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BATTERY CELL CONTAINER AND TESTER

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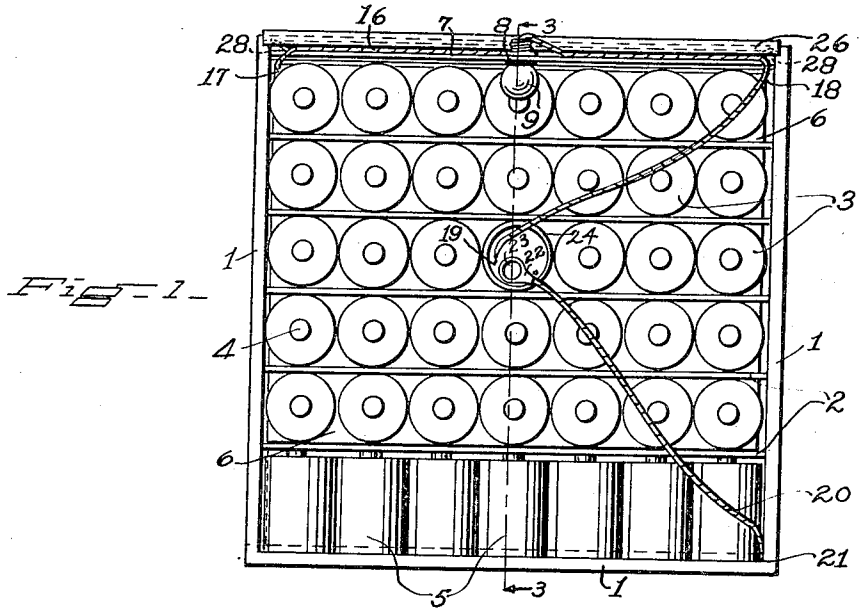


Fig. 1.

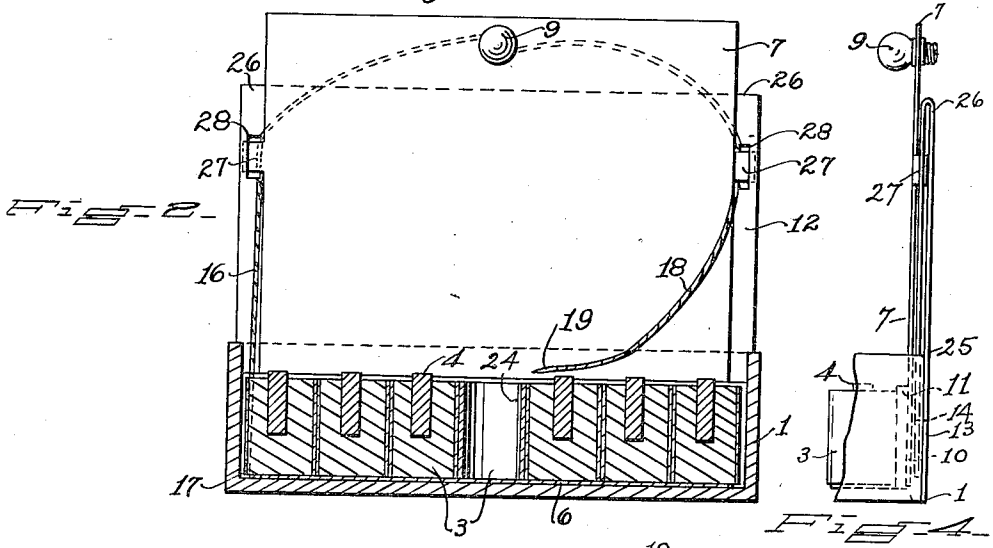


Fig. 2.

Fig. 4.

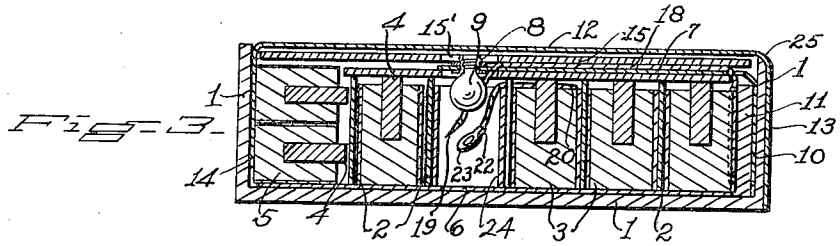


Fig. 3.

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BATTERY CELL CONTAINER AND TESTER

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4 Claims. (Cl. 175—183)

This invention relates to a device that comprises a container in which battery cells may be assembled, and other elements, by means of which the seller or prospective customer can very easily and quickly test any cell in the container before removing the cell.

In carrying out the invention a container is provided in which the cells may be packaged and shipped, after which the container can be opened and the elements for testing the cells individually are made readily accessible and at the same time flat surfaces are exposed to the customer upon which advertising matter or instructions may be displayed or written.

The invention will be understood from the description in connection with the accompanying drawing in which Fig. 1 is a plan view of the device in an open position; Fig. 2 is a front view of the same; Fig. 3 is a section along the line 3—3 with the cover of the device in a closed position and Fig. 4 is a section, partly broken away, showing parts in an open position.

In the drawing reference character 1 indicates a box or container that may be made of insulating material, such as cardboard, wood, synthetic resins, or other material that possesses sufficient strength and rigidity, or the container may be made of metal lined with insulating material.

The container 1 is provided with transverse partitions 2 dividing it into a plurality of compartments, in each of which a row of cells 3 may be placed with the positive terminals 4 upward. One or more rows of cells may be laid flat in any one or more compartments, as indicated at 5, if desired. The bottom of the container 1 is provided with metal 6 along the bottom. This may be in the form of a thin sheet of metal or wire mesh or thin strips of metal, or metal otherwise disposed in the bottom so that the bottom of each cell will make electrical contact therewith. In case the container is made of metal with its sides insulated the bottom is left with the metal exposed so that the cells will contact therewith.

A support 7 is provided for an electric light bulb socket 8 to accommodate the electric light bulb. The socket 8 may be of the well known type of screw shell socket having a center contact that is insulated from the shell which constitutes the other contact. The support 7 may be made of flexible insulating material, such as cardboard, for example, and the end 10 thereof is bent and frictionally held in place between a side of the container 1 and a transverse member 11 in the container.

A top or cover 12 is provided for the container 1, this cover being made of cardboard or other suitable insulating material that is flexible or can be bent. The bent end 13 of the cover 12 is attached to the container 1 in any convenient way and its opposite end is bent, as indicated at 14, to lie along the inside surface of a wall of the container 1 when the cover 12 is in closed position. One or more loose sheets of cardboard 15 or the like may be placed over the cells or support 7, these sheets having openings 15', if desired.

An insulated wire 16 has one end thereof electrically connected to the metal 6, as for example by soldering it thereto, as indicated at 17. The other end of the wire 16 is connected to the shell terminal of the metal socket 8. One end of an insulated wire 18 is connected to the center contact of the socket 8 and the other end thereof is provided with a metal tip or contact member 19. A third insulated wire 20 may have one of its ends electrically connected to the metal 6 at the bottom of the container, as indicated at 21, the other end of this wire carrying a flat metal terminal or strip 22 that is provided with an opening 23 for an electric light bulb.

A cylinder 24 of insulating material, the size of one of the cells, may be placed in a row of cells to accommodate the electric light bulb 9 and the ends of the wires 18 and 20 when the container is closed.

The cover 12 may be opened by drawing the end 14 out and bending the cover along the line 25, after which the cover may be folded along a middle line, as indicated at 26, whereupon the end 14 may be thrust in between the end 10 of the cover 7 and the corresponding end of the container 1, thus making this cover a supporting or strengthening member for the lamp socket support 7 when it is in its open position. The support 7 is provided with tongues 27 (Fig. 2) along opposite edges thereof and the cover 25 is provided with correspondingly spaced slots 28 into which the tongues 27 are inserted when the parts are in open position to keep the support 7 attached to the open cover 12. The surfaces of the cover 12 and support 7, which are exposed to view when in open position may be provided with advertising matter or instructions for the users.

The entire device as shown in Fig. 3 may be enclosed in another box or protector when the container has been packaged with cells preparatory to shipment, this outer box or protector being removed before the container is opened.

The container is opened into the position shown in Figs. 1, 2 and 4 to expose the cells to the view of the customer and enable him to test

any cell he desires. The cells can be tested simply by touching the contact or terminal **19** to any positive terminal **4**, the circuit being completed through the corresponding cell, metal bottom **6**, wire **16**, lamp bulb **9** and wire **18**.

The wire **20** is also provided to enable the customer to test any cell. In doing this an electric light bulb is placed in the opening **23** in the strip **22** at the end of the wire **20**. The strip **22** acts as a carrier for the electric light bulb with its center contact exposed so that as soon as the lamp bulb held by the strip **22** is moved into position where its center contact touches a terminal **4** of one of the cells the circuit is completed through this lamp, as will be obvious, and the lamp will be lighted to indicate the condition of the cell.

I claim:

1. A battery cell container and tester comprising a box of insulating material, a sheet of metal along the bottom of said box, an electric lamp socket, a support of insulating material for said lamp socket associated with said box, a flexible electrical connection from said metal to one side of said socket, and a flexible electrical connection from the other side of said socket to the interior of said box.

2. A battery cell container and tester comprising a box of insulating material, conducting material along the bottom of said box, an electric lamp socket, a support of insulating material for said lamp socket associated with said box and foldable into said box, a flexible electrical connection from said metal to one side of said socket, and a flexible electrical connection from the other side of said socket to the interior of said box.

3. A battery cell container and tester comprising a box of insulating material, conducting material along the bottom of said box, an electric lamp socket, a support of insulating material for said lamp socket associated with said box, a flexible electrical connection from said metal to one side of said socket, a flexible electrical connection from the other side of said socket to the interior of said box, and a cover for said box adapted to be opened into position to aid in supporting said support.

4. A battery cell container and tester comprising a box of insulating material, conducting material along the bottom of said box, a plurality of battery cells in upright position on said conducting material, an electric lamp socket, a support of insulating material for said lamp socket associated with said box, a flexible electrical connection from said metal to one side of said socket, and a flexible electrical connection from the other side of said socket long enough to reach the upper ends of said cells.

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