June 14, 1932. B. C. LEWIS 1,863,203

WATER SUPPLY DEVICE FOR BATTERIES

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Fig. 1.

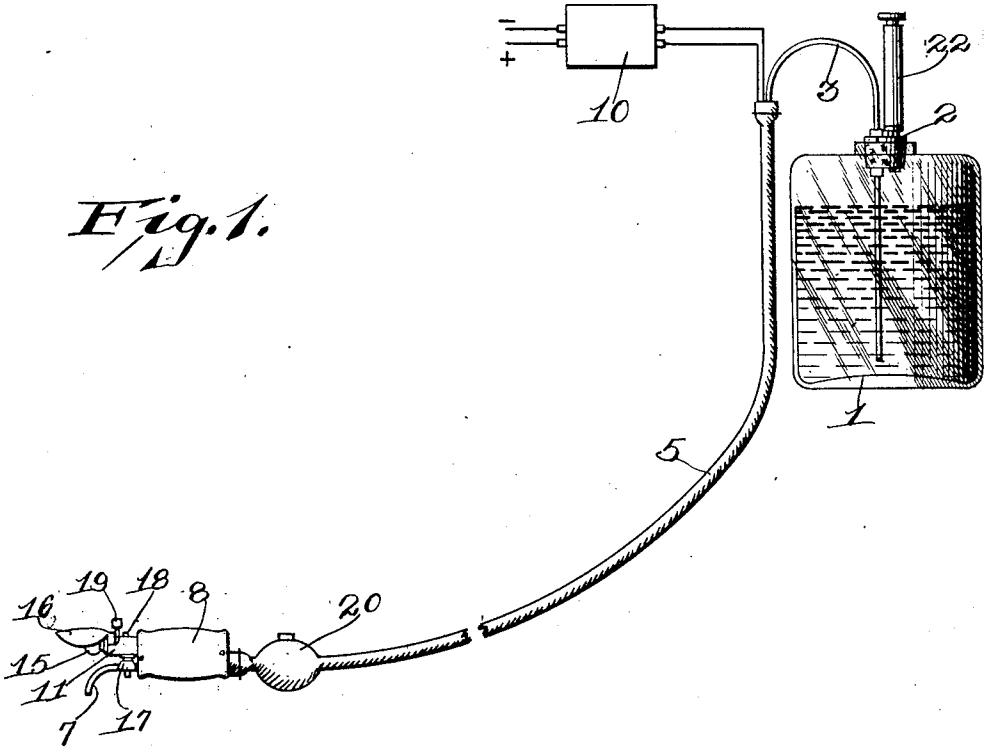
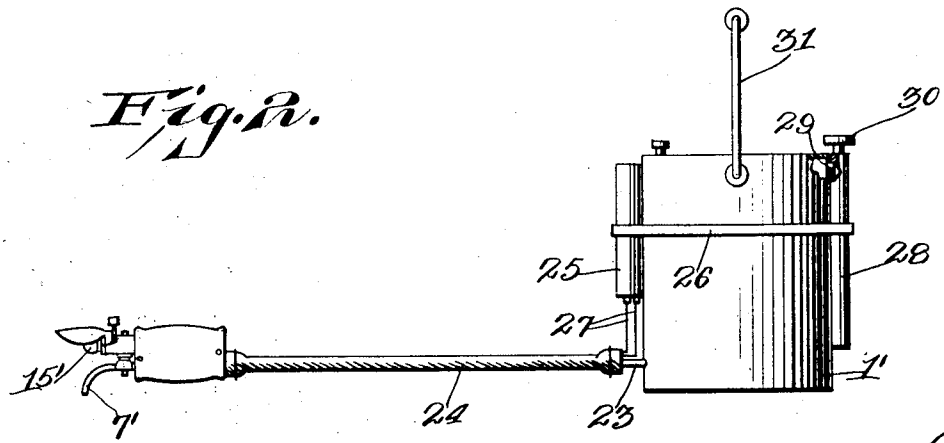


Fig. 2.



Inventor
B. C. Lewis

By Young & Young
Attorneys.

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Fig. 3.

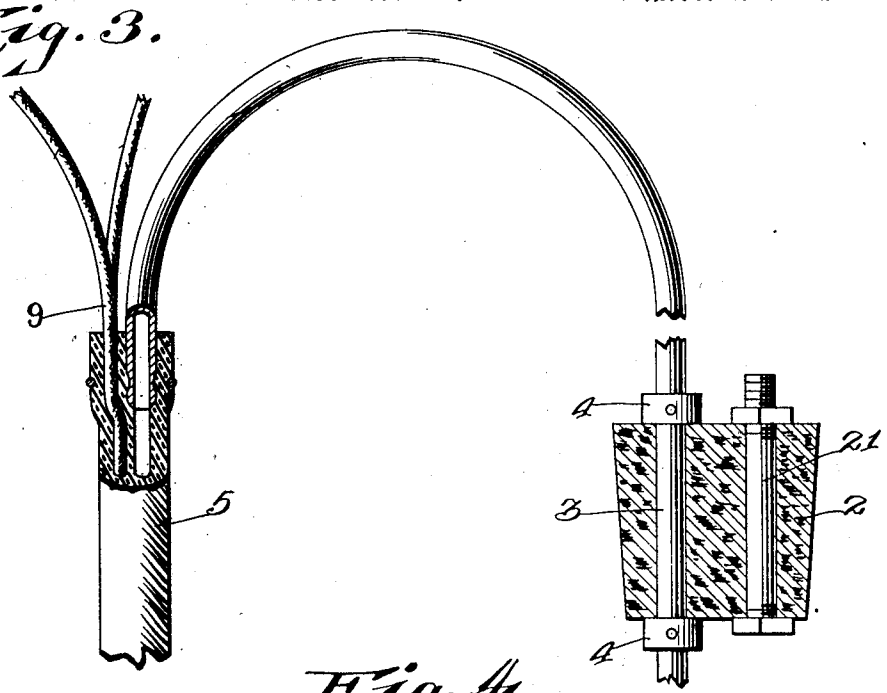


Fig. 4.

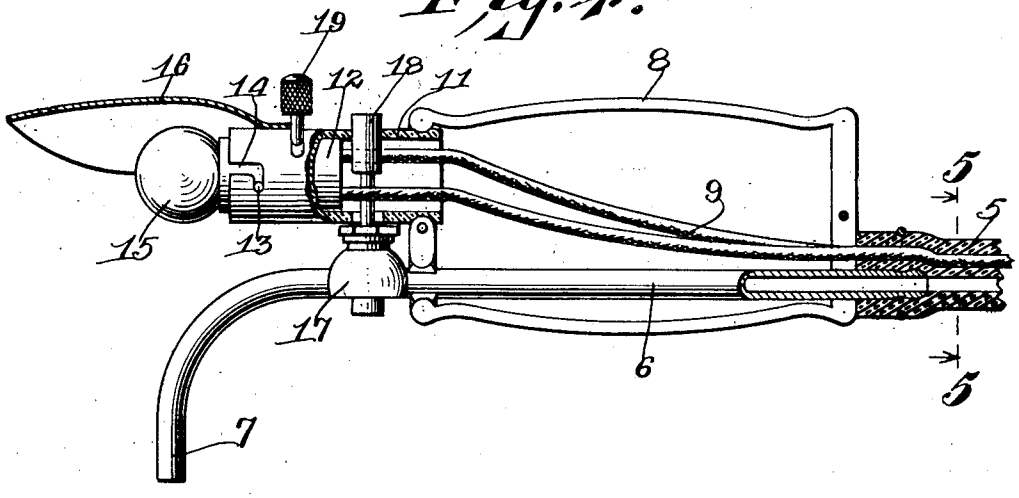


Fig. 5.

Inventor
B. C. Lewis

By Wm. W. Dewey

Attorney

Patented June 14, 1932

1,863,203

UNITED STATES PATENT OFFICE

BERT C. LEWIS, OF CHICAGO, ILLINOIS

WATER SUPPLY DEVICE FOR BATTERIES

Application filed October 29, 1930. Serial No. 491,988.

This invention relates to improvements in a water supply device for batteries.

One of the objects of the present invention is the provision of an improved device which is particularly adapted for use in supplying distilled water to batteries which are used on motor vehicles, and the like, and the device is so constructed as to provide means whereby the battery can be readily filled without removing the same from its operative position on the vehicle, and the water can be supplied to the battery under pressure or other gravitation.

Another object of the present invention is the provision of a device for supplying water to a battery which consists of a container for holding distilled water, or the like, to be furnished to batteries, together with a flexible conduit connected with the container with a valve control outlet at the outer end of the conduit, with means for illuminating the outlet as well as the surroundings, so that the outlet can be readily positioned in the battery for discharging the required amount of water therein.

A further object of the present invention is the provision of a device of the above character including a novel hand supporting member, supporting the valved outlet and the illuminating member, so that the illuminating member can be used for correctly positioning the valved outlet in the battery, and the light switch, as well as the valve actuating plunger, is located in close proximity to the handle so that the light can be readily turned on, followed immediately by the opening of the valve for discharging the water into the battery.

A still further object of the invention is the provision of a device of the above character which is so constructed that it can be readily transported from place to place, or can be positioned in a stationary location, and can be used either in connection with compressed air or by gravitation.

With the above and other objects in view, the invention consists in the novel features of construction, the combination and arrangement of parts hereinafter more fully set forth, pointed out in the claims and shown in the accompanying drawings wherein:

Figure 1 is a side elevation of a water supply device for batteries, constructed in accordance with my invention;

Figure 2 is a similar view, illustrating a portable device of this character;

Figure 3 is a sectional view taken through the container stopper, and a portion of the covering for the conductor wires and the supply tube;

Figure 4 is a side elevation of the handle device, with parts thereof broken away and illustrated in cross section; and,

Figure 5 is a transverse section on the line 5—5 of Figure 4.

As stated heretofore, this device is particularly adapted for supplying distilled water to batteries, such as are used on motor vehicles, without the necessity of displacing the battery, and is so arranged as to provide means for supplying the water either under pressure, or by gravitation.

In Figure 1, I have illustrated one of the embodiments of the invention, which consists of a container 1 for distilled water, in the form of a receptacle having an enlarged opening therein in which is arranged a plug 2. This plug is provided with parallel spaced openings, and passing through one of the openings is a tubular member 3 which extends downwardly into the container to a point adjacent the bottom thereof, and stop collars 4 are arranged on the tube at opposite ends of the plug 2 for retaining the tube against movement relative to the plug. The outer end of the tube 3 extends into one end of a conduit 5, preferably of a flexible nature, and this conduit has inserted in its outer end, one end of a rigid tubular member 6, having a downwardly projecting end 7 which is adapted to be inserted in the battery.

In order to support the outer end of the tubular member 5, as well as the rigid tubular members 6, I provide a substantially hollow handle 8 formed of two separable sections, and these sections surround a portion of the rigid tube 6, and the conductor wires 9, which are embedded in the flexible tube 5, as clearly illustrated in Figures 3 and 4. The conduc-

tors 9 are connected up with a transformer 10 connected to any suitable lighting circuit.

Extending into the handle member 8 at one end thereof, is a sleeve 11, and arranged in the outer end of this sleeve, which is preferably of insulated material, is a socket 12, retained in position by means of the pin 13 operating in a bayonet slot 14 in the sleeve. The socket 12 carries an electric lamp 15, and attached to the insulated sleeve 11, is a shade 16 which extends parallel with the sleeve and projects out over the lamp 15 to reflect the rays thereof downwardly, or outwardly, in accordance with the position of the device. The conductors 9 are connected up with the socket 12, as shown in Figure 4, so that a complete circuit to the lamp 15 is provided for.

Arranged within the tubular member 6 is a valve 17, controlled by means of a plunger 18 which extends up through the sleeve 11, with the upper end of the plunger projecting beyond the outer surface of the sleeve, as shown in Figure 4. The finger piece 19 for controlling the current to the lamp 15 also projects beyond one side of the sleeve 11 and in close proximity to the plunger 18, so that when the handle member 8 is grasped by the hand, the thumb of the operator can be used for actuating the finger piece 19 for turning on the light and also actuate the plunger 18 for opening the valve 17.

In the use of my improved device, it will be noted that when it is desired to supply water to a battery, the handle member 8 is grasped by the operator with the thumb in position adjacent the finger piece 19, and the plunger 18.

Upon approaching the relative location of the battery, the finger piece 19 is actuated to complete a circuit to the lamp, whereby the actual location of the battery may be ascertained and the correct positioning of the downturned end 7 of the tube 6 can be accomplished. After the end 7 has been inserted in the battery, the plunger 18 can then be actuated for opening the valve 17 and permitting discharge of the water into the battery.

With that form of the invention shown in Figure 1, it is preferred to have the receptacle 1 located in a comparatively high position, so that through gravitation, the water will flow from the receptacle, down through the tubular member 5 and through the tube 6 to the discharge end 7. However, in a great many instances, it will be necessary to prime the flow of the fluid and in this instance, a bulb 20, located in the tube 5, is compressed to start the fluid through the tube 5.

Attention has been directed to the fact that the plug 2 is provided with parallel spaced openings, and where gravity is used for directing the flow of fluid through the tube 5, one of these openings can be closed by means of a bolt 21, as shown in Figure 3. However, if it is found necessary to use air pressure within the container 1, a pump 22 can be connected up with this second opening for supplying air pressure to the container to force the contents thereof out through the tube 5. Attention is also directed to the fact that air under pressure from any suitable source can be supplied to the receptacle 1, through the second opening in the plug.

In Figure 2, I have illustrated a slightly modified form of the invention, wherein the device is of a portable nature, and can be readily carried about for use in different places. In this form of the invention, the container 1′ has connected thereto adjacent the bottom, a tube 23 having a flexible covering 24, and connected up with the outlet 7′ in the same manner as illustrated in the preferred form of the invention. In this form of the invention, a battery 25 is attached to the side of the container 1′, in any suitable manner, but preferably held in position by means of a band 26 and the conductors 27 are embededd in the flexible tube 24 and connected up to the lamp 15′.

At the side of the container opposite the battery 25, there is provided a hand pump 28, the barrel of which is connected to the interior of the receptacle 1 by means of an opening 29. The pump 28 is provided with a piston 30 adapted to be actuated in the barrel 28 for supplying compressed air to the container for forcing the liquid contents thereof out through the tube 23, or the container can be arranged in a comparatively high position so that the liquid will run out through gravitation.

The container is provided with a handle 31, whereby said container can be readily carried from place to place, and when not in use, the tube 24 can be placed on top of the container beneath the handle.

It will be apparent from the foregoing description taken in connection with the accompanying drawings, that I have provided an inexpensive device, comparatively simple, and particularly adapted for use in supplying distilled water to batteries, and wherein the discharge nozzle of the device can be illuminated so that the same can be quickly placed in position for filling the battery, and the operating mediums for the light and for the valve which controls the outlet, are located so that they can be easily actuated by the hand gripping the handle 8.

While I have shown and described the preferred embodiment of my invention, it will be apparent from the foregoing that slight changes may be made in the construction when putting the invention into practice without departing from the spirit of the same or the scope of the appended claims.

I claim:

1. A device of the character described including a discharge tube having a nozzle por-

tion at one end, a hand grip embracing and supporting the tube, a valve for controlling the passage of fluid through the tube, a sleeve supported at one end of the hand grip, a movable plunger mounted in the sleeve and connected with the valve, and an illuminated member carried by the sleeve, a finger switch for controlling said illuminating member, a reflecting element carried by the sleeve and arranged at one side of the illuminating member, said switch member and plunger being independently actuated by an operator's hand engaged with the hand grip.

2. A battery filling device comprising a liquid receptacle, a flexible liquid conductor tube connected with the receptacle, a rigid discharge tube connected with the flexible tube and having a depending discharge nozzle, a hand grip carried by the rigid discharge tube terminating short of the discharge nozzle, an illuminating member and reflector carried by the hand grip, the reflector overlying the nozzle, a valve for the discharge nozzle and a switch for the illuminating member, said valve and switch having manipulating finger pieces located in close proximity to one another and adjacent to the nozzle as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

BERT C. LEWIS.