

July 22, 1924.

1,502,017

R. C. CARLSON
REINFORCING CORNERS FOR BOXES
Filed Sept. 18, 1922

Fig. 1

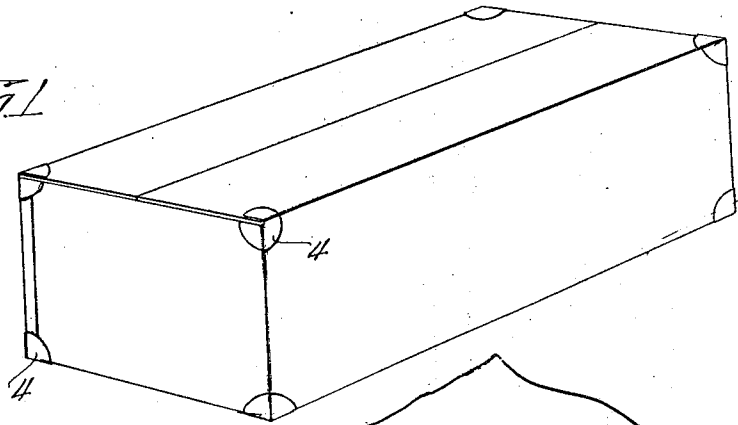


Fig. 2

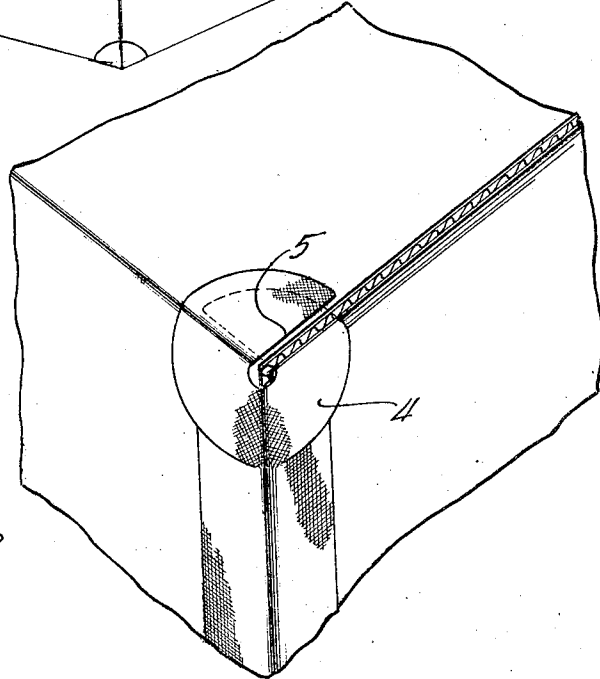
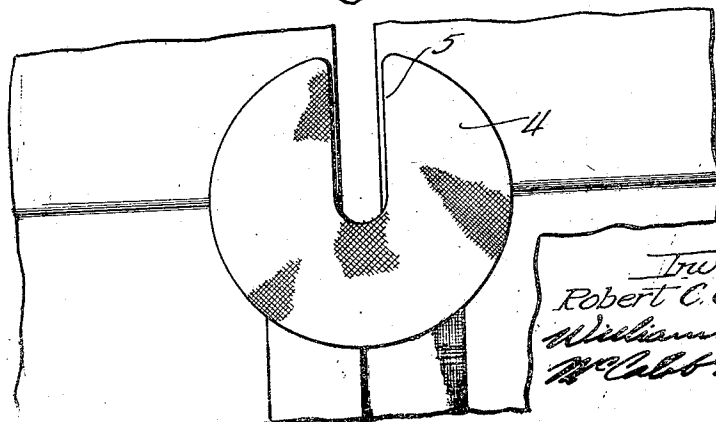


Fig. 3



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UNITED STATES PATENT OFFICE.

ROBERT C. CARLSON, OF CHICAGO, ILLINOIS.

REENFORCING CORNERS FOR BOXES.

Application filed September 18, 1922. Serial No. 588,777.

To all whom it may concern:

Be it known that I, ROBERT C. CARLSON, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Reenforcing Corners for Boxes, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to reenforcing corners for boxes. Boxes or cartons made of corrugated board or other forms of fibre are ordinarily made of one piece of board which is scored and folded, certain edges being brought together and secured to one another to complete the enclosure. The meeting edges are frequently united by means of fabric glued to the surface of the board and overlapping the joint between the edges. Boxes thus constructed are weakest at the corners, there being a tendency for the corrugated board or fibre to tear along the scores and folds and along the united edges of the material. My invention relates to a reenforcing fabric having a U-shaped slot cut in it in a direction bias to the fabric threads, the fabric being preferably gummed on one side for ready application to the box corners. The invention also embraces a fibre box having reenforcing corners of the type described applied thereto. My invention is illustrated in the accompanying drawing, in which—

Figure 1 is an isometrical drawing of a fibre box having all of its corners protected with bias reenforcing fabric;

Figure 2 illustrates the application of the fabric to a box cover corner; and

Figure 3 illustrates the fabric as it is ordinarily applied to the fibre before the latter is shaped into a container.

The reenforcing fabric shown at 4 is provided with a slot 5 cut on the bias to the threads generally illustrated by the diagonal cross lines. The reenforcing member is preferably cut round, though this feature relates only to the appearance and it is obvious that other shapes may be used without affecting the utility of the invention.

Although it is obvious that the reenforcing members may be applied to the boxes in various ways, I have found it preferable to apply gum to one side of the reenforcing fabric so that it may be attached to the box

merely by wetting. It is to be understood that the reenforcements may be applied either after the box has been completely formed or may be applied by the manufacturer who ordinarily sells the box in knock-down or flat condition.

Although I have described the reenforcing members as being made of material cut on the bias, it is also possible to construct these reenforcing devices of material which has no distinct weave, but which resists tear in at least one direction. When material of this kind is used, the U-shaped cut is made in the material in the same general direction as that in which the material resists tear.

Although I have shown and described my invention as applied to boxes, it is to be understood that it may be applied to any form of device having folds or corners which are improved by reenforcing.

I claim:

1. In combination with a box having a rectangular corner formed by side walls and superposed flaps, a corner reenforcing member of textile fabric having an open ended slot and adhering to the side walls and flaps, those portions of the reenforcing member adjacent the open end of said slot adhering to the flaps and lying in superposed relation, said reenforcing member being folded over the side wall junction and the junctions between the side walls and flaps along lines substantially at 45° to both the warp and the weft of the fabric, whereby said warp and weft strands substantially equally resist disruption of the reenforcing member along the lines of the folds.

2. In combination with a box having a rectangular corner formed by side walls and flaps, a slotted reenforcing member of textile fabric adhering to the side walls and flaps and being folded over the side wall junctions and the junctions between the side walls and flaps with both the warp and weft strands of the fabric so disposed with respect to the lines of the folds that such strands substantially equally resist tearing along the folds.

3. The combination with a corner of a box formed from a sheet folded along two lines at right angles, said sheet being cut along one of said folds outwardly from the intersection of said folds, the two quarters thus formed adjacent said cut being folded into mutually superimposed relation when the

box is completely formed, of a fabric re- ing to the superimposed lateral edge of the 10
enforcing member adhering to said corner, cut in said sheet for protecting and reenforc-
said reenforcing member having a slot cut ing the latter edge.
from substantially the intersection of said
5 folds, said slot extending at such an angle In witness whereof, I hereunto subscribe
to the weave of said fabric that tearing my name this 13th day of September, 1922.
strains along said folds are borne substan- ROBERT C. CARLSON.
tially equally by the warp and weft of said
fabric, one lateral edge of said slot extend-

Witnesses:

EDNA V. GUSTAFSON,
DAGMAR PETERSON.