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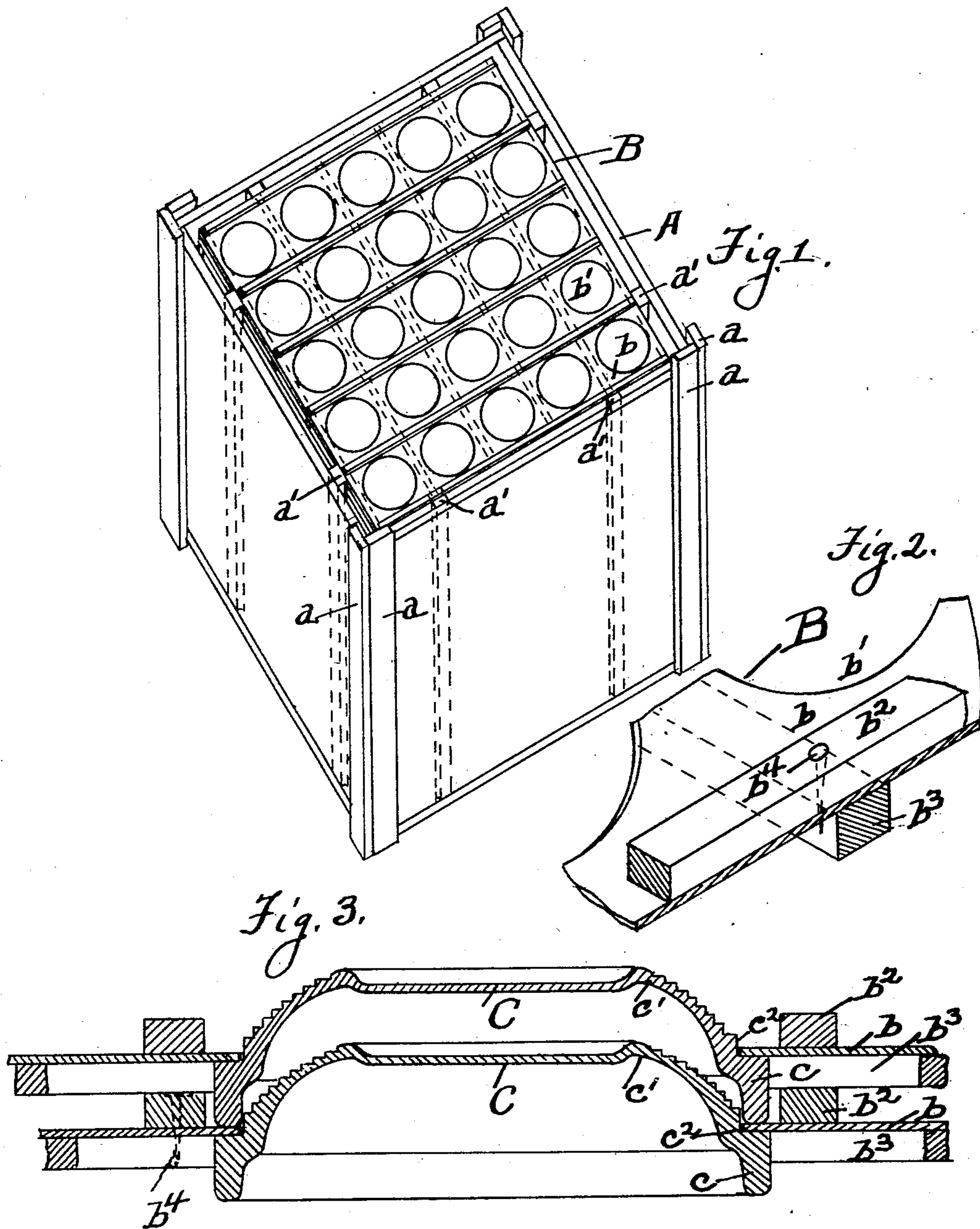
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H. C. LORD.

PACKAGE FOR FRAGILE ARTICLES.

(Application filed Aug. 13, 1901.)

(No Model.)



WITNESSES:

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PACKAGE FOR FRAGILE ARTICLES.

SPECIFICATION forming part of Letters Patent No. 702,807, dated June 17, 1902.

Application filed August 13, 1901. Serial No. 71,887. (No model.)

To all whom it may concern:

Be it known that I, HUGH C. LORD, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Packages for Fragile Articles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to packages for fragile articles; and it consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claims.

More particularly the invention is designed for packing fragile articles concavo-convex in form, and particularly articles of this form known as "clay" pigeons or targets.

The invention is illustrated in the accompanying drawings, as follows:

Figure 1 shows a projection of a crate with the tills in place thereon. Fig. 2 shows a fragment of a till, showing the manner of constructing the same. Fig. 3 shows a section through a center of the target and a fragment of the till adjacent thereto to show the means of engagement of the target by the till.

In the drawings, A marks the crate or box; B, the till. The tills are preferably formed of pasteboard. The plates b have the perforations b' thereon. Between each row of perforations there is arranged a separating-strip b^2 b^3 , those on one side of the plate being in one direction and those on the opposite side being in the opposite direction. Brads or nails b^4 are used at the points of crossing. It will readily be seen that at such points there are separating-strips, which are preferably of wood, on both sides of the paper plate, so that there is no danger of the brad or nail pulling out of the plate. For convenience I have lettered the upper separating-strip, as shown in Fig. 2, as b^2 and the lower separating-strip as b^3 . This crate is especially designed for packing what are known as "clay" pigeons or targets. These at the present time all have certain peculiarities of shape.

In the drawings, C marks the target. They are provided with an outer rim c , which is

usually somewhat heavier than the rest of the target, and extending from this rim is a crown c' . At the upper end of the rim there is a shoulder c^2 . The outer periphery of the shoulder is of such size as to permit of the nesting of one of the targets in another—that is, the shoulder c^2 is small enough to enter inside of the rim c . The perforation b' is of such size as to nicely fit the shoulder c^2 , and the separating-strips b^2 and b^3 are of such thickness as to make the space between the plates b slightly more than the height of the rim c , so that the rim c is entirely supported by the plates and does not communicate its pressure or weight to the rim next adjacent to it. The engagement of the edges of the perforations b' with the shoulder c^2 prevents any side slip of the target, and thus keeps the targets in register. This perforation also permits of the projection of the crown through the plate of the till, so that it may nest with the next succeeding target. These perforations of the plate with the target resting upon the edge of the perforation gives to the plate just at the edge more elasticity than it would have if the perforation were omitted, so that, while the weight of the target is sustained by the separating or supporting strips where the shock is received in the direction of the axis of the column of targets, the slight give of the plates reduces the shock without communicating a crushing strain from one target to another, as the weight is sustained by the supporting or separating strips. It will be noted also as a peculiarity of the tills arranged for nesting articles that the distance between the plates as compared with the dimensions of the perforations is slight. The strips b^2 and b^3 are preferably duplicates, the tills B being preferably square, so that all the strips may be of the same length. The pasteboard gives a rigidity to the tills edgewise and the strips stiffen it, so that a very firm till is provided.

It will be noted that by nesting the targets, as shown, very nearly as many targets can be placed in the crate as could be piled into the crate without the tills. This is quite desirable in that the size of the package may be very much lessened from that of ordinary packages of this kind, so that the freight, which is a very considerable item in things of

this kind, can be greatly reduced. It will be noted also that the shoulder c^2 presents the strongest part of the target in that there is about an equal weight at each side thereof, and as the perforations practically fit the entire surface of the shoulder the target will sustain a considerable shock in this position without breaking. This is especially true because each target is supported by the till and does not communicate its weight to any extent to the next succeeding target, and while the targets are closely nested each target is registered and supported separately.

I prefer to place the tills in a box or crate having projecting edge pieces a . Arranged inside of the box at a slight distance from the edge pieces a are the supporting-strips a' . These strips preferably are arranged at the ends of the second separating-strips $b^2 b^3$. By this arrangement when the box is dropped edgewise the points of contact are the strips a , and the weight of the till being upon the supporting-strip a' the side of the box gives or springs quite materially, thus reducing the shock to a considerable extent.

What I claim as new is—

1. In a package for fragile articles of concavo-convex form, means for holding a series of articles one nested in another and for separately supporting them, comprising a series of removable tills formed with perforated plates and separating-strips, the strips being of sufficient thickness to support the plates a distance apart to form a space between the plates to receive the edges of the articles with the upper and lower opposing surfaces of the edges in supporting engagement with the opposing surfaces of the separated plates and the perforations being of such size as to permit the crown of the article to project into the next adjacent article.

2. In a package for fragile articles, means for holding a series of articles, one nested in another and for separately supporting and registering them, comprising a series of removable tills formed with perforated plates and separating-strips, the strips being of sufficient thickness to support the plates a distance apart to form a space to receive the edges of the articles with the upper and lower surfaces of the edges in supporting engagement with the opposing surfaces of the separated plates, and the perforations being of a size to permit the corners of the articles to project into and nest in the next adjacent articles.

3. A till for packages for fragile articles comprising a plate and separating-strips arranged at intervals on both sides of said plate; the intervals being proportioned to the size of the article, the strips on one side being placed in a direction opposite to those on the opposite side; and means for securing the strips on the opposite side of the plate together.

4. A till for packages for fragile articles comprising a plate provided with rows of perforations and separating-strips secured to the

plate and arranged in opposite directions between the rows.

5. A till for packages for fragile articles comprising a plate provided with rows of perforations; and separating-strips secured to the plate arranged in opposite directions between the rows, said strips being secured together at the points of crossing.

6. A till for packages for fragile articles comprising a plate provided with rows of perforations; and separating-strips arranged between the rows of perforations on both sides of the plate, those on one side being placed in a direction opposite those on the opposite side; and means for securing the strips on the opposite sides of the plate together.

7. A till for packages for fragile articles comprising a plate provided with rows of perforations and separating-strips arranged between the rows of perforations on both sides of the plates, those on one side being placed in a direction opposite to those in the opposite side; and means at the points of crossing for securing the strips to the plates and to each other.

8. A till for packages for fragile articles comprising a plate provided with rows of perforations; and separating-strips arranged between each row of perforations on both sides of the plate, those on one side being placed in a direction opposite those on the opposite side; and means for securing the strips together.

9. In a package for fragile articles the combination of a series of three tills comprising plates, two of which have rows of perforations of equal sizes arranged in register; said plates being stiffened by strips secured to the plate and extending in opposite directions between the rows of perforations, said strips being arranged to support the plates an equal distance apart.

10. In a package for fragile articles the combination of a series of tills comprising plates with perforations of equal sizes arranged in register, said plates being stiffened by strips secured to the plate and extending in opposite directions between the rows of perforations, said strips being arranged to support the plates an equal distance apart.

11. A package for targets of concavo-convex form, having the rim, c , crown, c' , and shoulder, c^2 , the exterior diameter of the shoulder c^2 being less than the interior diameter of the rim c ; comprising the plate, b , having the perforations, b' , approximately of the size of the shoulder, c^2 ; and means for holding the perforations in register and for supporting the plates a sufficient distance apart to receive the rims, c , and engage the upper and lower surfaces of the said rims.

12. A package for targets of concavo-convex form, having the rim, c , the crown, c' , a shoulder, c^2 , the exterior diameter of the shoulder c^2 being less than the interior diameter of the rim c ; comprising the plates, b , having the perforations, b' ; means for holding the perfo-

5 rations in register; separating-strips secured to the plates, said strips being of a thickness to separate the plates a sufficient distance to receive the rim, c , between the plates and engage the upper and lower surfaces of the said rims.

10 13. A package for targets of concavo-convex form, and having the rim, c , crown, c' , shoulder, c^2 , comprising the plate, b , having the perforations, b' , the strips, b^2 , arranged in one direction and the strip, b^3 , in the opposite direction; means for securing the strips together and to the plates at the points of crossing, the perforations, b' , being of approximately the size of the shoulder, c^2 , and the combined thickness of the strip, b^2 , approximately the height of the rim, c .

20 14. A package for targets of concavo-convex form, having the rim, c , crown, c' , shoulder, c^2 , comprising the plate, b , having rows of perforations, b' , the strips, b^2 , arranged on one side of the plate, between the rows, the strips, b^3 , arranged on an opposite side of the plate between the rows; means for securing the strips together and to the plate at the points of crossing; means for holding the tills in register, said perforations, b' , being approximately the size of the shoulder, b^2 , and

the combined thickness of the strips, b^2 and b^3 , being approximately the height of the rim, c .

15 15. In a package for fragile articles, the combination of the box having the projecting edge pieces, a , and supporting-strips, a' , away from the edge pieces; and tills arranged to slip into the box in contact with the supporting-strips, a' .

20 16. In a package for fragile articles, the combination of the box having projecting edge pieces, a , and supporting-strips, a' , away from the edge pieces; tills arranged to slip into the box in contact with the supporting-strips, a' ; and tills provided with separating-strips at intervals and on both sides of the till, those on one side being arranged in opposite direction from those of the other, the supporting-strips, a' , being arranged to support the tills at points opposite separating-strips other than the edge separating-strips.

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

HUGH C. LORD.

Witnesses:

JUSTIN P. SLOCUM,
RENA F. LANZA.