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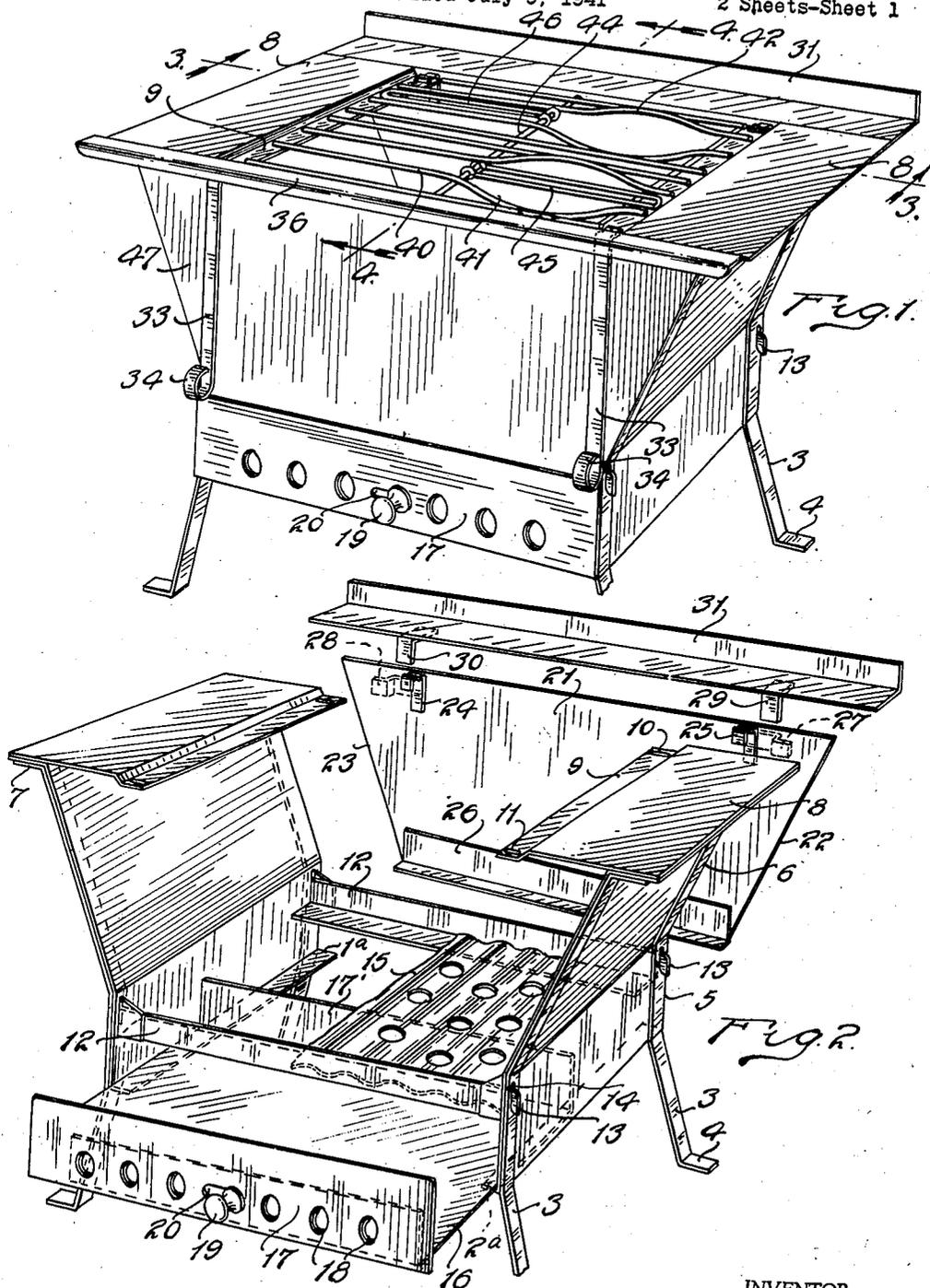
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OUTDOOR STOVE

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OUTDOOR STOVE

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This invention relates to outdoor stoves, the object being to provide a new and improved form and structural arrangement of sheet metal parts permitting the same to be readily assembled for use or disassembled and nested together permitting it to be readily carried in an automobile or other conveyance for use at distant points as by picnickers or by others who may desire to utilize an outdoor stove for the cooking of various foods.

These general objects and specific features of construction are hereinafter more specifically set forth and claimed and the preferred form of construction of an outdoor stove embodying my invention is shown in the accompanying drawings in which—

Fig. 1 is a perspective view showing the parts assembled for use.

Fig. 2 is a perspective view showing several of the parts in the partially disassembled relation to illustrate the construction and manner of assembly thereof.

Fig. 3 is a longitudinal section of the assembled stove parts taken on line 3—3 of Fig. 1.

Fig. 4 is a vertical cross section of the assembled stove parts taken on line 4—4 of Fig. 1.

The stove, according to my invention, comprises two end members of like form, indicated at 1 and 2. Each end member consists of two strap iron leg portions 3, 3 each having out-turned bottom ends 4 providing feet for engagement with the ground or other surface. These legs extend upwardly by an inwardly inclined portion 5 and thence by a vertical portion 6 and an outwardly inclined portion 6 each having end pieces 7 to each of which a plate 8 is secured having an inner edge 9 off-set as shown and provided with similar slots 10 and 11 at the opposite ends.

The two end members are supported in opposed relation as shown in Fig. 2 by transverse angle bars 12, the vertical flange of each of which is of greater length than the horizontal flange and the ends of the vertical flange are notched to provide hook portions 13 which engage in slots 14 provided therefor in the plates 1 and 2 and in the legs 3 as will be understood from Figs. 1, 2 and 3. The horizontal flanges of the angle bars 12 provide a support for a fire grate 15 which may be of any approved form and here shown as being of a corrugated sheet metal having apertures. The grate supports the fuel being burned and the apertures provide for discharge of ashes therebelow into an ash pan 16 which is formed of a sheet metal bottom plate

having an upturned flange 17' at the rear edge and an upturned forward edge 17 provided with apertures 18 aligning with apertures in a damper plate 17a positioned on the inside of the vertical flange 17 of the ash pan as indicated by dotted lines in Fig. 2. The damper plate may be moved transversely by means of the knob 19 which rides in the slot 20 provided in the plate, and the draft thus regulated by varying the effective area of the openings. Each of the vertical end members 1 and 2 has an inturned flange 1a and 2a respectively, as will be seen clearly in Fig. 3, on which the ash pan 16 is slidable.

I also provide a rear plate 21 having outwardly inclined side edges 22 and 23 corresponding to the inclination of the upper portions of the end members 1 and 2 and on the inner face of the plate 21 are hook elements 24 and 25 having end portions insertable in the slots 10 of the flanges 9 of the top plates 8.

At its lower edge the side plate 21 has secured thereto a sheet metal angle plate 26, the vertical flange of which is secured to the plate 21 and the horizontal flange of which extends inwardly practically to abutment with the vertical flange of the cross bar 12 at the rear side of the stove. This plate 21 has two ears 27 and 28 on the outer surface thereof to receive the ends of the hooks 29 and 30 secured to the underside of the horizontal flange of the angle plate 31 positioned at the rear of the stove as shown in Fig. 1 providing a shelf for articles and the vertical flange of the element 31 prevents utensils from being pushed off the rear side of the stove.

The space between the end members 1 and 2 is closed by the plate 47 similar in form to the plate 21, above described, the lower edge of which, when in the position shown in Fig. 1, terminates just above the vertical flange 17 of the ash pan. On the outer face of the plate 4 is a pair of strap iron arms 33 each rolled to form an eye 34 at its lower end and shaped at its upper end with a hook 35 which extends through the upper end of the plate 4 and into the slots 11 of the plates 8 at the top of the side members 1 and 2. The upper end of the plate 4 has an outturned flange 36 forming a shelf at the forward side of the table top.

The various parts of the stove in assembled relation are shown in Fig. 1 and it will be observed that, by grasping the ring portions 34 of the elements 33 attached to the plate 4, the plate 4 may be turned outwardly from the bottom and readily disassembled from the structure and,

when in use, naturally remains in a vertical plane.

When the parts are assembled as shown in Fig. 1, there is an opening of rectangular form at the top of the assembled parts and between the flanges 8 of the end plate and a grating element of any approved form may be supported on the flanges 9 of the end plates 8. Preferably, I use a wire grating member 40 and at one end the wires are spread to form practically circular openings 41 and 42 permitting utensils, such as indicated by dotted lines at 43 in Fig. 3, to be utilized. This grating member includes a cross bar 44 and preferably I provide a U-shaped wire element 45 pivoted at the ends on the rod which enables it to be swung to position shown relative to the aperture 41 when not required for use with a cooking utensil such as that indicated at 43 in Fig. 3 or may be turned backwardly from such position corresponding to the position occupied by the wire loop 46 companion to the aperture 42. The grating is therefore of a character providing a support for various types of cooking utensils.

From the above described structural arrangement of parts it will be realized that the stove parts may be readily assembled, it being the usual practice to first introduce the hook ends 13 of the bars 12 in the side member 1 and then position the side member 2 in like relation and in this position the parts are self-sustainable. The front and back plates 4 and 21 are then sequentially positioned by inserting the hooks 35 of the plate 47 in the respective apertures 11 at the front edge of the plates 8 and similarly engaging the hook ends 24 and 25 of the plate 21 in the respective apertures 10.

The fire grate 15 may then be positioned on the horizontal flanges of the cross bars 12 and the ash pan 16 then inserted on the flanges 1a and 2a of the respective end members 1 and 2. The wire grating 40 may then be positioned on the flanges 9 of the plates 8 at the upper end of the members 1 and 2.

In so positioning the parts, the horizontal flange of the angle iron 26 practically engages the rear cross bar 12 as will be understood from Fig. 4 while a similar angle iron 26a has its horizontal flange practically engaging the front cross bar 12. By this arrangement, practically all the air entering the stove from the bottom is caused to pass through the fire grate 15.

To disassemble the stove, the parts are removed from position in reverse order and may be practically nested in compact form for transportation, it being pointed out that no screws, bolts or the like are required to secure the parts in assembled relation.

By the form and relationship of the parts as herein shown and described, I provide an outdoor stove in which there is a rear shelf provided with a vertical flange preventing material thereon from being accidentally moved off from the same to fall to the ground. Also, the top plates 3 provide shelf space at each end of the device and the flange 36 of the front plate 4 provides shelf space for utensils such as forks or spoons or the like that are used in the cooking operation. Due to the front plate having the peculiar character of hook members 35 and eyed end portions 34 of the straps 33, it may be readily turned outwardly permitting access to the fire and permitting replenishment thereof without disturbing the utensils on the top grid 40.

It is believed evident from the foregoing de-

scription that the various objects and features of the invention are attained by the structure described. It is also to be understood that various changes may be made in the specific form and arrangement of the various elements forming the stove within the spirit and scope of the invention as set forth in the appended claims.

Having thus fully described my invention, its utility and mode of operation, what I claim and desire to secure by Letters Patents of the United States is:

1. An outdoor stove of knock-down form comprising a pair of side plates forming the side walls of the stove, the plates each having a substantially vertical portion and a portion extending at an angle outwardly from the vertical and terminating in a horizontal upper flange, a pair of leg elements fixed to each of the side plates each having leg portions extending outwardly from the bottom of each plate, and an outwardly extending portion at the upper end, a pair of horizontal top plates of narrow width and of a length equal to the width of the side plates and respectively attached thereto, each of said horizontal plates having its inner edge offset below the upper horizontal face thereof providing a depressed flange, and a grating supported on the said depressed flanges of the top plates, a pair of cross members having a vertical and a horizontal flange, each end of each horizontal flange having a hook end to extend through slots formed in the vertical portion of the side members and the attached leg portions providing a means for supporting the end plates in opposed vertical relation, a front and a back plate detachably secured to the respective opposite ends of the two horizontal top plates and an ash pan slidably supported between the end plates.

2. An outdoor stove of knock-down type comprising a pair of end plates forming the end walls of the stove, the plates each having an inturned flange at the bottom edge, a substantially vertical portion and a horizontal top portion, a pair of leg elements fixed to each of the end plates, each having portions extending therebelow at the bottom and upper end portions extending outwardly in a horizontal plane, a top plate of greater width than the top end portions of the legs and attached therewith, each top plate having an inner depressed flange, a pair of side plates detachably supported respectively by the opposite edges of the top plates and engaging the end members, a grating member supported by the depressed flanges of the top plate, said end members each having an inturned flange at the bottom, an ash pan slidably supported thereon, means for detachably securing the end members in the opposed vertical position and a fire-grate supported on the said last named means.

3. An outdoor stove of knock-down type comprising a pair of sheet metal end plates of like form having opposed inturned flanges at the bottom edge, a pair of leg elements attached to each end plate and terminating below the lower flange, each end plate having a horizontal portion, an outwardly inclined portion extending thereabove, and a horizontal end portion providing an upper flange, a top plate secured to the upper flange of each side plate and extending inwardly of the respective flange, a grating detachably supported on the inner edges of the said top plates, a pair of side plates detachably secured in position to engage opposite side edges of the respective end plates, a pair of angle bars each having hooked ends extending through aper-

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tures provided in the horizontal portion of the opposite side plates arranged with the horizontal flanges thereof extending inwardly in opposed relation, a fire-grate supported by the said flanges of said angle bars, an ash pan slidably supported on the bottom flanges of the end plates, a plate providing a shelf detachably secured to the top of the rear side plate, the front side plate being out-turned at the upper edge to provide a shelf, each of said front and back plates having an in-turned flange at the bottom engaging the vertical member of the respective angle bar and closing the space between the said angle bars and the respective front and back plates thereby causing practically all air for combustion to flow through the fire-grate.

4. A sheet metal stove adapted to be readily assembled or disassembled, comprising a pair of sheet metal end members having leg portions, detachable means for supporting the end members in spaced relation, a horizontal plate supported at the top of each end member and extending inwardly thereof toward each other, a grating supported by the horizontal plates, the inner edges of said horizontal top plates having apertures adjacent each opposite side edge, a pair of sheet metal side plates each having elements to engage in the pair of apertures at the front and back of the stove, a back shelf for the rear side plate and a front shelf at the upper end of the front side plate, detachable means for supporting the end members in the desired spaced relation, a fire-grate supported by the said means, an ash pan below the fire-grate in slidable relation with the end members, said ash pan comprising a sheet metal plate upturned at its opposite edges to provide a front and a rear flange, the front flange having apertures and an apertured damper plate

slidably supported relative to the front flange to control air flow to the stove, the said front and rear flanges of the ash pan when closed aligning practically in contact with the lower edge of the front and rear side plates, and means associated with the bottom edges of the side plates preventing flow of air around the grating and practically causing all air entering the stove to pass through the fire-grate.

5. An outdoor stove of knock-down type comprising a pair of sheet metal end members each forming an end wall of the stove, cross bars providing a means intermediate the upper and lower ends of the end walls for detachably supporting the end members in spaced relation, a pair of leg elements secured to each sheet metal end member, plates supported on the upper ends of said leg members and spaced apart when the end members are secured in relative position, side members comprising sheet metal plates each detachably supported in normal engagement with the respective opposite side edges of the end plates and providing therewith a comparatively rectangular space in cross section of greater length than width, a grid supported by the end members at the top, a grate-like means supported by the end plates therebelow and at a distance above the lower edge of the end plates for the support of a fuel, at least one of the side plates being supported in a manner permitting the same to be swung outwardly to provide access to the fire and permitting replenishment with fuel without disturbing utensils on the grid, an ash pan slidably supported between the end plates below the grate, and damper means at the forward end of the ash pan for controlling the draft.

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