July 20, 1954 A. N. JOHANNESEN 2,684,114

DRIP INTERCEPTOR

Filed Aug. 10, 1950

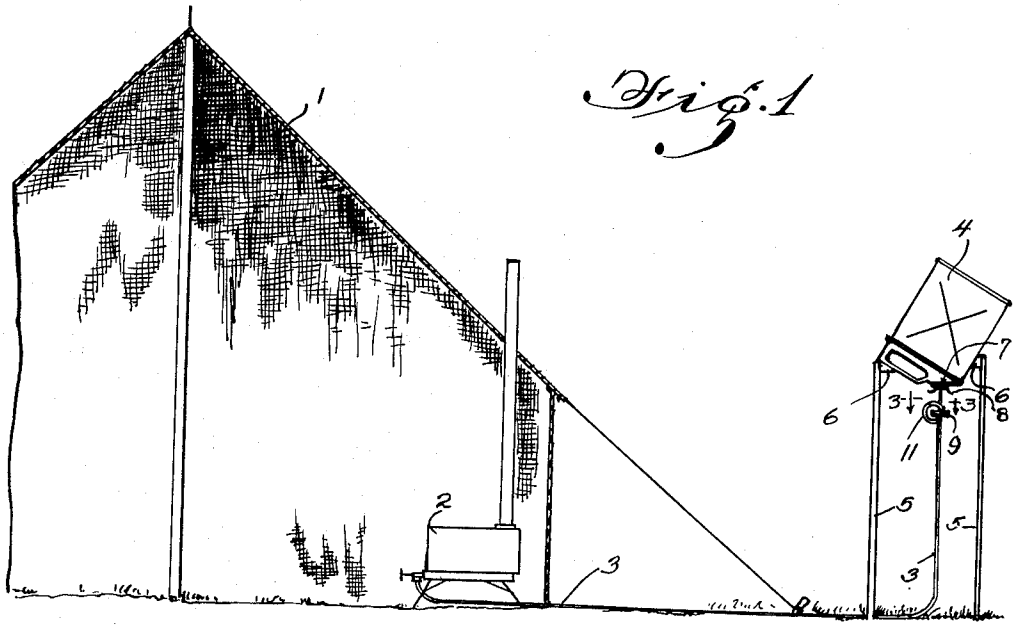


Fig. 1

Fig. 2

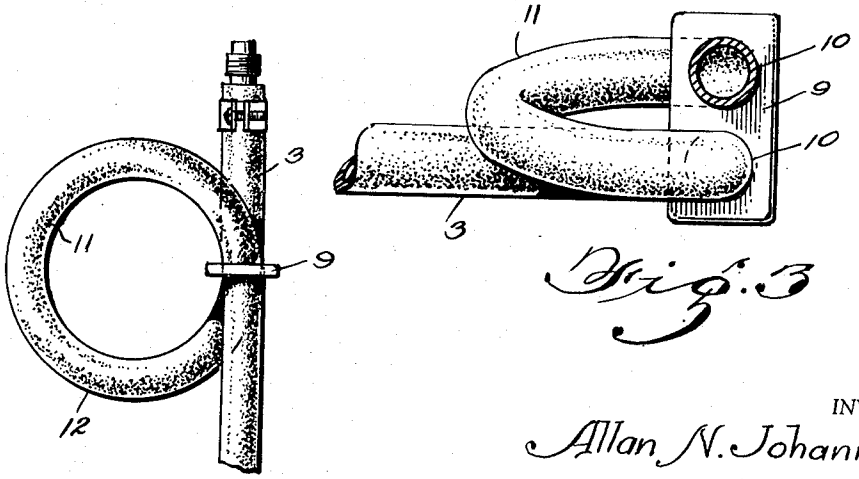


Fig. 3

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DRIP INTERCEPTOR

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2 Claims. (Cl. 158—36)

(Granted under Title 35, U. S. Code (1952), sec. 266)

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The invention described herein may be manufactured by or for the Government for governmental purposes without the payment to me of any royalty thereon.

This invention relates to stoves for tents and similar structures and has for its primary object to provide means associated with the fuel line on the exterior of the tent to prevent the passage to the interior of the tent of any gasoline or other liquid fuel which might leak from the source of supply and pass down the exterior wall of the hose or other conduit for conveying fuel to the stove which is disposed in the interior of the tent.

More specifically, it is an object of the invention to provide a simple and inexpensive interceptor through which the fuel hose may be threaded so as to provide a loop therein to aid in preventing the passage of gasoline along the exterior of the hose to the interior of the tent in which stove is located.

Other objects and advantages of the invention will be apparent from the following description when taken in connection with the accompanying drawings in which,

Figure 1 is a fragmentary vertical sectional view of a housing structure such as a tent, showing the heating device, fuel line, etc., associated therewith;

Figure 2 is an enlarged elevational view of the fuel line with the interceptor mounted thereon; and

Figure 3 is a sectional view taken on line 3—3 of Figure 1 and looking in the direction of the arrows.

In the use of tents in the Army, it is customary at the present time to mount a liquid fuel container filled with gasoline or the like in an elevated position of the exterior of the tent and convey the fuel to a stove mounted on the interior of the tent through the medium of a flexible hose or the like. One of the disadvantages of this fuel feeding arrangement is that a leakage sometimes occurs between the fuel source and the connection of the hose thereto, and the liquid fuel sometimes travels down the exterior of the hose into the interior of the tent and thus presents a very considerable fire hazard.

The present invention is directed to a simple and inexpensive means, which may be easily installed, for preventing any such inadvertent passage of fuel to the interior of the tent. The drawings illustrate a preferred means for accomplishing the foregoing purpose, and while a tent is illustrated in conjunction with the conventional 5-gallon gasoline container now in use in the Army, it is to be understood that the present invention may be used in other combinations in which liquid fuel is conveyed to the interior of a housing structure through the medium of a conduit extending downwardly from a source of liquid fuel supply.

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In the present illustration, the tent or other housing structure is indicated by the numeral 1. The numeral 2 designates any type of liquid fuel-burning stove mounted on the interior of the tent. Extending from the stove 2 to the exterior of the tent is a flexible hose 3 which is adapted to be operatively connected to the fuel source.

The numeral 4 indicates a conventional 5-gallon can used for transporting gasoline and this can is shown as mounted in an elevated position by means of standards 5 provided with cross-bars 6, although it is to be understood that in actual practice the can may be mounted upon any convenient support which may be available, it being necessary only that such support be at an elevation somewhat above the height of the burner of the stove. These cans 4 are beveled off at one corner as indicated by the numeral 7 and it is for this reason that the can is shown as mounted at an angle to the vertical, thereby positioning the beveled portion 7 of the can in a horizontal position. The numeral 8 designates an adapter through the medium of which the opposite end of the hose 3 is placed in communication with the interior of the fuel container 4.

The interceptor, which in combination with the fuel hose, etc., forms the essence of the present invention, comprises a plate 9 preferably of metal and provided with a pair of apertures 10 the wall of which is rounded off or beveled so as to present a smooth surface to the hose 3 which is threaded through such openings. As is clearly indicated in Figures 1 and 3, the interceptor 9 is disposed somewhat below the fuel source 4 and the hose extends downwardly directly through one of the openings or apertures 10 and is then looped around and passed downwardly again through the other aperture 10 so as to provide a vertically disposed loop 11 in the hose. It should be noted also that the external diameter of the hose 3 is equal to or slightly greater than the diameter of the apertures 10 so that a snug fit is provided, although such a fit is not absolutely essential.

In the operation of this arrangement it will be apparent that any liquid fuel escaping from the hose connection with the container 4 and de-

scending along the exterior of the hose 3 will be ordinarily intercepted by the plate 9 and prevented from passing further along the hose to the interior of the tent. Furthermore, in the event that the fit between the exterior wall of the hose and the openings 10 is not sufficiently tight to prevent the passage of the liquid fuel, such fuel as might pass downwardly along the hose beyond the interceptor plate 9 would collect at the lower portion or bottom of the loop 11, as indicated by the numeral 12, and eventually would drop to the ground instead of being conveyed to the interior of the tent or other house structure.

From the foregoing description and the attached drawings, it will be apparent that I have devised an extremely simple and inexpensive interceptor which is readily installable and which is designed to provide two separate and distinct means for avoiding the passage of liquid fuel along the exterior of the conduit to the interior of the housing structure.

I claim:

1. In combination with a liquid fuel burner, a gasoline tank, means for supporting the tank in elevated position with respect to the burner, a flexible hose connected to the lower portion of the tank and to the burner, and a plate provided with a pair of spaced openings each of substantially the same diameter as the hose, said plate being disposed directly beneath the tank and in a plane above the plane of the burner, said hose being threaded through one of said openings thence under the plate and through the other opening to thereby provide a loop portion in the hose directly below the tank.

2. In combination with a liquid fuel burner, an inverted gasoline tank supported in elevated position, a flexible hose connected to the tank and leading to the burner, and a plate provided with a pair of spaced openings each of substantially the same diameter as the hose, said plate being disposed directly beneath the tank and in a plane above the plane of the burner, said hose being threaded through one of said openings thence under the plate and through the other opening to thereby provide a loop portion in the hose directly below the tank.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,116,789	Bothwell	Nov. 10, 1914
1,684,558	Schwarz	Sept. 18, 1928
1,800,255	Hull	Apr. 14, 1931
2,283,083	Gainey	June 30, 1942
2,394,363	Bynoe	Feb. 5, 1946

FOREIGN PATENTS

Number	Country	Date
466,924	Canada	Aug. 1, 1950