

A. R. SPEER.
PACKING CASE.
APPLICATION FILED MAR. 22, 1905.

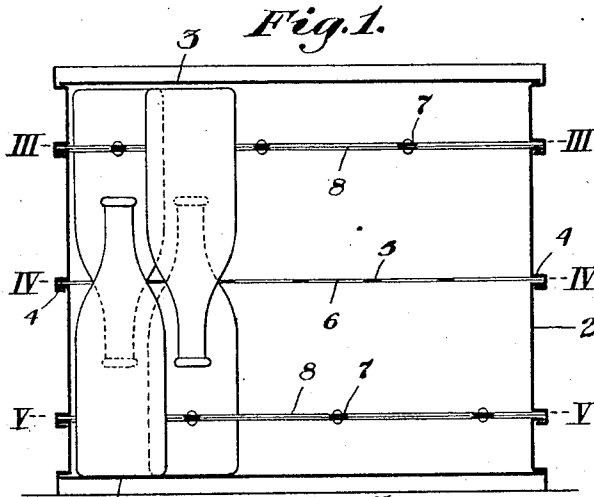


Fig. 1.

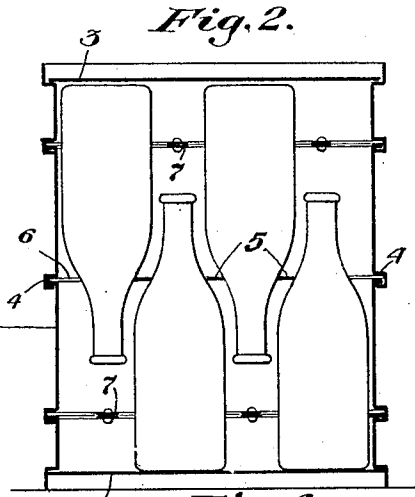


Fig. 2.

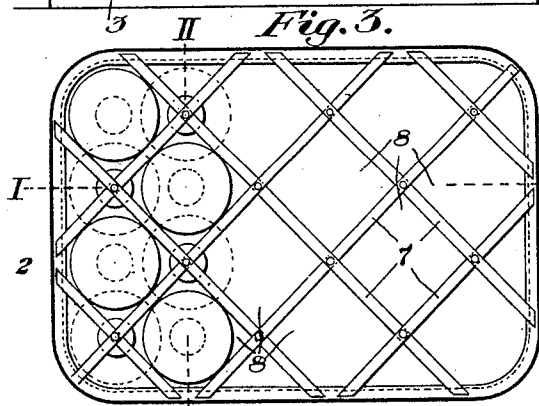


Fig. 3.

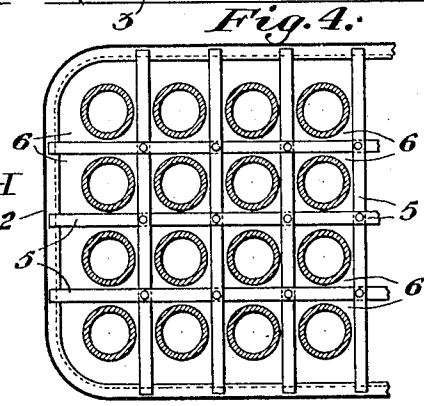


Fig. 4.

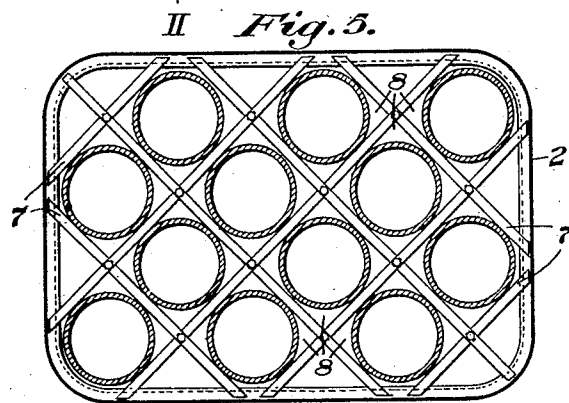


Fig. 5.

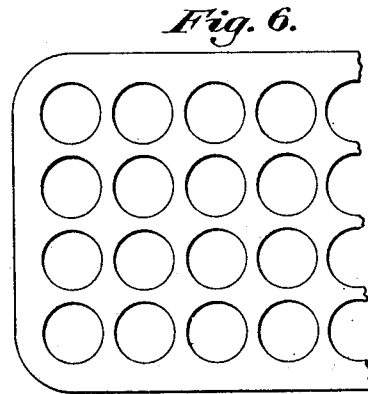


Fig. 6.

Witnesses:

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Inventor:

Arthur R. Speer
by C. M. Clarke
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UNITED STATES PATENT OFFICE.

ARTHUR R. SPEER, OF PITTSBURG, PENNSYLVANIA.

PACKING-CASE.

No. 869,463.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed March 22, 1905. Serial No. 251,456.

To all whom it may concern:

Be it known that I, ARTHUR R. SPEER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Packing-Cases, of which the following is a specification, reference being had therein to the accompanying drawing, forming part of the specification, in which—

Figure 1. is a vertical longitudinal section on the line I. I. of Fig. 3. Fig. 2. is a similar section at right angles to Fig. 1 on the line II. II. of Fig. 3. Fig. 3. is a horizontal section on the line III. III. of Fig. 1. Fig. 4. is a partial similar section on the line IV. IV. of Fig. 1. Fig. 5. is a similar section on the line V. V. of Fig. 1. Fig. 6. is a partial plan view of a perforated plate utilized for the intermediate rack.

My invention refers to an improvement in packing boxes or cases for bottles and has for its object to provide a case in which the bottles may be compactly packed for shipment or storage, whereby each bottle is held independent of the others. For the purpose of economizing space the bottles are packed with their necks directed inwardly from each side and the case and partitions are so constructed as to facilitate the placing of the bottles from opposite sides equally, the case having oppositely located removable walls.

Referring now to the drawings, 2 is the body portion of the case, shown as composed of sheet metal.

3, 3, are oppositely located walls, as a top and bottom, each of which is removable or may be hinged to the main case in any suitable manner.

Extending across the middle portion of the case and secured to it in the interior in any convenient way, as by securing it between the joints of the sides as indicated at 4, is a rack 5 having a series of openings 6 adapted to receive and support the bottles at the tapered portion of the lower neck. The joint 4 is formed by bending the flange of one section around the outwardly extending flange of the adjacent section, thereby providing outwardly extending surrounding strengthening ribs, as clearly shown. As the bottles are arranged in the case, the neck of each bottle extends into its appropriate opening, and the bottles are alternately arranged so that their necks project alternately through the entire series of openings 6 for the full area of the case. Beyond the middle rack 5 at each side are similar racks 7, 7, having openings 8 corresponding to the opening 6, *i. e.* alternately at each side lengthwise and crosswise of the case, and of a size adapted to receive the body portion of the bottle, as clearly shown.

The racks 5 and 7 may be conveniently made of light bars or strips of metal, wire or other suitable material,

extending longitudinally and laterally of the case in the middle rack 5, and diagonally between the bottles in the outer racks 7, as clearly shown. 55

In Fig. 6 I show a modified form of the middle rack employing merely a perforated plate, and it will be understood that I do not wish to be limited to any particular construction of rack as various constructions may be used to secure the same or equivalent results. 60

The bottles are first introduced from one side until one of the racks 7 is filled, when the lid at that side is closed and the same operation repeated on the opposite side until the case is entirely full, when it will be found that practically the entire space is filled and the usual waste room around the necks of the bottles is occupied by the body portions of the adjacent overlapping and interfitting bottles. 65

It will be understood that the neck openings 6 are of such a size as to support the bottles at each side in such relation to the covers 9 that when these are closed the bottles are practically in engagement against the racks and covers, thus preventing any movement either laterally or lengthwise. 70

The advantages of my invention will be appreciated by all users of bottle packing or shipping cases and it insures safe, economical handling while utilizing the greatest proportion of the interior space. 75

Changes or variations may be made by the skilled mechanic in the various details of construction or other features of the invention, but all such changes are to be considered as within the scope of the following claims. 80

What I claim is:

1. In a rectangular bottle case, the combination of a plurality of sheet metal sections connected by folding the flanged edge of one section around a flanged terminal of the next adjacent section, and a series of cross racks comprising a middle neck rack and outer body racks formed of crossed slats with alternately arranged openings, said outer racks being diagonally arranged and said middle rack being parallel with the sides and ends and having their terminals secured between the flanged meeting portions of said connected sections, substantially as set forth. 85

2. In a rectangular bottle case, the combination of a plurality of flanged connected sections of sheet metal forming the sides and ends of the case, and a series of racks formed of crossed slats, the outermost racks being arranged diagonally and the intermediate rack being arranged parallel to the sides and ends and having their terminals secured between the meeting edges of said sections, the outermost of said sections having interior top and bottom supporting flanges and reinforcing extensions, with a removable top and bottom secured thereon, substantially as set forth. 95

3. In a rectangular bottle case, the combination of a plurality of sections of sheet metal comprising the ends and sides of the case connected by folding the meeting 100

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terminal flanged edge of one section around the flanged edge of the next adjacent section, a middle transverse rack formed of crossed slats arranged parallel to the sides and ends and having openings for the bottle necks, and
5 outer racks formed of diagonally arranged crossed slats at each side of said middle rack, the spaces between said outer slats providing openings registering alternately with the openings in the middle rack and adapted to embrace the body portions of the bottles, the terminals of

said racks being secured between the flanged meeting 10 edges of said connected sections, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR R. SPEER.

Witnesses:

CHAS. S. LEPLEY,
C. M. CLARKE.