Sept. 21, 1937. A. M. UPTON 2,093,583

CASE FOR STORAGE BATTERIES

Filed Sept. 17, 1935

FIG. 1

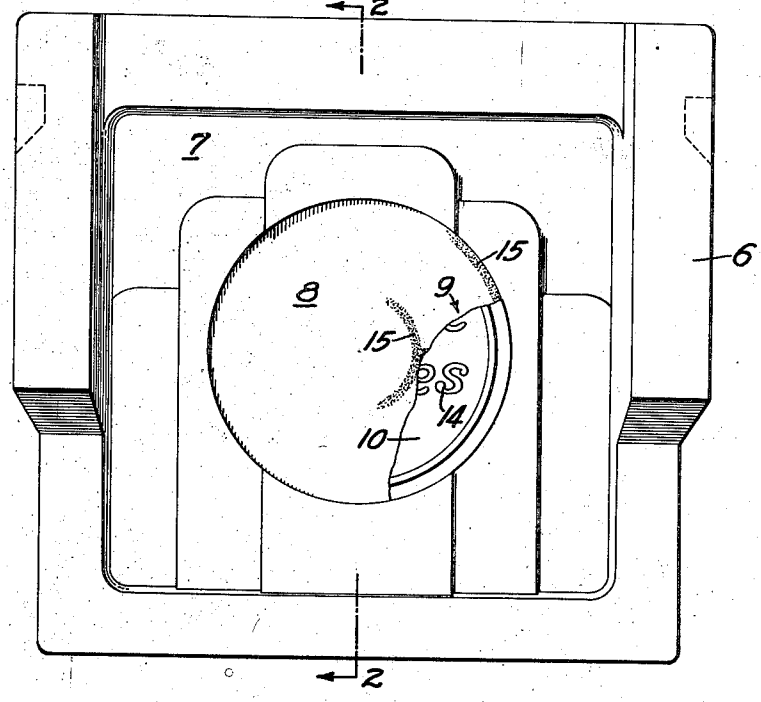


FIG. 2

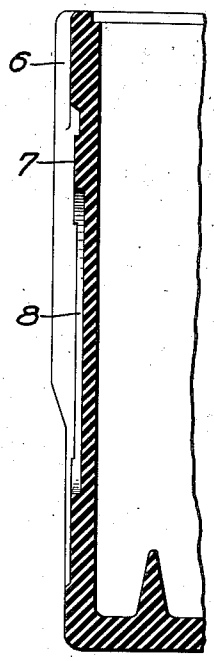


FIG. 5

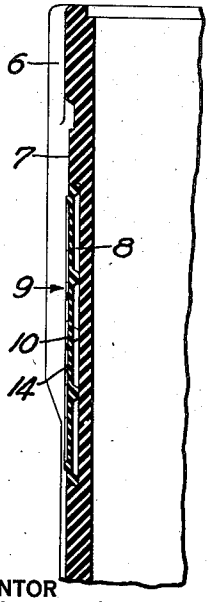


FIG. 3

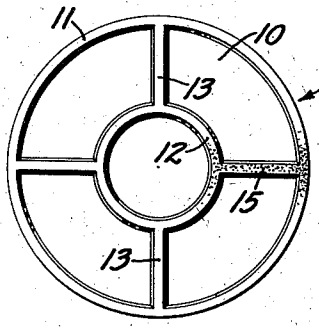
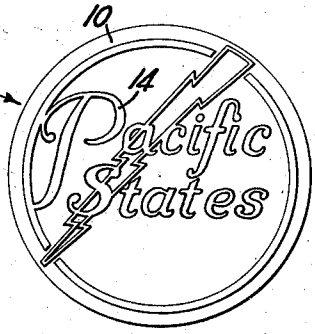


FIG. 4



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CASE FOR STORAGE BATTERIES

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1 Claim. (Cl. 40—2.2)

This invention relates to the cases used in storage batteries and particularly to the formation thereof, which permits disks bearing labels, or other identifying insignia, to be inserted in a surface of the case, and when said disks are inserted they will conform to the contour of the surface and appear as an integral part of the case.

It is an object of the invention to provide a standard case for storage batteries, to which may be applied any of the identifying insignia of the various distributors, which will render unnecessary the stocking by the manufacturer, of a great number and variety of cases which permanently carry the insignia.

Another object of the invention is to provide an insert label for the purpose stated above, which will maintain its shape and position on the battery case indefinitely.

Still another object of the invention is to provide means for adhesively securing the inserts in the battery cases which will permit if necessary, the ready removal of the insert from the case.

The invention possesses other valuable objects and features of advantage, some of which, together with the foregoing, will be specifically set forth in the detailed description of the invention which follows; however it is to be understood that the invention is not to be limited to the particular species thereof shown and described herein, as various other embodiments thereof may be employed within the scope of the appended claim.

Referring to the drawing:

Figure 1 is a front elevation of a battery case in which the label insert is adapted to be used. A fragment of the insert is shown in the recess.

Figure 2 is a vertical sectional view of a portion of the battery case. The plane of section is indicated by the line 2—2 of Figure 1.

Figure 3 is a plan view of the reverse side of the label insert.

Figure 4 is a plan view of the obverse side of the label insert.

Figure 5 is a vertical sectional view, similar to Figure 2, showing the label insert in place in the recess.

Most of the cases for storage batteries in use at the present time are of the molded type composed of hard rubber, or another like substance, and usually bear the trade name or other insignia, of the battery manufacturer, this label being permanently molded into the wall of the case during the manufacture thereof.

Most manufacturers, particularly the smaller ones, follow the practice of placing the name or trade-mark of the dealer who orders the batteries on the cases thereof as this is good sales policy and serves to direct the user of the battery, when the latter is in need of servicing or repairs, to the dealer from whom the battery was originally purchased.

Either of two methods may be employed in so marking the battery cases. In the first instance, the mold, in which the cases are formed, may be supplied with removable inserts, each carrying the various names or insignia so that the cases, when completed, will carry the lettering or markings, inscribed on the inserts, permanently molded therein. The other method is to provide in the completed case, a flat surface to which paper or metallic labels, or decalcomania transfers, may be attached.

Manufacturers who employ the first of these methods must obviously carry a considerable stock of cases on hand in order to be prepared to supply properly marked batteries to the dealers upon demand of the latter. This means that considerable of the manufacturer's capital is tied up, and in the event of failure of a particular dealer, or due to fickleness on the latter's part in placing orders for batteries elsewhere, the manufacturer finds himself with cases on hand which he cannot dispose of, consequently he must face a loss.

The second of these methods, while not requiring that the manufacturer stock a large number of cases, does not satisfy the dealer, since the attached paper or decalcomania label, does not make as impressive an appearance as the lettering molded directly into the case and furthermore the label is, due to its nature, quite liable to become scarred or disfigured in handling of the battery. Another undesirable feature in connection with the adhesively applied labels, is that moisture, to which the battery may be subjected while in use, will cause separation of the label from the case and thereby strip the battery of ready means of identifying its manufacturer, and rob the dealer of the advertising which the label afforded him.

It was to overcome these difficulties that the battery case of the present invention was developed, the detailed description thereof being here given. In Figure 1 is shown a standard molded battery case 6 having a front wall 7 in the surface of which is provided a preferably circular recess 8. Into this recess may be placed the label insert 9, shown in Figures 3 and 4. This insert com-

prises a disk 10, molded preferably of hard rubber, provided with a peripheral rim 11, a central annular rib 12 and a plurality of radially disposed ribs 13 joining the rib 12 and the rim 11. The other side of the disk 10, as is shown in Figure 4, may be provided with lettering 14 molded thereon.

The method of applying the label insert may be understood upon reference to Figure 5, the exact steps being first, to apply to the upper surface of the ribs 11, 12 and 13, an adhesive 15, which may be any of the well known types of bituminous or resin base cements, and then pressing the insert into the recess 8 so as to cause the cement on the ribs to contact the bottom surface of the recess and securely attach the insert to the case.

In the event that it is desired to permanently attach the insert to the case, the cement used may be of the type containing a rubber solvent, or one which will soften temporarily the material of the case and insert, so that the contacting surfaces will be permanently bonded together upon solidification of the softened material.

The reason for the preference in the use of a bituminous or resinous cement is to provide for easy removal of the label insert when desired. In a great many instances batteries that have been ruined due to plate warpage, separator breakdown or other causes, are found to possess cases that are in excellent condition and if they are of the type incorporating the principles of this invention, may be salvaged and relabeled for sale as light service or emergency batteries. This relabeling may be accomplished by the application of local heat to the insert to soften the cement whereupon the old insert may be removed and replaced with a new one.

The purpose of the ribs 11, 12 and 13 of the insert is not only to provide for adhesion of the insert in the recess with the use of a minimum amount of cement, but also to reinforce the disk 10, since molded hard rubber is notorious for warping when exposed to sunlight and the elements unless it is properly braced against such warpage.

It will be apparent that battery manufacturers who use the battery case and insert of this invention are enabled to carry a considerable stock of cases on hand, since they have a definite resale value, being devoid of any markings, and if the manufacturer found himself overstocked they could be disposed of to other manufacturers. The only pieces which would have no value other than to the dealers or customers whose names or insignia they carry, are the inserts and these may be produced so economically that as stated above, should the customer go out of business or decide to purchase his batteries elsewhere, the loss incurred to the manufacturer by such action would be very small.

What is claimed is:

A case for storage batteries having a recess in the surface of a wall thereof and a disk having lettering on a surface thereof, disposed in said recess, said disk having a peripheral rim provided with a surface spaced from the surface of said disk and a plurality of radially extending ribs each having a surface lying in the plane of the surface of said peripheral rim, said disk being cemented into said recess with said cement being disposed only between the surfaces of said ribs and said peripheral rim and the bottom of said recess.

ALBERT M. UPTON.