July 6, 1965 M. V. VITKAY 3,192,916

PORTABLE HOT WATER HEATER

Filed Jan. 7, 1963

Fig. 1

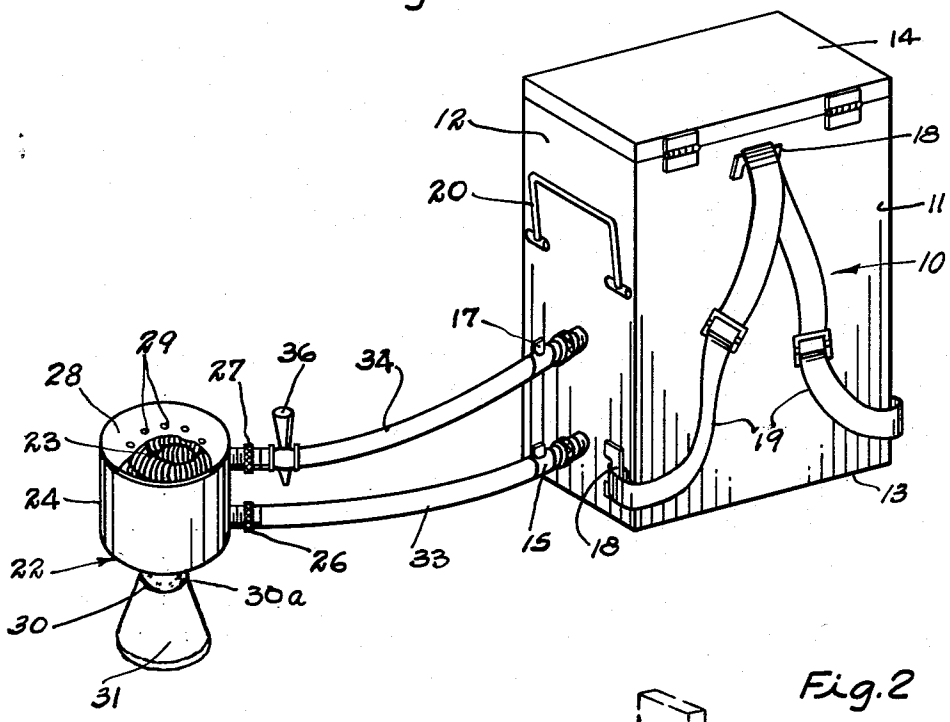
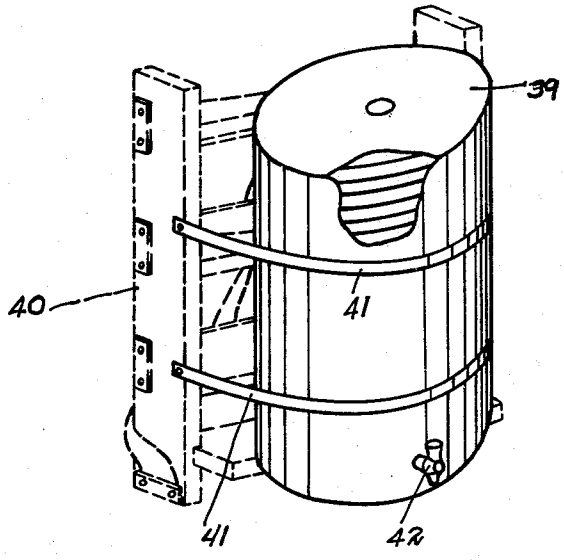


Fig. 2



INVENTOR.
MICKEY VINCENT VITKAY
BY
Louis J. Lettelle
HIS ATTORNEY

United States Patent Office 3,192,916 Patented July 6, 1965

1

3,192,916

PORTABLE HOT WATER HEATER

Mickey Vincent Vitkay, Bairdsford, Pa., assignor of one-half to Anthony N. Duryea, Rural Ridge, Pa.

Filed Jan. 7, 1963, Ser. No. 249,665
1 Claim. (Cl. 126—5)

The invention relates to a new and useful improvement in water heaters and it has particular relation to a portable water heater particularly adapted for use by campers, Boy Scouts and the like.

One of the objects of the invention is to provide a small portable water heater, which may be easily carried from one place to another place, a portable hot water heater that is easily assembled for use or disassembled for transporting the unit from place to place and to form a structure that will provide hot water in a very short period of time.

Another object of the invention is to provide a water tank or container for a hot water heater that may be employed as carryall or knapsack by campers, Boy Scouts or the like on overnight hikes or camping trips.

At the present time, one of the greatest inconveniences present for campers, Boy Scouts and the like on overnight hikes, camping trips and the like is the inability to quickly provide hot water for the many uses required. I have provided a portable hot water heater, when in operation is formed with a lightweight metal water tank or container, a heating element spaced from the tank and a pair of hoses or pipes connecting the tank to the heating element to form the hot water unit. In the invention, I have provided the water tank or container with structural features so that the tank is formed into a carryall or knapsack for use on camping or hiking trips. This permits, not only the packing of the heating elements into the tank but also the storing of other elements required for camping, such as for example, a pup tent, cooking utensils and the like. For a better understanding of the invention reference may now be had to the accompanying drawings forming a part of this application together with the following description, in which:

FIG. 1 is a perspective view of a portable hot water heater unit, formed in accordance with the invention, and

FIG. 2 is a perspective view of a water tank or container showing a modified form of a tank secured to a pack rack (broken lines) used by campers and Boy Scouts.

In practicing the invention and referring to FIG. 1 of the drawing, a lightweight metal tank or container **10**, rectangular in shape, which is adapted to contain water to be heated is provided with a front and back panel **11**, side members **12**, a bottom member **13** and a cover or top **14** hinged to the back **11**. One of the sides **12**, adjacent the bottom thereof is provided with a pipe fitting secured in the wall of the tank, the pipe fitting formed with a control valve **15**. A second pipe fitting positioned above the first mentioned fitting is secured in the wall of the tank, intermediate the top of the tank and the first mentioned fitting, the second mentioned fitting formed with a control valve **17**. Conveniently positioned on or adjacent to the back of the tank is provided a plurality of fasteners or clips **18**, rigidly secured to the tank, through which is positioned shoulder straps **19**, the purpose of which will be hereinafter described. As an additional feature, handles **20** may be mounted on the sides of the tank, as shown.

When the portable hot water unit is set up for operation, as shown in FIG. 1, there is spaced from the tank

2

10 at a distance of one to two feet a heating element **22** which includes a double coil **23** of four or five turns each positioned about the inner wall of a casing **24**. The casing **24** is cylindrical in shape, open at the bottom and closed at the top. The top plate **28** is provided with a plurality of openings **29** providing the advantages of an additional cooking surface, to be used for brewing coffee or the like. A burner **30** extends upwardly into the bottom of the casing, with the burner plate **30***a* positioned directly below the bottom of the coils, thus providing a fast and efficient heating element. While various types of fuel may be employed for heating the water, the burner here employed is adapted for use with propane gas, the container of which may be used as a base **31** of the heating element. It is to be understood that the gas container may also be formed to be carried on the side of the water tank.

The heating element **22** and the tank **10** are operatively connected together by means of a bottom hose **33** threaded to valve connection **15** and end **26** of the coil **23** with a top hose connection **34** connected to valve connection **17** and end of coil **27**. As shown, a valve **36** is provided in the upper hose **34**, adjacent the end **27** of the coil. However, the valve **36** may be connected to the end of the coil, forming a part thereof, with the end of the hose connected to the valve. The hose connections may be formed of various materials such as flexible pipe, metal tubing or the like but in the invention plastic tubing has been employed.

With the device assembled, as shown in FIG. 1, the tank or water container **10** filled with water, the valves **15** and **17** open, thus providing a flow of water from the tank through the coils and with the burner **30** ignited, hot water is provided in a matter of minutes. It is to be noted that, when required, hot water can be provided in considerably less time than that stated above. With the device in operation, this is provided by merely closing valve **17**, leaving valve **15** open and in a matter of seconds drawing hot water by opening valve **36**. When the portable hot water heater is disassembled for transfer from place to place, the heating element together with the hoses and the like are packed into the tank or container. In addition, all of the other equipment normally required for an overnight hike by Boy Scouts or the like may also be packed into the tank providing a camping kit or pack, of a size comparable with that of the regular Scout pack and a pack that is easily and readily carried on the back of the Scout or other camper. It is to be noted that the tank employed in this invention is portable in that it has a capacity of about six or seven gallons.

In the form of the invention shown in FIG. 2, a cylindrical shaped tank or water container **39** is provided for the portable hot water unit. This form is provided because of its ease in adapting itself to a rack **40**, which now forms a part of a great many Scouts or campers equipment. The cylindrical tank is easily secured to the rack **40** by means of straps **41**. The tank **39** is provided with the same type valve connections as that described for tank **10** and in addition drain valve **42** is provided as shown. The size and capacity of tank **39** is substantially the same as the size of tank **10**.

From the foregoing it will be apparent that I have provided a portable hot water heater, that is truly portable, one in which elements thereof may be employed in several uses, a unit simple in construction, efficient in operation and of relatively low cost. Moreover, it is apparent that I have provided a new and useful contribution to the art, one that is needed in this particular art and that the many

advantages and uses of this invention will be apparent to those familiar with the art.

What I claim:

A portable cooking and hot water heater comprising a water tank provided with a removable top, two valved connections, one above the other formed in the side of the tank, a heating element formed with a burner positioned in the bottom of a casing, the top of the casing forming a cooking hot plate, a double coil burner formed within the casing of the burner, the coil terminating in ends one above the other, means on the ends of the coil for detachably mounting the heating element of the valves on the side of the tank, with the top valve closed to assist in the heating of the water and a water dispensing valve mounted on the top of the coil for removing the water.

References Cited by the Examiner

UNITED STATES PATENTS

208,174	9/78	Hersey	126—344
289,847	12/83	McGinley	126—362
305,400	9/84	Milsted	126—362
969,714	9/10	Meem	126—344 X
1,010,005	11/11	Williams	126—344 X
1,553,233	9/25	Hamilton	126—344 X
2,350,184	5/44	Oys	224—5 X
2,684,787	7/54	Charpiat	224—5 X
2,989,959	6/61	Bryden	126—344

FREDERICK L. MATTESON, JR., *Primary Examiner.*

JAMES W. WESTHAVER, *Examiner.*