June 17, 1958 H. A. LA BORN 2,839,043

CAMP STOVE

Filed July 25, 1955

Fig. 5

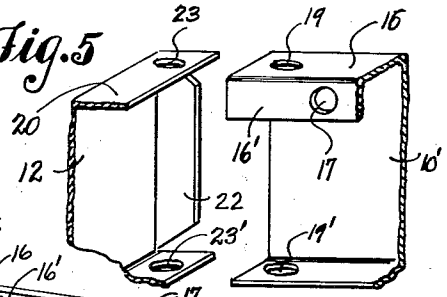


Fig. 1

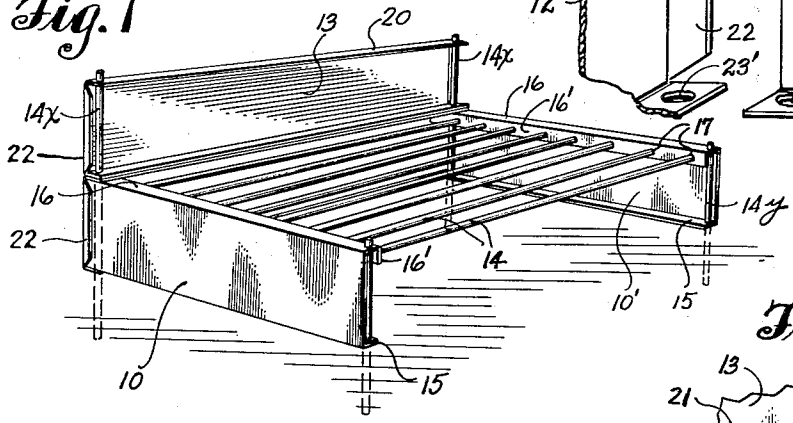


Fig. 3

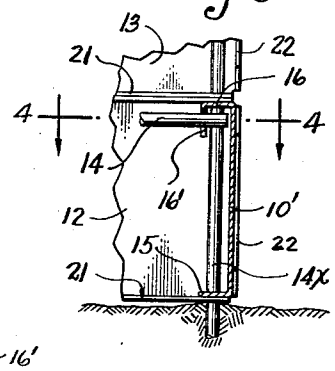


Fig. 2

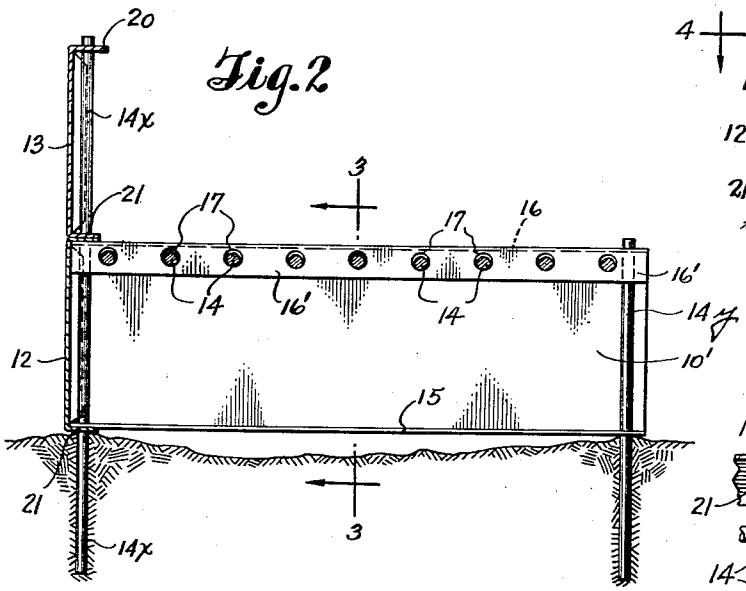


Fig. 4

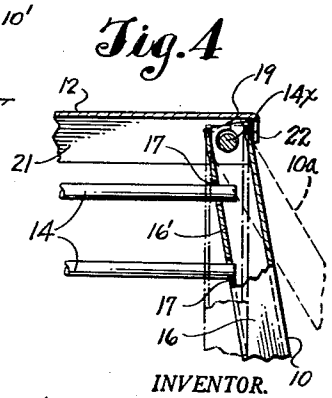
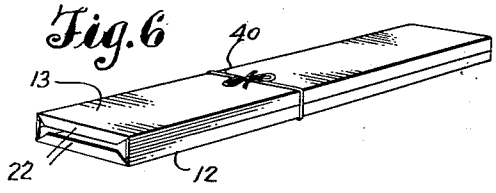


Fig. 6



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CAMP STOVE

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1 Claim. (Cl. 126—30)

This invention relates to improvements in camp stoves and it has for its principal object to provide a relatively inexpensive, practical and serviceable stove, for general pleasure camp cooking, and which can be collapsed and its parts assembled in a small, easy-to-carry package.

It is a further object of the invention to provide a camp stove, comprising backwall and opposite sidewall sections, each made from a single piece of sheet metal; the several sections being adapted to be joined in functionally assembled relationship, and fixed in position for use by rods or pins which serve both the purpose of connectors and also as anchoring stakes.

Another object of the invention is to provide the opposite sidewall forming sections of the stove with inwardly turned portions extending along their top edges, formed with downturned flanges which are provided with holes for the reception and holding of the end portions of grid forming rods.

Still further objects of the invention reside in the details of construction of the various parts of the present stove, and in their mode of assembly and manner of use, as will hereinafter be fully described.

In accomplishing the above mentioned and other objects of the invention, I have provided the improved details of construction the preferred forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a camp stove with the parts thereof constructed and assembled for use in accordance with the teaching of the present invention.

Fig. 2 is a vertical cross section of the stove, showing the assembly of back sections with a side section.

Fig. 3 is a sectional detail of a sidewall portion of the stove showing the manner of mounting the grid rods therein.

Fig. 4 is a horizontal section, taken on the line 4—4 in Fig. 3, illustrating the manner of mounting the grid forming rods in the openings of a flange of a sidewall forming section.

Fig. 5 is a perspective view showing end portions of a back and sidewall section in separated relationship.

Fig. 6 is a perspective view of the stove as collapsed and packaged for easy storage or carrying.

Referring more in detail to the drawings:

The stove of this invention, in its present preferred form as shown in Fig. 1, comprises four wall forming sections; two of these, designated by reference numerals **10** and **10'**, form the opposite sidewalls of the stove; another section, designated by numeral **12** forms the backwall and the fourth section, designated by numeral **13**, serves as a shield, and in use, is disposed across what might be termed the back side of the side immediately above the section **12**. Associated with these four sheet metal sections, are the grid forming rods **14** and rear securing pins **14***x* and front securing pins **14***y*. Each of these parts will presently be more fully described.

The opposite sidewall forming sections **10** and **10'** are identical in construction and in size, and can be used interchangeably. Each comprises a single rectangular piece

of sheet metal, such as galvanized iron and each piece is formed with an inturned horizontal flange **15** along its bottom or lower edge, and along its top edge has an inturned portion **16** with a downturned flange **16'** that is spaced inwardly from the wall; this particular formation being best shown in cross-section in Fig. 3.

The inturned portions **15** and **16** along bottom and top edges of the opposite sidewall forming sections are directed toward each other, as noted in Fig. 1, and the downturned flange **16'** of each wall section is formed at regularly spaced intervals therealong with holes **17** for the reception of the opposite end portions of the grid forming rods **14** which are applied thereto as shown in Figs. 1, 2 and 3.

The horizontal flanges **15** and **16**, as formed along the bottom and top edges of the sidewall forming sections are also formed in their opposite end portions, with vertically aligned holes **19** and **19'** as shown in Fig. 5, for the reception of anchoring pins **14***x* and **14***y* as will presently be more fully explained.

The backwall forming section **12** and the shield forming section **13** are identical in size and construction. Each comprises an elongated, rectangular body portion, formed along its top and bottom edges, respectively, with inturned flanges **20** and **21**, and at its opposite ends, with inturned flanges **22**. The horizontal flanges are formed adjacent their ends with vertically aligned holes **23—23'** as in Fig. 5, for the reception therethrough of anchor pins **14***x* as indicated in Figs. 1 and 2.

It is to be further explained that, in the assembly of the sidewall forming sections **10—10'** with the backwall section **12**, the end portions of the flanges **15** and **16** of the side sections are received between the inturned edge flanges **20** and **21** of the back section, as shown in Fig. 4, providing that the vertically aligned holes in the overlapped flanges of the back and sidewall parts may be registered to receive the rods **14***x* therethrough as shown in Figs. 1 and 4.

Assuming the various parts to be so constructed, they are assembled for erection of the stove, in the following manner.

First, the rear end portions of the opposite sidewall forming sections **10** and **10'** are disposed between the top and bottom edge flanges **20** and **21**, at the ends of the backwall section **12**, and the sets of holes **19—19'** and **23—23'** formed through the flanges of these parts are brought into registration and the rods **14***x* are applied therethrough, each to form a secure connection. The rods **14***x* may then be projected or driven into the ground, as in Fig. 2, to hold the joined sections in a vertical position. Then one end section, for example section **10**, is brought to a right angle relationship to the backwall section **12**, and an anchor pin **14***y* is applied downwardly through the vertical aligned holes **19—19'** at the forward end of that wall section to hold the right angle relationship of parts.

The opposite sidewall **10'**, as secured by the pin **14***x* at its rear end, is left free at its forward end for the time being, and is swung outwardly to an angular position as, for example, as to the dotted line position **10***a* in Fig. 4, preparatory to application of the grid forming rods thereto. Then the ends of the bars or rods **14** which are to form the grid are all applied at one end to the holes **17** of the flange **16'** of the fixed wall section **10**. Then these rods are successively applied, beginning at the back side of the grid, to the holes **17** in the flange **16'** of side sections **10'**, the section being swung inwardly as required to receive the rod ends as successively applied. When all rods have been applied, then the side section **10'** is secured in place by the application of a pin **14***y* through the vertically aligned holes **19—19'** in the forward ends of its flanges **15** and **16**.

The rear pins **14***x* are longer than those at the front and project substantially above the level of the side sections as noted in Fig. 2. The upper backwall section, or shield **13**, is then applied to the upper ends of these rods, **14***x* as has been well known in Fig. 2.

As thus erected, the stove serves well its intended purpose for camp cooking. It is sturdy; can be made in various dimensions according to use or requirements. The stove can be used with or without the back shield **13**.

To collapse the stove, it is only necessary to pull out the four anchoring pins **14***x* and **14***y*, then move the side wall plates **10—10'** apart to free the grid forming rods **14** therefrom. These rods, and also the pins **14***x* and **14***y*, may then all be laid lengthwise within one of the back sections **12** or **13**, where they will be retained between the side and end flanges of the section. The two side sections **10—10'** are then fitted together and laid inside the back section, on top of the rods, **14**, **14***x*, and **14***y* and then the first section is covered by the other back section, and a tie or band as at **40** in Fig. 6 is applied thereabout to form a package containing all parts of the stove therein.

When the parts are thus assembled, all surfaces of the wall sections that have been exposed to flame or smoke are inside the package.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent is:

A camp stove of the character described comprising a backwall forming section and opposite sidewall forming sections, all sections being substantially of the same height and having inturned flanges along their top and lower edges, and the flanges of said backwall forming section being overlapped at their ends with the rearward end portions of said opposite sidewall forming sections, said overlapping portions of the flanges of the backwall forming section and sidewall forming sections being formed with holes therethrough in vertical alignment and in registration, anchor pins extending downwardly through said aligned holes and functionally joining the said sections together, said flanges which are formed along the top edges of said sidewall forming sections having downturned inner edge portions formed with holes at regular

intervals therealong, and grid forming rods extending between said sidewall forming sections with opposite end portions thereof contained in corresponding holes of said downturned edge portions for the functional support of said rods, said inturned flanges formed along the top and lower edges of the sidewall forming sections having holes formed therein at their forward ends and in vertical alignment, anchor pins projecting downwardly through the vertically aligned holes in the forward end of each sidewall section to retain said sections in proper spacing, said first and second mentioned anchor pins being adapted to be withdrawn for the moving of said sidewall forming sections apart for release of said rods therefrom, an additional section identical to the said backwall forming section and removably applied to the upper ends of the first mentioned anchor pins to serve as a shield, said back forming section and said additional section having inturned end flanges, and said sidewall forming sections being of such size that they may, upon disassembly of the stove after withdrawal of said pins therefrom, be received within the back forming section, and said grid forming rods and said anchor pins being adapted to be received lengthwise within said back forming section along with said sidewall sections, and said additional section is applicable to the back forming section to act as a closure member.

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