Feb. 13, 1940. W. A. STOCKELL 2,190,139

PORTABLE STOVE

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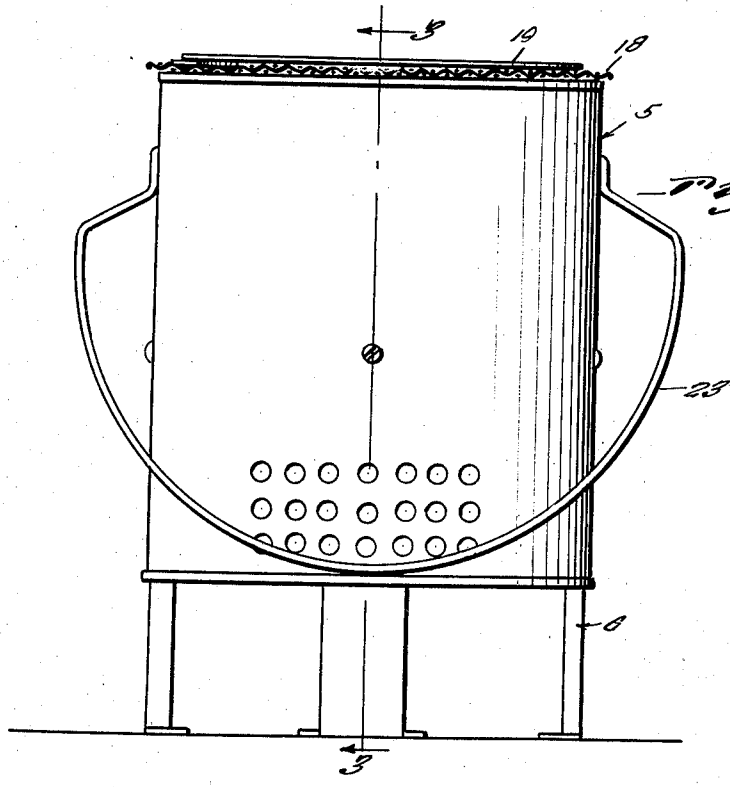


Fig. 1.

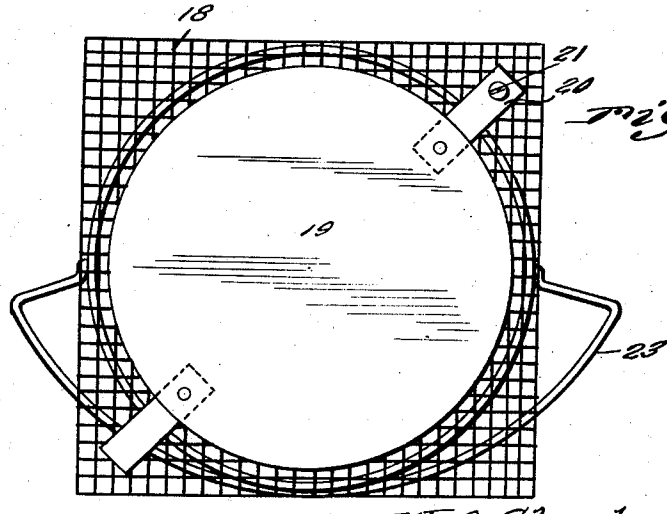


Fig. 2.

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Fig. 3.

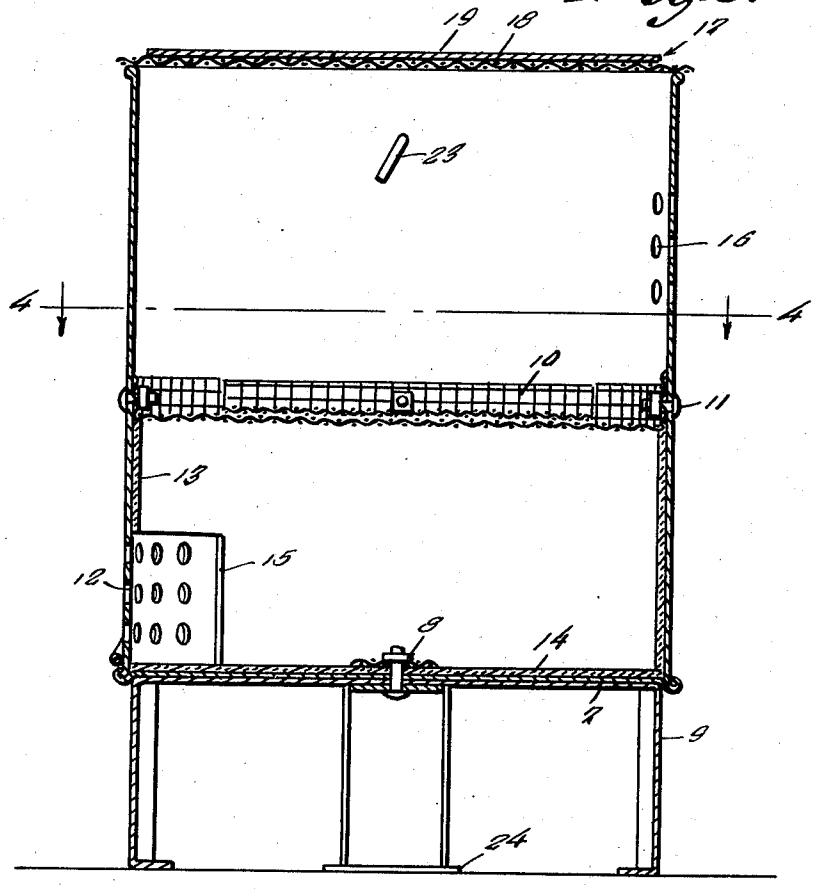
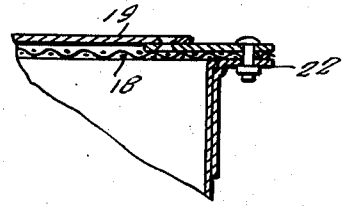


Fig. 7.



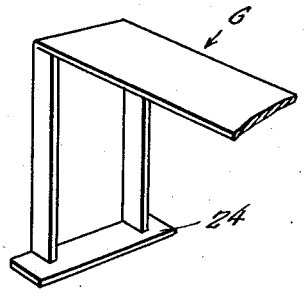


Fig. 6.

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Fig. 4.

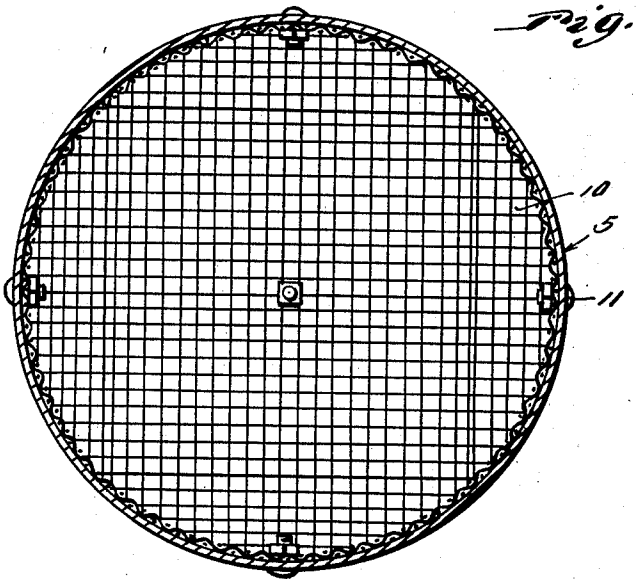
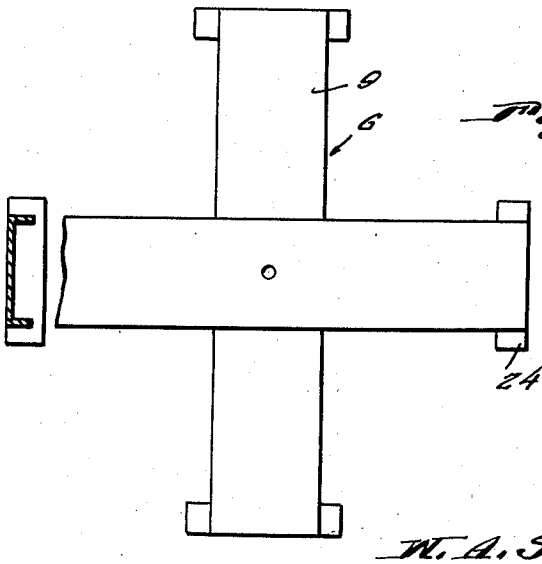


Fig. 5.



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UNITED STATES PATENT OFFICE

2,190,139

PORTABLE STOVE

William Andrew Stockell, Detroit, Mich.

Application July 22, 1938, Serial No. 220,779

3 Claims. (Cl. 126—25)

This invention relates to portable stoves especially adapted for cooking in camps or in summer cottages and like places, and has for the primary object the provision of a device of this character which is easy to transport or carry from one place to another and may be set up on any device or support for use or on the ground without providing a fire hazard, and which will be durable, compact and economical to operate and may be manufactured and sold at a low cost.

With these and other objects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a side elevation illustrating a portable stove constructed in accordance with my invention.

Figure 2 is a top plan view illustrating the same.

Figure 3 is a sectional view taken on line 3—3 of Figure 1.

Figure 4 is a sectional view taken on line 4—4 of Figure 3.

Figure 5 is a plan view, partly in section, illustrating a supporting structure for the body of the stove.

Figure 6 is a fragmentary perspective view illustrating one of the legs of the supporting structure.

Figure 7 is a fragmentary vertical sectional view illustrating the means for pivotally connecting the cover or grating on the body of the stove.

Referring in detail to the drawings, the numeral 5 indicates the body of a stove which is of cylindrical shape and of metallic construction and is mounted on a supporting structure 6, so that the lower end of the body is spaced a desired distance from the support on which the device is positioned to permit a free circulation of air under the body of the stove and consequently preventing heat from the body of the stove from coming in direct contact with the support and damaging the latter. The lower end of the body 5 is closed by a bottom wall 7 and has located centrally thereof a bolt, or like fastener, 8 for securing the bottom wall on the supporting structure 6. The supporting structure consists of a pair of substantially U-shaped members 9 preferably constructed of channel iron material and each includes depending portions forming legs for the supporting structure and connecting portions arranged in overlapped relation and extending at right angles to each other. The bolt or fastener 8 passes through the connecting portions of the substantially U-shaped members whereby the supporting structure is efficiently connected to the bottom wall of the body 5. The legs of the supporting structure may be adjusted relative to each other to compensate for uneven surfaces when the device is rested thereon. The bolt or like fastener 8 permits the adjustment of the leg portions relative to each other.

A grate 10 of foraminous material is located in the body 5 and is removably secured thereto by fasteners 11. The grate 10 is located in the body substantially intermediate the ends of said body and is of a construction to provide upturned marginal portions lying in close proximity to the walls of the body. Between the grate 10 and the upper end of the body a space is provided for the accommodation of fuel, such as charcoal, and air is admitted thereto through openings 12 provided in the body 5 for the purpose of sustaining combustion of the fuel. The space below the grate is to receive ashes from the burning fuel. A fireproof lining 13 is arranged to cover the walls of the body between the grate 10 and the bottom wall 7. Fireproof material 14 is arranged to cover the bottom wall with the fastener or bolt 8 extending therethrough to hold the fireproof material 14 in place. The fireproof material 13 has a cutout space 15 for the purpose of exposing the openings 12. However, the fireproof material 13 may be rotated relative to the walls of the body for the purpose of opening and closing the draft openings 12 for regulating the draft to the fire within the body above the grate 10. The body above the grate is provided with draft openings 16 so that the heat from the fire as well as the products of combustion will be caused to travel upwardly and some of which may escape by way of the openings 16.

A cover 17 is provided for the upper end of the body and consists of a sheet of foraminous material 18, which is considerably larger than the diameter of the body so that the sheet of material 18 will extend a considerable distance beyond the body for the purpose of providing a comparatively large supporting surface for cooking utensils and the like. A lid 19 is associated with the sheet of foraminous material 18 and overlies the latter and the size thereof is considerably less than that of the foraminous material, as shown in Figure 2, also, it is smaller in diameter than the diameter of the body 5. Oppositely arranged

extensions 20 are provided on the lid 19, one of which acts as a finger piece and the other has an opening to receive a fastener 21 which extends through the sheet of foraminous material 18 and through an ear 22 formed on the body for the purpose of pivotally connecting to the latter both the strip of foraminous material 18 and the lid 19.

A handle or bail 23 is pivotally connected to the body adjacent its upper end to facilitate carrying of the device in entirety from one place to another and when not in use may fold downwardly against one side of the body, as clearly shown in Figure 1, so as to be entirely out of the way when cooking upon the stove.

The free end portions of the legs of the supporting structure are bent at right angles to form feet 24 for aiding in supporting the device on a table, bench or the ground.

Through the use of the solid lid 19, the amount of heat coming in direct contact with the cooking utensil from the body 5 can be varied by adjusting the position of the lid 19 over the sheet of foraminous material and with respect to the upper end of the body 5.

The grate 10 being removable from the body will permit the grate to be easily removed when damaged and another substituted in lieu thereof. The grate does not necessarily have to be removed when it is desired to empty the body of the ashes as it is only necessary to turn the body upside down with the sheet of foraminous material and lid 19 swung laterally thereof for the ashes to readily fall out of the body by passing through the grate.

It is believed that the foreging description, when taken in connection with the drawings will fully set forth the construction and advantages of this invention to those skilled in the art to which such a device relates, so that further description will not be necessary.

What is claimed is:

1. A portable cooking stove comprising a cylindrical metallic body closed at its lower end and fully open at its upper end, a supporting structure for said body, a foraminous grate removably mounted in said body and providing between itself and the upper end of the body a fire chamber, said body having draft openings below the grate, said body having draft openings arranged above the grate, and members pivotally mounted on said body for opening and closing the upper end thereof and arranged in superimposed relation and one constructed of foraminous material and the other of a solid material.

2. A portable cooking stove comprising a metallic body open at its upper end, a grate in said body and providing above the latter a fire chamber in the body, a sheet of foraminous material overlying the upper end of the body, a lid of solid material overlying the sheet of foraminous material and of a size smaller than the sheet of foraminous material, and smaller than the internal diameter of the body, means for pivotally connecting the sheet of foraminous material and lid on the body whereby said sheet of foraminous material and lid may be adjusted relative to each other and the body, and means for supporting said body.

3. A portable cooking stove comprising a metallic body open at its upper end, a grate in said body and providing above the latter a fire chamber in the body, a sheet of foraminous material overlying the upper end of the body, a lid of solid material overlying the sheet of foraminous material and of a size smaller than the sheet of foraminous material, and smaller than the internal diameter of the body, means for pivotally connecting the sheet of foraminous material and lid on the body whereby said sheet of foraminous material and lid may be adjusted relative to each other and the body, said body having draft openings for the fire chamber, a fireproof lining for the fire chamber and having a cutaway portion to expose the draft openings and adjustable relative thereto for increasing and decreasing the number of openings exposed to the fire chamber, and a supporting structure for said body.

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