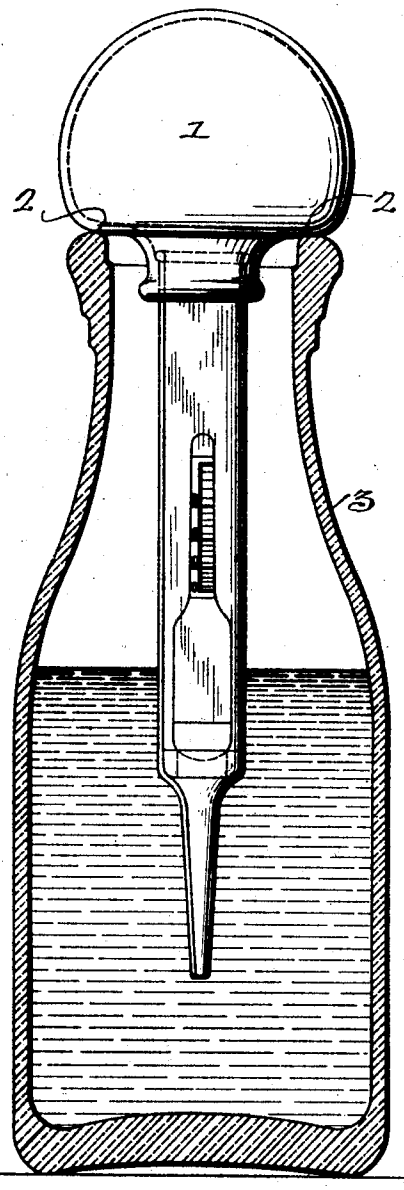
March 8, 1927. 1,620,393

W. RIPPIEN

HYDROMETER

Filed July 18, 1925



Inventor.
Walter Rippien.
by his Attorneys.
Howson & Howson

Patented Mar. 8, 1927. 1,620,393

UNITED STATES PATENT OFFICE.

WALTER RIPPIEN, OF PHILADELPHIA, PENNSYLVANIA.

HYDROMETER.

Application filed July 18, 1925. Serial No. 44,515.

This invention relates to hydrometers, and the principal object of the invention is to provide a hydrometer of novel construction rendering it particularly well adapted for use in conjunction with a suitable receptacle whereby the hydrometer is housed and maintained free from dust and in condition for instant use.

A more specific object of the invention is to provide a hydrometer having novel means adapted to function as a lid or closure for a container in which the hydrometer is suspended, thereby adapting the hydrometer for use in conjunction with containers, with the numerous attendant advantages hereinafter set forth.

In the attached drawing, the figure shows a hydrometer made in accordance with my invention.

Due to the nature of its use in conjunction with storage batteries and its contact with strong acids, the hydrometer presents extraordinary problems as to disposition after use and maintenance in condition for immediate future uses. It is essential, for example, that the battery solution adhering to the surfaces of the hydrometer after use shall not come in contact with any objects which might be adversely affected by acid, while it is essential also that the hydrometer be kept continuously in a clean and dust-free condition in order that there may be no contamination of the battery cells by foreign matters.

By the present invention, I provide simple and effective means whereby the hydrometer may be utilized in conjunction with any suitably sized container or receptacle so that the latter may form a substantially dust-proof housing for the hydrometer, the invention also permitting a normal association of the hydrometer with or submersion in distilled water which is constantly required for maintaining the supply of electrolyte in storage battery cells.

With reference to the drawings, I have illustrated in Fig. 1 a hydrometer made in accordance with my invention and in association with a well known and readily available type of bottle. In this instance, the hydrometer is in all essential respects similar to the hydrometer of normal construction, with the exception that the rubber bulb 1 at the upper end of the hydrometer is so formed as to provide a shoulder 2 on the under side which, when the hydrometer is suspended in the bottle 3 as illustrated, bears upon the upper edge of and effectively closes the latter. While the shoulder 2 is shown in the present instance substantially flat, the under side of the bulb or shoulder 2 may be slightly concaved in order to even more effectively cover the top of the bottle and to preclude the possibility of dust entering the latter.

It is believed highly desirable that the device be so constructed as to render the hydrometer applicable to any common form of bottle, such as that illustrated, and, in fact, any receptacle whose top is sufficiently small to render it adaptable for the purpose, and the invention essentially resides in the provision of a hydrometer so constructed as to render it generally applicable to the common and readily available form of container in the manner described.

The device will be found particularly desirable, in that it provides a simple and efficient storage means for the hydrometer between periods of use of such nature as to maintain the hydrometer in a proper working condition.

It is preferred to keep in the container a supply of distilled water which is in constant demand in connection with storage batteries, thus providing a readily available supply of this fluid, and by the submersion of the lower end of the hydrometer in the liquid maintaining the hydrometer entirely free from contaminating dust or other foreign matters.

It will be obvious that the hydrometer may be utilized as a means for injecting the distilled water in the battery cells.

The device renders the hydrometer particularly desirable for use in connection with radio batteries which are often located in living rooms and places where the escape of the acid electrolyte might cause considerable damage, and provides a means for keeping

the hydrometer in readily available places without danger of the escaping acid causing damage.

I claim:

A hydrometer comprising an open-ended tubular body having attached to one end a hollow bulb, the interior of which communicates directly with the hollow tube, the wall of said bulb where the latter joins the said tube being extended transversely in a plane substantially perpendicular to the longitudinal axis of said tubular body to thereby form a flat surface adapted to seat squarely upon the top edge of a suitable container to support the tubular body within the container and to effectively seal the latter.

WALTER RIPPIEN.