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PATENTED APR. 2, 1907.

C. S. KAUFMANN.  
RECEPTACLE FOR STORAGE BATTERY PLATES.

APPLICATION FILED SEPT. 26, 1904.

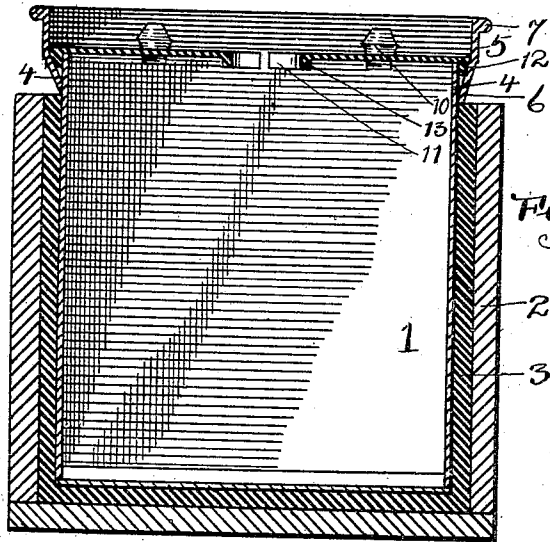


Fig. 1

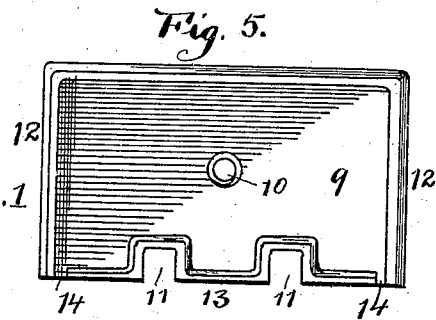


Fig. 5.

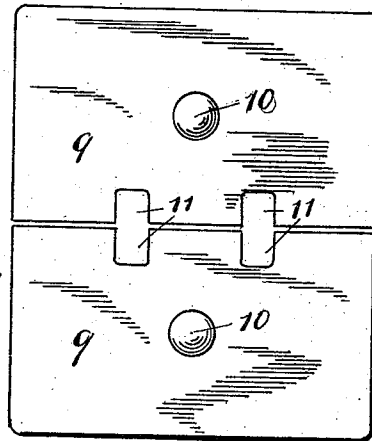


Fig. 3.

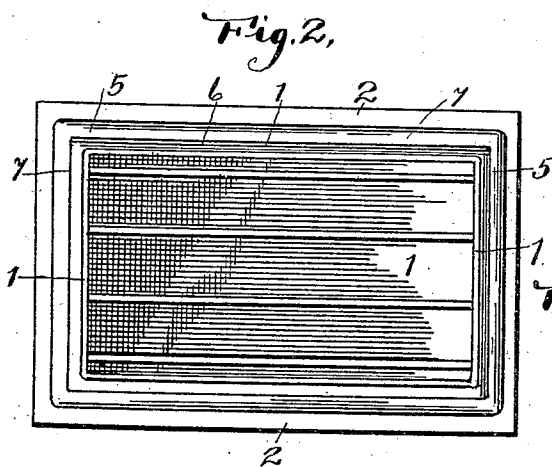


Fig. 2.

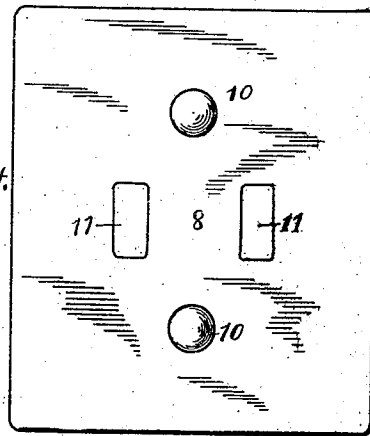


Fig. 4.

Witnesses:  
William P. Bond  
Oscar W. Bond

Inventor  
Charles S. Kaufmann  
By Bauning Bauning  
Attys.

# UNITED STATES PATENT OFFICE.

CHARLES S. KAUFMANN, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN BATTERY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## RECEPTACLE FOR STORAGE-BATTERY PLATES.

No. 848,996.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed September 26, 1904. Serial No. 226,097.

*To all whom it may concern:*

Be it known that I, CHARLES S. KAUFMANN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Receptacles for Storage-Battery Plates, of which the following is a specification.

The invention is intended and adapted more especially for use on railway-trains; and the object of the invention is to provide a receptacle or retainer for the battery fluid which will be so constructed as to prevent the slopping over of the fluid due to the jolts or jars incidental to the operation of the train and at the same time enable access to be had to the interior of the receptacle for purposes of renewal or repair.

Another object of the invention is to so arrange the parts as to provide for perfect insulation at all points, thereby obviating the possibility of short circuits, which would of course be injurious to the battery and to the electrical system.

Another object of the invention is to provide a cover or closure for the tank or receptacle which will be more easy to remove and replace than the closing appliances ordinarily used under similar circumstances.

A further object of the invention is to strengthen and reinforce the tank containing the battery fluid and cover therefor, so that the device will have a longer life and will be stronger and more durable than ordinary appliances of a similar nature.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings illustrating the invention, Figure 1 is a longitudinal sectional view of the receptacle; Fig. 2, a top or plan view; Fig. 3, a top view of the cover as formed in sections; Fig. 4, a modified form of cover, and Fig. 5 an under face view of one of the sections of the cover of Fig. 3.

The receptacle consists of a metallic inner tank 1, which is preferably rectangular in form and of any suitable dimensions. The tank is inclosed within an outer sheath or casing 2 of wood or other protective material, and said protective sheath is of a size to leave a considerable space between the sheath and

the tank, which space is filled with an insulating compound 3, which thoroughly protects and insulates the inner tank at all points around its sides and bottom. The upper edge 4 of the tank is projected slightly above the top of the surrounding sheath, and around the projected edge is a metallic strip 5 of greater diameter than the projected edge of the tank, and said strip is provided around its lower edge with a converging rim 6, which abuts against the wall of the tank a slight distance below the upper edge and forms a V-shaped groove or channel entirely around the top of the tank, although it is obvious that the particular shape of the strip 5 may be varied somewhat without in any way changing the character of the invention. The strip 4 is preferably beaded or reinforced around its upper rim 7, which enables it to maintain its shape and preserves the projected rim of the tank from injury.

The tank is closed by means of a cover 8, of suitable insulating material, such as hard rubber, &c., which cover is preferably formed in sections 9, each of the sections being provided with knobs or handles 10 for removing the cover and, further, provided with recesses 11, which are adapted to coincide with one another when the two sections of the cover are brought together to form slots or openings for the projection therethrough of the terminals of the battery-plates, which of course may be of any suitable character and form no part of the present invention. The sections of the cover are provided with an outer wedge-shaped rim 12, which extends around the upper end and sides of the sections, and the inner or abutting edges of the sections are provided with a rim 13, which follows the configuration of the edge of the section and is cut away at its opposite ends to leave open spaces 14 adjacent to the rim 12. The sections of the cover are fitted onto the upper rim of the tank, and the wedge-shaped flanges fit down into the V-shaped groove or channel, the openings 14 permitting the sections to be pressed closely and tightly into place. The integral cover shown in Fig. 4 is similar in every respect to that heretofore described, except that the ring 12 is continuous and unbroken and extends entirely around the edge of the cover.

The arrangement is one which enables the sections of the cover to be easily withdrawn without disturbing the terminals of the plates or the wires connected thereto, and the wedge-shaped rim forms a tight seal around the tank, so that it will be impossible for the battery fluid to be slopped over under any usual or ordinary circumstances. In order for liquid to escape, it will be necessary for it to pass over the edge of the inner tank and down into the V-shaped groove around the tank and then back outside of the wedge-shaped flange and over the top edge of the protective strip 4. The invention is one which dispenses with the cumbersome and unwieldy fastening appliances usually employed under similar circumstances and enables access to be readily had to the interior of the tank without the necessity for unfastening and removing heavy lids or covers.

The outwardly-flaring strip around the top of the tank serves as a reinforcement and protection for the upper edge of the tank proper, which is preferably formed of soft metal and would otherwise be liable to injury when subjected to the stress of hard usage. The flange around the edge of the cover or sections thereof serves to prevent the cover from being cracked or broken, and said cracking or breaking would be very liable to occur in covers composed of hard rubber or similar brittle material were it not for the presence of the flange or rim, which serves as a strengthening device, as well as for the sealing purpose heretofore mentioned.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a receptacle for storage-battery plates consisting of a tank, an outwardly-flaring protective strip secured to the top of the tank below the edge thereof and upwardly extending above the edge, said strip having a straight upper edge and an inwardly-diverging lower edge and forming a groove or channel in conjunction with the tank, a removable cover provided with a wedge-shaped flange adapted to fit over the top of the tank and have the wedge-shaped flange fit into the groove or channel, and a protective sheath extending around the body of the tank, substantially as described.

2. In a receptacle for storage-battery plates consisting of a tank, an outwardly-flaring protective strip secured to the top of the tank below the edge thereof and upwardly extending above the edge, said strip having a straight upper edge and an inwardly-diverging lower edge and forming a groove or channel in conjunction with the tank, a cover provided with a wedge-shaped flange adapted to fit over the top of the tank and have the wedge-shaped flange fit into the groove or channel, and a protective sheath extending around the body of the tank and separated therefrom by a filling of insulating material, substantially as described.

CHARLES S. KAUFMANN.

Witnesses:

SAMUEL W. BANNING,  
WALKER BANNING.