Sept. 24, 1963 W. R. BOERDER 3,104,814

ILLUMINATED DISPLAY FOUNTAIN

Filed May 14, 1962 2 Sheets-Sheet 1

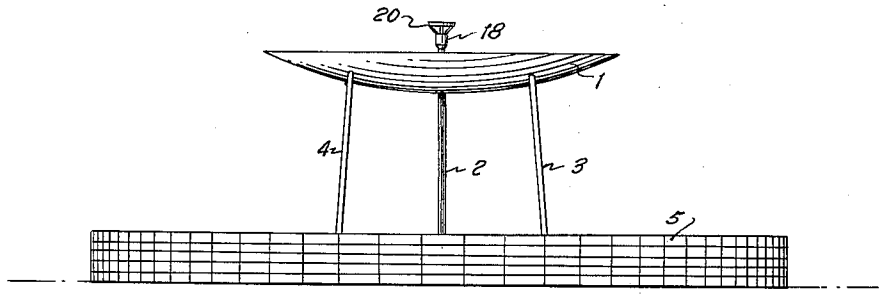


Fig. I

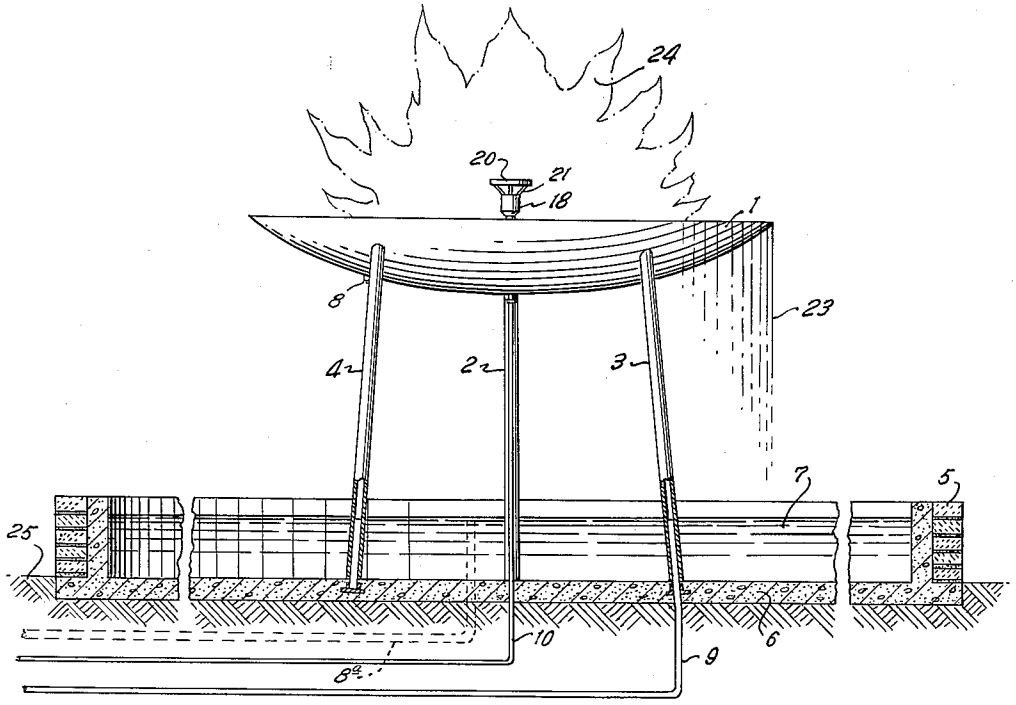


Fig. II

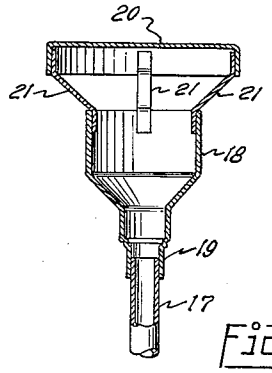


Fig. III

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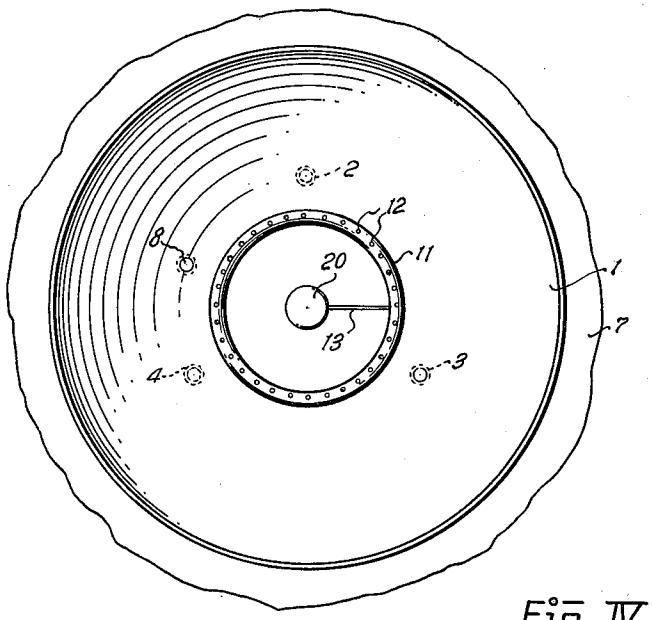


Fig. IV

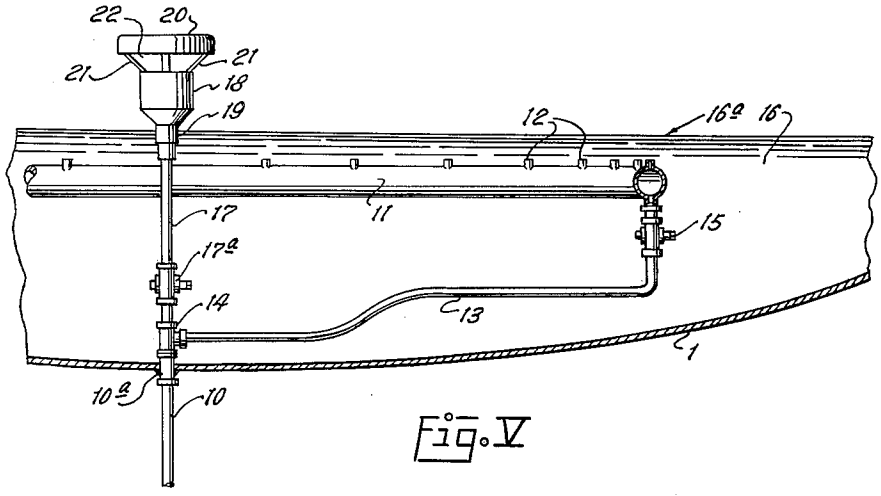


Fig. V

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ILLUMINATED DISPLAY FOUNTAIN

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5 Claims. (Cl. 239—18)

This invention is concerned with an advertising display device and is particularly concerned with a display device intended to attract the attention of prospective customers to business establishments, such as a motel, restaurants, retail establishments, and the like.

The device is particularly advantageous in attracting the attention of motorists as they drive along the street or highway to a place of business, such as a motel or restaurant.

Generally the device consists of a dish-like receptacle supported by legs wherein water cascades over the edge similar to a fountain, with a relatively large flame projecting upwardly from the upper surface of water in the dish-like receptacle. This imparts a startling effect, in that it gives the appearance of a huge torch which illuminates the surrounding area and is reflected off the water cascading over the side of the dish-like receptacle. Thereby it attracts the attention of the passerby to the business establishment adjacent to which the display device is associated.

The display device is so arranged that it is safe from the standpoint of fire hazard so as to meet the fire codes of municipalities; and it is so constructed that the flame will not be extinguished by the wind regardless of the direction in which the wind may be blowing.

It is, therefore, a primary object of the invention to provide an advertising display device which takes the appearance of a huge torch consisting of a flame extending from the upper surface of the water in a fountain.

Another object of the invention is to provide such a display device wherein fuel gas is released under the surface of water in a dish container and is burned over the surface of the water to give the appearance of burning gasoline or other liquid fuel in the container.

Still another object of the invention is to provide such a display device wherein the dish-like container, constituting the burner portion thereof, is disposed in an enlarged trough containing water to provide for safety against the spread of fire from such device.

Still another object of the invention is to provide such a display device wherein fuel gas is released under the surface of the water in a container and allowed to bubble to the top, to provide a combustible mixture which burns on the surface of the water in the container.

A further object of the invention is to provide in a display device circular gas distribution pipe disposed underneath the surface of water in a container with a pilot disposed centrally thereof so that as the gas is released from the distribution pipe it will be ignited on the surface of the water regardless of the direction in which the wind might be blowing.

A still further object of the invention is to provide such a display device wherein the water and gas conduits leading thereto are passed through the supporting legs for the dish-like container, so that there are no outwardly visibly supply pipes or conduits leading thereto.

Other and further objects of the invention will become apparent upon referring to the detailed specifications hereinafter following, and to the drawings annexed hereto.

A suitable embodiment of the invention is shown in the attached drawing wherein:

FIGURE I is a side elevational view of the display device;

FIGURE II is a side elevational view of the display device showing the flame extending upwardly from the upper surface of the dish-like container with water running over the side, wherein the basin is cross-sectioned showing the gas pipe and water supply pipe and drain pipe leading thereto;

FIGURE III is a cross-sectional, elevational view of the pilot construction;

FIGURE IV is a top plan view of the bowl showing the arrangement of the gas dispersal pipe and the pilot; and

FIGURE V is a fragmentary, cross-sectional, elevational view of the bowl, showing the detailed construction of the gas dispersal pipe, the conduits leading thereto, and to the pilot, and the regulator valves therefor.

As shown in the drawings, the numeral **1** indicates a generally concaved dish-like container **1** which is mounted on, and supported by, suitable tubular legs **2**, **3** and **4**. The lower ends of the legs **2**, **3** and **4** are preferably embedded in the concrete floor **6** of the water basin **5**.

The water basin **5**, as shown, is circular in shape, but may be of any desired shape, and has therein a quantity of water **7**, the level of which is controlled by the overflow pipe **8***a*, which extends through the floor **6** of the basin **5**, and horizontally through the earth **25** for connection to a sewer line, or for discharge into a drainage ditch, or other place.

A gas fuel supply pipe **10** is preferably buried in the ground and extends upwardly through the concrete floor **6** of the basin **5**, through the tubular leg **2**, and is passed through the lower wall of the dish **1** by means of a nipple **10***a*. The nipple **10***a* is welded and sealed about a passage through the lower wall of the dish **1**. The circular gas dispersal pipe **11** has a plurality of upwardly directed nipples or orifices **12** spaced along the upper surface thereof through which fuel gas may be dispersed. The gas supply pipe **10** is connected to a gas conduit **13** by means of a suitable T-connection **14**, and the amount of gas supplied to the dispersal pipe **11** through the conduit **13** may be controlled by a control valve **15**.

The dish **1** is supplied with water through a water supply pipe **9**, which is preferably buried in the ground underneath the basin **5**, and extends upwardly through the concrete floor **6** of the basin **5** and through the tubular leg **3**, to supply water to the dish **1**.

The dish **1** is continuously supplied with water **16** through the supply pipe **9** and the water continuously cascades over the edge of the dish while the device is in operation, as indicated at **23**.

It will be noted that the gas dispersal pipe **11** is disposed under the surface **16***a* of the water **16** in the dish **1** so that gas is released underneath the surface of the water **16** through the nipples **12**, and bubbles to the surface, being mixed with oxygen from the water to provide a combustible mixture upon reaching the surface of the water. Upon reaching the surface of the water, the combustible mixture is ignited by a pilot burner, generally indicated at **18**.

The pilot **18** is supplied with fuel gas through the branch conduit **17**, which is connected to the gas supply line **10** through a T-connection **14**. The amount of gas supplied to the pilot **18** may be controlled by a suitable control valve **17***a*.

The pilot housing **18** is connected to the upper end of the gas supply conduit **17** by a connection indicated at **19**.

The pilot housing **18** includes a cap **20** attached to the upper end thereof by connection legs **21**, providing spaces **22** between the legs **21**, through which flames may be emitted and air may be provided for suitable fuel mixture. The cap **21** protects the flame from rain or other precipitation.

It will be noted that the pilot **18** is disposed centrally of the circular gas dispersal pipe **11**, so that fuel gas

reaches the surface 16*a* of the water 16 all the way around the pilot so that regardless of the direction in which the wind might be blowing, the gas will be ignited by the pilot and burn on the surface of the water. Thereby it is virtually impossible for the wind to blow out the display torch.

The operation and function of the device hereinbefore described is as follows:

Water is turned on to be supplied to the bowl 1 continuously through the pipe 9 so that the water 16 continuously flows over the edge of the dish 1 providing a cascade as indicated at 23. The gas fuel is turned on to supply same through the gas supply pipe 10 to the circular dispersal pipe 11, so as to emit the gas fuel through the orifices 12 to allow it to bubble to the surface of the water. The pilot 18 is lighted, which continuously ignites the gas fuel mixture emitted through the orifices 12 as it reaches the surface of the water 16. Thereby a jagged and leaping flame 24 is provided over virtually the entire surface of the water 16, providing a startling and attractive display. As the flame leaps into the air it is reflected off of the cascading water 23. The device gives the appearance of a huge torch. As the water cascades over the side of the dish 1, it is caught in the basin 5 and overflows through the drain pipe 8.

If desired, a pump could be connected between the supply pipe 9 and the basin 5 to continuously recirculate water, with another water supply pipe controlled by a float to maintain the water level in the basin 5. This, however, would be optional, as the device disclosed herein is satisfactory to illustrate the claimed invention.

It will be seen that I have provided an advertising display device which is attractive and startling in its effect in attracting attention to the establishment with which it is associated, which at the same time is safe, and includes a flame having a dispersal pipe and a pilot so related to each other that the flame will not blow out regardless of the direction of the wind.

Having described my invention, I claim:

1. In an advertising display device, a substantially circular dish-like container; an enlarged basin disposed beneath the container; spaced legs supporting the container in the basin; a circular gas fuel dispersal pipe with orifices therein arranged below the level of the rim of the container; a pilot disposed centrally of the gas dispersal pipe in spaced relationship above the pipe; means for supplying gas fuel to the gas dispersal pipe and to the pilot; and means to supply water continuously to the container to fill same with water and allow water to cascade over the rim thereof.

2. The combination called for in claim 1 wherein the orifices in the gas dispersal pipe are arranged about the upper surface thereof and are directed upwardly.

3. In an advertising display device a container; means for supporting the container above the surface on which it is disposed; an annular gas fuel dispersal pipe with orifices therein arranged below the level of the rim of the container; a pilot disposed within the annular gas dispersal pipe and extending thereabove; means for supplying gas fuel to the gas dispersal pipe and to the pilot; and means to supply water to the container to fill same with water to a level above the gas dispersal pipe and below the pilot.

4. The combination called for in claim 3 with the addition of an enlarged basin disposed beneath the container with the support means for the container attached to the basin.

5. The combination called for in claim 1 wherein the legs are tubular and gas fuel is supplied to the dispersal pipe and the pilot through said legs.

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