R. W. HARVEY.

DISTILLED WATER BOTTLE AND STORAGE BATTERY FILLER.

APPLICATION FILED MAY 31, 1916.

1,223,971. Patented Apr. 24, 1917.

FIG. 1.

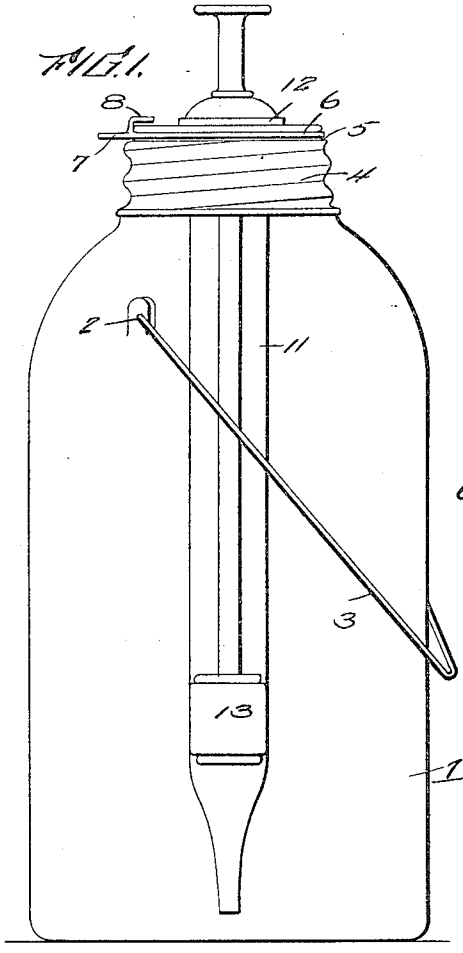


FIG. 3.

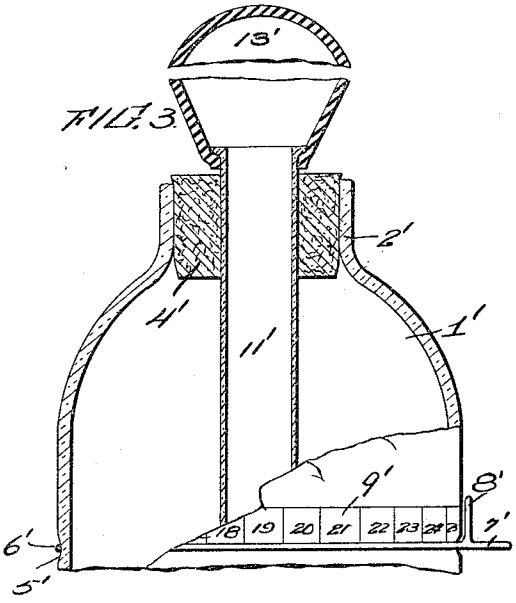


FIG. 2.

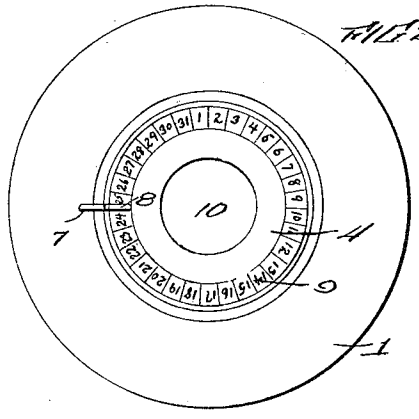


FIG. 4.

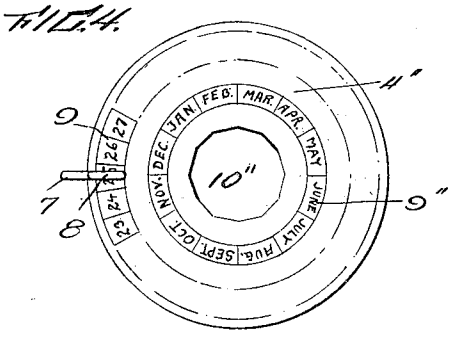
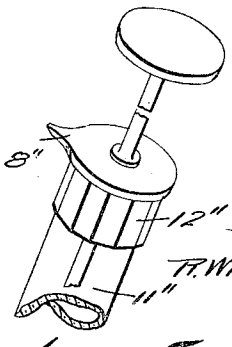


FIG. 5.



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DISTILLED-WATER BOTTLE AND STORAGE-BATTERY FILLER.

1,223,971. Specification of Letters Patent. Patented Apr. 24, 1917.

Application filed May 31, 1916. Serial No. 100,985.

To all whom it may concern:

Be it known that I, RUSSELL WINSTON HARVEY, a citizen of the United States, residing at Lynchburg, in the county of Campbell and State of Virginia, have invented certain new and useful Improvements in Distilled-Water Bottles and Storage-Battery Fillers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to indicators of that character ordinarily applied to a bottle or other container and capable of being set when a dose or charge is taken therefrom, for the user's information at a subsequent time. The invention is herein shown and described as a container employed to hold distilled water with which storage batteries in automobiles and elsewhere must be recharged from time to time, and for this purpose I employ a glass syringe normally protected by hanging in the container which it closes to the entrance of dust, and useful for refilling the battery because it is undesirable that the water shall come in contact with metal at all. The special utility of the indicator feature of the invention in this connection is that it permits the user to set the indicator so as to show when he refills his battery—thus constantly reminding him of the time when it is necessary to fill the cells so that the battery will not become depleted or injured. It is well known to users of batteries of this kind that they frequently do not receive attention by way of refilling until they fail to work, and then the motorist runs into a garage and asks the attendant to fill his battery. The result is that some careless boy uses a metal funnel and pours in water (not always distilled) which is contaminated by contact with metal and often overflows because the presence of the funnel prevents him from seeing exactly what is being done. Reckless and irregular filling of expensive storage batteries in this manner shortens their life, and I have found it advisable to exercise a little more care in this respect as will be explained below. The following specification describes what might be called the preferred embodiment of my invention, and a few modifications of which it is susceptible, and reference is made to the drawings wherein:—

Figure 1 is a side elevation of this device complete, showing how a bail can be attached to the container, and Fig. 2 is a plan view of the closing cap.

Fig. 3 is a vertical sectional view introducing certain modifications; and Fig. 4 is a plan view of a modified form of cap, while Fig. 5 shows the modified syringe to be used therewith.

The container may well be an ordinary glass jar 1 which should hold about a half gallon of distilled water such as can be secured at any drug store, and the jar may have ears 2 to which is pivoted a bail 3 as shown in Fig. 1, although this feature is not necessary and is elsewhere omitted. This view shows the ordinary fruit jar threaded around its mouth and closed by a cap 4 which is threaded to engage the threads on the mouth, although any means for holding the closure cap could be adopted. Around the closure is a groove 5 in which is slidably mounted a ring 6 of wire having at one point a handle 7 and adjacent it an index 8; and the top of the cap is provided with a dial 9 (preferably annular as seen in Fig. 2) and inscribed with numerals up to 31 to indicate the days of the month.

Through the center of the closure is a hole 10, and the numeral 11 designates a filling member such as a syringe preferably having packing 12 around it to closely fit in and close the hole so as to prevent dust from entering the jar. In Fig. 1 this member is shown as a syringe of the plunger type having a piston 13, whereas in Fig. 3 the syringe 11′ has a bulb 13′ at its upper end, but any suitable form of syringe may be employed. I prefer however that it shall be of glass so that the water nowhere comes in contact with metal, and I prefer also that the capacity of the syringe shall be sufficient to fill a battery of a given size, so that it may be filled and discharged a regular number of times according to the capacity of the battery being refilled.

In the use of this device the operator raises the piston or compresses and then releases the bulb so that a charge is drawn into the syringe, then he moves the latter entirely from the container and puts its point into the battery and ejects the charge thereinto—repeating this operation if the battery requires it. He then replaces the syringe in the container as seen in Fig. 1, and grasps the handle 7 of the indicator and moves the same around within the groove 5

so that the point or index 8 shall stand over that numeral in the dial 9 which indicates the day of the month, as seen in Fig. 2. If he is in the habit of refilling his battery every ten days, the indicator gives him constant notice when he should again refill it, and at that time he sets the index forward ten days as well understood. I propose that this device belong to and be used by the car owner (or by his private chauffeur) and kept in his garage; and if the instructions are followed, an expensive storage battery will never be allowed to dry out and never be injured by careless refilling at the hands of an indifferent person.

Fig. 3 illustrates a modification in other respects than that it shows a syringe having a bulb. Here the jar 1′ has a reduced neck 2′ and the closure is a cork 4′ through a hole in which the syringe is inserted, and the packing may or may not be used as desired. I have made use of this view also to show how the indicator may surround the body of the jar instead of the cap itself. A groove 5′ is formed in the jar to receive the wire ring 6′ having a handle 7′ and a pointer or index 8′, and the dial 9′, is in the shape of a band attached to or molded in the jar, preferably just above the groove as shown. The operation is the same as above described.

Figs. 4 and 5 show another modification, adapting the device to a wider field of utility. Here the cap 4″ has a polygonal hole 10″ and the syringe 11″ either has packing 12″ which is externally polygonal or may itself have a head externally polygonal as shown; and in either case it has a pointer or index 8″ projecting radially from it as seen in Fig. 5. The hole 10″ and the packing 12″ may well have twelve faces, and the cap is provided around the hole with a dial 9″ which in the present showing is marked with abbreviations for the months respectively opposite the sides of the polygonal hole. Fig. 4 also shows the main dial 9, with which will be used the main indicator so as to designate the day of the month, but it is quite possible to use the dial 9″ and the index on the syringe with the dial and indicator on the jar itself as seen in Fig. 3, although this possibility need not be illustrated. The obvious utility of this modification or amplification of the idea is to permit the user to cause it to indicate both the month and the day of that month. When he replaces the syringe he sets its polygonal portion in such position within the polygonal hole that its index lies over the proper month on the dial 9″, and he also sets the other indicator so as to designate the day of that month on which the container and syringe had been used.

While I have described this invention as applied to a device for refilling storage batteries, because experience in that line showed me the necessity for such an invention, I do not wish to be limited in this respect. It is quite obvious that either the principal or date indicator or both the date and the month indicator could be employed with a jar or other form of container which was for other liquid, and which liquid was used for other purposes than hereinbefore set forth. The exact proportions and materials of parts are not essential, excepting that if the device is used for the purpose intended where distilled water should not come in contact with metal, the container and syringe may well be of glass. The great convenience of this device as a container for distilled water for the purposes of refilling the battery, will be obvious, especially when the jar is closed by a closure of the character suggested, and part of that closure is the syringe for filling purposes—all parts being ready for instant use and yet the water thoroughly protected from dirt and dust.

What I claim is:

1. The combination with a container carrying a plurality of series of indications, a ring movably mounted thereon adjacent one of them, and an index on the ring adapted to coact therewith; of a member removably mounted in the mouth of the container and in selective positions therein, and an index on said member adapted to coact with the other series of indications.

2. The combination with a jar, a closure therefor having through it a hole and around the hole two rings of indications; of an indicator movably mounted around the cap and having an index overlying the outer ring, and a member selectively and removably mounted in said hole and having an index overlying the inner ring, for the purpose set forth.

3. In a battery filler, the combination with a receptacle, and a closure therefor having a hole and inscribed with a ring of numbers around such hole; of a syringe removably mounted in and closing said hole and an index carried by the syringe, the latter adapted to be set selectively in the hole so that the index will coact with any of said numbers.

4. In a battery filler, the combination with a container carrying a plurality of rings of indications, a ring movably mounted thereon adjacent one of them, and an index on the ring adapted to coact therewith; of a syringe removably mounted in the mouth of the container and in selective positions therein, and an index on the syringe adapted to coact with the other ring of indications.

5. In a battery filler, the combination with a receptacle, a closure therefor having a polygonal hole, and a ring of indications around said hole, each opposite one side thereof; of a member removably mounted

in said hole, and an index thereon adapted to coact with said indications, said member being polygonal on its exterior so as to be capable of insertion in said hole in selective positions, for the purpose set forth.

6. In a battery filler, the combination with a receptacle, a closure therefor having a polygonal hole, and a ring of indications around said hole, each opposite one side thereof; of a syringe, an index thereon adapted to coact with said indications, and packing around the syringe and polygonal on its exterior so as to be capable of insertion in said hole in selective positions, for the purpose set forth.

7. In a battery filler, the combination with a jar, a closure cap therefor having through it a polygonal hole and around the hole two rings of indications whereof those in the innermost ring are respectively opposite the sides of said hole; of an indicator movably mounted around the cap and having an index overlying the outer ring, a syringe removably mounted in said hole and having an index overlying the inner ring, and packing on the syringe of a size and shape to fit said hole and capable of being selectively placed therein, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

RUSSELL WINSTON HARVEY.

Witnesses:

S. P. NELSON,

E. F. COLEMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."