Aug. 9, 1938. R. N. HANSON 2,126,109

COOKING RANGE

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Fig. 1

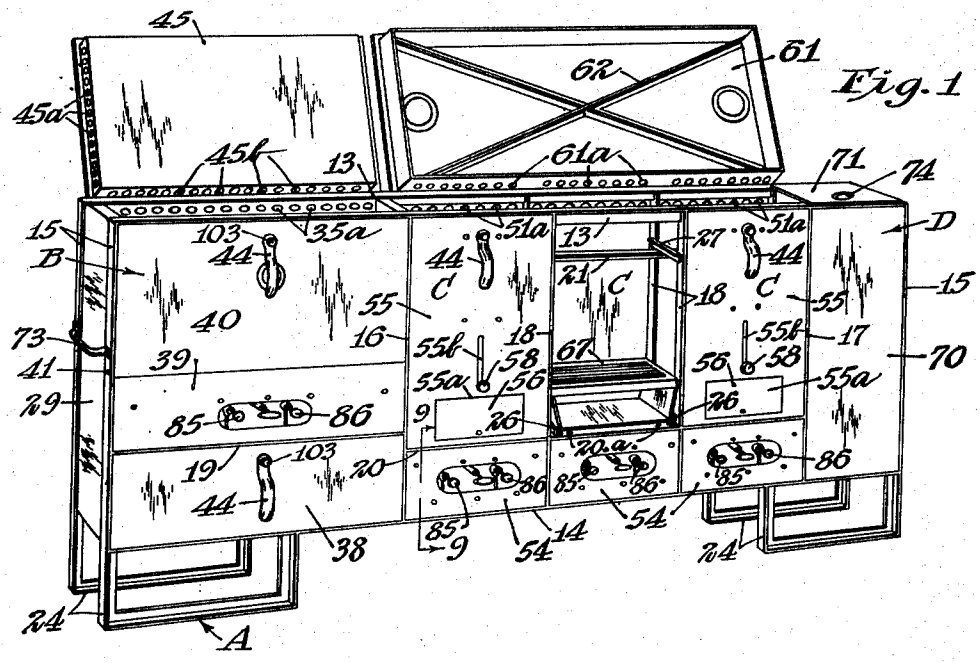
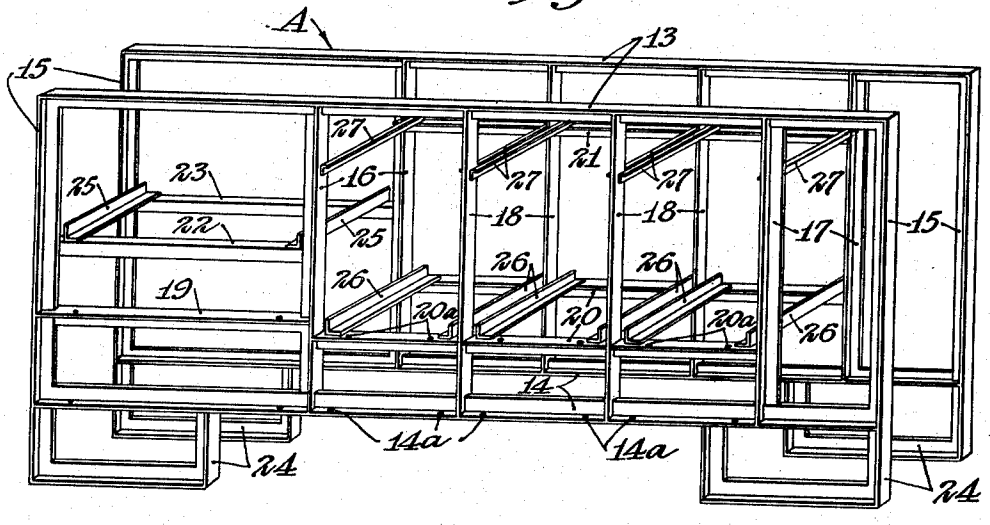


Fig. 2



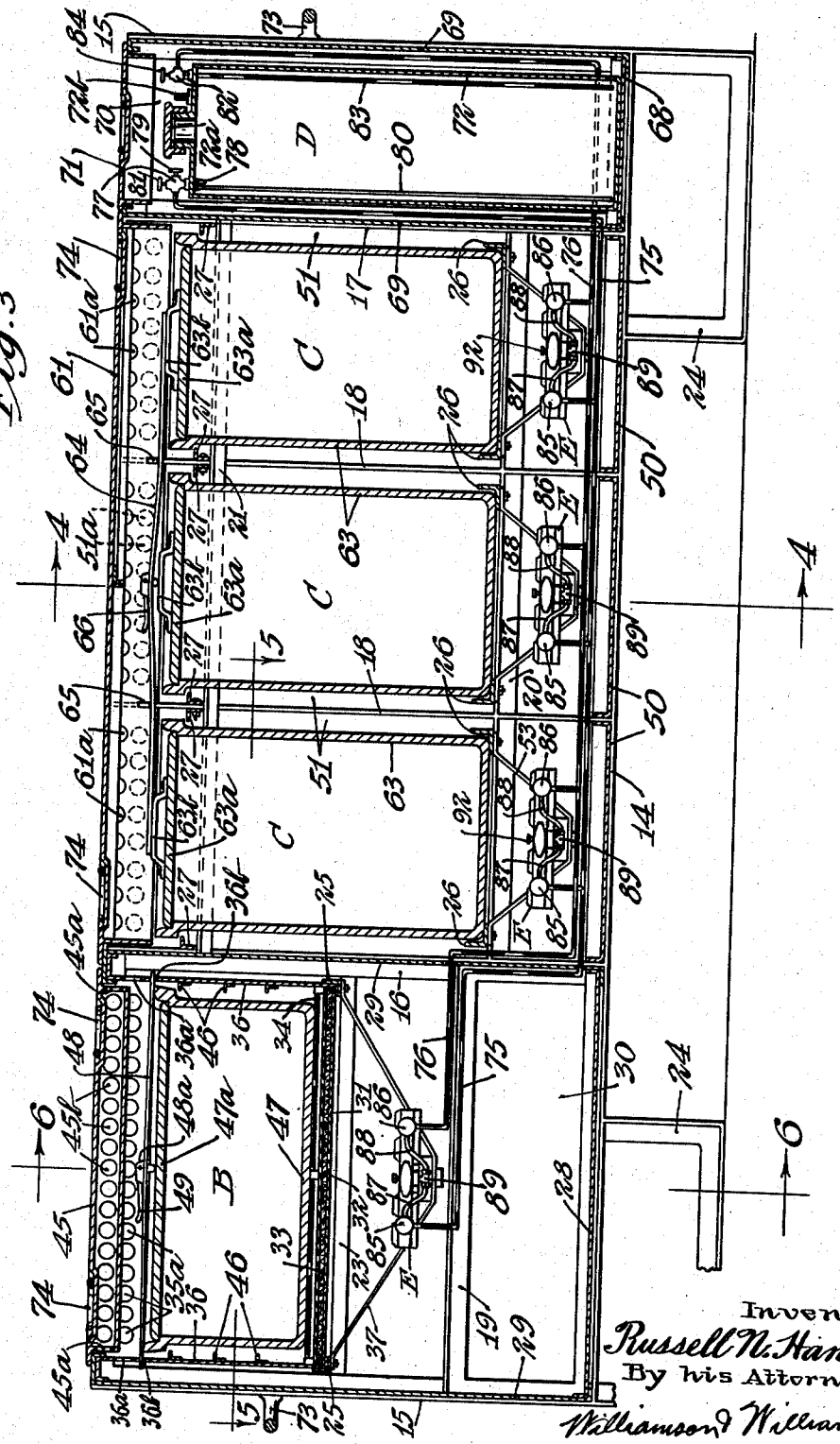
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Fig. 3



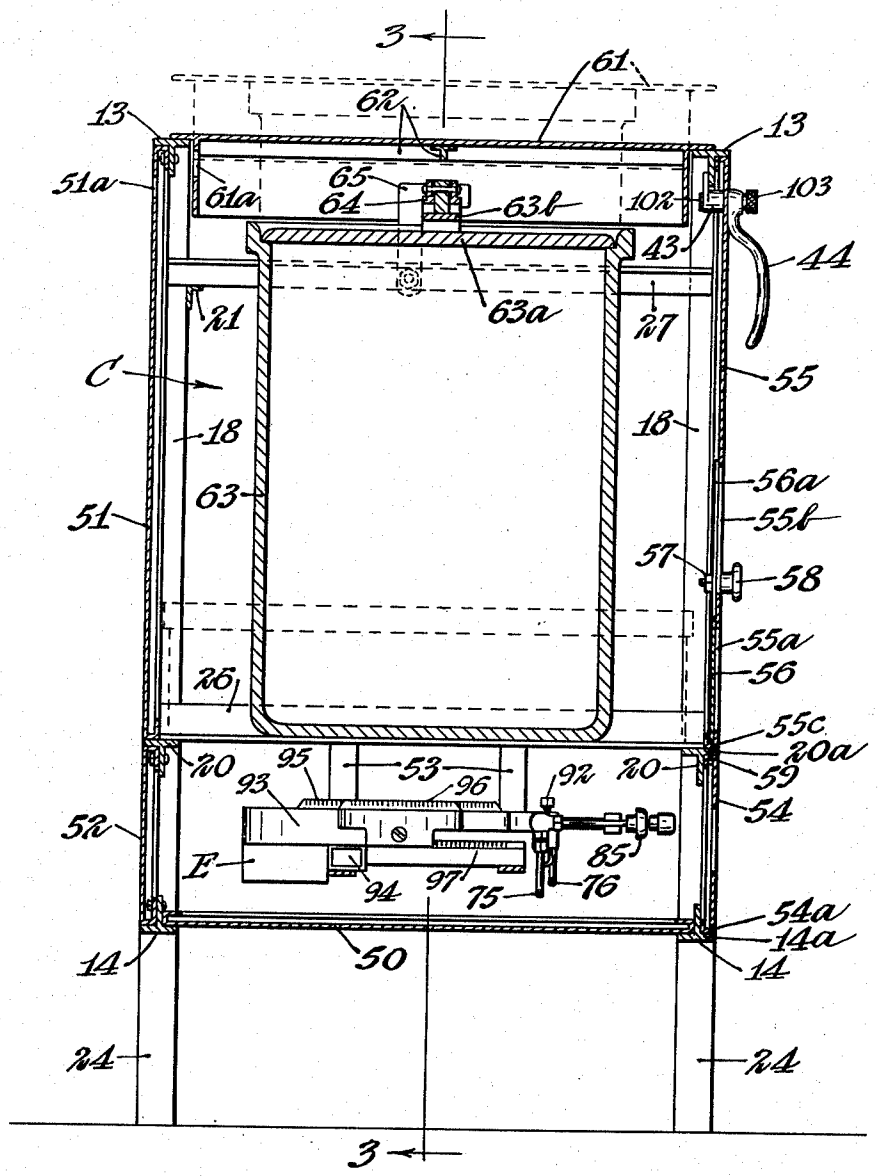
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Fig. 4



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Fig. 5

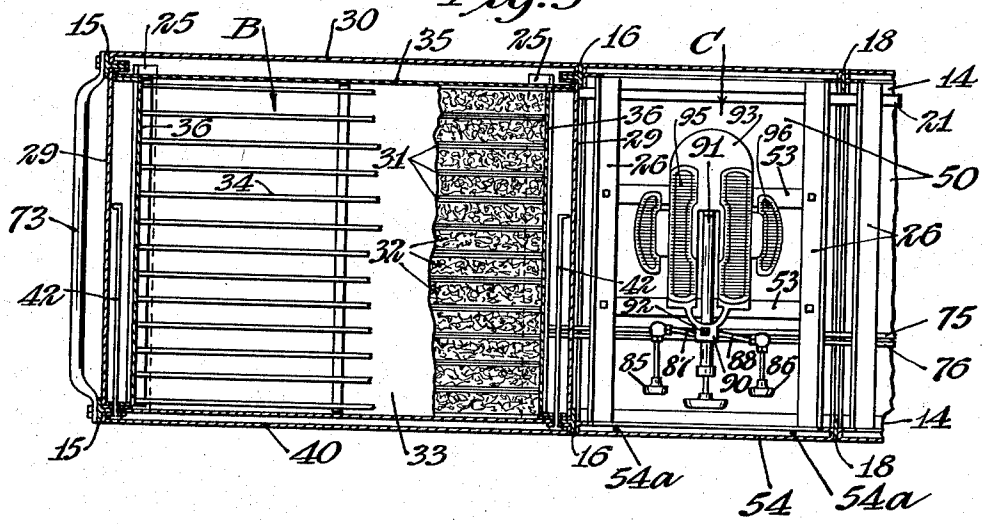


Fig. 6

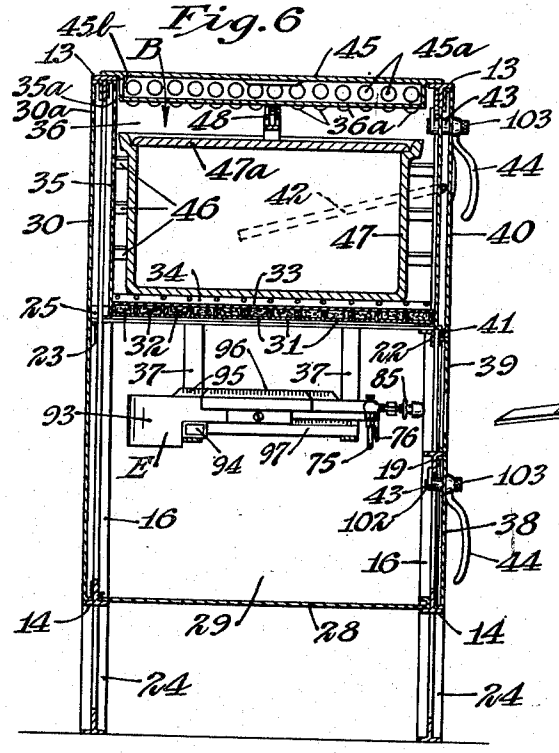


Fig. 7

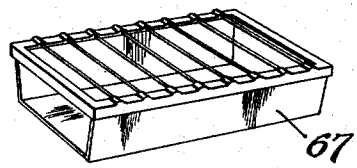
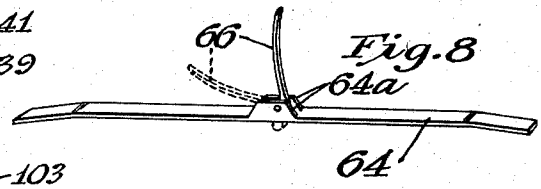


Fig. 8



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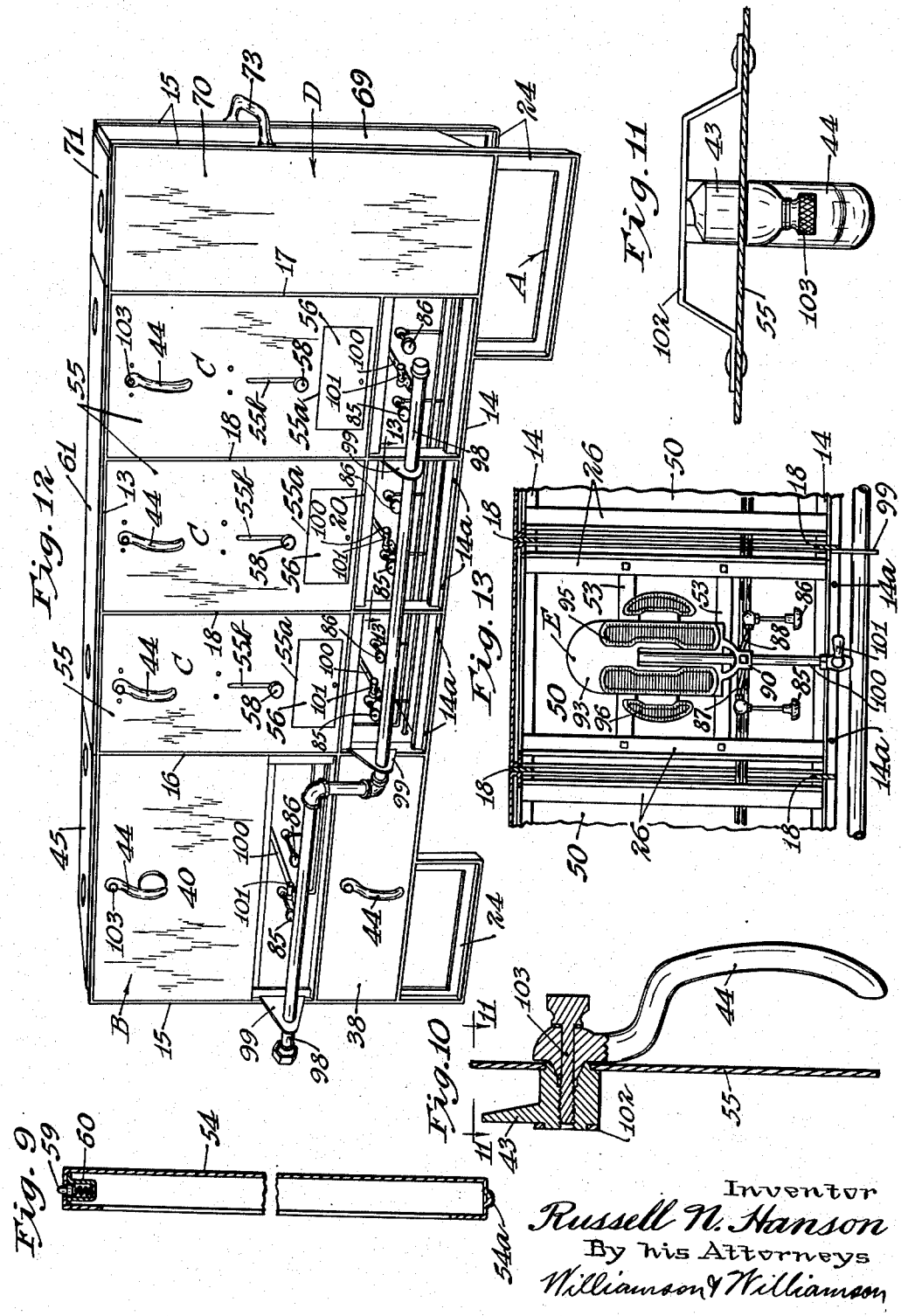


Fig. 12

Fig. 11

Fig. 13

Fig. 10

Fig. 9

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UNITED STATES PATENT OFFICE

2,126,109

COOKING RANGE

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Application August 5, 1936, Serial No. 94,307

8 Claims. (Cl. 126—1)

This invention relates to cooking ranges particularly adapted for camp and garrison use and for ready transportation from one point to another to feed a large body of men.

It is one of the objects of the invention to provide a cooking range, which is peculiarly adaptable for army use or camp use and which can be transported as by truck from one location to another and which will be exceedingly strong and rugged to withstand rough handling and transportation.

Another object is to provide such a cooking range, which is adaptable for operation through use of different types of fuel such as may be available at different locations and under varying circumstances.

More specifically, it is one of the objects of the invention to provide a cooking range which includes a skeleton frame of great strength and cooking compartments and burners located completely within the outline of the skeleton frame, whereby the skeleton frame will act as a buffer for the burners and cooking compartments to prevent injury thereto during rough handling in moving the range from one location to another.

Another more specific object is to provide a cooking range, which can be utilized successfully with gasoline, wood, or gas as a fuel.

The objects and advantages of the invention will more fully appear from the following description made in connection with the accompanying drawings wherein like reference characters refer to the same or similar parts throughout the various views, and in which,

Fig. 1 is a perspective view illustrating my cooking range with one of the front closure plates removed and with the covers raised;

Fig. 2 is a perspective view illustrating the skeleton frame of the range;

Fig. 3 is a vertical longitudinal section through the range taken on the line 3—3 of Fig. 4, as indicated by the arrows, and showing the range set up for cooking by use of gasoline as the fuel;

Fig. 4 is a vertical section taken on the line 4—4 of Fig. 3, as indicated by the arrows, showing in full lines the range set up for use in cooking with gasoline as the fuel and showing in dotted lines the position that certain of the parts will assume when wood is used as the fuel for operating the range;

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 3, as indicated by the arrows;

Fig. 6 is a vertical section taken on the line 6—6 of Fig. 3, as indicated by the arrows;

Fig. 7 is a perspective view illustrating one of the wood fire pots that may be used;

Fig. 8 is a perspective view illustrating a clamping bar for the food containers;

Fig. 9 is a vertical section on enlarged scale through one of the front closure plates taken substantially on the line 9—9 of Fig. 1, as indicated by the arrows;

Fig. 10 is a detail showing principally in vertical section one of the handles and latching mechanism for a closure plate;

Fig. 11 is a horizontal section taken on the line 11—11 of Fig. 10, as indicated by the arrows;

Fig. 12 is a perspective view showing the cooking range set up for use in burning natural or artificial gas, and

Fig. 13 is a horizontal section taken substantially on the line 13—13 of Fig. 12, as indicated by the arrows.

Generally stated, the cooking range of the invention includes a skeleton frame designated generally by the letter A, an oven section designated generally by the letter B, cooker sections, three of which are shown in the present embodiment, designated generally by the letter C and a compartment section designated generally by the letter D. Of course, the number of oven sections B and cooker sections C incorporated in the range may be varied as desired according to the requirements of the range.

The skeleton frame A, as best shown in Fig. 2, consists in reality of a pair of heavy, vertical, front and rear upright longitudinal frames spaced from each other and interconnected by a number of transverse cross bars. The longitudinal frames each include upper and lower horizontal rails 13 and 14 respectively interconnected by vertical corner rails 15, intermediate rails 16 and 17 and intermediate bars 18. The front left corner rail 15 is interconnected with the rail 16 of the front longitudinal frame by a horizontal rail 19, while the rails 16 and 17 of both front and rear frames are interconnected by horizontal rails 20 spaced a short distance above the rails 14. The rails 16 and 17 of the rear longitudinal frame are interconnected by a horizontal bar 21 located a short distance below the top horizontal rail 13 of this same frame. The left hand rail 15 of the front frame is connected to the rail 16 thereof by a horizontal bar 22 attached to the inner sides of the said rails 15 and 16, this bar 22 being spaced somewhat above the rail 19. At the same level as the bar 22, a bar 23 interconnects the left hand corner rail 15 of the rear frame with the rail 16 thereof. U-shaped rails 24 forming the

supports or legs for the cooking range are connected at their upper ends to the rails 14 and project downwardly below the same. The outer portions of these U-shaped supports 24 are in reality continuations of the corner rails 15. The transverse bars extending between the front and rear longitudinal frames of the skeleton frame A include a pair of bars 25 attached to and extending between the two bars 22 and 23 above the same, one of which bars 25 is located adjacent the corner rails 15 and the other of which bars 25 is located adjacent the rails 16. Also among the said transverse bars are bars 26 resting on, extending between and connecting the two rails 20, one of these bars 26 being located adjacent rails 16, others being located adjacent bars 18 and another being located adjacent rails 17. Bar 21 of the rear longitudinal frame is connected to the front longitudinal frame by horizontal bars 27. The various bars and rails composing the skeleton frame are preferably welded or otherwise secured together to form for all intents and purposes a unitary frame of great strength and rigidity. The various rails 13, 14, 15, 16, 17, 19, 20 and 24 in the form of the device illustrated, are shown as being of T-bar construction and the outer ones of these rails have their central webs directed inwardly so as to present flat outer surfaces. The bars 21, 22, 23, 25, 26 and 27 in the form of the device illustrated, are shown as being of angle bar construction and among these bars, bars 25, 26 and 27 are arranged in pairs in oppositely facing relation. Of course, the detailed construction of the skeleton frame can be varied considerably as desired.

The oven section B of the range is defined in outline by those portions of the skeleton frame A extending longitudinally of the skeleton frame between the left hand corner rails 15 and the rails 16, extending vertically of the skeleton frame between rails 14 and rails 13 and extending transversely of the skeleton frame between the front longitudinal frame and the rear longitudinal frame thereof. Within these outlines the oven itself and the oven burners are located. The oven section is closed at its bottom by a bottom panel 28, is closed at its sides by side panels 29 and is closed at its back by a back panel 30. Extending between and resting on the cross bars 25 are a plurality of longitudinally extending channels 31 which are assembled in engaging relation with their channels facing upwardly. Within these channels 31 are located fillers 32 formed of asbestos or analogous material which will assist in preventing the burning out of the channels and in disseminating even heat through the bottom of the oven. Overlying the filled channels 31 is a plate 33. The channels 31, fillers 32 and plate 33 form the bottom of the oven proper and serve as a base upon which normally rests a grating 34 consisting of a number of spaced rods having their ends secured to and embedded within three or any number of transversely extending bars. Above the bars 25 a vertical panel 35 extends between bar 23 and the upper rail 13 of the back frame to form a back for the oven, while in like manner upwardly projecting side panels 36 extend from the bars 25 upwardly to form the sides of the oven proper. Panel 35 is spaced from the panel 30 to form an air channel, the purpose of which will presently appear, while in similar manner panels 36 are spaced from the side panels 29 to afford channels between the sides of the oven proper and the side panels 29. The upper edges of panels 36 and 29 are reversely bent as best shown in Fig. 3, to permit of overlapping engagement.

The chamber in the oven section B below the oven bottom forms a burner and broiler compartment, as best shown in Fig. 6. A burner designated as an entirety by the letter E is supported within the said compartment above the level of rail 19 by means of straps 37 attached at their ends to the cross bars 25. A lower front closure plate 38 for the oven section is provided which fits between the lower rail 14 of the front frame and the rail 19 and extends from the left front corner rail 15 to the front rail 16. The space between rail 19 and bar 22 is normally partially closed by a removable intermediate closure plate 39, this plate having a central opening therein for access to the valve handles of the burner E. The front of the oven is normally closed by an oven door 40 pivotally connected near its lower edge to the adjacent rails 15 and 16 of the skeleton frame by pivot studs 41. This oven door has pivotally connected thereto a pair of stop bars 42, as best shown in Figs. 5 and 6, and these stop bars work between the side panels 36 of the oven and the side panels 29 of the oven section and extend through slots formed in the inner webs of the front left rail 15 and the front rail 16 and in the forward edges of panels 29 and 36. Stop bars 42 have angularly bent inner ends which engage with the forward portions of the panels 36 when the oven door is swung downwardly to a horizontal position to retain the door in this position. To releasably connect panel 38 and oven door 40 at their upper edges with the adjacent rails of the skeleton frame, latches 43 are provided having removable handles 44. Inasmuch as a number of similar latches are provided for other panels of the range, the detailed construction of these latches will be hereafter described.

A lid 45 is provided for closing the top of the oven section of the range. This lid consists of a shallow box-like casing having projecting flanges at its top which normally rest upon the rails 13 and the upper edges of the side panels 29. To permit the exhaust of the waste products of combustion from the oven section B, the back panel 30 is provided with a series of spaced apertures 30*a* near its upper edge. Also the side panels 36 of the oven are equipped with a series of apertures 36*a* near their upper ends, while the adjacent ends of the box of lid 45 are equipped with a series of apertures 45*a* and the back wall of the box of the lid 45 is equipped with a series of apertures 45*b*. The back panel 35 of the oven is also equipped with a series of spaced apertures 35*a* near its upper end. The waste products of combustion from the burner E in the oven section B take paths upwardly and about the side walls 36 and the back wall 35 of the oven. In other words, some of the products of combustion run upwardly through the channel between panels 30 and 35 and exhaust to atmosphere through the apertures 30*a*. Other products of combustion run upwardly from the burner E through the channels between side panels 36 and 29, pass inwardly through apertures 36*a* and apertures 45*a* into the box-compartment of lid 45 and thence travel rearwardly through apertures 45*b* and 35*a* to exhaust to atmosphere through apertures 30*a*. The products of combustion in addition to heating the bottom of the oven thus heat the side walls and the back of the oven as well, so as to cause uniform distribution of heat to the oven.

Preferably the side panels 36 of the oven are equipped with oppositely opposed grille slides 46 for receiving the oven grille 34. For reception within the oven there is provided a large cooking vessel 47 having a lid 47a. To tightly secure the cooking vessel 47 in place as when the cooking range is being transported, a clamping bar 48 is provided having ends adapted to be received within slots 36b adjacent the upper ends of the side panels 36 of the oven and having at its center upstanding lugs 48a within which a clamping dog 49 is mounted. Clamping dog 49 has a tongue which may project down through an opening in the central part of the clamping bar 48 to engage the lid 47a of vessel 47 and thereby clamp the lid tightly down in place through spring action of the clamping bar 48, while at the same time retaining the cooking vessel 47 against sliding movement through engagement of the bar 48 with opposite portions of the edge of the vessel.

The cooker sections C of the range are defined in outline by those portions of the skeleton frame A extending longitudinally of the frame between rails 16 and 17, extending vertically of the frame between rails 14 and 13 and extending transversely of the skeleton frame between the front longitudinal frame and the rear longitudinal frame thereof. The left hand cooker section C extends longitudinally of the skeleton frame between rails 16 and the left hand bars 18; the middle cooker section C extends longitudinally of the skeleton frame between the left hand bars 18 and the right hand bars 18 and the right hand cooker section C extends longitudinally of the frame between the right hand bars 18 and the right hand rails 17. The various cooker sections communicate one with the other and are generally of similar construction.

Each cooker section C is provided with a bottom 50, a back panel 51 extending from the rear rail 20 to the rear rail 13, and a back panel 52 extending from the rear rail 14 to the rear rail 20. Burners E are supported by straps 53 in the lower portions of each cooker section, the straps being secured at their upper ends to the cross bars 26. The burner part of each cooker section is closed at its front by a removable panel 54 on the same order as panel 39 previously referred to and having a central opening therein to permit access to the various valve handles of a burner E. The front of each cooker section above the front rail 20 is closed by a removable front panel 55 equipped near its upper end with a latch 43 having a removable handle 44 similar to the previously described latch. Panel 55 has an opening 55a therein near its lower edge and this opening is adapted to be closed to a desired degree by means of a sliding damper plate 56 inwardly disposed from panel 55 and having, as best shown in Fig. 4, an upwardly projecting shank 56a to which is secured a nut 57. A knob 58 carries a stud which projects through the shank 56a and cooperates with the nut 57, the front panel 55 having a vertical slot 55b therein for receiving the stud and permitting upward and downward movement of the knob 58. With this structure, knob 58 may be loosened from its nut 57 whereupon by pressing upwardly or downwardly on the knob 58 the damper plate 56 can be raised or lowered to expose the opening 55a to the desired extent and the knob 58 can then be turned so as to tightly clamp the panel 55 between the shank 56a and the knob. The damper plate 56 will then be held in the desired adjusted position.

The lower edges of the panels 55 are preferably provided with projections 55c which are received within small openings 20a provided in the rails 20. In similar manner, the panels 54 are provided with projections 54a at their lower edges received within openings 14a provided in the front rail 14. To secure the upper edges of the panels 54 in place, spring pressed pins mounted in wells 60 attached to the upper edges of the panels 54 are provided, these pins cooperating with openings in the front rail 20. It should here perhaps be stated that the panel 39 of the oven section B is removably held in place in similar manner to the panels 54 and that the lower edge of the panel 38 of the oven section is held in place on the front rail 14 in the same manner as are the lower edges of the panels 55 held in place on the front rail 20.

The tops of the three cooker sections are closed by a single lid 61 which carries a downwardly projecting skirt spaced from its peripheral edges. This lid is preferably braced by cross brace members 62 and the back part of the skirt is provided with a plurality of spaced apertures 61a to prevent the fumes arising from the burners from being caught and held by the skirt. The waste products of combustion from the burners may exhaust to atmosphere from the cooker compartments C through a plurality of spaced apertures 51a provided in the back panels 51 near their upper edges.

A cooking vessel 63 for each cooker section C is provided and each cooking vessel is equipped with a removable lid 63a. These cooking vessels 63, as shown in full lines, Fig. 4, and as also shown in Fig. 3, are normally carried by pairs of cross bars 26 and they are of such height that they can be removed from the cooker sections C when the front panels 55 thereof are removed. For holding the cooking vessel 63 in place, during movement of the cooking range from one position to another, as well as for securely clamping the lids 63a in position, a clamping bar 64 is provided which has portions adapted to be received below the forwardly projecting parts of angular brackets 65 attached to the central cross bars 27. Each latch bar 64 is of such length that when applied in overlying relation relative to the cooking vessels 63, end portions of the bar will rest against handles 63b attached to the lids 63a. The latch bar 64, as best shown in Fig. 8, is formed of spring metal and has upwardly projecting central lugs 64a within which a clamping dog 66 is pivoted. Clamping dog 66 has a tongue which may project down through an opening in the central part of the clamping bar 64 as the dog is swung from the full line position shown in Fig. 8 to the dotted line position there shown, and this dog will bear against the handle 63b of the central cooking vessel 63 to distort the clamping bar, as shown in Fig. 3, to firmly and securely press all three of the lids 63a into engagement with their respective cooking vessels 63 and to prevent movement of the cooking vessels during transportation of the range.

To permit the range to be used for cooking with wood as the fuel, firepots 67 are provided for each cooker section C. These firepots, best shown in Fig. 1 and Fig. 7 and in dotted lines Fig. 4, have bottom, side and back walls and grilled tops and they are open at their fronts to permit wood to be placed therein. When the firepots 67 are used, they will be supported upon the cross

bars 26 and the cooking vessels 63 will in turn be supported upon the firepots. The damper plates 66 are useful in regulating the draft of air to the firepots when they are used. Of course, to put the wood firepots 67 in position for use, it is necessary to first remove the front panels 55.

It should be noted that the skeleton frame A forms the exterior outline for the three cooker sections C, all panels, burners, etc., within these cooker sections being protected by this skeleton frame.

The compartment section D is defined in outline by those portions of the skeleton frame A extending longitudinally of the frame between the rails 17 and the right hand corner rails 15, extending vertically of the skeleton frame between rails 14 and rails 13 and extending transversely of the skeleton frame between the front longitudinal frame and the rear longitudinal frame thereof. The compartment section includes a bottom 68, side walls 69 and front and back walls 70. A skirted lid 71 closes the top of the compartment section. Mounted within the compartment section is a liquid fuel tank 72 adapted to hold hydrocarbon fuel such as gasoline under air pressure. This tank is equipped with the usual filler opening closed by a cap 72*a* and it is also provided with the usual check valve equipped nipple 72*b* to which a hose from an air pump may be attached for applying air pressure to the tank.

Heavy cross handles 73 are attached to the ends of the range, these handles being secured to the corner rails 15 of the skeleton frame. By means of these handles the range can be readily moved from one position to another. The various lids 45, 61 and 71 are all equipped with wells within which handles 74 are pivotally mounted whereby the lids can be readily manipulated.

To supply the burners E with gasoline or such other liquid hydrocarbon fuel as may be desired, and to permit instant lighting of the burners, without pre-generation, by a supply of for example air and gasoline, as well as to permit continued operation of the burners, after they are heated, by a supply of liquid fuel such as gasoline, two fuel lines 75 and 76 are provided running from the tank 72 to points adjacent the various burners E. An instantly ignitable mixture of air and gasoline is supplied through the line 75 while gasoline alone is supplied through the line 76 in the embodiment illustrated. Mounted on the tank 72 is a valve fitting 77 connected to the line 75. From this fitting a short air tube 78 extends downwardly into the air space of the tank and terminates in a measured orifice through which air may be admitted to the fitting 77, this air being controlled by a valve 79 mounted in valve fitting 77. Also projecting downwardly into the tank from valve fitting 77 is a gasoline tube 80 which projects downwardly to a point near the bottom of the tank within the liquid space thereof and at the said point the gasoline tube 80 is provided with a measured orifice for the admission of gasoline thereto. A valve 81 mounted in the valve fitting 77 controls the flow of gasoline through tube 80. Air and gasoline are mixed in the fitting 77 in proper quantities for instant ignition and run therefrom to the supply line 75. Another valve fitting 82 is mounted on the top of the tank and connects with supply line 76. A gasoline tube 83 connected to this fitting extends downwardly therefrom to a point near the bottom of the tank within the liquid space thereof and this gasoline tube is provided at its lower end with a measured orifice through which gasoline is admitted to the tube. A valve 84 mounted in the fitting 82 controls the flow of gasoline through the tube 83. Gasoline alone is supplied to the line 76 from the tube 83.

Lines 75 and 76 have branches which run upwardly to shutoff valves 85 and 86 respectively for each burner E. From the shut-off valves 85 and 86, conduits 87 and 88 respectively run and these conduits are connected to a three-way fitting 89 carried by a sleeve-like portion 90 of a burner E. The three-way fitting 89 of each burner communicates through a nipple, not illustrated, with a generator tube 91, the nipple being held in tight engagement with an apertured port of the generator tube of a set screw 92, in accordance with the usual practice.

The particular burner E illustrated forms the subject matter of a separate invention and, therefore, need not be described in detail here. It suffices to say that the generator tube 91 at its inner end loosely fits through an opening in a mixing chamber 93 and within this chamber the tube is provided with an orifice from which the gas from the generator tube 91 ejects into the mixing chamber. Air is admitted to the mixing chamber through an opening 94, best shown in Fig. 4, and the air and gas from the generator tube 91 mix in the mixing chamber 93 and are conveyed therefrom through hollow branches of the burner to various burner heads 95, 96 and 97. The burner head 97 is located below a portion of the generator tube 91, so as to play thereon and thereby heat the tube to generate gasoline supplied thereto into gas. The burners E are of such type as to burn either ordinary gasoline or gasoline containing tetraethyl lead. But by substitution of a slightly different type of pipe for generator tube 91, it is possible to burn either natural or artificial gas in the burners E.

To permit natural or artificial gas to be burned in the range, the range may be set up as shown in Figs. 12 and 13. A gas conduit 98 may be applied to the range by mounting the same in brackets 99 attached respectively as to the front left hand corner rail 15, the front rail 16 and the right hand front bar 18, these brackets being attachable to the respective rails and bars after the panels 39 and 54 have been removed. Branch pipes 100 equipped with valves 101 are connected to the conduit 98 adjacent the various burners and these pipes 100 are substituted for the generator tubes 91. Of course, these pipes 100 have no communication with the three-way fittings 89 but otherwise they differ very little from the generator tubes with the exception that their outlet ports received within the mixing chambers 93 of the burners E are larger than the small orifices found in the generator tubes 91.

In Figs. 10 and 11, the detailed construction of a latch applied to the panels 55 is illustrated. The latches applied to panel 38 and panel 40 are of similar construction with the exception that latch applied to panel 40 differs slightly as to detail. As shown in Figs. 10 and 11, each latch 43 is of cylindrical construction and carries a latching finger and has an outer end trunnioned and journaled in its mounting panel. In the case of all the latches except the latch applied to the door panel 40, the other end of the latch

is trunnioned and received within a strap 102 secured to the mounting panel at the inner side thereof. The outer trunnioned end of each latch projects through an opening in the mounting panel and the latch is bored and internally screw threaded to receive a knob headed screw 103 which releasably connects the handle 44 to the latch 43. The outer end of the latch is provided with a pyramid-shaped recess running into the screw opening of the latch to receive a corresponding projection on the handle 44. The outer end of the latch terminates flush with the outer surface of the panel to which the latch is applied so that when the handle 44 is removed by unscrewing the screw 103, no portion of the latch projects beyond the outline of the skeleton frame of the range. The particular latch 43 applied to the door 40 differs from the remaining latches only in that an inner portion of this particular latch is journaled in the inner section of the oven door 40 rather than in a strap 102 applied to the door, the construction of this oven door latch being illustrated in Fig. 6.

Of course, knobs 58 for the damper plates 56 may be removed and as brackets 99 for the gas conduit 98 may be readily removed and as latch handles 44 may be readily removed, all parts of the range projecting at the front beyond the outline of the skeleton frame may be removed whenever it is desired to transport the range from one location to another. When the range is to be transported these parts are, of course, removed, the wood grates 67 are removed and the latching bars 64 and 48 are applied in position to secure the various cooking vessels 47 and 63 and the lids thereof in position, as best shown in Fig. 3. The skeleton frame A, together with the handles 73 then fully protect the various parts of the range, such as the burners E, oven and the various panels, so as to prevent injury thereto during rough handling of the range. All parts of the range fall within the vertical outlines of the skeleton frame A with the exception of the heavy handles 73 and the skeleton frame acts as a buffer to prevent injury to other parts of the range. Inasmuch as the supports 24 are longitudinally spaced from each other, so as to form in reality a recess in the lower part of the range between the left hand supports and the right hand supports 24, the range can be readily placed upon a truck having upwardly curved rear wheel wells or projections and the supports 24 will rest on the truck bottom. The range can thus be very easily moved from one position to another without danger of injury and is highly adaptable for army and camp use for this reason.

In utilizing the range with gasoline as the cooking fuel, the range will be set up as shown in Fig. 3. Tank 72 having been partially filled with gasoline and air pressure having been applied to the tank and the generator tubes 91 being in position, the range is ready for use. To light one of the burners E, valves 79 and 81 being previously opened, it becomes only necessary to open the valve 85 of that burner and apply a match to the burner. A mixture of air and gasoline is then supplied to the generator tube 91 of the burner E to be utilized and this mixture is instantly ignitable by the match. After the burner has been operated for a short time, the burner head 97 will have heated the generator tube 91 to a sufficient extent to generate gasoline supplied thereto to gas and the valve 85 of the burner may then be closed and valve 86 opened, whereupon the burner will continue in operation under liquid gasoline alone without exhausting air from the tank 72.

When it is desired to operate the cooker sections C using wood, coal or the like, as fuel, the wood firepots 67 will be placed in position, as shown in Fig. 1, and the cooking vessels 63 will be located as shown in dotted lines Fig. 4 over the firepots. The damper plates 56 will then be raised to afford proper draft and wood fires or coal fires or fires from any other type of solid fuel may be kindled in the firepots.

When it is desired, as for garrison use where natural or artificial gas is available as fuel, to use the range, the range can be set up as shown in Fig. 12 by applying the gas conduit 98, brackets 99, gas pipes 100 and valves 101. The range will then be used as an ordinary gas stove after connection of conduit 98 to the gas supply is made.

It will be seen that an exceedingly strong and durable cooking range has been provided, which can be utilized with different types of fuel for cooking food to feed a large body of men. While the range is particularly adapted for army use in the field and in the garrison, it is also capable of being used anywhere where food is to be prepared for a large number of people. Inasmuch as the cooking vessels 63 and 47 are accessible from the top of the range, when the lids 61, 63*a*, 45 and 47*a* are removed, the various cooking vessels may be left in place within the range while food is being dispensed from the cooking vessels and the food within the cooking vessels may be kept warm while food is being dispensed therefrom.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of the present invention, which generally stated consists in the matter shown and described and set forth in the appended claims.

What is claimed is:—

1. A cooking range having in combination, a skeleton buffer frame consisting of a front longitudinal frame, a rear longitudinal frame and transverse cross bars interconnecting said front and rear longitudinal frames, said skeleton frame being constructed of heavy structural material and the various parts thereof being integrally connected together to form a unitary structure, and burners and cooking compartments supported by said skeleton frame completely within the peripheral outlines of the same and protected thereby, said range having an unobstructed flat top lying in substantially a single plane.

2. A cooking range having in combination, a rectangular skeleton frame including front and rear corner upright members, upper and lower longitudinal members extending between said corner upright members, a plurality of intermediate upright members extending between said upper and lower longitudinal members and a plurality of transverse members extending between certain of said other members, the said various members of said frame outlining an oven section and cooker sections and said members being integrally connected together to form a strong buffer functioning unitary structure, panels disposed between various members of said frame within the outlines thereof and forming compartments, burners disposed within said compartments and lids for said compartments, said range having an unobstructed flat top lying in substantially a single plane.

3. In a cooking range, a rectangular frame work defining an oven section, side and back panels closing the sides and back of said oven section, a plurality of upwardly disposed channels disposed in side by side horizontal relation in spaced relation below the top of said oven section, a plate supported upon said channels, heat insulating material filling said channels, side and back oven walls rising from said plate, an oven door normally closing the front of said oven section above said plate and a lid closing the top of said oven section.

4. The structure defined in claim 3, and a burner supported from said frame work below said channels, said oven walls being inwardly spaced from said side and back panels to form upwardly extending channels communicating with the space below said first mentioned channels, said back panel having apertures therein near its upper end for carrying off the waste products of combustion from said burner.

5. In a cooking range, a rectangular frame work defining an oven section, side and back panels closing the sides and back of said oven section, an oven bottom supported in spaced relation below the top of said oven section, side and back oven walls rising from said oven bottom in spaced relation from said side and back panels, an oven door normally closing the front of said oven section above said oven bottom, a lid closing the top of said oven section, a burner supported by said frame work immediately below said oven bottom, a bottom panel closing the bottom of said oven section, said oven section below said oven bottom forming a burner and broiler compartment and removable panels closing the front of said compartment.

6. The structure defined in claim 5, the side and back walls of said oven having a plurality of spaced apertures therein near their upper ends and said lid having a shallow box-like casing formed therein, the side and back walls of which are provided with a plurality of apertures and said back panel having a plurality of apertures therein near its upper end.

7. A cooking range comprising a heavy skeleton frame, divided by horizontal and vertical members into an oven section, a number of cooker sections and a compartment section, said cooker sections being disposed between said oven section and said compartment section, fixed panels closing the backs of said oven section, said cooker sections and said compartment section, fixed panels closing the sides of said oven section, panels closing the sides of said compartment section, an oven door closing part of the front of said oven section, removable panels closing other parts of the front of said oven section, removable panels closing the fronts of said cooker sections, a panel closing the front of said compartment section, removable lids closing the tops of said oven and cooker sections, a lid closing the top of said compartment section, and burners supported by said frame in said oven section and said cooker sections, said various panels and burners being located completely within the peripheral outlines of said skeleton frame.

8. A cooking range comprising a heavy skeleton frame divided by horizontal and vertical members into an oven section and a number of cooker sections, said cooker sections being disposed at one side of said oven section, fixed panels closing the backs of said oven section and said cooker sections, fixed panels closing the sides of said oven section, and the remote side of the cooker section most remote from said oven section, an oven door closing part of the front of said oven section, removable panels closing other parts of the front of said oven section, removable panels closing the fronts of said cooker sections, removable lids closing the tops of said oven and cooker sections and burners supported by said frame in said oven section and said cooker sections, said various panels and burners being located completely within the peripheral outlines of said skeleton frame.

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