May 12, 1953 N. GUEDON 2,638,085

COMBINATION MANTLE LAMP AND GAS STOVE

Filed Dec. 22, 1950

Fig 3

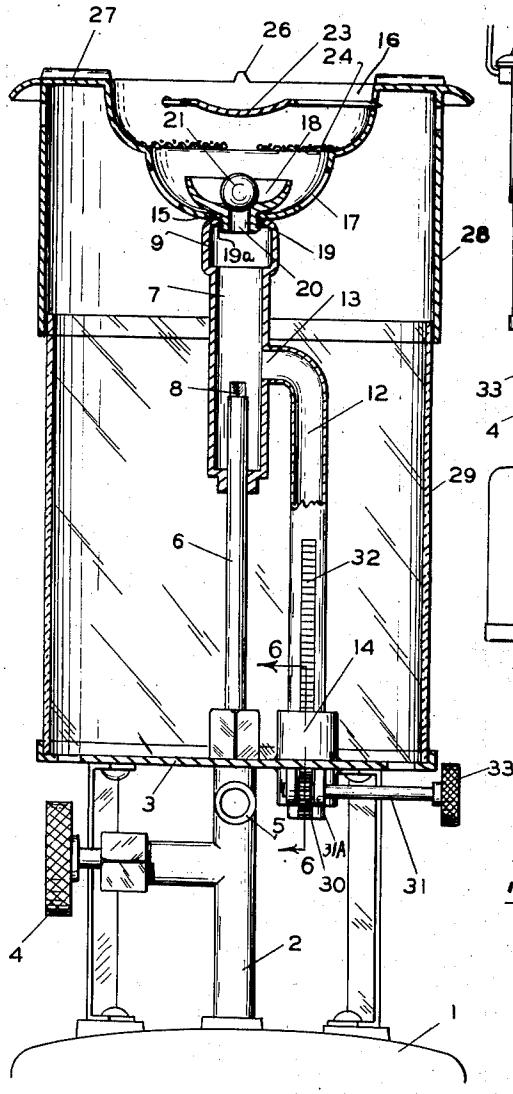


Fig 2

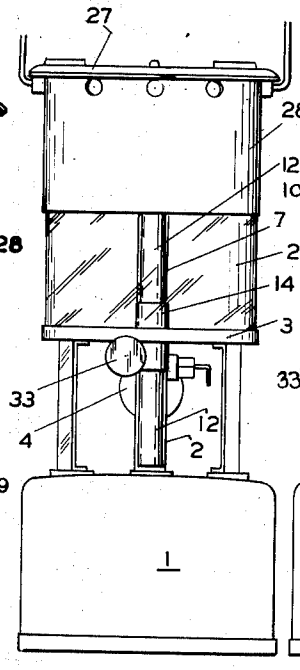
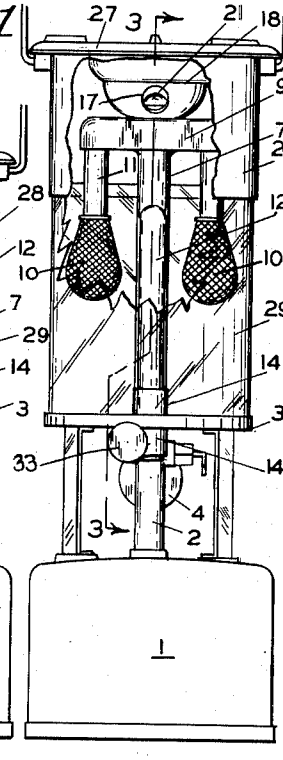


Fig 1



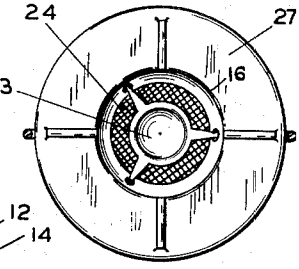
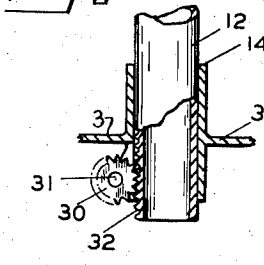


Fig 5

Fig 6



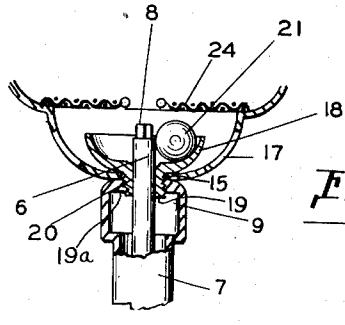


Fig 4

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COMBINATION MANTLE LAMP AND GAS STOVE

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4 Claims. (Cl. 126—40)

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This invention relates to a combined mantle and lamp and gas stove and the primary object of the invention is to combine a lamp and gas stove in a single unit, the conversion from one to another being effected by a simple mechanical movement.

By combining the mantle lamp and gas stove together, the use of both can be had from a single unit, conserving space in the camper's kit and lessening weight in transportation.

These and other incidental objects will be apparent in the drawings, specification and claims.

Referring to the drawings:

Figure 1 is a side view of my new and improved mantle lamp and gas stove, illustrating the same in a position to be used as a lamp, parts broken away for convenience of illustration.

Figure 2 is the same as Figure 1, except that the unit has been converted into a gas stove.

Figure 3 is a sectional view, taken on line 3—3 of Figure 1, parts broken away for convenience of illustration.

Figure 4 is a fragmentary sectional view of the gas jet in its relation to the gas stove burner while the same is being used as a stove.

Figure 5 is a plan view of the combination lamp and stove.

Figure 6 is a fragmentary sectional view of the mechanism for converting the unit from one use to another, taken on line 6—6 of Figure 3, parts broken away for convenience of illustration.

Referring more specifically to the drawings:

The combined mantle lamp and gas stove consists of a tank 1, a gaseous supply pipe 2, and the usual control valve 4, and clean-out pipe 5. On top of the tank are supports, and on these supports is a plate 3.

Mounted on the plate 3, is a transparent shade 29, and slidably mounted on the upper end of this shade is a casing 28, having a top 27. Formed in the top 27 is a central depression 16, in the bottom of which, is an opening 15, and in the side wall of this depression are air openings 17. 18 indicates a cup-like seat formed with a central opening 20, and a depending threaded lug 19. A ball valve 21 is supported in the cup-like seat to control the flow of gas between the depression and a mixing chamber, now to be described. 7 indicates a mixing chamber formed at its upper end with a manifold 9, from which depend short pipes 11 for supporting mantles 10.

A threaded opening 19a is formed in the top

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of the mixing chamber and receives the threaded lug 19 on the cup-like seat 18. The lug 19 passes through the central opening in the cup-like seat and the threaded opening in the mixing chamber, and thus secures the mixing chamber and casing together.

Extending from and communicating with the mixing chamber 7 is an air supply pipe 12, the lower end of which projects through a bearing 14 on the plate 3. In bearings 31a depending from the plate 3 is a shaft 31, provided at its outer end with a knob 33 and having a gear wheel 30 at the opposite end. The gear wheel 30 meshes with gear teeth 32 formed on the pipe 12, so that by rotating the knob, pipe 12, mixing chamber 7, and casing 28, are simultaneously vertically adjusted, the casing sliding on the transparent shade 29.

Extending from pipe 2 through plate 3 and into the mixing chamber 7 is a gaseous fuel supply pipe 6, provided at its upper end with a nozzle 8 in alignment with the opening in the cup-like seat.

Obviously, when the shaft 31 is rotated to adjust the position of the nozzle with reference to the cup-like seat, the mixing chamber slides on the pipe 6, as will be presently described.

A spider in the depression 16 in the top of casing 28 supports a baffle plate 23 in alignment with the cup-like seat and between the spider and the cup-like seat 16 is a screen 24. The baffle plate serves to spread the flame when the improvement is used as a stove, while the screen 24 acts to confine the ball valve and prevent its loss when transforming the unit. In using the unit as a lamp the casing and the parts associated therewith are in the position shown in Figure 3. That is, the parts are adjusted by rotating the shaft 31 to slide the mixing chamber on the pipe 6 to free the nozzle of the ball valve, so that the latter can roll down the wall of the depression and close the opening in the cup-like seat. The gas will now pass through the nozzle and mixes with the air from the pipe 12, the mixture passing through the manifold to the mantles.

If the unit is to be used as a stove, by rotating the shaft 31, the mixing chamber will slide down the pipe 6 until the nozzle projects through the opening 20 and into the seat, and thus unseats the ball valve, the valve being rolled up on the side wall of the depression, as shown in Figure 4. When the nozzle is projected into the seat, gas to the manifold is cut

off, and the flame from the nozzle is directed to the baffle plate for cooking or other purposes.

What I claim is:

1. A combined lamp and stove, comprising a hollow base, a transparent shade supported on the base, a gas feed pipe extending from the hollow base into the bottom of the transparent shade, a nozzle extending upwardly from the gas feed pipe and into the transparent shade, a casing vertically slidably mounted on the upper end of the transparent shade, the slidable casing having a top, a central depression formed in the top, the bottom of the depression having a central opening, and air inlets formed in the wall of the depression, a mixing chamber slidably mounted on the nozzle and extending up to and secured to the bottom wall of the depression, burners attached to the mixing chamber, a cup-like seat in the bottom of the depression seat having a centrally disposed opening in communication with the mixing chamber, a ball valve disposed in the cup-like seat, an air supply pipe slidably mounted in the bottom of the transparent shade and attached to and communicating with the mixing chamber, and means for raising and lowering the slidable casing on the transparent shade and the mixing chamber on the nozzle to regulate the position of the end of said nozzle with reference to the ball valve to direct the gaseous mixture to the burners or the central depression.

2. A structure, as defined in claim 1, wherein the air inlet pipe is provided with teeth, a shaft mounted on the transparent shade, and a gear wheel mounted on the shaft to mesh with said teeth to raise and lower the mixing chamber and the slidable casing.

3. A structure, as defined in claim 1, wherein the depression in the slidable casing is of greater diameter at its upper end than at the bottom, a foraminous partition located in the depression above and spaced from the ball valve and spaced from the top of the casing, and a baffle plate located above and spaced between the top of the casing and the foraminous partition and below the top of the casing.

4. The combination of a hollow base, a transparent shade above the base, a vertically slidable casing mounted on the upper end of the transparent shade, the slidable casing having a top formed with a central depression with a central opening, a cup-like seat formed with a central opening and mounted in the bottom of the depression, a ball valve supported in the seat, a mixing chamber secured to the bottom wall of the depression, lantern burners communicating with and depending from the mixing chamber, an air inlet pipe communicating with and attached to and movable with the mixing chamber, a gaseous fuel supply pipe extending from the hollow base and through the bottom of the transparent shade and into the mixing chamber, the mixing chamber being slidable on the gaseous fuel supply pipe, a nozzle on the upper end of the gaseous fuel pipe, and means secured to the bottom of the transparent shade for lowering the mixing chamber whereby the nozzle can be projected through the opening in the cup-like seat to unseat the valve and supply gaseous mixture to the depression below the foraminous partition for heating purposes and cut off the supply of gaseous mixture to the lantern burners.

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