

Feb. 20, 1923.

1,445,772.

M. KOPPELMAN.

SHIPPING CONTAINER FOR FRAGILE ARTICLES.

FILED OCT. 24, 1921.

2 SHEETS—SHEET 1.

FIG. 1.

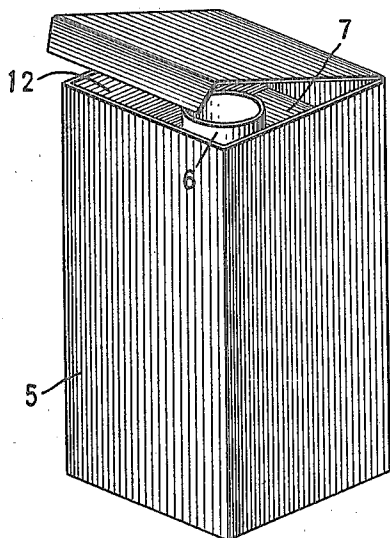


FIG. 2.

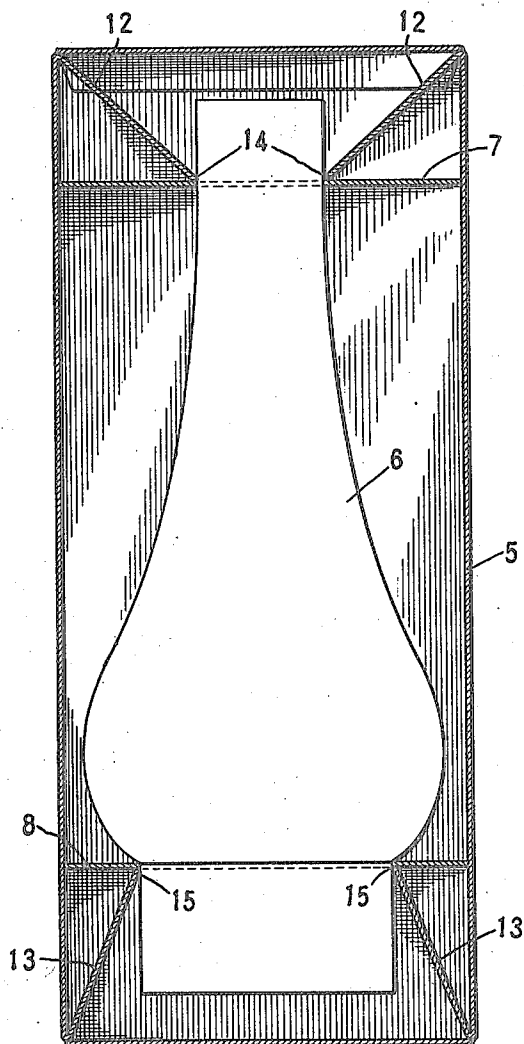


FIG. 3.

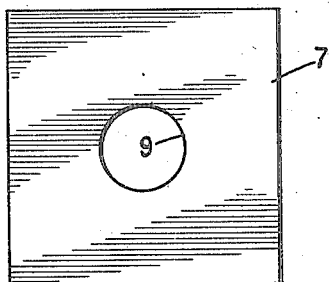
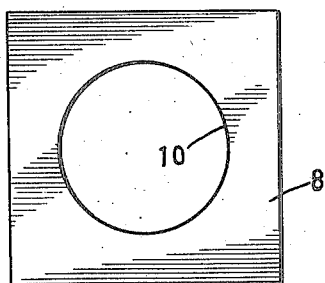


FIG. 4.



Morris Koppelman INVENTOR
S. J. Cox BY
ATTORNEY

Feb. 20, 1923.

1,445,772.

M. KOPPELMAN.
SHIPPING CONTAINER FOR FRAGILE ARTICLES.
FILED OCT. 24, 1921.

2 SHEETS—SHEET 2.

Fig. 5.

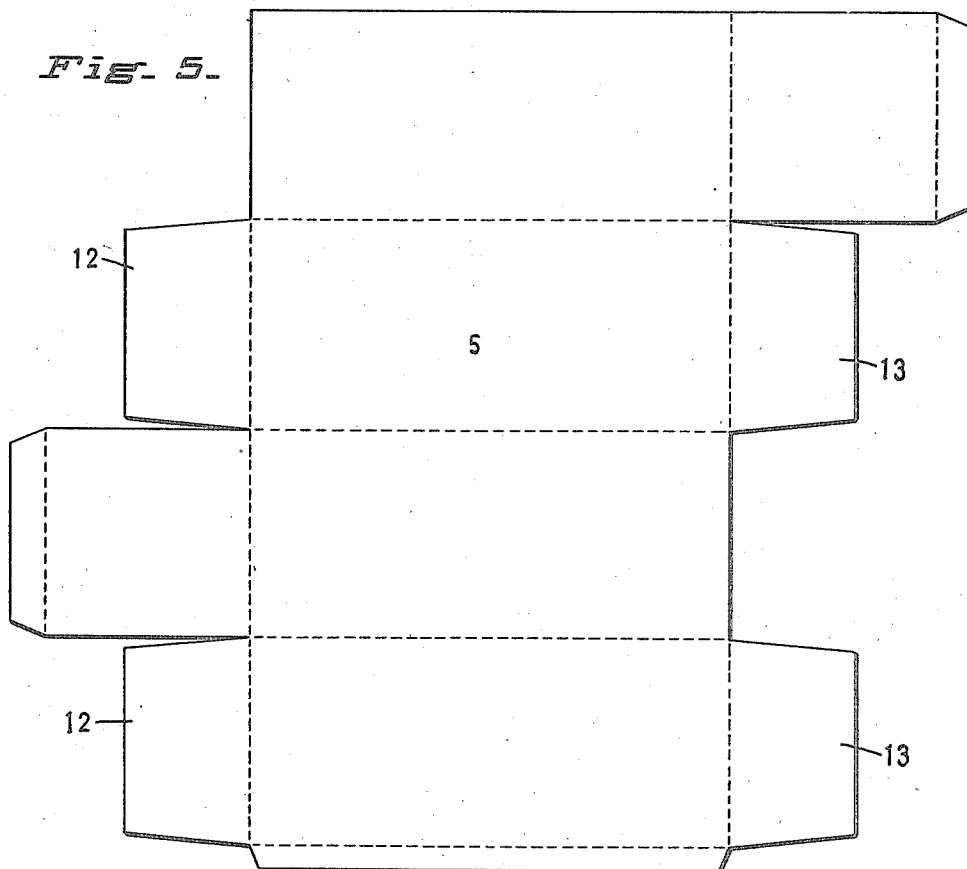


Fig. 6.

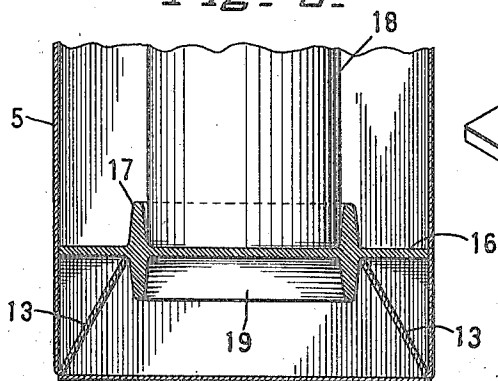
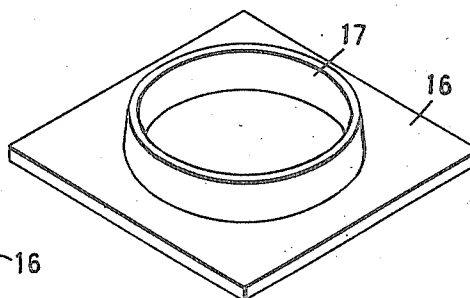


Fig. 7.



INVENTOR
Morris Koppelman
BY
S. J. Cox
ATTORNEY

UNITED STATES PATENT OFFICE.

MORRIS KOPPELMAN, OF BROOKLYN, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO HOLED TITE EGG PACKING CORPORATION, A CORPORATION OF DELAWARE.

SHIPPING CONTAINER FOR FRAGILE ARTICLES.

Application filed October 24, 1921. Serial No. 509,903.

To all whom it may concern:

Be it known that I, MORRIS KOPPELMAN, a citizen of the United States, residing at the borough of Brooklyn, in the county of Kings, city and State of New York, have invented certain new and useful Improvements in Shipping Containers for Fragile Articles, of which the following is a specification.

This invention relates generally to the construction of cartons and particularly to a type of carton adapted to hold fragile articles and protect them against injury or breakage.

The invention consists generally in providing in a carton construction a shock absorbing or resilient member for holding the fragile article spaced from the lateral walls of the carton and in providing a cooperative relation between the shock absorbing members and the end flap members of the lateral walls which prevents movement of the contained article longitudinally of the lateral walls of the container. In adapting the carton for holding elongated articles the construction described particularly lends itself to supporting the article at or near each opposite end thereof and in preventing longitudinal movement of the article in either direction. The construction includes the turning inward of one or more of the flap members at each end of the carton into a strut-like or bracing engagement with the support or the article itself, to thereby prevent longitudinal movement of the article in any direction with relation to the enclosing walls of the carton. The article is thus supported in a spaced relation from all parts of the enclosing walls of the container and is correspondingly free from the likelihood of injury from the effect of blows or impacts received by the carton walls.

The supporting members which serve to hold the contained article out of engagement with the container walls are preferably provided with a seating structure in which the article may be received and held, the seating structure being formed for cooperation with the particular article to be mounted or packaged in the container. The seat may take the form of a perforation through which a reduced end of the article may project or it may take the form of merely a recess in which the article is received. The spacing and supporting member may also be specially

formed to alone engage the end flap members or the flap members may be arranged to engage both the supporting members and the article itself at the point where the article projects through the support.

In the drawings,

Figure 1 is a view in perspective of a carton containing an embodiment of the invention.

Figure 2 is a view in section and on an enlarged scale of the carton shown in Figure 1.

Figure 3 is a plan view of a supporting member forming part of the invention.

Figure 4 is a view similar to Figure 3 showing a modified form of supporting member forming part of the invention.

Figure 5 is a view of a blank from which a carton embodying the invention may be formed.

Figure 6 is a view in section of a portion of a carton embodying a modified form of the invention.

Figure 7 is a view of a supporting member forming part of the construction shown in Figure 6.

Referring to the drawings, a carton 5 is shown which may be formed of paper, cardboard or other suitable material for holding fragile articles, for instance, as a lamp chimney 6 shown in Figure 2 of the drawing.

In order to hold the contained article spaced from the lateral walls of the carton, supporting members 7 and 8 are shown which take the form of flat partition-like members adapted to be fitted into the interior of the container as in Figure 2 and to receive in specially formed seats or openings 9 and 10 therein the oppositely extending ends of the article 6.

In order to prevent longitudinal movement of the article within the container and thereby maintain an established space relation between the ends of the article and the corresponding ends of the container, the end flap members 12 and 13 of oppositely disposed lateral wall members will bend inwardly into engagement with the supporting members 7 and 8 at the points of emergence of the ends of the chimney 6 therethrough as at 14 and 15 in Figure 2 of the drawing. It will be seen that the flap members 12 and 13 are thereby utilized not only as strut members to prevent longitudinal movement of the

article within the container, but that they serve also to materially assist the action of the supporting members 7 and 8 in holding the article 6 out of engagement with the lateral walls of the carton.

The supporting members 7 and 8 which are used to hold the contained article out of engagement with the lateral walls of the container are preferably formed of cushioning and resilient material such as paper, cardboard, or equivalent material. In order to fit the contained article to the recesses 9 and 10 in the supporting members 7 and 8 the recesses are preformed to the desired size, the opening in the supporting member 7 being such as to closely fit the reduced upper end of the chimney 6 and prevent the movement of the chimney to a more extended position beyond the upper surface of the supporting member 7.

Referring to Figures 6 and 7 of the drawing, a specially formed supporting member 16 is employed. The member 16 is provided with annular lugs or extensions 17 which are formed to provide a seat for any suitable fragile article 18, the conformation of the annular lug 17 being such that it will fit the adjacent end of the article 18. In order to provide a seat for the free ends of the flap members 13 the supporting member 16 shown in Figure 6 is also provided with a lug 19 extending from the opposite surface of the supporting member 16 with relation to that surface on which the upwardly extending lug 17 is formed. It will be seen that the flap members 13 in their strut forming position are brought into engagement with the junction of the annular lug 19 and the under surface of the supporting member 16 to thereby provide a seat for the free end of the flap member.

The supporting members 16 shown in Figures 6 and 7 are formed, as in the case of the supporting members 7 and 8, of any suitable resilient and shock absorbing material such as paper pulp, or the like, although many different resilient materials are suitable for the purpose as will be clear. Preferably the annular lugs 17 and 19 are formed on the supporting member 16 in the operation of forming the member 16 itself, so that they are integral with the supporting member.

What is claimed is:

1. In a carton for packaging fragile articles, a member for spacing the article from the lateral walls of the carton, said member being formed to be engaged by an intumed end extension of one of the walls to prevent movement of the article toward the adjacent end of the carton.

2. In a carton for packaging fragile articles, a member having a seat for receiving and holding the article spaced from the lateral walls of the carton, said member

being formed to be engaged by an intumed end extension of the wall of the carton to prevent movement of the article toward the end of the container.

3. In a container for packaging elongated fragile articles, members for engaging the article near the opposite end thereof for holding the article spaced from the lateral walls of the carton, each of said members being formed to be engaged by an end flap at the adjacent end of the container to prevent longitudinal movement of the article in the carton.

4. In a carton for packaging fragile articles, a resilient member formed to engage the article and the inner surface of the lateral walls of the carton to hold the article spaced from the lateral walls, said member being formed to receive the free end of an intumed end extension of one of the walls to thereby prevent movement of the article toward the adjacent end of the carton.

5. In a carton for packaging fragile articles, a resilient member formed to engage the article and the inner surface of the lateral walls of the carton and having an opening therein to receive the article, said member being so positioned that the free end of an end extension of one of the walls of the carton can be placed in engagement with the member and the article at their point of juncture.

6. In a carton for packaging elongated fragile articles, resilient members formed to engage the article adjacent the opposite ends thereof to space the article from the lateral walls of the carton, said members having openings therein to receive the opposite ends of the article, and said members being adapted to be so positioned in the carton that the free ends of end extensions of the walls of the carton can be placed in engagement with the member and the article at their points of juncture.

7. In a carton for packaging fragile articles, a resilient member formed to engage the article and the inner surface of the lateral walls of the carton, said resilient member having a seat formed therein to receive the article, and said member being so formed and positioned as to provide a seat for the free end of an inwardly directed extension of one of the walls of the carton, whereby the said extension will prevent movement of the article toward the adjacent end of the carton.

8. In a carton for packaging elongated fragile articles, resilient members formed to engage the article adjacent the opposite ends thereof to space the article from the lateral walls of the carton, said members having seats formed thereon to receive the ends of the article, and said members being so formed and positioned as to provide seats for the free ends of inwardly directed wall

extension flaps at the ends of the carton, whereby the said extensions will prevent movement of the article toward either end of the container.

- 5 9. In a carton for packaging fragile articles, a member for spacing the article from the lateral walls of the carton, and a flap member carried by the container wall at one end thereof and adapted to be turned
10 inwardly to engage the member and prevent movement thereof toward the end of the container.

10. In a carton for packaging fragile articles, a transverse partition for supporting the article and spacing the article from 15 the side walls of the container, and resilient flap members carried by opposite side walls of the container and adapted to be turned inwardly to engage the partition and prevent movement thereof and of the supported 20 article toward the end of the container.

In testimony whereof I affix my signature.

MORRIS KOPPELMAN.