Dec. 19, 1950 G. T. POWELL, JR 2,534,879

METAL BOTTLE CASE

Filed April 24, 1947 2 Sheets-Sheet 1

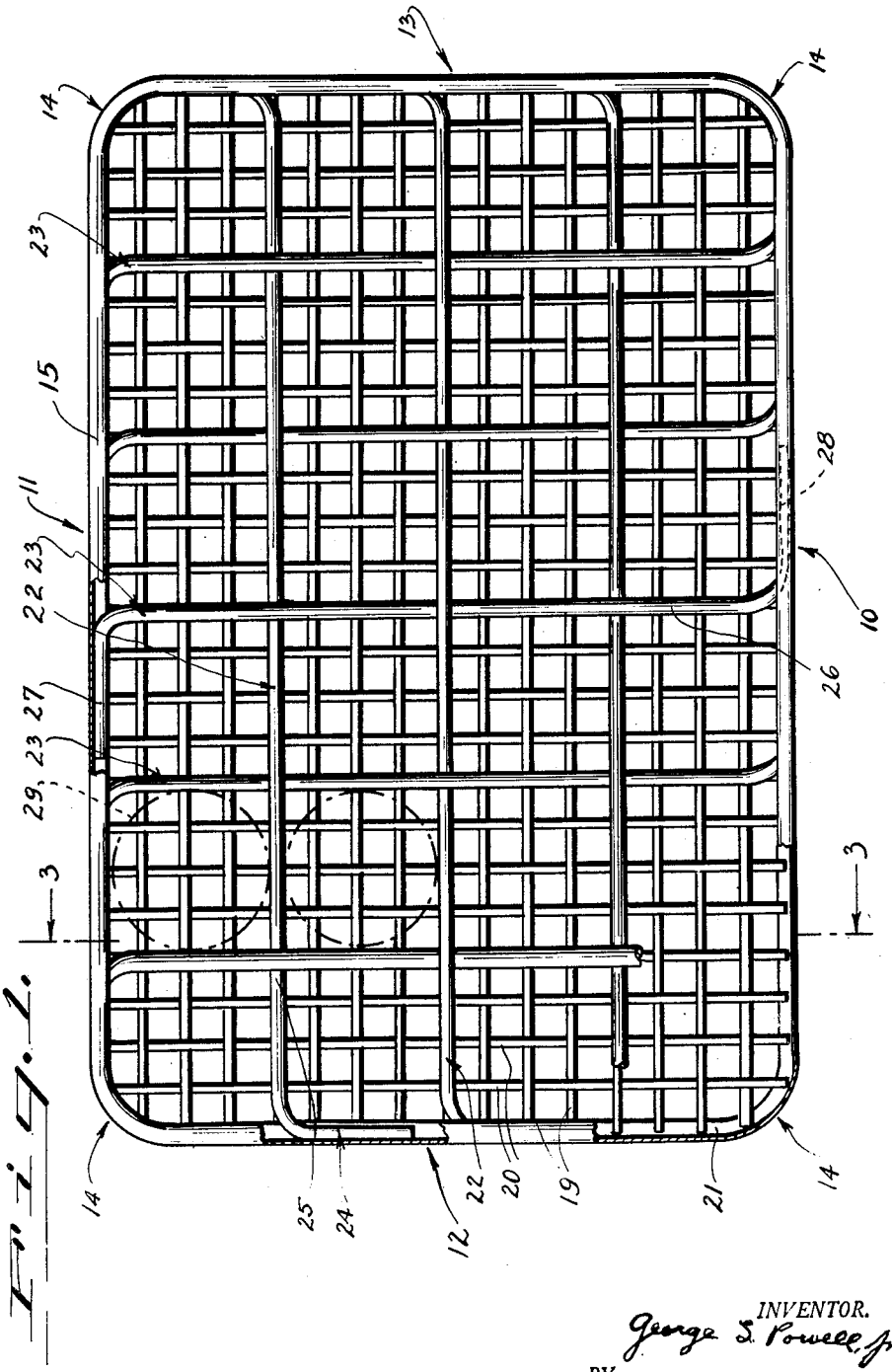


Fig. 1.

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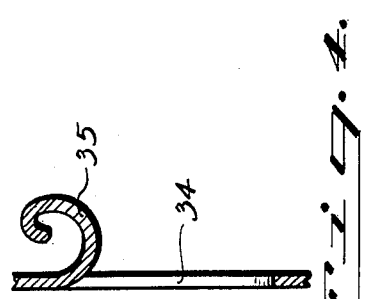


Fig. 4.

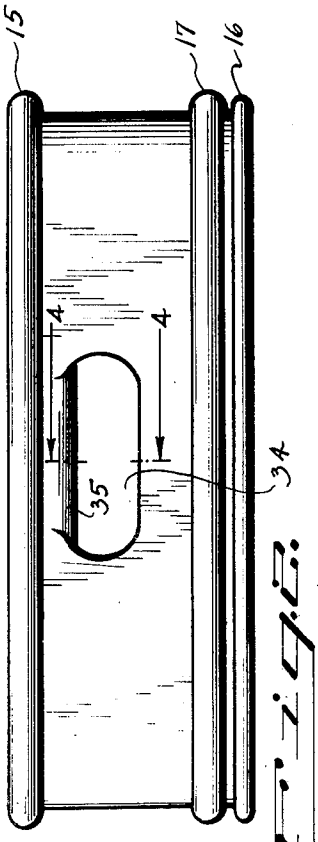


Fig. 2.

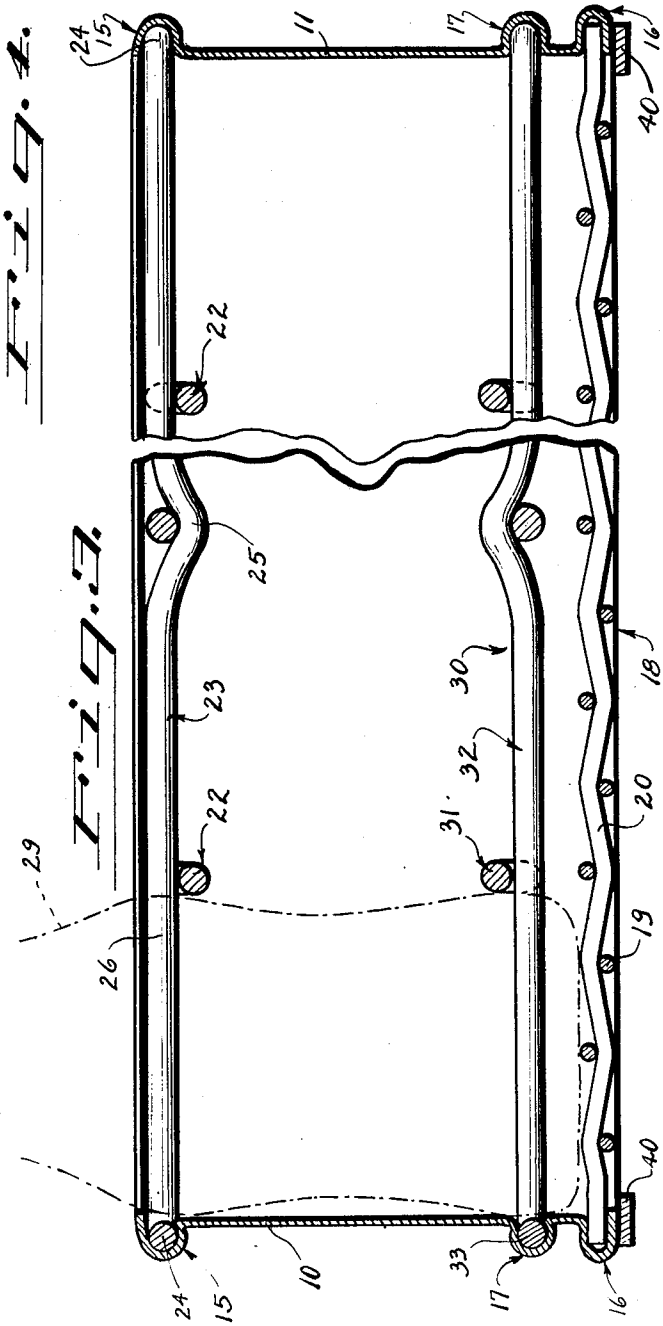


Fig. 3.

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Patented Dec. 19, 1950

2,534,879

UNITED STATES PATENT OFFICE

2,534,879

METAL BOTTLE CASE

George T. Powell, Jr., Louisville, Ky., assignor to Reynolds Metals Company, Richmond, Va., a corporation of Delaware

Application April 24, 1947, Serial No. 743,493

1 Claim. (Cl. 220—21)

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This invention relates to a case for transporting and handling bottled goods, such as bottles of soft drinks, beer, milk or other commodities.

A principal object of this invention is to provide a bottle case which provides individual compartments for the bottles and into which bottles may be loaded conveniently and easily and from which bottles therein may be easily and conveniently removed; which holds the bottles from hitting against each other and protects them from breakage; a case which is sturdy, durable and rugged as a whole and in its parts and in which the parts are of simple, durable and inexpensive construction and may be assembled easily, quickly, and inexpensively and the parts held firmly and securely against becoming loosened, displaced or detached; a case which is light in weight and easy to handle and which is capable of mass production at low cost; and a case which may suitably be made of aluminum.

Other objects of this invention will be in part obvious and in part pointed out hereinafter.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings forming a part of this application and illustrating certain possible embodiments of this invention and in which:

Fig. 1 is a plan view of a case embodying my invention, certain parts being shown broken away and the positions assumed by a pair of bottles when placed in the case being indicated by dot and dash lines;

Fig. 2 is an end view of the case;

Fig. 3 is a sectional view and is taken on the line 3—3 of Fig. 1; and

Fig. 4 is a sectional view showing a possible hand-hole construction and is taken on the line 4—4 of Fig. 2.

Similar reference characters refer to similar parts throughout the several views of the drawings.

As shown in the drawings, the case has an integral sheet metal body shaped to form the side walls 10 and 11 and end walls 12 and 13 with corners rounded as at 14. This body is formed with an outwardly protruding inwardly curled bead 15 about its upper edge and with an outwardly protruding inwardly open channel formation 16 about its lower edge and with an outwardly projecting inwardly open intermediate body bead 17 about the body a short space above its lower edge. A bottom 18 spans the bottom of the sheet metal body and may comprise an

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assembly of longitudinal wires 19 interlaced with transverse wires 20 and has its border 21, which then is constituted by the ends of the wires 19 and 20 seated in the lower edge channel formation 16 of the body. A wire separator assembly consisting of longitudinal wires 22 interlaced with transverse wires 23 spans the top of the container and has its border 24 seated in the top bead 15 of the body. Each separator wire is sharply bowed down, as at 25, where it passes under another wire and the assembly so woven presents a flat top; that is, both the shoot and the warp wires 22, 23 will be on the same plane except where the wires bow under a crossing wire. Each separator wire has a straight central portion 26, except at the points where it is bowed down, which extends across the case body and has its ends bent at right angles to the central portion in opposite direction, as at 27 and 28, and parallel to the contiguous walls of the case body. These bent end portions of these wires constitute the border of the separator assembly and are seated in the top bead 15 of the case body at opposite walls of the case. A second separator 30 comprising interlaced longitudinal wires 31 and transverse wires 32 spans the case at the intermediate body bead 17 and has its border 33 seated in this bead. The weave of this separator may be of the ordinary hill and dale type or of the flat top type as is the separator at the top of the case. The wires constituting this intermediate separator may have their ends reversely bent as are the ends of the wires of the upper separator assembly, and in such event the bent ends constitute the border 33 of the separator and are seated in the bead 17.

Suitable hand-holes may be formed in the wall of the case. For instance, as shown, the metal of the case may be cut and curled inwardly and upwardly to form hand-holes such as the one shown at 34, and hand-grip portions such as the one shown at 35.

The body of the case may be made of a rolled section of sheet metal of one-piece construction with a welded joint and the entire case can be assembled on simple jigs and in mass production. Thus, the cost of material and assembly may be held to a very low figure. Rolling the upper bead over the wires holds them tight.

Any suitable sheet metal may be employed, and any or all of the parts may be made of aluminum for instance, the body of sheet aluminum and the bottom and separators of aluminum strips, rods or wires.

The construction and method of assembly

fastens and secures the separators and the parts thereof rigidly and firmly against becoming loosened, displaced, or detached, and further renders the separators more resistant to sagging and thus assures that the compartments remain of constant size. The seating of the borders of the separators and of the bottom member in the rolls formed in the body induces rigidity, re-enforces the rolls and case from the inside and provides protection to the case against denting and deformation when the case is roughly handled; and, further, if the case has a baked enamel finish, the enamel will be protected by these re-enforced rolls. It is also apparent that when made of aluminum, the case will be proof against rot and rust and will not absorb moisture; also, that the case may be made somewhat lighter and smaller than is possible with an all wood construction of a case of the same bottle capacity. The construction permits of easy cleaning inside and outside, and is well suited to be cleaned by steam.

The bottles, indicated at **29**, when in the case, rest on the bottom **18** and are separated from each other by the wires of the upper and lower separators and are held out of contact with each other and out of contact with any element that might result in the breaking of the bottle should the bottle hit against it. All of the several compartments are wide open for their entire depth, giving utmost ease to the placing and removal of bottles in and out of the case.

If desired, usual metal or rubber glides **40** may be provided on the bottom of the case.

What I claim is:

A bottle case comprising in combination a sheet metal body shaped to form the side and end walls

of the case, with rounded corners, said body being formed with an outwardly protruding, inwardly curled bead forming its upper edge, an outwardly directed channel formation in the lower margin of said body, a second outwardly directed channel formation in said body above the first-named channel formation, a woven wire bottom member in the first-named channel formation, a wire separator assembly spanning the case body at the top comprising longitudinal and transverse separator wires, said wires having their end areas bent at an angle in opposite directions and parallel with the contiguous wall of the case body, and said bent ends being seated in said upper bead of the case body and substantially filling said upper bead as an internal reinforcement, and a second wire separator having its border seated in the second channel formation.

GEORGE T. POWELL, JR.

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