Nov. 9, 1937. T. A. W. THOMAS 2,098,557

RECEPTACLE AND IDENTIFICATION CARRIER THEREFOR

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FIG. 1.

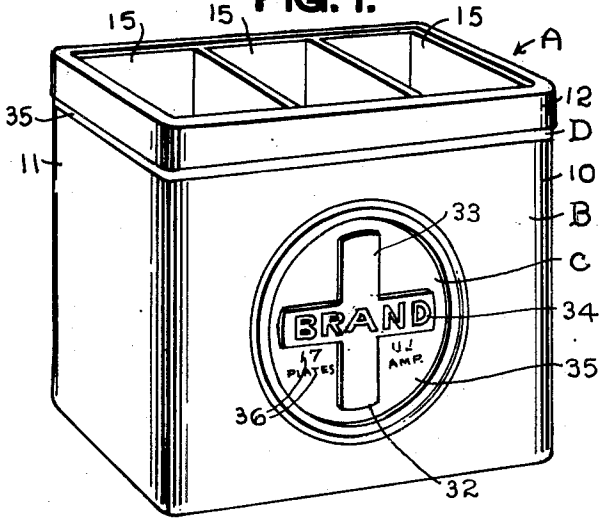


FIG. 2.

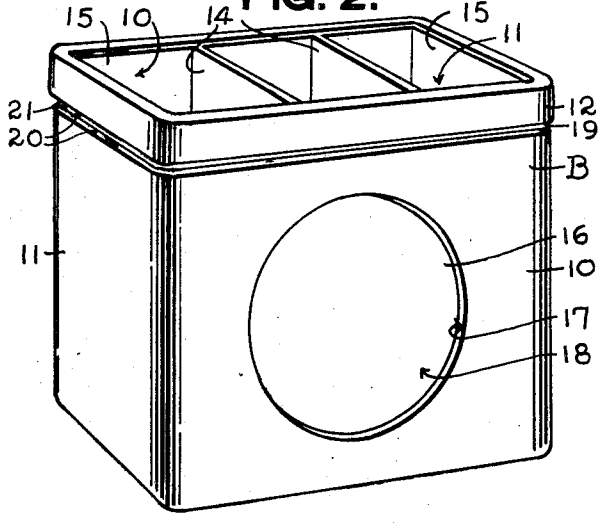


FIG. 3.

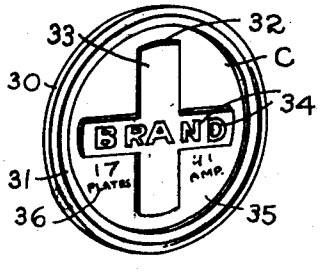
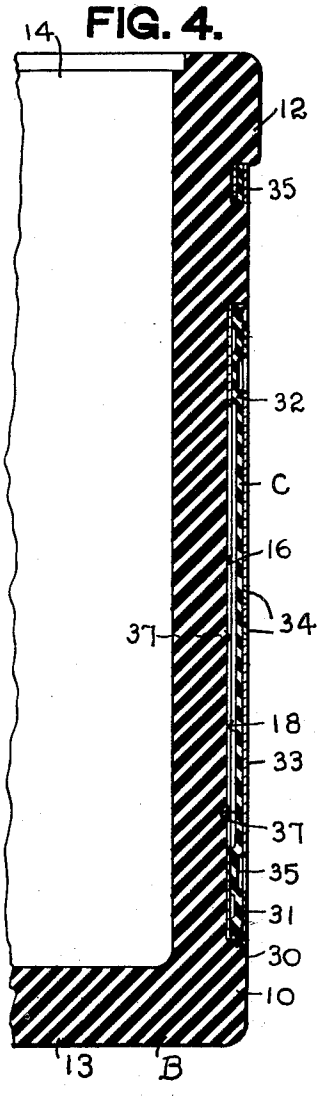


FIG. 4.



INVENTOR.

Thomas A.W. Thomas

BY Lancaster, Allwine and Rommel

ATTORNEYS.

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FIG. 5.

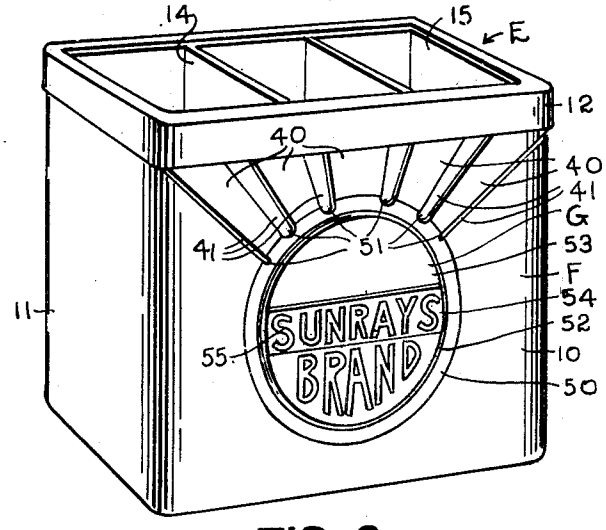


FIG. 8.

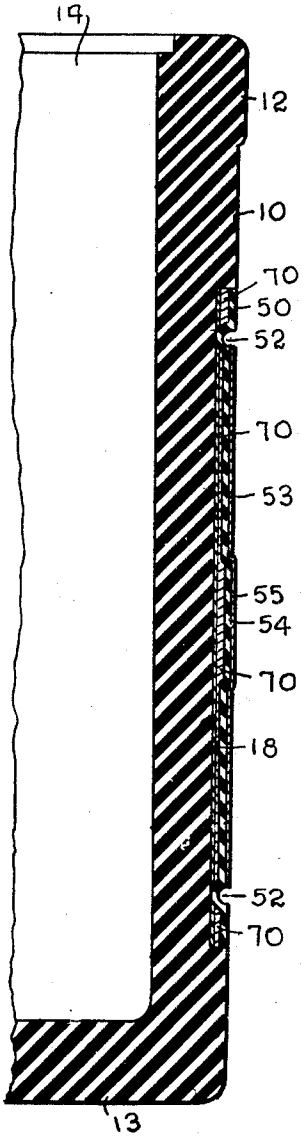


FIG. 6.

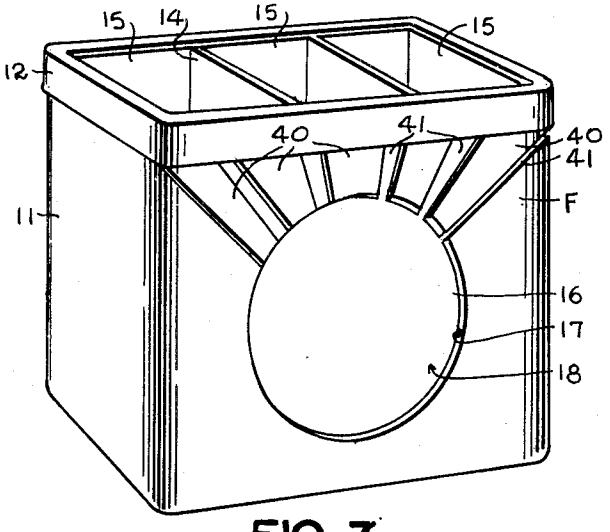
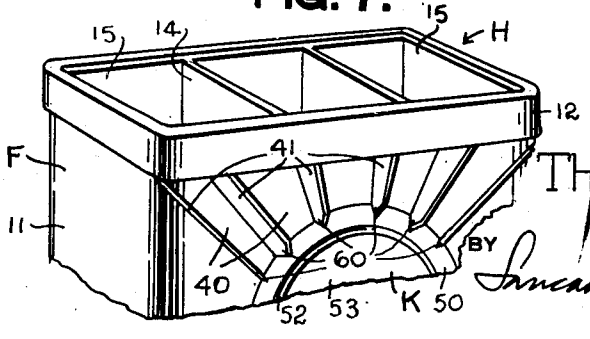


FIG. 7.



INVENTOR,
Thomas A. W. Thomas
BY
Lancaster, Allwine & Rommel
ATTORNEYS.

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UNITED STATES PATENT OFFICE

2,098,557

RECEPTACLE AND IDENTIFICATION CARRIER THEREFOR

Thomas A. W. Thomas, Los Angeles, Calif., assignor to States Batteries Ltd., Los Angeles, Calif., a corporation of California

Application November 11, 1935, Serial No. 49,309

5 Claims. (Cl. 40—2.2)

This invention relates to receptacles and more particularly to receptacles adapted to contain corrosive and similar fluids, and reference is directed to applicant's co-pending application, Serial Number 49,310, filed November 11, 1935, which also relates to receptacles and identification carriers therefor, and wherein said identification carriers are moulded.

Such receptacles are, for example, storage battery jars, which are composed, almost always, of a hard-setting, dielectric and acid-resistant composition of matter. For the purpose of easily distinguishing one make of storage battery from another, such jars are ordinarily marked by a design, symbol or other indicia disposed upon their outer surfaces. Where a manufacturer of storage batteries has a volume of private brands business, he must carry on hand a number of different battery jars, each lot being provided with a distinctive symbol, design or indicia so that each lot may be easily distinguished from the others, but it would be desirable for such a manufacturer to carry only one jar stock on hand and, as required, without altering the surfaces of the jars, place upon a desired lot thereof, identification carriers adapted to become permanent parts of the jars and which will distinguish them from others. Thus, the manufacturer may carry one stock of jars but many different identification carriers adapted to become parts of any lot of the jars.

The primary object of the invention is to provide such rigid jars and identification carriers.

Another object is to provide such an identification carrier which may be composed of the same, or substantially the same, material as that making up the rigid receptacles, so that both the receptacle and the identification carrier will be equally acid-resistant, readily joined to become substantially an entirety and the distinguishing marks, symbols, designs or indicia of the identification carriers will blend into the symbols, designs and indicia of the stock jars.

Another object is to provide such an identification carrier which may be printed upon, very easily, as distinguished from being stenciled.

Still another object is to provide an embossed identification carrier for the purposes mentioned, which carrier may be cheaply manufactured and sold at a low price.

Another object is to provide an identification carrier, according to the last paragraph, but with the carrier strengthened or reinforced by a backing material.

Other objects and advantages of this invention will be apparent during the course of the following detailed description, taken in connection with the accompanying drawings, forming a part of this specification and in which drawings:—

Figure 1 is a perspective view of a receptacle provided with an identification carrier.

Figure 2 is a perspective view of the same receptacle before it is provided with the identification carrier.

Figure 3 is a perspective view of an identification carrier adapted for the receptacle shown in Figure 2.

Figure 4 is a vertical section through the receptacle and identification carrier of Figure 1.

Figure 5 is a perspective view of a modification of the receptacle and identification carrier of Figure 1.

Figure 6 is a perspective view of the modified receptacle shown in Figure 5.

Figure 7 is a fragmentary perspective view of the modified receptacle of Figure 6, but with a different identification carrier than that shown in Figure 5.

Figure 8 is a vertical section through the receptacle and identification carrier of Figure 5, the identification carrier having a reinforcing backing.

In the drawings, wherein for the purpose of illustration is shown a preferred and modified form of the invention, and wherein similar reference characters designate corresponding parts throughout the several views, the letter A may designate the complete assembly as shown in Figure 1, the letter B the receptacle of Figures 1, 2 and 4, C the main identification carrier of Figures 1, 3 and 4, D an auxiliary identification carrier of Figures 1 and 4, the letter E the complete assembly shown in Figure 5, F the receptacle of Figures 5, 6, 7 and 8, G the identification carrier of Figure 5, H the complete assembly shown in Figure 7, and K the identification carrier of Figure 7.

The identification carrier of Figure 8 may be either G or K.

The complete assembly A is shown as composed of B, C and D, but it may be composed of simply B and C or B and D, altho it is desirable that it compose B, C and D or B and C.

As for the receptacle B, this is a rigid container, such as a storage battery jar or box having, in the main, the conventional shape of battery jars and is provided with paralleling side walls 10 and end walls 11, each terminating at its upper end by an outwardly extending shoulder 12. The jar is also provided with a bottom wall 13, the usual par-

titions 14 and cover, with vents and covers for the vents (not shown, but conventional construction). Consequently, there is provided a plurality of compartments or chambers 15 in the receptacle B. From this point, the description of the receptacle B differs from the description of ordinary battery jars, for one or more of the walls may be provided with a recess 16 of any approved shape. In the example shown, this recess 16 is circular, but it may be rectangular, diamond-shaped, oval or the like. There is provided, by this recess 16, a circular wall or surface 17 and a substantially flat surface 18. The recess 16 is preferably quite shallow, as shown in Figure 4. In addition to the recess 16 the receptacle B may be provided with an auxiliary recess 19, preferably disposed just below the shoulder 12 and extending all about the receptacle. The recess 19 may have paralleling side walls 20 and a flat bottom surface 21 forming, with the side walls 20, right angles. The receptacle B is preferably of a dielectric and acid-resistant material such as, for example, that described in U. S. Patent #1,752,917, patented April 1, 1930.

Now as for the identification carrier C, the same is of a shape and size to fit snugly within the recess 16, with its rim 30 preferably flush with the outer surface of the wall of the receptacle B, as may be seen from Figure 4. Since the composition of matter described in the above identified U. S. patent may be employed, with the addition of a suitable felting material, as a roofing paper, the identification carrier may be of a section of such roofing paper, suitably embossed, finished and printed or stenciled as desired. In the example shown, the identification carrier C is embossed by having the portion immediately inward of the rim 30 raised, as by pressure, forming a distinguishing mark, such as a circular band 31 and, inwardly of the band 31, the central portion is raised, forming a symbol, such as the cross 32. Overlying the cross may be suitable coloring material 33 and lettering indicia 34, each in a different color. The band 31 may also be suitably colored and the flat surface 35 between the embossed band 31 and embossed cross 32 may contain other printed or stenciled indicia, such as shown, by way of example, at 36. It will be noted in Figure 4 that the rim 30 is flush with the outer surface of the receptacle wall, and that there is a surface 37, i. e., a portion of the inner face of the identification carrier, which will face the flat surface 18 of the recess 16.

The auxiliary identification carrier D is preferably a pliable strip or ribbon of material, which may be the same material as that employed by the identification carrier C, and this is of a width, thickness and length to snugly fit into the auxiliary recess 19, with the sides of the auxiliary identification carrier D in contact with the walls 20 and the inner surface of the auxiliary identification carrier facing the bottom surface 21 of the recess 19. The identification carrier D may be suitably colored, such as by an acid-resistant paint 35, or the like, on its outer face so as to form a distinguishing ribbon of a color different from that of the receptacle B.

A suitable means to secure the identification carrier C and/or D to the receptacle B is by employing a solvent for asphaltum, such as turpentine. Preferably a small proportion of asphaltum is first mixed with the solvent and this mixture applied to the back of the identification carrier C and/or D whereby the carriers are pressed into their correct positions in the recesses and the solvent will soon unite the carriers and receptacles together. In fact, it is not difficult to handle the placing of the identification carriers so that they will appear to be an integral part of the complete assembly A. In place of the asphaltum solvent, any suitable adhesive may be employed. It will be noted in Figure 4 that the inner surfaces of the embossed portions of the identification carrier C are spaced from the flat bottom surface 18 of the recess 16.

The complete assembly E, shown in Figure 5, is illustrated as composed of the receptacle F and identification carrier G.

The receptacle F, shown particularly in Figure 6, differs from the receptacle B, shown in Figure 2, in only two respects so that, insofar as the receptacles B and F are concerned, similar reference characters designate the same parts in both forms B and F. Form F differs from form B in omitting the auxiliary recess 19 of form B but includes what may be termed identification marks or indicia 40, illustrated as rays, formed by suitably grooving the receptacle F as shown at 41. It will be noted in Figure 6 that these grooves 41 extend to and open into the recess 16.

As for the identification carrier G of the complete assembly E, it is, in the main, similar to the identification carrier C, but the material making up the identification carrier G is somewhat differently embossed in that, in this case, the surface of the material is raised at its margin to form a circular band 50 having a suitable number of arcuate depressions 51 to match the grooves 41 so that, when properly positioned, the depressions 51 will form continuations of the grooves 41, as shown in Figure 5. Inwardly of the band 50, the material is depressed into a substantially circular groove 52 and then raised into a central portion 53, the band 54 across the central part of the portion 53 being slightly raised. As an example, the band 50 and the groove 52 may be uncolored or of the same surface coloration as that of the receptacle F, the central portion 53 may have stenciled or printed upon it a suitable color and the band 54, with its indicia 55, may be stenciled or printed in another color or colors. All the above description of the embossing of the identification carrier G is given by way of example, since there may be numberless variations of the embossing arrangement.

A variation is shown in Figure 7, which illustrates the complete assembly H, composing the receptacle F and a suitable identification carrier K.

The identification carrier K may differ from the identification carrier G only in the shape of the depressions 60 of the identification carrier K which are angular instead of arcuate, as are the depressions 51 of the identification carrier G. However, it is apparent that the indicia 53 may be omitted in the identification carrier K or altered, for example to read Nippon. Figure 7 illustrates how well the angular depressions 60 form continuations of the grooves 41 of the receptacle F.

In the event there is a considerable surface of the identification carrier embossed, as shown in the identification carriers G and K, the embossed surface may be reinforced by the use of a suitable material 70, filling in the depressions, as viewed from the inner faces of the identification carriers. This material may be asphaltum, putty or plaster of Paris, and it is preferably so disposed within the depressions that its surface

at the inner face of the identification carrier is smooth and level with the unembossed portions of the carrier.

The identification carriers G and K may be secured to the receptacle F in any suitable manner, such as has been mentioned, just so that the two are well united.

From the foregoing it is seen that an inexpensive but effective identification carrier is provided, having raised surfaces secured by the cheap but effective embossing process, constructed from a pliable material composed wholly or in part of acid-resistant material, the material being in part similar to that of the rigid receptacle to which the identification carrier is to be attached. However, the identification carrier may be of any suitable roofing paper having acid-resistant qualities and wholly of a different material than that of the specific acid-resistant material of the rigid receptacle. What is provided is an acid-resistant identification carrier adapted to form a part of an acid-resistant, rigid receptacle, the identification carrier, when properly disposed, forming a permanent continuation of the outer surface of the receptacle. The identification carriers are, in no sense, the equivalent of ordinary paper or decalcomania labels, which have been found unsatisfactory, for many reasons, as labels for storage battery jaws.

The expression "embossed identification carrier" is intended to mean: a carrier which has identification indicia or delineations thereon which have been caused to swell or protrude from the surface in contradistinction to a molded identification carrier formed from plastic material.

The expression "embossing process" is intended to mean a process whereby raised indicia is provided by stamping or rolling in contradistinction to molding from plastic material as set forth in my aforesaid application, Serial Number 49,310.

Processes other than stenciling may be employed in placing suitable coloring matter or indicia on the novel identification carriers, since the material provided is initially not unlike a heavy paper, light in weight and easily handled for printing and embossing.

Many different designs of identification carriers may be carried by the storage battery manufacturer, the same occupying when stacked but small space and available for quick and easy attachment to the battery jars or completed batteries.

Various changes may be made to the forms of the invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.

What is claimed is:

1. In a storage battery jar, a container having rigid outer walls, at least one of said walls being provided with a recess in its outer face and the contour of said face being broken, providing indicia projecting to one side of the plane of said face, and an embossed identification carrier disposed within said recess and secured to the wall of said container, at least a portion of the embossing upon said identification carrier forming a continuation of said first-named indicia, said identification carrier being of acid-resistant material.

2. In a storage battery jar, a container of acid-resistant material having rigid outer walls, at least one of said walls being provided with a recess in its outer face and the contour of said face being broken, providing identification indicia projecting to one side of the plane of said face and leading to said recess, and an embossed identification carrier comprising a section of material of substantially the same acid-resistant qualities as said container, said carrier having an outer surface with portions of said material extending beyond the plane of said outer surface and continuing said identification indicia over a portion of said identification carrier.

3. In a storage battery jar, a container of acid-resistant material having rigid outer walls, at least one of said walls being provided with a recess in its outer face and the contour of said face being broken, providing identification indicia projecting to one side of the plane of said face and leading to said recess, and an embossed identification carrier comprising a section of felting impregnated with material of substantially the same acid-resistant qualities as said container, said carrier having an inner surface and an outer surface with portions of said section pressed out to extend beyond the plane of said outer face and continuing said identification indicia over a portion of said identification carrier, the embossed portion of said section being provided with a reinforcing material extending from the embossed inner face of said section to the plane of the innermost portion of said inner surface.

4. As an article of manufacture, an embossed identification carrier for an acid-containing receptacle having a recess adapted to contain said article of manufacture, comprising a section of felting impregnated with an acid resistant composition of matter, said section being adapted to form a portion of said receptacle, said carrier having an inner face adapted to face a surface of said recess and an outer surface with portions of said section extending beyond the plane of said outer surface and bearing identification indicia, whereby said receptacle may be distinguished from other receptacles otherwise similar except for said identification carrier.

5. As an article of manufacture, an embossed identification carrier for an acid resistant storage battery receptacle comprising a section of material of substantially the same acid-resistant qualities as said receptacle, said carrier having an inner surface and an outer surface with portions of said material pressed to extend beyond the plane of said outer surface, the embossed portions of said material being provided with a reinforcing in intimate contact with said material at the inner surface thereof and with said reinforcing extending to the plane of the inner surface of the unembossed portions of said material.

THOMAS A. W. THOMAS.