This invention relates to improvements in corner reinforcement for containers. Containers are subjected to strenuous handling by the user, and when the containers are constructed of fibreboard or similar material, they frequently become torn along the corner edges adjacent the ends of the upper flaps. In fibreboard containers, as ordinarily constructed, a tear of this type will soon become 5 increased in length until the container is rendered unfit for further use.

It is one of the objects of this invention to provide an improved corner reinforcement for containers, which will either entirely prevent tearing, or so limit the extent thereof as not to lessen the efficiency of the container for further use.

A further object of this invention is to provide an improved corner reinforcement for 10 containers which is simple in construction, inexpensive, and well adapted for the purpose described.

With the above and other objects in view, the invention consists of the improved cor 15 ner reinforcement for containers, and all its parts and combinations, as set forth in the claims, and all equivalents thereof.

In the accompanying drawings in which the same reference numerals designate the same parts in all of the views:

Fig. 1 is a perspective view of a container with the improved corner reinforcement embodied therein;

Fig. 2 is an enlarged detail view of a portion of a container in knockdown form showing the preferred form of reinforcing means;

Fig. 3 is an enlarged sectional view taken on line 3—3 of Fig. 2, parts being broken away;

Fig. 4 is a fragmentary view showing the reinforcing means as it appears on the inside of the container;

Fig. 5 is a fragmentary view of a container showing a modified form of reinforcement;

Fig. 6 is a fragmentary horizontal sectional view showing said modification;

Fig. 7 is a fragmentary view showing an additional modification;

Fig. 8 is a fragmentary view showing still another modification;

Figs. 9 and 10 are perspective views of containers showing modifications;

Fig. 11 is a perspective view of a container with the flaps at both ends open showing an additional modification; and

Fig. 12 is a fragmentary plan view of a container illustrating another modification.

Referring to the drawings, the numeral 10 designates the body portion of a container, the said body portion being formed from a blank which is folded upon lines of scoring 11 to form corners. Flaps 12, which form a closure for the container, are foldable with respect to the body portion along lines of scoring 13.

In the preferred form of reinforcement, rows of stitching 14 are inserted in the fibreboard transversely of the lines of scoring 11 adjacent the upper edge of the container. The said stitching may be in four relatively short rows adjacent each corner as shown in Fig. 1, or a continuous line of stitching encircling the entire container may be utilized, as illustrated in Fig. 9.

A further modification shown in Fig. 10 utilizes a plurality of separated rows of stitching, some intermediate of the sides to prevent breaking open thereof due to bulging.

In the modification shown in Fig. 8, the stitching is in the form of a U extending transversely of the lines of scoring 11, and also transversely of the lines of scoring 13. In this form, tearing along the lines of fold of the flaps as well as along the corners is prevented. The said modification may be carried out still further, as shown in Fig. 10, to reinforce the horizontal creases throughout their length.

In the modification illustrated in Figs. 5 and 6, a metallic staple 14' is utilized. The ends of the staple extend through the fibreboard and are bent toward one another as shown.

In Fig. 7, still another modification is presented. In this form of reinforcement, a strip of tape 14'' is secured transversely of the corners by means of an adhesive.
Fig. 12 illustrates an additional modification, in which the stitching is utilized both to reinforce the vertical creases and to secure the ends of the blank together, thereby eliminating the necessity of employing staples for this purpose. The stitching shown has horizontally extending sections for reinforcing the fold, and a vertically extending section for securing the ends of the blank together.

When containers embodying the improved reinforcement are used, tearing originating between the ends of the flaps 12 will be prevented by the transverse reinforcements 14, 14', or 14" from proceeding any substantial distance along the corner lines of scoring 11, and the body portion will be held together by the reinforcing means. Thus the containers may be utilized for a considerable length of time for various purposes without danger of their efficiency being impaired by rough and careless handling.

What we claim is:

1. In a container constructed of material capable of being torn and having a line of fold therein, reinforcing stitching in said material and extending transversely of the line of fold to limit tearing along said line of fold.

2. In a container constructed of material capable of being torn and having corner portions, reinforcing stitching in said material and extending transversely of the corner portions to limit tearing along said corner portions.

3. In a container constructed of material capable of being torn and having corner portions, reinforcing stitching in said material adjacent the upper edge of the container extending transversely of the corner portions to limit tearing along said corner portions.

4. In a container constructed of material capable of being torn and having an opening therein for the reception of goods, reinforcing stitching in said material adjacent said opening for limiting tearing originating at said opening.

5. In a container constructed of material capable of being torn and having an opening therein for the reception of goods, reinforcing stitching in said material for limiting tearing thereof.

6. In a container constructed of material capable of being torn and having a corner portion and foldable flap portions, reinforcing means extending transversely of said corner portion and extending transversely of the line of fold of an adjacent flap portion.

7. In a container constructed of material capable of being torn and having a corner portion and foldable flap portions, reinforcing stitching in said material extending transversely of said corner portion and extending transversely of the line of fold of an adjacent flap portion.