F. M. GATES.

STOVE.

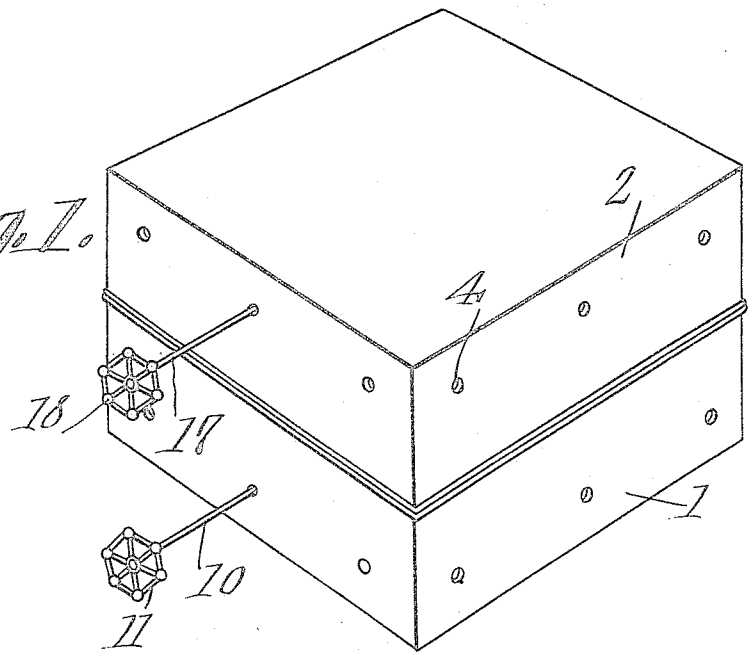
APPLICATION FILED MAR. 10, 1914.

1,127,613.

Patented Feb. 9, 1915.

2 SHEETS—SHEET 1.

Fig. 1.



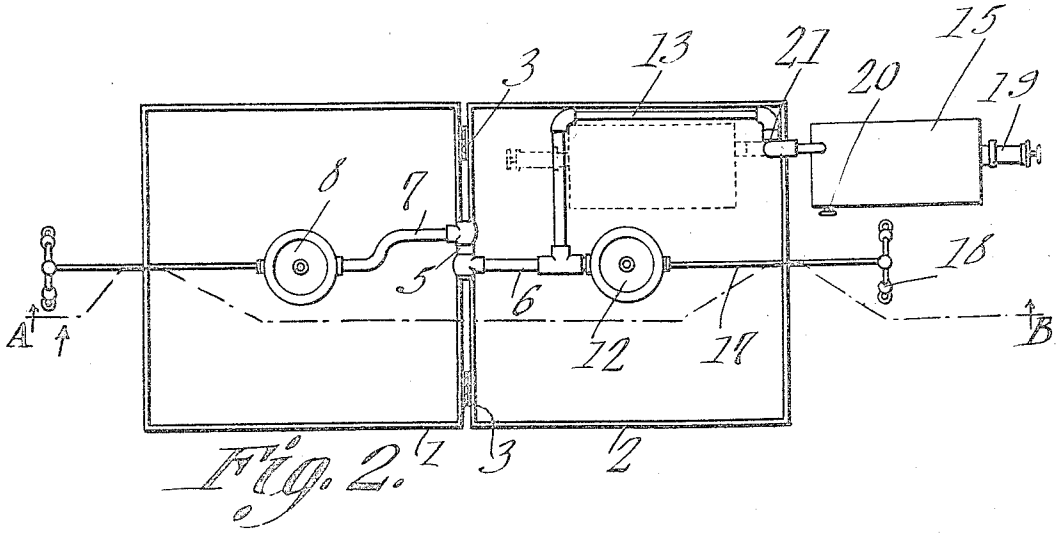


Fig. 2.

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2 SHEETS—SHEET 2.

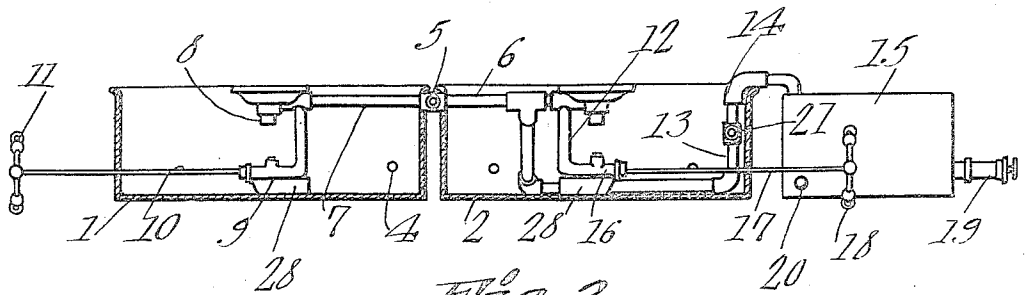


Fig. 3.

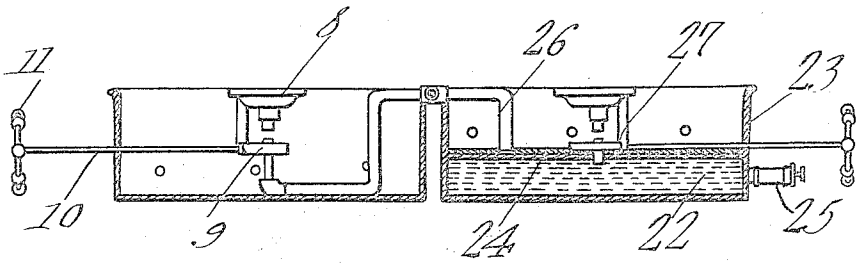


Fig. 4.

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UNITED STATES PATENT OFFICE.

FRANK M. GATES, OF LENTS, OREGON.

STOVE.

1,127,613. Specification of Letters Patent. Patented Feb. 9, 1915.

Application filed March 10, 1914. Serial No. 823,743.

To all whom it may concern:

Be it known that I, FRANK M. GATES, a citizen of the United States, residing at Lents, in the county of Multnomah and State of Oregon, have invented a new and useful Stove, of which the following is a specification.

This invention relates to stoves, one of its objects being to provide a folding, hydrocarbon cook stove particularly designed for use by tourists, campers and the like.

A further object is to provide a stove of this character which can be folded into a compact body which is easy to carry and can be conveniently stored in a small compass.

A further object is to provide a stove having two or more burners which can be used together or separately as desired, but which will be completely housed within the casing of the stove when the stove is collapsed or folded.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings:—Figure 1 is a perspective view of the stove folded. Fig. 2 is a plan view thereof opened out and ready for use, the position of the fuel tank when not in use, being indicated by dotted lines. Fig. 3 is a section on line A—B, Fig. 2. Fig. 4 is a view similar to Fig. 3, but showing a modified form of stove.

Referring to the figures by characters of reference 1 and 2 designate trays connected by hinges 3 whereby the said trays can fold together to form a box-like structure, as shown in Fig. 1. Each of these trays is preferably provided with apertures 4 whereby fresh air may circulate freely through the trays while the stove is in use. Alining with the hinges 3 is a fuel conducting pipe 5 from which extend pipes 6 and 7, one of these pipes, 6, being swiveled on and communicating with the pipe 5, while the other pipe, 7, is integral with and communicates with the pipe 5. Consequently, the two pipes 6 and 7 are free to swing relative to each other without cutting off communication. The pipe 7 extends downwardly into tray 1 and along the bottom of said tray and is provided, at its discharge end, with a burner 8. Fuel supplied to this burner is under the control of a valve 9, the stem 10 of which extends through one wall of the tray 1 and is provided with a handle 11. The pipe 6 is extended downwardly into the tray 2 and along the bottom thereof to a burner 12 and communicating with this pipe 6 is a supply pipe 13 extending to that end of the tray 2 remote from the tray 1 and thence upwardly where it is swiveled to a crook pipe 14 opening into a fuel tank 15. The burner 12 has a valve 16, the stem 17 of which extends through one wall of the tray 2 and has a handle 18. Tank 15 has an air pump 19 connected thereto whereby air can be forced under pressure into the tank. The tank may be provided with the usual filling opening normally closed by means of a cap 20.

The parts are so proportioned that when the stove is collapsed, the crook pipe 14 will swing about its swivel 21, thus to bring the tank 15 into the tray 2 where it will rest upon the bottom of the tray as shown by dotted lines in Fig. 2. With the tank thus positioned, the two trays 1 and 2 can be swung together as shown in Fig. 1, the pipes 6 and 7 folding toward each other. When it is desired to use the stove, the two trays 1 and 2 are swung outwardly to open position, after which the tank 15 is swung upwardly and outwardly to the position shown in Fig. 3. After the fuel within the tank 15 has been placed under pressure, either or both of the valves 9 and 16 can be opened, thus admitting fuel to the burners whereupon the stove can be used for cooking purposes.

Instead of providing a separately movable fuel tank as shown in Figs. 2 and 3, a tank 22 can be formed in the bottom portion of tray 23 which corresponds with tray 2, there being preferably an asbestos covering 24 upon the top of tank 22. This tank has an air pump 25 similar to the pump 19 and a pipe 26 extends from the tank 22 to the pipe 5 in the same manner as does the pipe 6. The burner 27 is mounted on the top of the tank 22 and communicates di-

rectly with the interior of the tank, as shown.

It will be seen that a stove such as illustrated in Fig. 4, can be readily folded into a compact structure and eliminates considerable of the piping necessary in the structure shown in Figs. 2 and 3.

It is to be understood that the burners and their various pipe connections can be lifted bodily out of the trays, thus to permit the trays and the parts of the burner system to be cleaned readily. In order to permit the removal of the said parts from the trays, it is necessary that the stems 10 and 17 be removable from the valves. These stems can be made detachable in any desired manner. As shown in Fig. 3, a drip cup 28 can be arranged under each burner.

What is claimed is:—

1. A cook stove including hingedly connected trays foldable together to form a box-like structure, a burner within each tray, pipes connecting the burners, said pipes being hingedly connected to permit folding of the trays, a tank, and pipe connections between the tank and the burner connecting pipes, said pipe connections of the fuel tank being hingedly connected and said tank being mounted to swing into and out of one of the trays.

2. A cook stove including hingedly connected trays foldable together to form a box-like structure, a burner within each tray, pipes connecting the burners, said pipes being hingedly connected to permit folding of the trays, a tank, pipe connections between the tank and the burner connecting pipes, said pipe connections of the fuel tank being hingedly connected and said tank being mounted to swing into and out of one of the trays, and means for placing under pressure the fuel contained in the tank.

3. A cook stove including hingedly connected trays foldable together to form a box-like structure, a burner within each tray, pipes connecting the burners, said pipes being hingedly connected to permit folding of the trays, a tank, and pipe connections between the tank and the burner connecting pipes, said pipe connections of the fuel tank being hingedly connected and said tank being mounted to swing into and out of one of trays, said burners, tank and connections being removable bodily from the trays.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK M. GATES.

Witnesses:
GEORGE R. SHUTRUM,
B. E. KENNEDY.