J. PACKHAM & J. PELTON.

APPARATUS FOR PACKING OR HOLDING BOTTLES.

No. 264,744.

Patented Sept. 19, 1882.

Fig: 1.

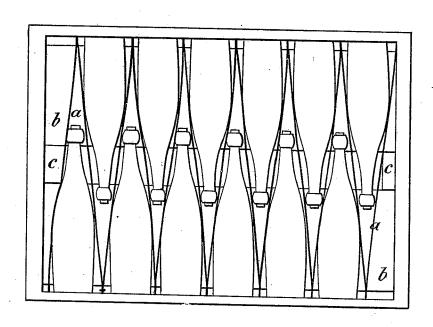
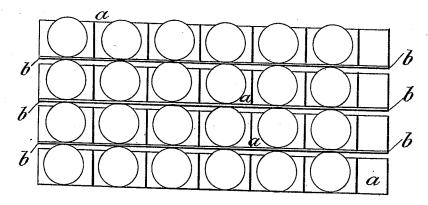


Fig: 8.



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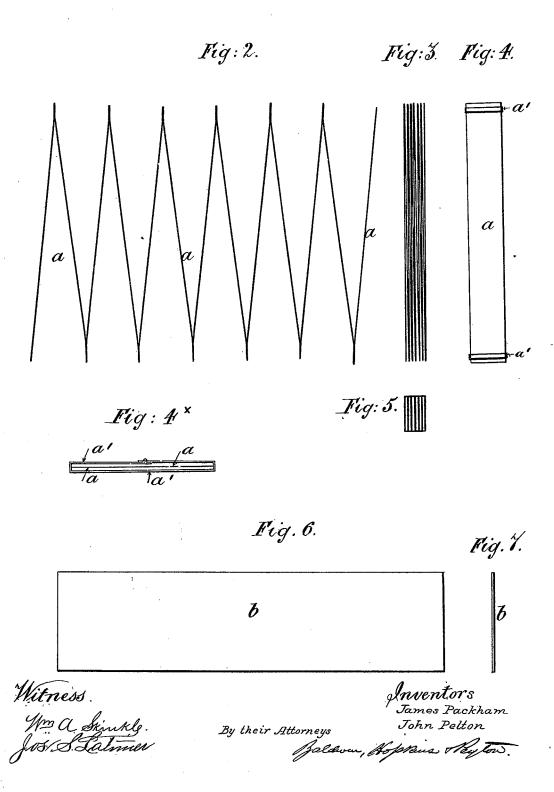
By their Attorneys John Pelton Baldwan, Asprais Platon

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UNITED STATES PATENT OFFICE.

JAMES PACKHAM AND JOHN PELTON, OF CROYDON, COUNTY OF SURREY, ENGLAND.

APPARATUS FOR PACKING OR HOLDING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 264,744, dated September 19, 1882.

Application filed September 28, 1881. (No model.) Patented in England March 16, 1881, No. 1, 154, and in France September 10, 1881, No. 144,778.

To all whom it may concern:

Be it known that we, JAMES PACKHAM and JOHN PELTON, subjects of the Queen of Great Britain, residing at Croydon, in the county of 5 Surrey, England, have invented certain new and useful Improvements in Apparatus for Packing or Holding Bottles, (for which we have received Letters Patent in England, No. 1,154, dated March 16, 1881, and in France, dated ro September 10, 1881, No. 144,778,) of which the following is a specification.

This invention has for its object to provide · a substitute for straw envelopes or other loose packing material employed as a separating me-15 dium or buffer for enabling bottles to be quickly

and securely packed for transport.

Straw, as a packing material, requires experienced and practical workmen to insure safe carriage of the bottles. It is also objectiona-20 ble from its general untidiness and from its continuously increasing value, and also from the fact of its not being usable for more than one journey. Straw envelopes are expensive and occupy much time in packing and unpack-

Specially prepared packing-cases have been so arranged as to avoid the use of straw and other like materials by the employment of rigidly-fixed partitions adapted to form cells or 30 chambers to separate and hold the bottles to be packed. Such partitions have also been made to form a rigid frame-work to fit within a case, or have been held at their ends in grooves in the case, so that they could only be used with

35 specially-prepared cases.

According to our invention, we employ a series of thin flexible laths or strips connected together at alternate ends by metallic or other attachments in such manner that they may, 40 when out of use, be folded up-that is, made to lie close together—so as to occupy but a small space, or, when placed into a box, case, or basket for packing bottles, may be extended so as to form in it a number of contiguous triangular compartments with the points of the triangles alternately in opposite directions.

In packing the bottles, a single bottle is to

end toward the point of the triangle, and each thin lath then forms a division between the 50 sides of two bottles lying together with their bases in opposite directions—that is, as known in the wine trade as "neck to neck." Any desired number of layers of bottles may be thus packed horizontally one above the other, a 55 layer or sheet of some suitable material being interposed between the successive layers.

The advantages obtained by packing bottles in this manner are, first, that the compound zigzag folding divisions are adapted for use 60 with any commonly-constructed outer case, box, or basket without grooves; second, that in consequence of the case or box not requiring to be grooved to secure the fixtures of the divisions the employment of complicated ma- 65 chinery for forming such grooves is avoided, and a saving is also effected in the cost of construction, and there is also a saving of material effected, as the boxes or cases not requiring to be grooved may be made of thinner mate- 70 rial; third, greater facilities in packing are attained by the application of our invention, skilled hands are not necessary, greater rapidity is secured, and when the articles packed have arrived at their destination and the bot- 75 tles have been removed the folding partitions may be also removed, and the case, box, or basket, not being disfigured or injured, is applicable for other use, and, if desirable, the folding partitions can be packed up in a mini- 80 mum of space and returned for future use; fourth, by reason of the capability of our folding partitions being packed in a small space they may be conveniently dispatched or exported to far-off destinations at small cost; 85 fifth, the folding partitions may also be used for dividing bottles in bins as well as in cases, and so securing their safety when packed by preventing them from rolling together or breaking by lateral pressure.

In order that our said invention may be most fully understood and readily carried into effect, we will proceed to describe the drawings hereunto annexed.

In the drawings, Figure 1 is a plan of a box, 95 be placed in each compartment, with its neck | (seen open,) and in which bottles are packed by

means of our apparatus. Fig. 2 shows separately in plan a set of connected laths or strips, a a, such as is employed in packing one layer or row of bottles in the box. The connected 5 laths or strips are spread out, as, when receiving the bottles, they form the walls of angular compartments in which the bottles are placed. Fig. 3 is a plan of the same set of laths or strips closed together. Fig. 4 is a side view, to and Fig. 5 an end view, of the same.

Thin wood is the material which we prefer to employ with the laths or strips a a, and we connect them together at their end by bands of thin tin-plate lapped around them, as seen 15 at a' a'. (See Figs. 4 and 4^{\times} .) Each metal band is fastened by a tack. The way in which the bottles are laid in between the laths or strips is clearly seen in Fig. 1. The elasticity

of the laths or strips aids, to a great extent,

20 in retaining the bottles in their places. To separate the bottles of successive rows, which are laid one over the other, we employ very thin boards of wood, b b. A plan of one of these boards is shown at Fig. 6 and at end 25 view at Fig. 7, and Fig. 8 is a front view of the stock of bottles as it lies in the box and as it would appear if the front of the box were removed. The boards or strips of wood b are | 17 Gracechurch Street, London, E. C.

laid upon the cylindrical parts of the bottles and serve to support the bottles of the next 30 row, as is seen in Fig. 7. The box may have blocks in it at c c, in Fig. 1, to prevent these boards from shifting. The blocks c may be nailed in place or they may be loose.

The same apparatus and arrangement is ap- 35

plicable in packing bottles in bins.

Having thus described the nature of our said invention and the manner of performing the same, we would have it understood that we claim-

The flexible folding zigzag bottle-packing apparatus constructed of a series of laths or strips connected at their ends only, and forming the vertical sides of a number of angular compartments open both at top and bottom, as 45 and for the purpose set forth.

London, August 26, 1881.

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