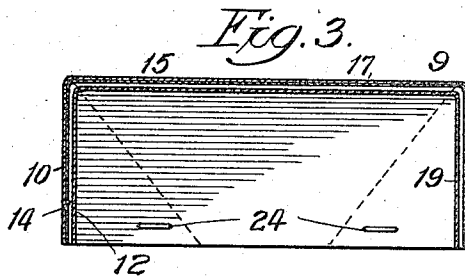
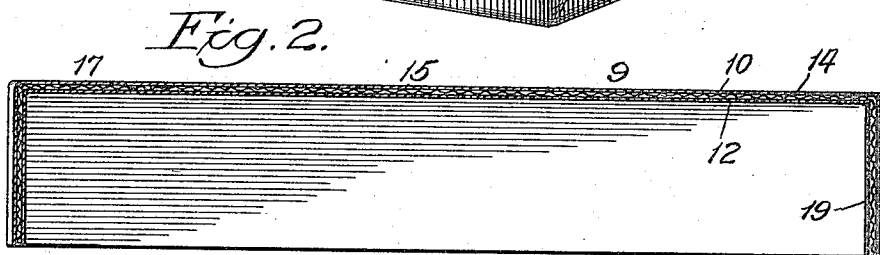
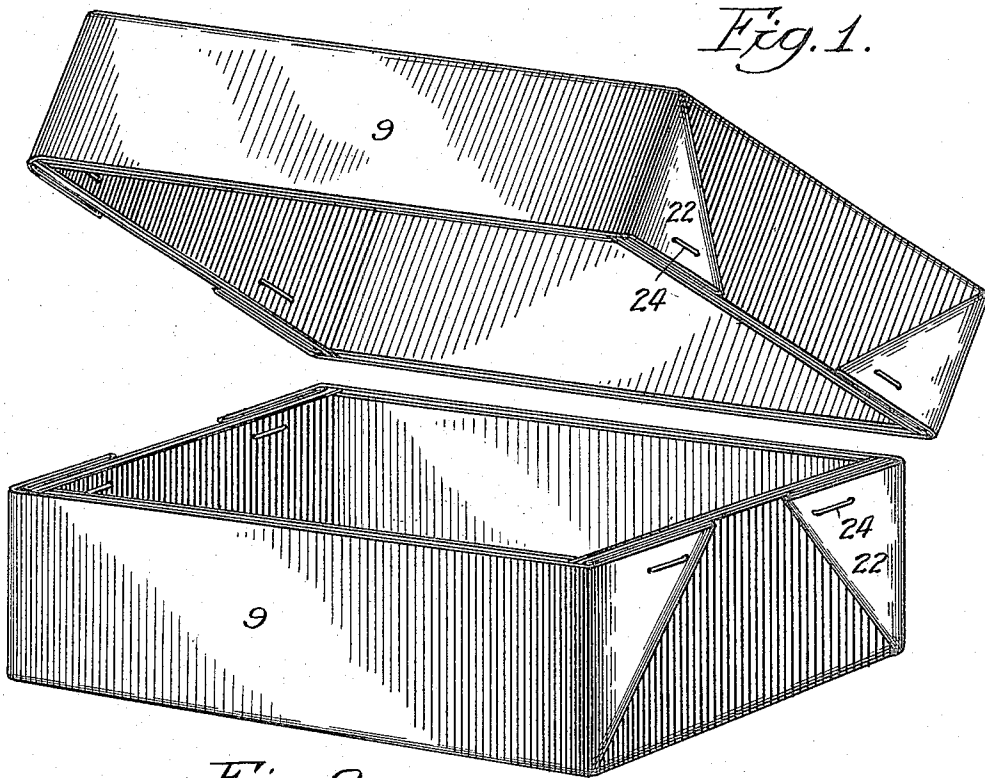


W. H. FAIRCHILD & E. R. HANKINS.
 CORRUGATED FIBER SHIPPING CASE OR BOX.
 APPLICATION FILED AUG. 3, 1914.

1,165,860.

Patented Dec. 28, 1915.
 2 SHEETS—SHEET 1.



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Fig. 4.

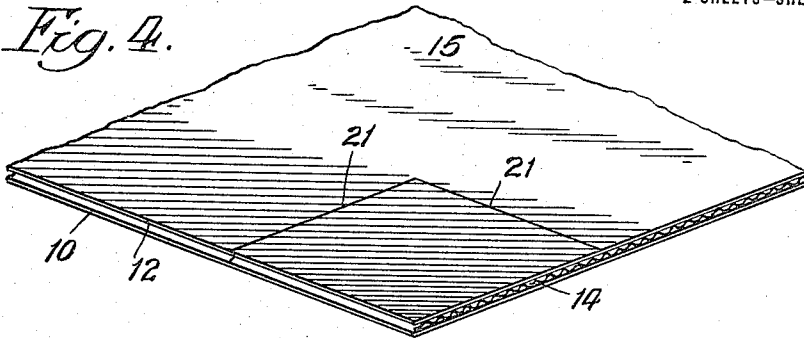


Fig. 5.

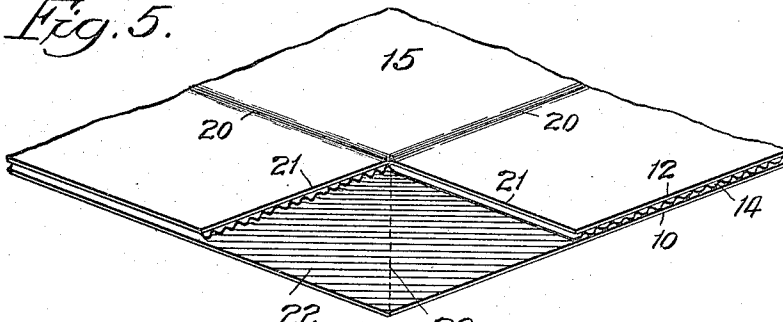


Fig. 6.

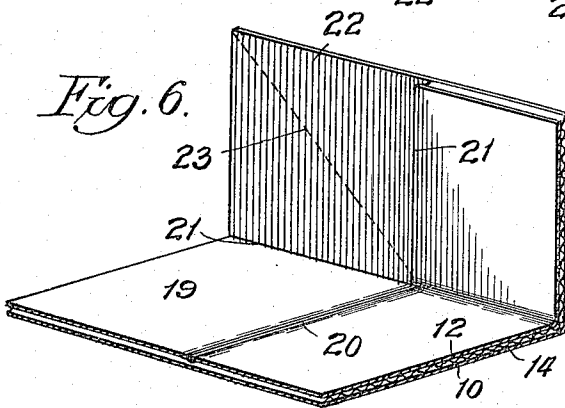


Fig. 7.

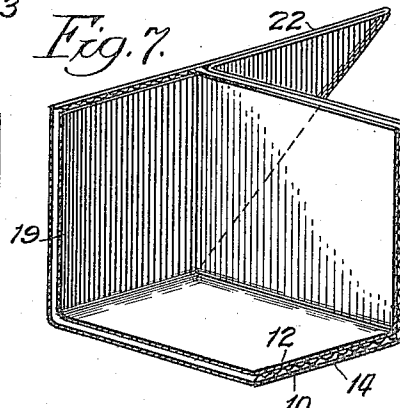
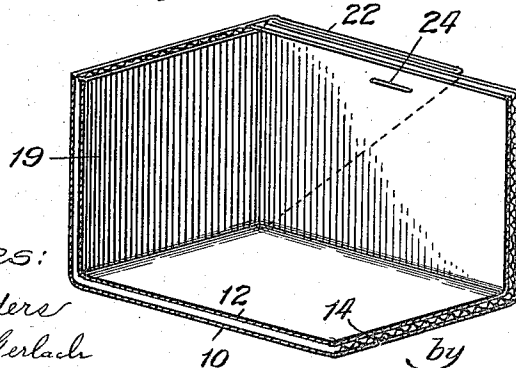


Fig. 8.



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UNITED STATES PATENT OFFICE.

WALTER H. FAIRCHILD, OF ANDERSON, INDIANA, AND EDWARD R. HANKINS, OF CHICAGO, ILLINOIS.

CORRUGATED-FIBER SHIPPING CASE OR BOX.

1,165,860.

Specification of Letters Patent.

Patented Dec. 28, 1915.

Application filed August 3, 1914. Serial No. 854,611.

To all whom it may concern:

Be it known that we, WALTER H. FAIRCHILD and EDWARD R. HANKINS, residents of Anderson, in the county of Madison and State of Indiana, and Chicago, in the county of Cook and State of Illinois, respectively, have invented certain new and useful Improvements in Corrugated-Fiber Shipping Cases or Boxes, of which the following is a full, clear, and exact description.

The invention relates to corrugated fiber shipping cases or boxes.

It is now common practice to form shipping cases or boxes of three ply fiber with flaps to form the top and bottom of the cases, so that the case or box can be shipped in folded or flat condition. In some instances, the covers for the cases or boxes are separately formed of a sheet having its corners cut away to permit portions of the sheet to be folded at right angles to its plane to form the sides of the cover or box. In each case, it is customary to secure either the flaps or the sides of the cover by stay or sealing strips whereby the parts of the box will be secured together or sealed. In those instances where the corners of the sheet have been cut away to permit the marginal portions to be folded or held at right angles to the plane of the sheet, this cutting away was necessary, because the corrugated fiber was too stiff and thick to permit folding of the material to form a corner.

One object of the present invention is to dispense with the necessity of employing staying strips for securing the different portions of the sheet in position to form a corner or to avoid the use of sealing strips at the corners of the box.

Another object of the invention is to provide an improved corner-construction for corrugated fiber cases which permits the sheets to be shipped to the point of use in a flat condition and which are constructed so that the different portions thereof may be readily folded and secured to form a case.

The invention attains these objects primarily by cutting away all of the layers at the corners of a corrugated fiber sheet except the outer layer or liner which is usually formed of flexible but stout paper so that the remaining layer or thickness may be utilized in forming a corner and lap joint at the meeting line of adjacent sides. By providing the sheet with corner portions thus fold-

able, the box-corners may be readily formed by simple means such as a staple passing through one of the sides and the overlapped uncut layer of the corner of the sheet. By thus forming the box corners, the use of stay-strips may be dispensed with and a neat appearing and well formed corner is provided.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Figure 1 is a perspective of a box showing a box embodying the invention. Fig. 2 is a longitudinal section of the cover. Fig. 3 is a transverse section of said cover. Fig. 4 is a section upon an enlarged scale of a portion of the sheet before it is cut or folded to form the cover. Fig. 5 is a perspective of a portion of the sheet before it is folded to form the cover but after it has been cut. Figs. 6 and 7 are perspectives, showing different steps in folding the cover-sheet. Fig. 8 is a perspective of one of the complete corners of the cover.

The material used in shipping cases is usually three-ply and comprises an outer-liner, an inner-liner and a corrugated inter-liner which is secured by paste to both of the liners in the process of manufacture, as well understood in the art. The invention is illustrated in detail as applied to the cover of a box, which is formed of a sheet 15, comprising an outer liner 10, an inner liner 12 and a corrugated interliner 14. This sheet is cut to the desired size to form the top wall 17 and sides 19. Sheet 15 is indented or scored on the lines 20 where the portions 19 are to be folded at right angles to the plane of the sheet to form the cover-sides. The inner liner 12 and the interliner 14 are cut away at the corners of the sheet 15, as at 21, the outer liner remaining intact, as at 22. These corners 22 are thus formed of a single ply of fiber which is sufficiently flexible to be readily folded to overlap one of the side portions 19. To facilitate folding of corners 22, each may be grooved or scored diagonally as at 23.

The sheets 15 with the corners cut away are usually shipped to the place of use in flat condition, as shown in Figs. 4 and 5. When a box or case is to be made up, one of the portions 19 and corners 22 are folded to a position at right angles to the plane of

the sheet on line 20 which extends between the inner corners of the cutaways at the ends of said sides, as clearly shown in Fig. 6. Next, the other portion 19 is folded 5 on line 20 at right angles to the plane of the sheet as shown in Fig. 7, the corner 22 being folded on diagonal line 23, as also shown in Fig. 7. Such folding will cause the corner 22 to be doubled up or folded 10 upon itself. Next, this diagonally folded and doubled corner portion formed of the outer liner 10 alone will be folded at right angles to one of the sides 19 and against the outer face of the other side 19 and secured 15 thereto by a staple 24 passing through said doubled corner portion and one of the sides 19, as shown in Fig. 8. Thereupon, sides 19 will be secured at right angles to the plane of the wall 17. Each corner of the 20 cover is similarly formed.

A box corner thus formed provides an integral corner-portion of the sheet of which the cover is formed which is sufficiently flexible to be folded to form an overlapping 25 joint, whereby the sides are secured in position. The corner thus formed is more secure than one formed by the sealing strip stuck to the sides. By employing an ordinary stapling machine, the overlapping portions may be more quickly secured together 30 than by sealing strips.

The body 9 of the box over which the cover fits is formed similarly to the cover, and, therefore, its construction has not been 35 described in detail. It will be understood that the improved cover construction may be used in either a cover, or bottom or body of a box.

The invention is not to be understood as

restricted to the details set forth, since these 40 may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what we claim as new and desire to secure 45 by Letters Patent, is:

1. A box, comprising base and side walls bent substantially at right angles to each other and formed of plural plies of material comprising a corrugated layer, the corners 50 of said box having folded flaps formed integral with one ply of the sides and base of the box and with the corrugated layer cut away, said flaps each being folded against one of the side walls and attached 55 thereto.

2. A box, comprising base and side walls bent substantially at right angles to each other and formed of plural plies of material comprising a corrugated layer, the 60 corners of said box having folded flaps formed integral with one ply of the sides and base of the box and with the corrugated layer cut away, said flaps each being folded against one of the side walls, and 65 fastening devices passed through said flaps and their adjacent side walls.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."