

[54] COMPACT FIELD KITCHEN

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[22] Filed: **July 23, 1973**

[21] Appl. No.: **381,517**

Related U.S. Application Data

[63] Continuation of Ser. No. 144,608, May 18, 1971,
abandoned.

[52] U.S. Cl. **312/237; 126/37; 312/236;**
312/282; 312/324

[51] Int. Cl. **A47b 97/08**

[58] Field of Search 312/229, 236, 237, 281,
312/282, 324

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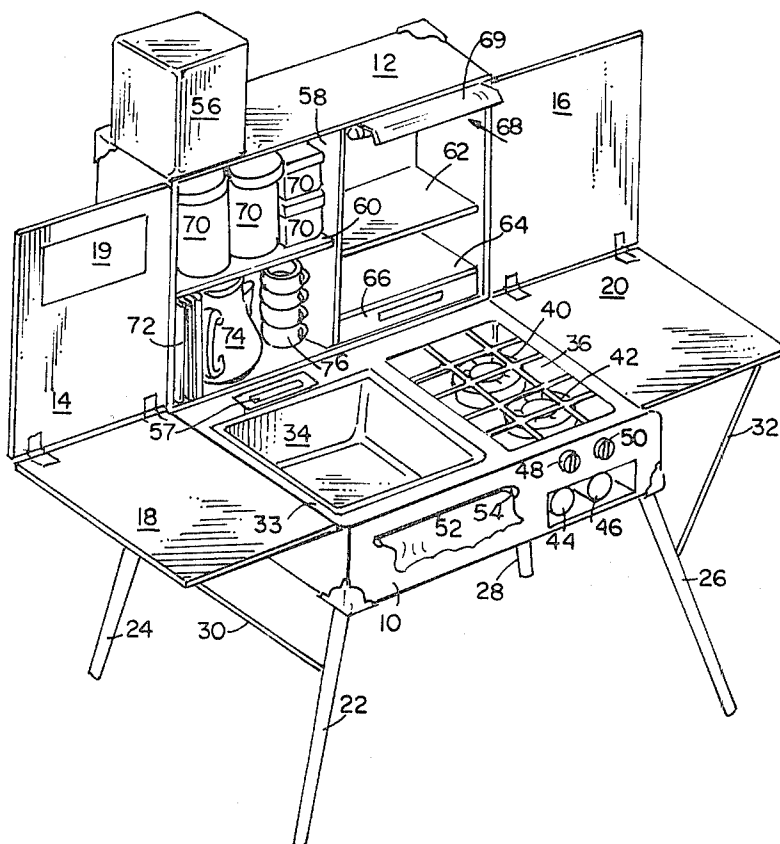
Assistant Examiner—Carl Pietruszka

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[57] ABSTRACT

A compact field kitchen is provided comprising in one embodiment upper and lower carrying case sections having a sink, a stove and storage areas incorporated therein with windbreaker wings foldably attached to the upper section and worktable wings foldably attached to the windbreaker wings whereby the worktable wings may be folded up to the windbreaker wings, the windbreaker wings folded into the upper carrying case section and the carrying case sections closed upon each other to form a readily portable unit.

4 Claims, 12 Drawing Figures



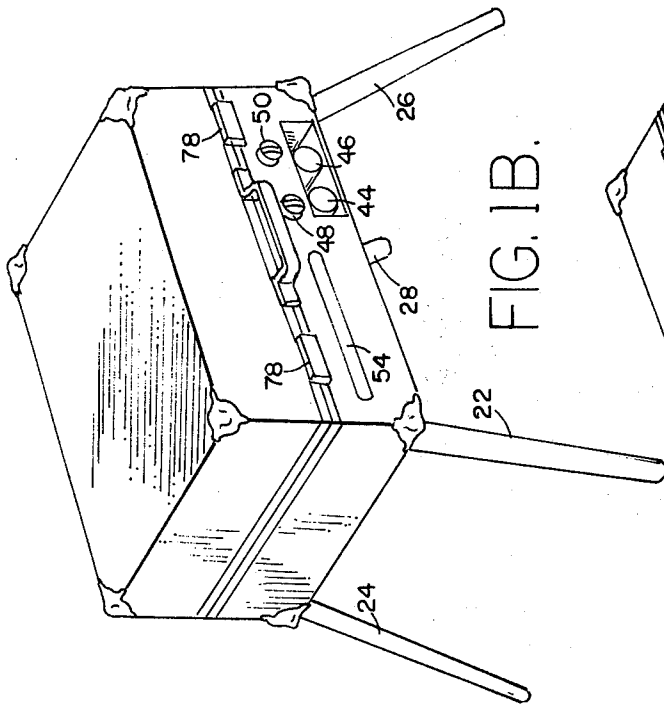


FIG. 1B.

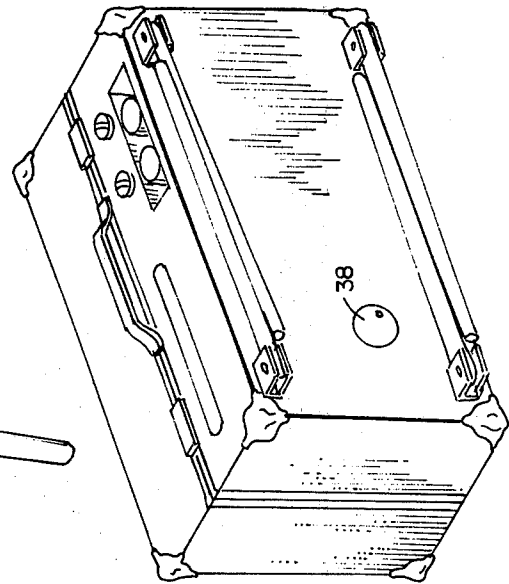


FIG. 1C

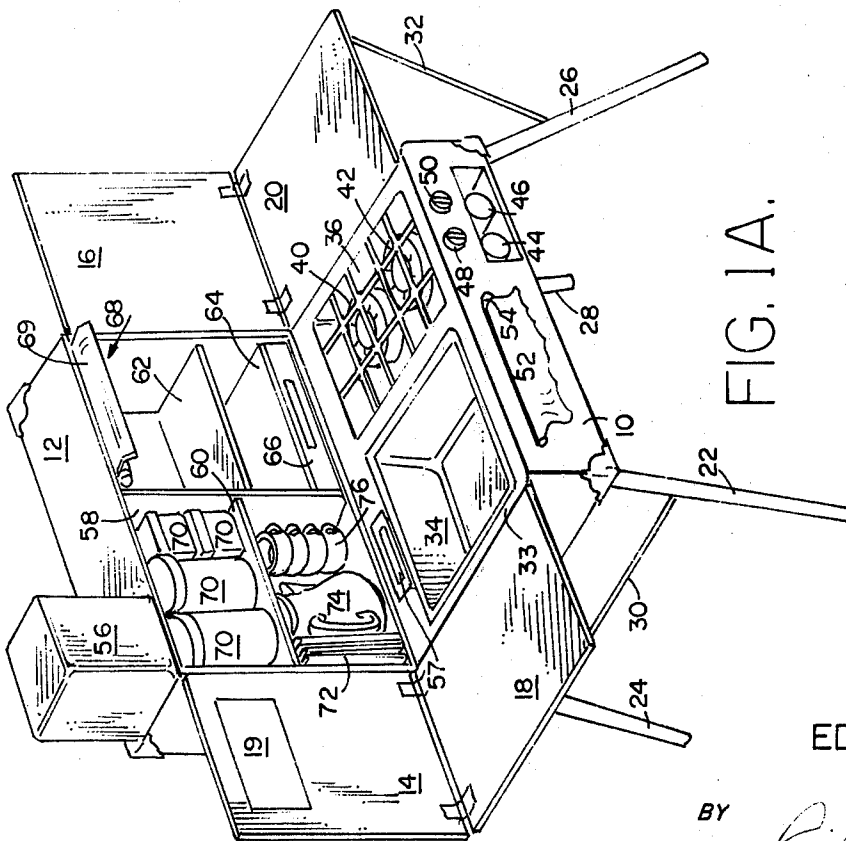


FIG. 1A.

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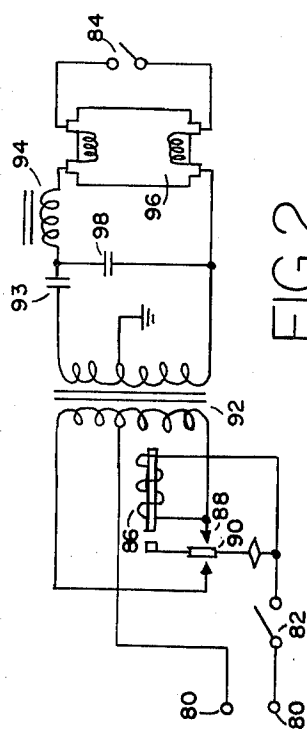


FIG. 2.

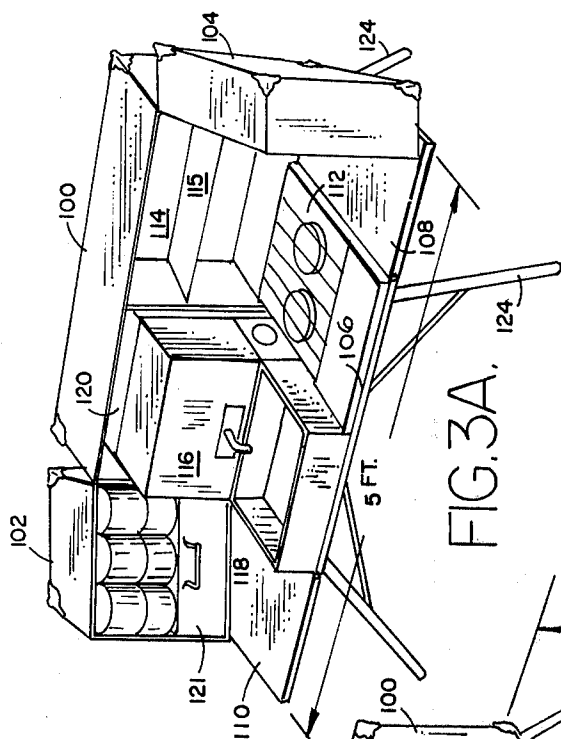


FIG. 3A.

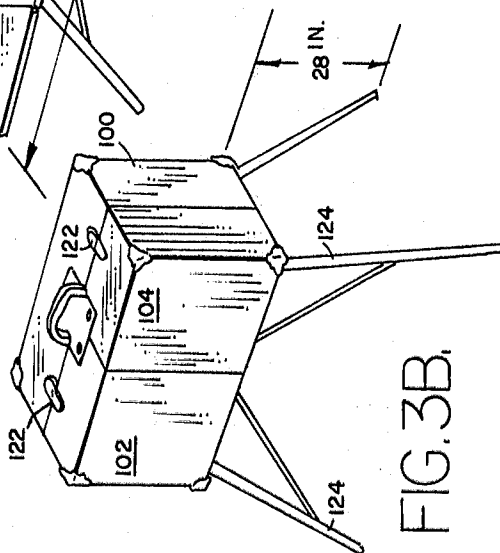


FIG. 3B.

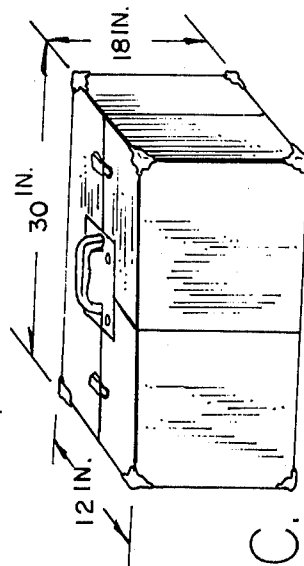


FIG. 3C.

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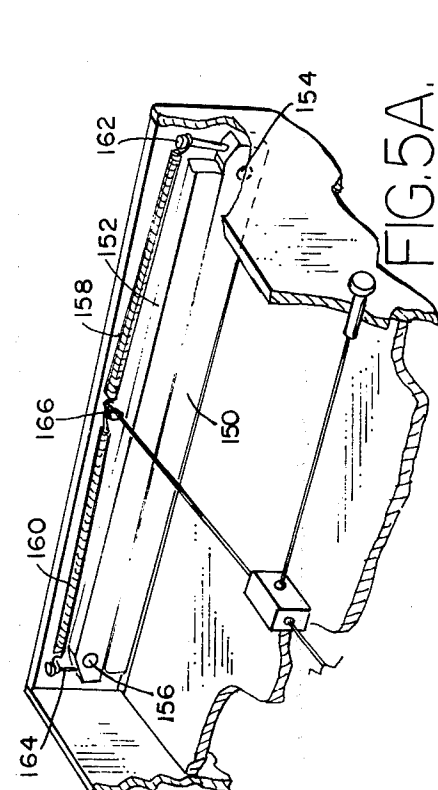


FIG. 5A.

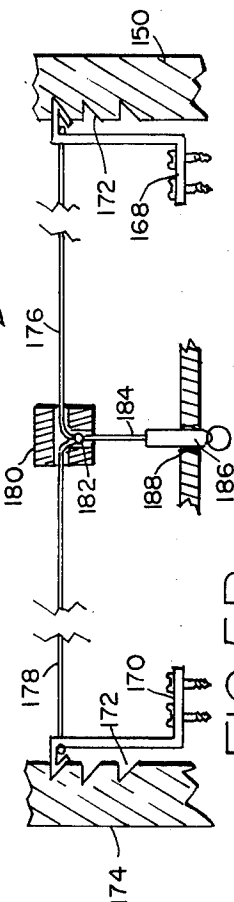


FIG. 5B.

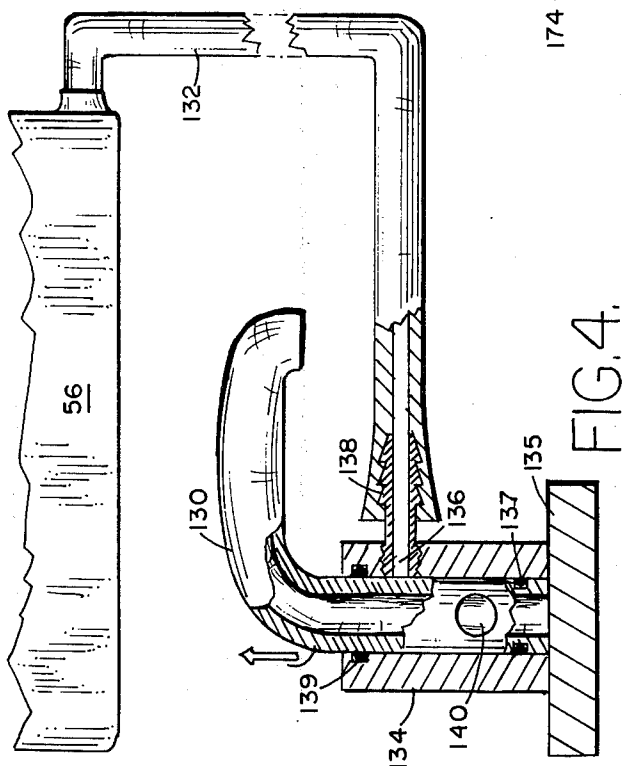


FIG. 4.

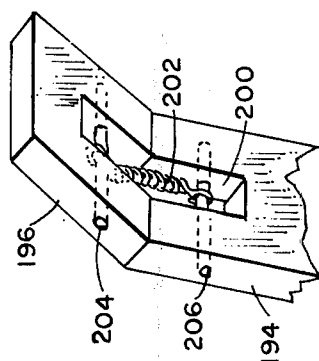


FIG. 5D.

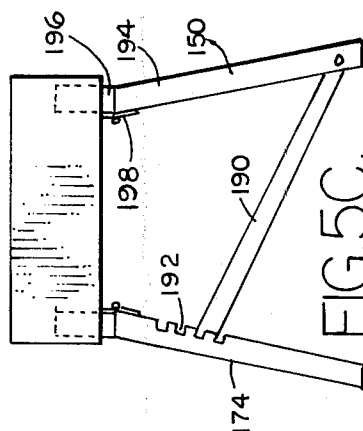


FIG. 5C.

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COMPACT FIELD KITCHEN

This is a continuation of application Ser. No. 144,608, filed May 18, 1971.

BACKGROUND OF THE INVENTION

Camping has become a means of relaxation to millions of people today and camping equipment a necessity to many. Many families find it the only economical way of vacationing. Unless one has the proper equipment (especially with so many women involved in camping) camping can become a chore and hard work rather than relaxation and fun.

Currently the market place is replete with all manner of camping equipment and much of it to do with preparing meals. As a minimum the camper needs a stove to cook his meals and means to store his food, his utensils and his water. It is also convenient to have a sink of some sort for washing dishes and the like. Currently each of these necessities is only singularly available requiring a large amount of bulky equipment to be carried by the camper. This is inconvenient, especially to the camper who may operate out of, for example, a station wagon, trailer or the trunk of his automobile. Furthermore, this is inconvenient to the preparer of the meals. The housewife who may be willing to "rough it" to some extent would certainly appreciate some of the more basic necessities she is used to when preparing meals at home.

SUMMARY OF THE INVENTION

Accordingly, it is an object of this invention to provide a compact field kitchen which can be quickly packed and unpacked.

It is another object of this invention to provide a compact field kitchen which can be disassembled into a portable carrying case.

It is a further object of this invention to provide a compact field kitchen which provides a stove, a sink, a work area and storage space all in one unit which may be folded together to provide a portable carrying case.

Briefly, a compact field kitchen is provided comprising a carrying case having a lower section containing a gas stove and sink and an upper section having storage area for utensils and food with a windbreaker attached thereto and a worktable attached to the windbreaker. Retractable legs are attached to the bottom of the lower section. The kitchen is disassembled by folding the worktable into the windbreaker, the windbreaker into the upper carrying case section, closing the two sections upon each other and retracting the legs thereby forming a readily portable compact carrying case not must larger than a commercial suitcase.

The compact field kitchen provides a camper with all the major items required in group camping in one space saving, easily transportable, readily assembled unit.

DESCRIPTION OF THE DRAWINGS

The above-mentioned and other features and objects of this invention will become more apparent by reference to the following description taken in conjunction with the accompanying drawings in which:

FIG. 1A is perspective view of a compact field kitchen in its open position;

FIG. 1B is a perspective view of the unit of FIG. 1A in its closed position with legs extended;

FIG. 1C is a perspective view of the unit of FIGS. 1A and 1B completely closed;

FIG. 2 is a schematic of a circuit for the fluorescent light power supply employed in the embodiment of FIG. 1A;

FIGS. 3A, 3B and 3C are perspective views of a second embodiment of a compact field kitchen;

FIG. 4 is a rear view sketch of a faucet for use in the embodiment of FIG. 1A; and

FIGS. 5A - 5D illustrate an embodiment of retractable legs for the field kitchen.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to FIG. 1A, there is illustrated thereby a first embodiment of a compact field kitchen comprising a lower carrying case section 10 and an upper carrying case section 12. Sections 10 and 12 are hinged at the junction thereof with a piano hinge (not shown) like a suitcase so that the sections may be folded inward to form a carrying case.

Hinged to upper section 12 are a first pair of wing sections 14 and 16. A mirror 19 is provided on wing 14 and may be used for personal grooming. A second pair of wing sections 18 and 20 are hinged to the first pair of wing sections 14 and 16, respectively. Arranged at the underside of lower section 10 are four retractable legs 22, 24, 26 and 28. Braces 30 and 32 are connected by screws or rivets to legs 22 and 26, respectively, and to the front portions of wing sections 18 and 20, respectively. Wing sections 18 and 20 have U-shaped brackets beneath same to accomodate bent portions of the braces 30 and 32 when assembled.

The wing sections 18 and 20 provide worktable surfaces while the wing sections 14 and 16 provide windbreakers especially necessary when cooking.

Arranged within the lower section 10 are a sink 34 and a stove 36. Sink 34 has a drain therein. Lower section 10 has a lip 33 having a groove therein and sink 34 fits into said groove and is screwed into the lip. Lip 33 is hinged to the lower section 10 and may be lifted up to get at towelings etc. Stove 36 has a sheet metal housing and is screwed onto lip 33. A hose (not shown) may be attached to the drain. Lower carrying case section 10 has a hole therein covered by a sliding plate 38 to permit access to the sink drain, (see FIG. 1C). Gas to run stove 36 is arranged beneath a pair of burners 40 and 42 in bottles 44 and 46. A pair of controls 48 and 50 control burners 40 and 42.

A towel rack (not shown) is mounted in lower section 10 and towels 52 are withdrawn therefrom through a slot 54.

When set up, a water container 56 is placed on the uppermost portion of upper section 12 and supplies water through internal plumbing to a faucet. The faucet is stowed in a slot 57 in lower section 10 (see FIG. 4 for details of the faucet). Preferably water container 56 is made of collapsible plastic which collapses as water is withdrawn. The collapsible water container when mounted above the upper section 12 will supply running water by gravity feed without the need for pumping.

Upper section 12 is shown divided into sections by a wall 58 and further divided into smaller sections by walls 60, 62 and 64. A drawer 66 is inserted between wall 64 and the lowermost portion of upper section 12. The walls 58 - 64 are not flush with the open end of

section 12. Room is left for wings 14 - 20 to be folded and stored therein.

A battery powered fluorescent light 68 is provided. The circuit to power light 68 is shown in FIG. 2. A fixture 69 for fluorescent light 68 has slots therein so that the fixture may slide into the upper section when not in use. Pins (not shown) support the fixture at the slots.

As shown in FIG. 1A, storage is provided for containers 70, plates 72 coffee pot 74 and cups 76. These items may be dimensionally designed for the particular unit. Food and other necessities may also be stored in the unit. Silverware may be stored in drawer 66.

This compact field kitchen may be readily broken down. Water container 56 is emptied of water, collapsed and stored in the recess of sink 34. Braces 30 and 32 are detached. Wing 18 is folded onto wing 14, wing 20 is folded onto wing 16 and the wings 14 and 16 with wings 18 and 20 are folded inward against the cabinet areas of upper section 12.

Upper section 12 is then folded upon lower section 10 and closed by clamps 78 (see FIG. 1B). While at camp the compact kitchen may be left with legs extended, if desired, thus keeping the unit away from the ground.

FIG. 1C shows the compact field kitchen with the legs retracted, ready for storage or portage.

In the fully opened position the unit has a length of five feet yet in the closed position of FIG. 1C, the unit has a width of 30 inches, a depth of 12 inches and a height of 18 inches.

Electricity is provided for fluorescent light 68 by the circuit illustrated in FIG. 2. The power supply is a simple vibrator power supply which may be run for long periods of time from a 6 volt dry cell since a relatively low amount of power is used. The DC power source is connected to a pair of terminals 80, and power is supplied through switch contact 82 of a switch also having a second contact 84. The switch is a double pole double throw switch. DC power is supplied to the magnet coil 86 of a vibrator 88. The output from the vibrating reed 90 is applied to the primary of a transformer 92. Transformer 92 can be a conventional 6.3 volt to 115 volt filament transformer. The 115V AC output is applied through a capacitor 93 and a ballast 94 to fluorescent light 96. A buffer capacitor 98 is connected across the transformer secondary. Alternatively, a 12 volt battery may be used with appropriate changes in the rest of the circuit components.

A second embodiment of a compact field kitchen is illustrated in FIGS. 3A, 3B and 3C. This unit is comprised of three main carrying case sections, a center carrying case section 100, a left carrying case section 102 and a right carrying case section 104. The three sections are preferably hinged together with typewriter type hinges so that the sections may be readily detached from one another by completely opening the sections. One of the features of this arrangement is that a user may purchase each of the sections separately as his finances and needs dictate.

A worktable area includes a center table area 106, a right wing 108 and a left wing 110. The right and left wings 108 and 110 are hinged to the center table area 106 and fold in toward same when not in use. The center table area 106 is hinged to the center carrying case section 100.

When in use, the left and right carrying case sections 102 and 104 rest on wings. Preferably the wings are not

rectangular but are cut at, for example, a 30° angle at the inner corners so that when in use the left and right sections will rest nearer the center of the table and, therefore, prevent wobbling.

A stove 112 rests on center table area 106 and may be stored in a compartment 114 when not in use. Compartment 114 may have one or more fold down shelves 115 therein. A water storage unit 116 and sink 118 also rest on center table area 106 and are stored in a compartment 120. Left carrying case section 102 is a storage cabinet and may have a drawer 121 therein. Right section 104 may contain shelves and drawers for storing pots, pans, etc. When disassembling the unit, the stove, water storage unit and sink are stored in their respective compartments, wings 108 and 110 are folded onto center table area 106, center table unit 106 folded into center carrying case section 100, and the left and right carrying case sections folded into the center section 100 and clamped by clamps 122 (see FIG. 3B). The legs 124 are retracted and a readily portable carrying case remains (see FIG. 3C).

For selling as a modular unit the sink and water storage unit may be part of the left carrying case section 102 rather than the center section thereby more evenly dividing the costs over the individual sections.

A faucet 130 for use in the compact field kitchen of FIG. 1A is illustrated in FIG. 4. Faucet 130 is connected via plastic tubing through holes in the carrying case sections to water container 56. Faucet 130 is slidably arranged in a bushing 134 mounted in lower carrying case section 10. Bushing 134 has a hole 136 therein and a fitting 138 attached thereto. Bushing 134 has a plate 135 integral therewith, which is screwed into the bottom of lower section 10. Upper and lower seals 139 and 137, respectively, are arranged in bushing 134 to prevent water leak. Tubing 132 is coupled to fitting 138. Faucet 130 is preferably a bent hollow tube having a hole 140 therein. Water is withdrawn from the faucet by pulling up the faucet and rotating same such that the holes 136 and 140 are aligned thereby permitting water to flow from the tubing through the holes and out the faucet by gravity feed.

The folding legs 22 - 28 of FIG. 1A may be replaced by the legs illustrated in FIGS. 5A - 5D. In this embodiment, lower carrying case section 10 has a pair of peripheral slots at the front and back portions thereof and the legs are folded through the slots into the lower carrying case section and retained there. A pair of legs 150 and 152 are pivotably attached to a pair of carriage bolts 154 and 156 at the front of the lower carrying case section. A like pair (not shown) is attached to the rear of the carrying case section in the same fashion as in front. A pair of springs 158 and 160 are attached from a pair of pins 162 and 164 in the legs 150 and 152, respectively, to a screw 166. The springs permit the legs to snap out under tension when they are released.

The release mechanism is illustrated in detail in FIG. 5B and comprises a pair of spring steel release members 168 and 170 attached to the lower carrying case section 10 by screws. The release members 168 and 170 cooperate with saw cuts 172 in leg 150 and its rear counterpart leg 174. A pair of wires 176 and 178 coupled to release members 168 and 170 respectively, are coupled through a hole in a block 180, to a ring 182. Ring 182 is attached to the carrying case section. Ring 182 is also attached via a wire 184 to a pull rod 186 which is connected through a hole 188 in the lower car-

rying case section. When the pull rod 180 is pulled the release members 168 and 170 are pulled away from the legs causing them to fall through the slots in the lower carrying case section. The leg 152 and its rear counter-
part which are resting atop legs 150 and 174, respec-
tively, also fall down. To retract the legs, they are lifted
up and will catch on the release members 168 and 170.

Preferably, the front legs have vertical cuts therein (not shown) to accomodate a pair of braces 190 and the rear legs have notches 192 therein so that when the
legs drop the braces 190 will fall out from the cuts and the free ends thereof drop into the notches 192 (see
FIG. 5C).

A feature of the legs whereby the center of gravity of the unit is transferred outward is shown in FIG. 5D. As
shown, each of the legs comprise a main lower section
194 and an upper section 196. The upper section is cut
at an angle. A 2° angle was used in one embodiment.
The upper and lower leg sections 194 and 196 are con-
nected by a hinge 198. A saw cut 200 is made in the
sections and a spring 202 is inserted therein. Spring 202
is connected to a pair of pins 204 and 206.

Any or all of the features described herein may be incorporated in the portable kitchen units. Thus, it is to
be understood that the embodiments shown are illus-
trations only, and that many variations and modifica-
tions may be made without departing from the princi-
ples of the invention herein disclosed and defined by
the appended claims.

I claim:

1. A portable compact field kitchen which provides a camper with all of the major items required for meal preparation in a readily assembled unit, said kitchen comprising:

a foldable carrying case containing all of the compo-
nents of a field kitchen in a single unit which when
folded and closed provides a portable suitcase like
structure which is easily transported;

said carrying case including an integral upper carry-
ing case section and an integral lower carrying case
section which when closed form the two halves of
a suitcase like structure;

said upper carrying case section forming when said
case is in the open position an upright kitchen cup-
board having at least one partition therein for pro-
viding distinct storage compartments;

said lower carrying case section forming when said
case is in the open position a kitchen work area and

having at least a sink and a stove arranged therein;
a first pair of wings, one hinged to either side of said
upper carrying case section;

a second pair of wings, one hinged to the bottom of
each of said first pair of wings, said second pair of
wings forming when said case is fully opened two
worktable areas, one on either side of said lower
carrying case section, said first pair of wings form-
ing when said case is fully opened two windbreak-
ers, one on either side of said upper carrying case
section;

said first and second pairs of wings functioning as
cupboard doors for said upper carrying case sec-
tion when said second pair of wings is folded into
said first pair of wings and said first pair of wings
is folded into said upper carrying case section;

means operable attached to said carrying case for
supporting the underside of said second pair of
wings;

a plurality of legs;

means pivotable connecting said legs to said lower
carrying case section whereby they are retractable;
and

portable water supply means operable associated
with said carrying case.

2. A compact field kitchen as defined in claim 1, said
lower carrying case section having a slot therein
whereby toweling may be withdrawn through said slot.

3. A compact field kitchen as defined in claim 1,
wherein said partition is recessed within said upper car-
rying case section sufficiently to permit said wings to be
folded flat therein.

4. A compact field kitchen as defined in claim 1, said
lower carrying case section having slots at the bottom
thereof substantially the width of said legs;

said first and second pairs of legs pivotably arranged
either side of said lower carrying case section in
said slots, each of said pairs comprising a lower leg
and an upper leg, said lower leg having cuts
therein;

further including first and second spring release
members mounted in said lower carrying case sec-
tion and having ends thereof inserted in said cuts
to prevent said legs from releasing; and

means for moving said spring release members from
said cuts causing said legs to drop.

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