No. 734,856. PATENTED JULY 28, 1903.

J. N. HAHN.

PACKING CASE.

APPLICATION FILED DEC. 18, 1902.

NO MODEL.

FIG. 1.

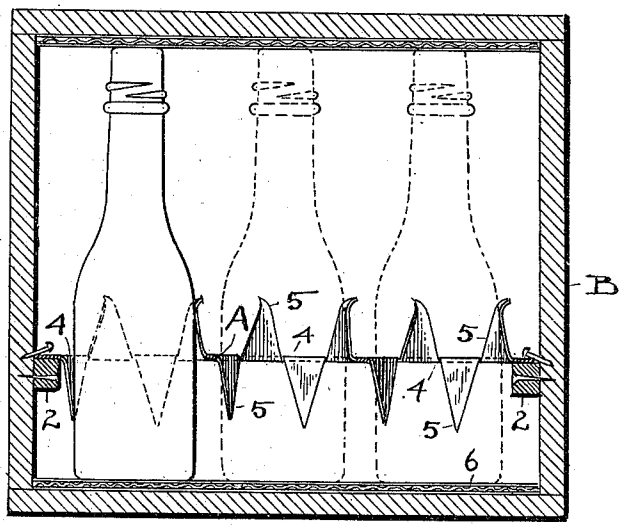


FIG. 2.

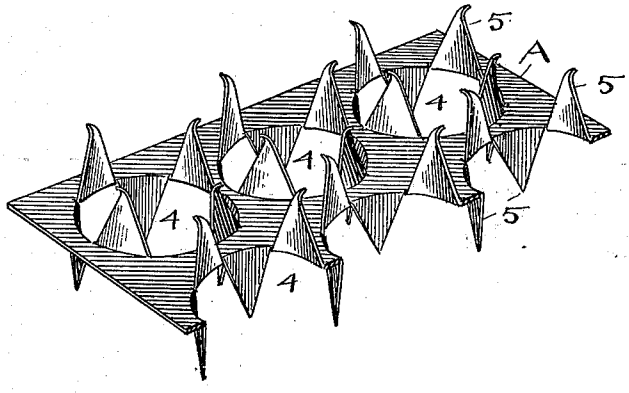
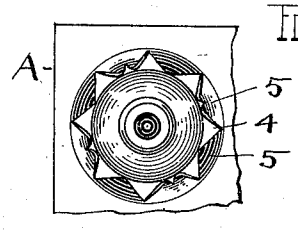


FIG. 3.



ATTEST

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No. 734,856. Patented July 28, 1903.

UNITED STATES PATENT OFFICE.

JOHN N. HAHN, OF CLEVELAND, OHIO.

PACKING-CASE.

SPECIFICATION forming part of Letters Patent No. 734,856, dated July 28, 1903.

Application filed December 18, 1902. Serial No. 135,752. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. HAHN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Packing-Cases; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in packing-cases; and the improvement consists primarily in the new and useful form of holder for the protection of the article to be carried, substantially as shown and described and more particularly pointed out in the claims.

My improvement is designed more especially for holding bottles or other similar articles of fragile construction; and the main object of my improvement is to provide a single supporting-plate with yielding members adapted to bear against the bottle at different elevations to hold the bottle always in a vertical position within a casing or box and out of contact with the walls or the other bottles in the box.

Another object is to provide the yielding members of the holder with flaring ends to permit a ready insertion of the bottle without injury to said members or holder.

In the accompanying drawings, Figure 1 is a cross-section of a box or casing provided with my improved holder and showing a single bottle supported and held therein. Fig. 2 is a perspective elevation of a portion of the holder-plate. Fig. 3 is a plan view of a portion of the holder-plate, showing one opening with the bottle therein between its yielding members.

One of the objects to be considered in the construction of a packing-case of the character of my improvement is that of simplicity and cheapness of manufacture, as well as durability and effectiveness for the purposes desired, and therefore the less number of parts and the simpler the design and construction of case and holder the more useful and practical becomes said case for commercial purposes.

In my improvement I employ but a single horizontal dividing-wall, in the form of a metal plate or holder A, in addition to the usual case or box B, and this plate or holder is supported upon cleats 2, nailed upon the inner walls of said box at any suitable elevation, dependent upon the character of the goods to be carried. As shown, plate or holder A is supported somewhat below the horizontal center of the box, and this is a convenient elevation of the holder for carrying bottles, such as shown in Fig. 1. The number of bottles or articles to be carried varies according to the size and weight of the bottles, but usually the number is limited to even dozens, although with my improvement one or more bottles may be carried, as circumstances require.

In the drawings plate or holder A is shown as having a plurality of openings 4 uniformly arranged over its surface with the most economy of space. Each opening is made and struck up alike, and therefore a description of one will suffice for all. Plate A is preferably of spring metal, the thickness and strength of which are designed to be in proportion to the weight and character of the goods to be carried. Opening 4 is formed primarily by cutting the metal on radial lines from a common center, which forms a series of equilateral triangular members or tongues 5, with the meeting-points at the center. The number of members 5 thus formed is herein shown as eight, but a greater or lesser number may be employed. Four or half of the number of members 5 are bent down at substantially right angles to the plane of lower side of plate A, and the balance are bent to extend above the said plate, also at substantially right angles thereto. Both said upper and lower members 5 are designed to incline toward the center of opening 4, but the degree of inclination is preferably slight and not too far removed from a right angle. The most perfect angle or inclination of said members is one wherein a maximum amount of adaptability can be obtained for varying diameters of bottles without impairing the side yielding effect of said spring members by bending or forcing them too far and thereby permanently altering their normal degree of inclination. A plate thus constructed with spring or yielding members 5

bent back upon opposite sides of said plate provides yielding side bearing-points at two elevations against the bottle to be carried and the bottle is held centrally within the opening and out of contact at all points with the body of the plate proper and is yieldingly supported against side play or concussion, and the bottle is furthermore prevented from tilting or tipping by reason of the upper and lower bearing-points of the upper and lower spring members 5, respectively. Each bottle in the box is held securely in vertical alinement with the other bottles and is fully protected against injury or breakage from rough handling or accident by the oppositely-extending spring members formed from the single plate A. The upwardly-extending spring members 5 are preferably bent back at their pointed ends to provide an inclined or rounded surface to guide the bottle to opening 4 and to prevent injury to said members when the bottle is inserted.

Any suitable cushioning material, such as corrugated cardboard 6, may be employed as a seat for the bottle within casing or box B, and like cushioning matter may be laid over the tops of the bottles before the cover is fastened in place.

The advantages of a case or box with a holder as hereinbefore described are many, chief of which are a thorough protection for the bottle in shipping, extreme simplicity of construction, and cheapness of manufacture as a final result, whereby the greatest economy and saving are effected in its manufacture and also in the time and labor in assembling the box and holder.

What I claim is—

1. The packing-case and a dividing-wall therein provided with a circular opening having yielding members projecting in opposite directions from about the edge of said opening and constructed to engage the goods to be carried at each side of said wall above and below the same, substantially as described.

2. The case and the goods-holder thereon comprising a plate provided with an opening having integral spring members projecting in opposite directions alternately from about said opening, the upper series of said spring members constructed to guide the goods to said opening, substantially as described.

3. An article of manufacture and sale comprising a division-wall for packing-cases having an opening and integral yielding members projecting alternately in opposite directions from about said opening, said members having a slight inclination toward the center of said opening to provide lateral spring bearing-points on opposite sides of said wall for the goods to be carried within said opening, and said yielding members having rounded extremities for receiving and guiding the goods to said opening, substantially as described.

Witness my hand to the foregoing specification this 13th day of December, 1902.

JOHN N. HAHN.

Witnesses:
R. B. MOSER,
R. ZBORNIK.