired construction which comprises a burner section 12 and an oven section 13 disposed adjacent thereto. The stove 11 is provided with the usual top member 14 providing a working surface above the oven section 13 and an annular surface 15 around the marginal portion of the burner section 12 in the same plane as said working surface.

Referring more particularly to Figs. 2 to 4, the burner section 12 includes a rear wall 16 and a substantially horizontally disposed angle iron 17 secured thereto adjacent the upper edge thereof by screws 18, or the like. Other members similar to the member 17 may be mounted upon the other wall members of the burner section to provide, with the member 17, supporting brackets for a marginal flange member 19 which is adapted to support the usual burner pan 21 and burner guard members 22. The marginal flange member 19 is provided at its rear end (to the left in Figs. 2, 3 and 4) with a rearwardly extending bracket member 23 which is preferably formed integrally therewith and is provided with a downwardly extending substantially vertically disposed flange portion. If it is desired, the bracket member 23 may be suitably secured to the angle iron 17 or the rear wall of the stove. The usual splash board or back guard 24 may be secured to this bracket member 23 in spaced relationship to the rear wall 16 and extending upwardly from the top member 14.

Referring more particularly to Fig. 4, a channel-like hinge member 25 is provided with a depending flange portion 26 which is secured to the vertical portion of the bracket 23 by means of screws 27, or any other suitable means. From the depending flange portion 26, the hinge member 25 extends forwardly to a point adjacent the rear wall 16 of the burner section 12, from which point it curves upwardly and rearwardly and terminates at its upper end in a plurality of laterally spaced bearing portions 28. Disposed between these bearing portions 28 are a plurality of similar curved bearing portions formed integrally with a right-angled hinge member 29. The hinge members 25 and 29 are pivotally connected in the usual manner by a hinge pin 31.

The leg of the hinge member 29 opposite that engaging the pin 31 is secured by means of screws 32, or the like, to a rigid channel-shaped supporting member 33 formed of cast iron, or any other suitable material.

The hinge members 25 and 29 are disposed centrally of the burner section 12 in a longitudinal direction, and are shorter in length than the supporting casting 33. At one end, preferably adjacent the outer end of the hinge members 25 and 29, the supporting member 33 is provided with a rearwardly and upwardly extending arm 34 (Figs. 2 and 3) which is secured thereto at its inner end by screws 35, or the like. The supporting member 33 is preferably provided with a suitable recess in its under surface within which the inner end of the arm 34 is disposed so that the lower surface of the latter is flush with the lower surface of the supporting member 33. The arm 34 extends beneath and to the rear of the front wall of the back guard 24. The outer end of the arm 34 has the upper end of a coil spring 36 secured thereto in any suitable manner, the lower

end of the spring 36 being secured to a bracket or clip 37 which is welded or otherwise suitably secured to the rear wall 16 of the burner section 12.

The supporting member 33 comprises a part of a folding cover top for the burner section 12 which is indicated generally by reference numeral 38. The cover top 38 is divided into two substantially identical portions 39 and 41 (Fig. 2) which are preferably sheet metal stampings. Each of the cover portions 39 and 41 is provided with depending marginal flanges 42. The forward flange 42 of the rear portion 39 and the rear flange of the front portion 41 terminate in inwardly extending, horizontally disposed flanges 43. Each of the flanges 43 has a complemental hinge member 44 secured to the under surface thereof in any suitable manner. The hinge members 44 are pivotally secured together by a suitable hinge pin 45. The rear portion 39 of the cover top 38 is provided with a pair of laterally spaced lugs or spacing members 46 which are welded or otherwise suitably secured to the under surface thereof. The members 46 are in turn secured to the supporting member 33 by suitable screws, or the like (not shown).

Referring more particularly to Figs. 1, 2 and 4, it will be seen that when the cover top 38 is in its closed or horizontal position, the lower edges of the marginal flanges 42 thereof rest upon the annular surface 15 of the stove top member 14 to completely cover the burner section 12. In this closed position of the cover top 38, the supporting member 33 forming a part thereof rests upon or is substantially flush with the upper surfaces of the supporting flange member 19 and the burner pan 21.

In order to move the cover top 38 to its folded position of Fig. 3, it is only necessary to impart a slight rearward and upward pressure to the front flange 42 of the forward portion 41 of the cover top. Such pressure, with the aid of the spring 36, will result in the two parts 39 and 41 of the cover top 38 being swung to their positions of Fig. 3 on the pivot pins 31 and 45. In this position, the cover top 38 is out of the way of the burner section, and provides a plain and neat appearing surface. The spring 36 functions to resiliently maintain the cover top 38 in its opened or folded position of Fig. 3, as well as to effectively counterbalance the movements of the cover top between open and closed positions.

It will be readily apparent that the above described mechanism is of simplified and durable construction, the component parts of which may be readily and cheaply manufactured and assembled. The particular mounting employed for the cover top, including the rigid supporting member 33, the spacer members 46 and the intermediate hinge members 44, 45 relieves the outer enameled surfaces of the folding portions 39 and 41 of any strain which might normally result from the movements thereof between open and closed positions.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

We claim:

1. In combination with a stove having an open top burner section, a folding cover top for said burner section, comprising a pair of enameled lid members disposed in adjacent relationship and hingedly connected to each other to permit their being folded into back to back relation, a rigid, strain resisting supporting member to which one of said lid members is secured, and means directly hingedly connecting said supporting member to said burner section to permit movement of said lid member secured thereto between substantially horizontal and vertical positions, said cover top and connections being so constructed and arranged that strains will not be imposed upon the enameled lid members.

2. In combination with a stove having an open top burner section, a folding cover top for said burner section, comprising a pair of enameled lid members disposed in adjacent relationship and hingedly connected together to permit their being folded into back to back relation, a rigid, strain resisting supporting member to which one of said lid members is secured, means directly hingedly connecting said supporting member to said burner section to provide for movement of said lid members between substantially horizontal and vertical positions, and means directly connected to said supporting member and said burner section to counterbalance such movements of said cover top, said cover top and connections being so constructed and arranged that strains will not be imposed upon the enameled lid members.

3. In combination with a stove having an open top burner section, a folding cover top for said burner section, comprising a pair of enameled lid members disposed in adjacent relationship and hingedly connected together to permit their being folded into back to back relation, a rigid, strain resisting supporting member to which one of said lid members is secured, means directly hingedly connecting said supporting member to said burner section to provide for movement of said lid members between substantially horizontal and vertical positions, an arm secured at one end directly to said rigid supporting member and extending rearwardly from said burner section, and a spring interconnected between the other end of said arm and said burner section for counterbalancing movements of said folding cover top, said cover top and connections being so constructed and arranged that strains will not be imposed upon the enameled lid members.

4. In combination with a stove having an open top burner section, a folding cover top for said burner section, comprising a pair of enameled lid members disposed in adjacent relationship and hingedly connected together to permit their being folded into back to back relation, a rigid, strain resisting supporting member to which one of said lid members is secured, a hinge member secured directly to said supporting member, a second hinge member pivotally secured to first hinge member and mounted upon said burner section adjacent the rear end thereof, whereby said cover top may be moved between horizontal position over the open top of said burner section and substantially vertical position in which said lid members are disposed in back to back relation at the rear of said burner section, and means connected directly to said supporting member and said burner section for counterbalancing such movements of said folding cover top, said cover top and connections being so constructed and arranged that strains will not be imposed upon the enameled lid members.

5. In combination with a stove having an open

top burner section, a folding cover top for said burner section, comprising a pair of sheet metal lid members disposed in adjacent relationship and having finished outer surfaces, hinge means interconnecting said lid members and disposed on the back side thereof opposite said finished surfaces to permit the folding of said lid members into back to back relation, a rigid cast metal supporting member, spacer members secured to the back surface of one of said lid members and to said rigid supporting member, and means hingedly connecting said supporting member directly to said burner section to provide for movement of said lid members between substantially horizontal and vertical positions, said cover top and said connecting means being so constructed and arranged that no strains will be imposed upon the finished outer surfaces of the lid members.

6. In combination with a stove having an open top burner section, a folding cover top for said burner section, comprising a pair of sheet metal lid members disposed in adjacent relationship and having finished outer surfaces, hinge means interconnecting said lid members and disposed on the back side thereof opposite said finished surfaces to permit the folding of said lid members into back to back relation, a rigid cast metal supporting member, spacer members secured to the back surface of one of said lid members and to said rigid supporting member, means hingedly connecting said supporting member directly to said burner section to provide for movement of said lid members between substantially horizontal and vertical positions, and means directly interconnecting said supporting member and said burner section for counterbalancing such movements of said lid members, said cover top and said connecting means being so constructed and arranged that no strains will be imposed upon the finished outer surfaces of the lid members.

HARRY S. PLETCHER.
CHARLES F. GATONS.