Feb. 12, 1929. 1,701,879

J. M. GOLDBERG

CAMP STOVE

Filed July 25, 1927 2 Sheets-Sheet 1

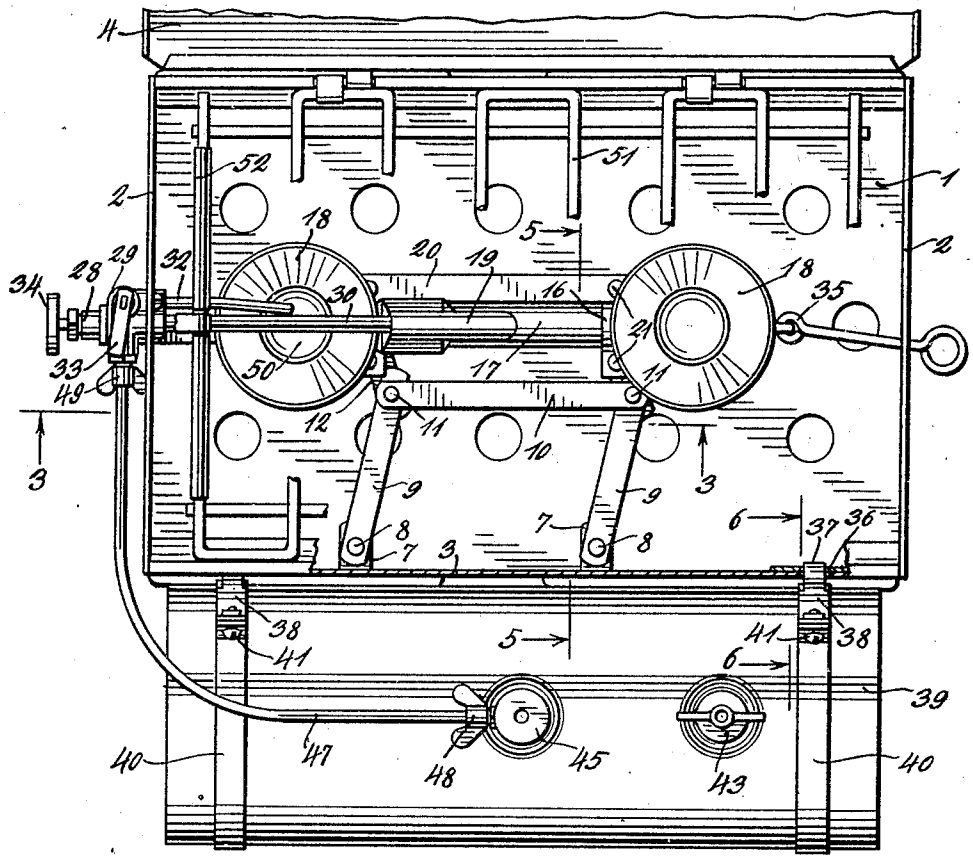


Fig. 1.

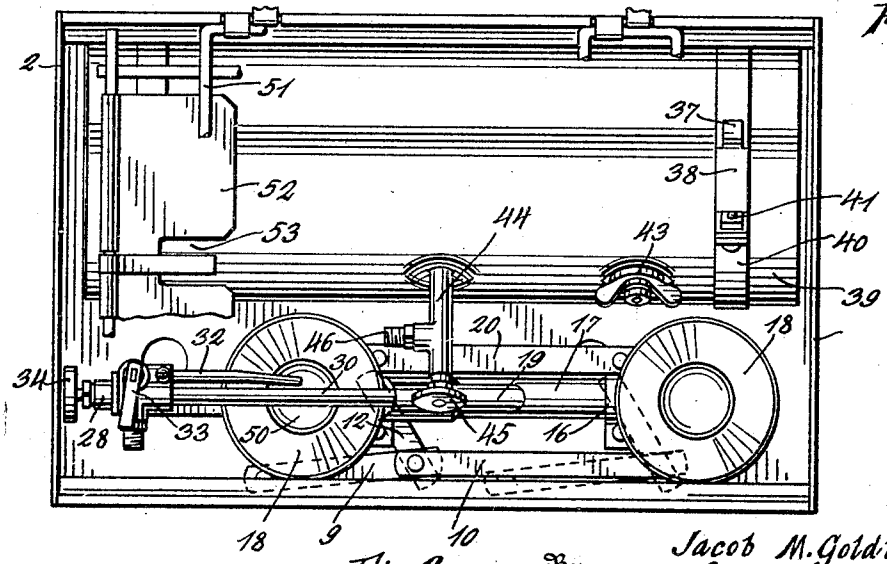


Fig. 2.

Inventor

Jacob M. Goldberg.

By A. J. O'Brien

Attorney

Feb. 12, 1929.

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J. M. GOLDBERG

CAMP STOVE

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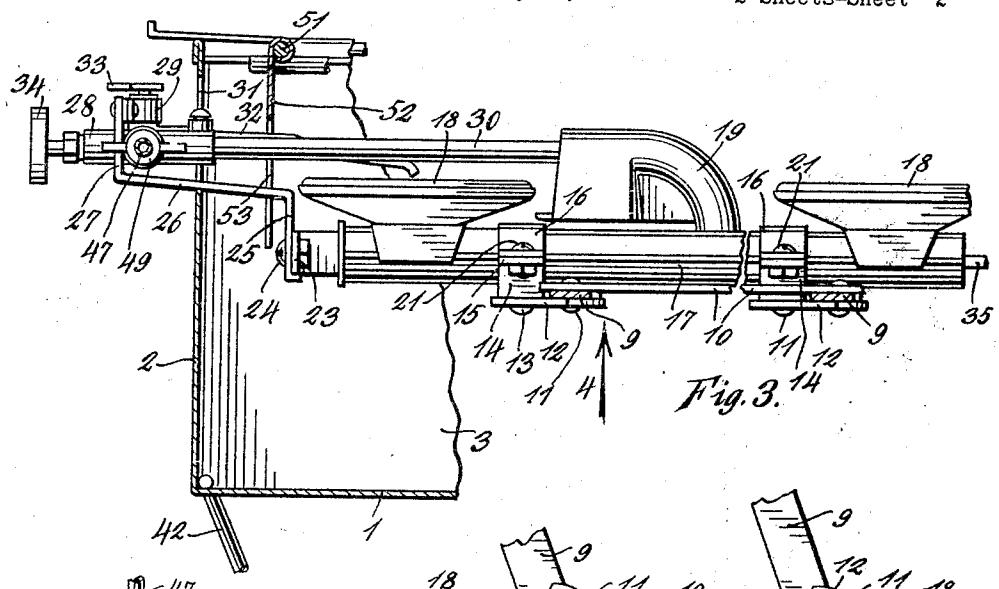


Fig. 3.

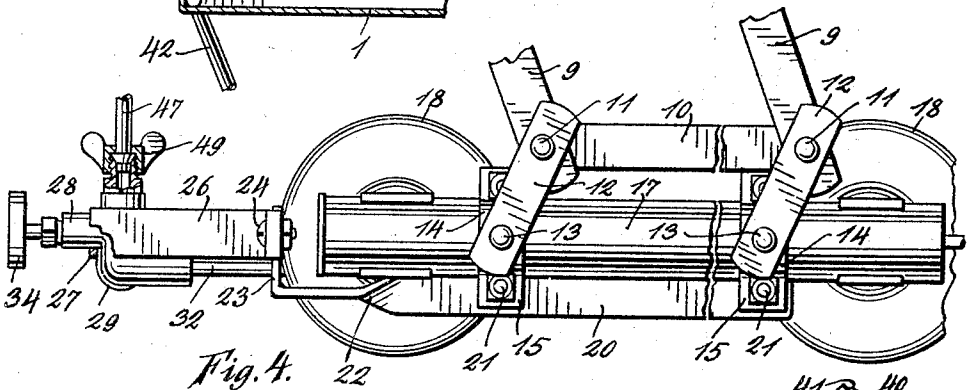


Fig. 4.

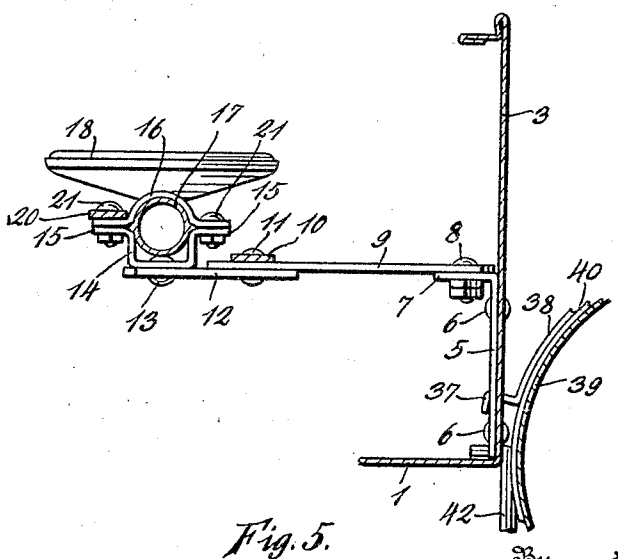


Fig. 5.

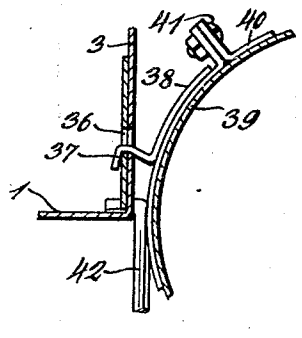


Fig. 6.

Inventor

Jacob M. Goldberg.

By

Attorney

Patented Feb. 12, 1929. 1,701,879

UNITED STATES PATENT OFFICE.

JACOB M. GOLDBERG, OF DENVER, COLORADO.

CAMP STOVE.

Application filed July 25, 1927. Serial No. 208,146.

This invention relates to improvements in the construction of gasoline stoves of the type usually referred to as camp stoves.

Stoves of the type to which this invention relates comprise a casing within which is located a burner assembly to which gasoline is supplied from a tank in which it is stored under pressure. Stoves of this type are ordinarily employed by campers and it is therefore necessary that they shall be constructed in such a manner that they can be readily transported. In order to make it possible to easily transport the stove it is desirable that the tank containing the fuel shall be so attached to the other parts that it can be placed within the casing during transportation. In order that the tanks can be placed within the casing in the manner above indicated, it has been customary to make the tanks of small capacity with the result that they contain only a limited amount of fuel and must be refilled at frequent intervals.

It is the object of this invention to produce a stove construction which will make it possible to employ a much larger fuel tank than has heretofore been used, without materially increasing the size of the casing.

This invention, briefly described, consists in a casing of the usual construction but of considerable depth. To one side of this casing a burner assembly has been attached by means of a plurality of links which makes it possible to move the burner assembly longitudinally and transversely of the casing. This makes it possible to move the burners to the center of the casing when they are in operation and to move them over towards one side during transportation, by this means it is possible to obtain sufficient space within the casing to accommodate a large fuel tank without unduly increasing the size of the casing.

Having thus briefly described my invention, I will now proceed to describe the same in detail and reference for this purpose will be had to the accompanying drawings in which the preferred embodiment of the invention has been illustrated, and in which:

Fig. 1 is a top plan view of my improved stove, portions thereof being broken away to better disclose the construction;

Fig. 2 has a top plan view showing the parts in the position that they occupy during transportation;

Fig. 3 is a section taken on line 3—3, Fig. 1, portions being shown in section and other parts broken away;

Fig. 4 is a bottom view of some of the parts shown in Fig. 3, taken in the direction of arrow 4 in Fig. 3;

Fig. 5 is a section taken on line 5—5, Fig. 1; and

Fig. 6 is a section taken on line 6—6, Fig. 1.

In the drawings numeral 1 indicates the bottom of the casing, and 2, 2 indicates the end members of the casing. The side walls have been indicated by numeral 3. Hingedly connected to the upper edge of one of the side walls, is a cover 4. The side wall to which the cover is attached will be referred to as the rear wall, while the corresponding side wall on the opposite side will be referred to as the front side.

Secured to the inner surface of the front side of the casing are spaced brackets 5. These brackets are preferably secured to the casing by means of rivets 6 and have their upper ends bent rearwardly in the manner indicated by reference numeral 7. Connected to each of the projecting ends 7 by means of bolts or other pivots 8, are links 9. A rigid bar or link 10 is connected to the free ends of the links 9 by means of pivots 11. The distance between the pivots 11 is the same as the distance between pivots 8 and the distance between 8 and 11 are equal, so that the parts 9, 10 and the side 3 will always form a parallelogram. A short link 12 is pivoted to each of the pivots 11 and has its outer end secured by means of a rivet 13 to a bracket 14. This bracket is provided with outwardly extending ends 15 and cooperates with a clamp 16 by means of which manifold 17 of the burner assembly is secured to the ends of links 12. The burner assembly comprises the manifold 17 and two burners 18, one of which is secured to each end of the manifold. A mixing chamber 19 is secured to the manifold at a point intermediate the burner. A bar 20 is secured to the ends 15 of the brackets 14 by means of the clamping bolts 21. This bar extends parallel with the manifold and has its end twisted as indicated at 22 so as to lie in a plane at right angles to the plane of the bar. The outer end of the twisted portion has been indicated by numeral 23 and this is bent so that it extends perpendicularly to the axis of the manifold, Fig. 4. Secured to the end 23 by means of a bolt 24 is a bracket having three

angularly related portions 25, 26 and 27. The part 27 extends vertically and is perforated so as to receive one end of the valve member 28. A strap 29 passes around a portion of this valve member and firmly secures it to the bracket. A generator tube 30 extends from the valve member to a point within the mixing chamber 19. The end member 2 on the left (Fig. 1) is provided with an opening 31 which is of such size that the valve 28 and associated parts can pass through this opening so that they may assume the position shown in Fig. 3. The valve member 28 has been described in a copending application and will not be described in detail here, except to the extent of identifying the priming tube which has been indicated by reference numeral 32, the valve handle 33 which controls the flow of gasoline through the priming tube and the valve handle 34 which controls the flow of gasoline through the generator tubes. The end of the manifold opposite from that to which the valve 28 is connected is provided with a valve mechanism 35 which controls the flow of gas to the burner located at the right hand end of the stove (Fig. 1).

The front side 3 is provided with two openings 36, located a short distance above the bottom 1. These openings are adapted to receive the hooked ends 37 of the brackets 38 which are secured to the fuel tank 39. Brackets 38 have been shown as secured to the outer surface of the straps 40 which are clamped to the fuel tank by means of a bolt 41 (Figs. 2 and 6). Legs 42 are pivotally connected to the casing at each end thereof and when the fuel tank is attached to the outside of the casing by means of the hooks 37 in the manner shown in Fig. 6, a portion of the tank rests against the outer surface of the legs. The fuel tank is provided with a fill opening that is closed by means of a plug 43, and is also provided with a radially extending pipe 44 which forms part of the valve mechanism that is controlled by means of the handle 45. This valve has a threaded extension 46 to which one end of the flexible copper tube 47 is connected by means of a clamping nut 48. This tube extends to and is connected with valve 28 by means of a clamping nut 49. When the parts are in the position shown in Fig. 1, gasoline from tank 39, which is under air pressure, can flow through the valve 44 and through the pipe 47 to the valve 28, from here it can be directed by way of the priming pipe 32 into the priming cup 50 or by opening valve 34 it can be made to flow through the generator tube 30 and into the mixing chamber 19.

When the stove is to be used the priming cup is filled with gasoline and this is then ignited. The burning of the gasoline contained in cup 50 heats the generator tube to such a temperature that when the valve 34 is open the gasoline that flows through the generator tube will be vaporized. This vaporized gasoline, mixes with air within the mixing chamber 19 and flows through the manifold to either or both of the burners 18 where it can be ignited and used for producing heat for whatever purpose it may be required.

Let us assume that the parts are in the position shown in Fig. 1 and that it is desired to fold the stove so that it may be transported. The clamping nuts 48 and 49 are removed so that the pipe 47 may be disconnected. After this has been done the burner assembly is moved towards the right until the end of the valve member 34 is brought to the inside of the casing. The burner assembly is then moved towards the forward side of the casing until it assumes the position shown in Fig. 2. The tank 39 may now be unhooked and placed within the casings after which the grate 51 is folded downwardly into the position shown in Fig. 2 after which the cover is closed and latched in closed position by means of the supporting legs.

A shield 52 is pivotally attached to the end bar of the grate in the manner shown in Figs. 1 and 2. This shield has a cut-out portion or notch 53 that will receive the generator tube and the priming tube in the manner shown in Fig. 3. When the parts are in operative position, the shield hangs vertically and serves to protect the valve 28 from the heat.

From the above it will be apparent that I have produced a stove construction that makes it possible to employ a fuel tank of comparatively large size and which can easily be assembled in operative position or disassembled and packed for transportation. I wish to call particular attention to the manner in which the burner assembly is pivotally attached to the side 3. The links by means of which the burners are secured in place, permit the burner assembly to be moved longitudinally of the casing so as to bring the valve member 34 within the same and then permit the assembly to be moved transversely to the position shown in Fig. 2. When the burner or the stove is to be assembled, the burner assembly is moved in the reverse direction from the position shown in Fig. 2 to that shown in Fig. 1. With my construction it is possible by merely making the casing somewhat deeper than has been the usual practice to employ a fuel tank that holds two gallons of gasoline and with such a supply of fuel the stove can be used for a considerable length of time without making it necessary to replenish the fuel supply.

Having described my invention what I claim as new is:

1. A camp stove comprising, in combination, a casing, a burner assembly located within the casing and supporting means for the burner assembly, said means comprising two pairs of interconnected links, the free ends of one pair being pivoted to the casing and the

free ends of the other pair being pivotally connected with the burner assembly.

2. A camp stove comprising, in combination, a casing, a burner assembly located within the casing and supporting means for the burner assembly, said means comprising two pairs of pivotally connected links the free ends of one link of each pair being pivotally connected to the casing and the free end of the other link of each pair being pivotally connected with the burner assembly.

3. A camp stove comprising, in combination, a casing, a burner assembly located within the casing and supporting means for the burner assembly, said means comprising two pairs of pivotally connected links the free ends of one link of each pair being pivotally connected to the casing and the free end of the other link of each pair being pivotally connected with the burner assembly and a rigid link connecting the pivots for each pair.

4. A camp stove of the class described, comprising, in combination, a casing having a bottom, two sides and two ends, a pair of links attached to the inside of the casing side wall by means of pivots which permit the links to swing in a plane parallel with the bottom, a link pivoted to the free end of each of the first mentioned links, a link connecting the last mentioned pivots and a burner assembly pivoted to the outer ends of the last mentioned links.

In testimony whereof I affix my signature.

JACOB M. GOLDBERG.