J. J. NERO.

BOX CORNER.

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1,215,839.

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Fig. 1.

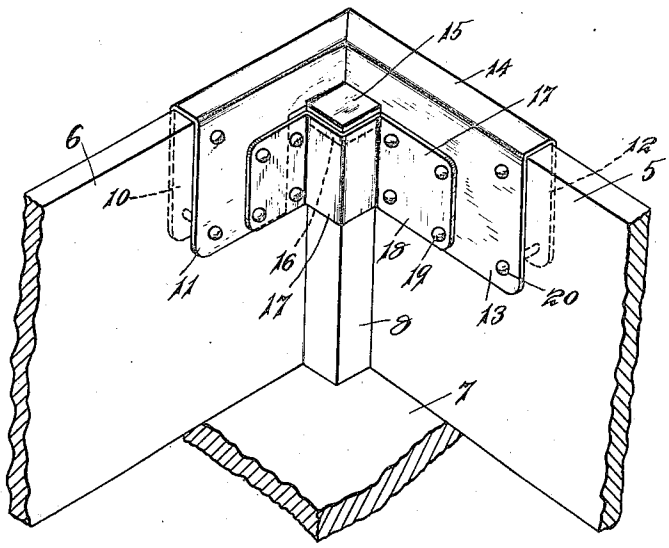


Fig. 2.

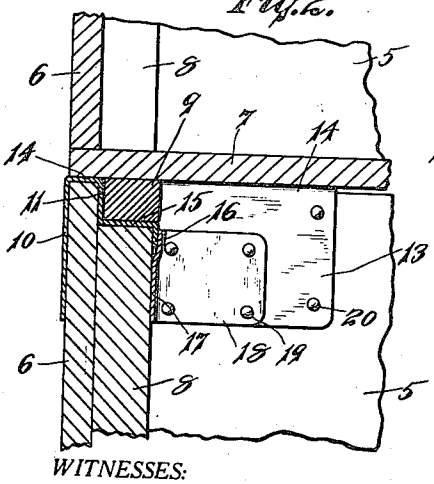
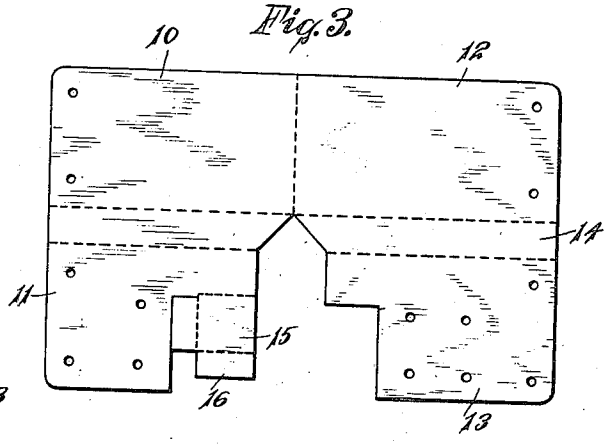


Fig. 3.



WITNESSES:

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BOX-CORNER.

1,215,839. Specification of Letters Patent. Patented Feb. 13, 1917.

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To all whom it may concern:

Be it known that I, JOHN J. NERO, a citizen of the United States, residing at West Hartford, in the county of Hartford and State of Connecticut, have invented a new and Improved Box-Corner, of which the following is a specification.

My invention relates to the class of devices used for strengthening boxes, more especially employed by marketmen, grocers, &c., for the delivery of goods, and an object of my invention, among others, is to provide means for so strengthening the corners of such boxes as to render them particularly efficient and durable.

One form of device embodying my invention and in the construction and use of which the objects herein set out, as well as as others, may be attained, is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a box having a corner embodying my invention attached thereto.

Fig. 2 is a view of a portion of two boxes cut in section near the corner and showing the construction of my improved corner piece and its manner of use.

Fig. 3 is a detail view showing the sheet metal blank from which the corner piece may be constructed.

While my improved corner piece is shown herein as constructed of sheet metal bent to form, the features of improvement may be embodied in corners made from other metal and otherwise shaped, and I do not, therefore, limit the invention to a sheet metal structure.

In the accompanying drawings the numerals 5 and 6 denote respectively the ends and sides of boxes, and 7 the bottom, 8 a corner post, and 9 a cleat or runner secured to the bottom of a box and extending lengthwise thereof near each side edge, said cleats terminating a short distance from the ends of the box so that several boxes may be piled one on top of another with the cleats resting close against the inside of the sides and ends to steady the pile by preventing movement of one box upon another. This construction and use of boxes, more commonly employed for the delivery of goods, is of old and well known construction. In the use of such boxes, which are usually made from wood, the destructive effects from use appear at the corners in the separation of the sides and ends, wearing at the upper edges of the sides and ends and the upper ends of the posts. When the corner of a box becomes thus worn or injured it affords an unstable support for the boxes above it, and should such an injured box be located at the bottom of the pile, the latter would be unstable even though the rest of the boxes might be perfect. Such being the case the entire pile is liable to be tipped over by reason of the defect of a single box, with a consequence of injury or destruction to more or less of the contents of the boxes of the entire pile.

It is to lessen this liability to such injury and wear to the corners of these boxes that I have devised the present invention that consists in corner pieces of sheet or other metal fitted to the corners of the boxes, each corner piece including an outer side plate 10, an inner side plate 11, an outer end plate 12 and an inner end plate 13, each inner and outer side and end plate being joined by an edge piece 14 that extends over and rests upon the top edges of the sides and ends. A rest 15 projects from one of the inner side plates of each corner piece in position to receive the end of a cleat or runner 9 on a box of like construction supported on the box fitted with said corner piece, the rests thus affording a supplemental support to that of the upper edges for boxes located above. In the structure herein shown the rest on each corner piece overlies and preferably rests upon the corner post 8 at that corner of the box to which the corner piece is applied, and a flange or flanges 16 are extended downwardly from an edge or edges of each rest to lie against the side parts at the end of the post 8. In the construction herein shown this rest 15 extends from the inner side plate 11.

I do not contemplate, however, the use of the posts 8 in all instances, and the flanges 16 may be omitted in some cases, and especially in those cases in which the corner posts are not employed. When, however, the corner posts are made use of, I may also make use of a corner post shield 17 to inclose the upper edge of each corner post, and when the flanges 16 are employed on the rests 15 the corner post shields 17 will overlie and inclose these flanges at each corner, and especially as shown in Fig. 1 of the drawings. Each corner post shield has a foot portion 18 at each end and rivets 19 or like fastening means are passed through the

corner post shield and through the outer and inner plates of the corner piece, and rivets 20 may be employed to secure the outer and inner side plates together.

Variations from the construction herein shown, other than those hereinbefore pointed out, may be made without departing from the spirit and intent of the invention, which is, therefore, not limited by me to the exact construction herein shown and described.

I claim—

1. A corner piece for boxes, the latter being composed of ends and sides with posts in the corners thereof, said corner piece including an edge piece resting upon the upper edges of the side and end of the box, downwardly extending plates to rest against the inner surface of said side and end, and a rest outturned from one of said downwardly extending parts to overlie and protect the end of said corner post, and also adapted to underlie a runner on the bottom of a box located above and resting upon said corner piece.

2. A corner piece for boxes, the latter being composed of ends and sides and with posts located in the corners thereof, said corner piece including outer and inner plates constructed to rest against the outer and inner faces of the side and end of a box at the corner thereof, an edge piece overlying the upper edge of said side and end, and a rest outturned from one of the inner plates at a distance from its upper edge in position to overlie and protect the end of said corner post, said rest also being adapted to underlie a runner on a box supported on said corner piece.

3. A corner piece for boxes, the latter being composed of ends and sides with posts in the corners thereof, said corner piece including a plate secured against the inner surface of the box, and a rest outturned from said plate at a distance from its upper edge to overlie and protect the end of said corner post, said rest being adapted to underlie a runner on the bottom of a box supported upon the upper edge of the box having said corner piece.

4. A corner piece for boxes, the latter being composed of ends and sides having posts located in the corners thereof, said corner piece comprising edge pieces overlying the upper edge of an end and side, inner plates extending downwardly to rest against the inner faces of said side and end, and a rest outturned from one of said downwardly extending plates at a distance from its upper edge to overlie and protect the end of said corner post, said rest being adapted to underlie the end of a runner on a box supported on said corner piece.

5. A corner piece for boxes, the latter being composed of ends and sides with posts located in the corners thereof, said corner piece comprising outer and inner plates resting against the outer and inner faces of one of said sides and ends of the box and with an edge piece joining said plates, and a rest outturned from one of said inner plates at a distance from the upper edge of said corner piece and in position to overlie and protect the end of a corner post, said rest being also adapted to underlie the end of a runner on the bottom of a box supported on said corner piece.

6. A corner piece for boxes composed of ends and sides having posts located in the angles at the meeting ends thereof, said corner piece comprising a plate secured against the inner surface of the box and a rest projecting from said plate at a distance from its upper edge to overlie the upper end of a corner post and having a flange bent downwardly against the side of the corner post at its end.

7. A corner piece for boxes composed of sides and ends having corner posts located in the angles at the meeting ends thereof, said corner piece comprising a plate secured against the inner face of the box, a rest projecting from the plate at a distance from its upper edge to overlie the end of a post, and a shield secured to the inner face of said plate and inclosing the upper end of said post.

8. A corner piece for a box composed of ends and sides having corner posts located in the angles at the meeting ends thereof, said corner piece comprising a plate secured to the inner surface of the box, a rest projecting from said plate at a distance from its upper edge to overlie the end of a post, a flange upon the rest located opposite the side of the post at its upper end, and a shield surrounding the upper end of the post and overlying said flange.

9. A corner piece for boxes composed of ends and sides having corner posts located in the angles at the meeting ends thereof, said corner piece comprising edge pieces to overlie the upper edge of the box, downwardly projecting plates to rest against the inner surface of the box, a rest projecting from one of said plates at a distance from its upper edge to overlie the end of a corner post, a flange projecting from said rest to lie against the side of the corner post at its end, and a shield secured against the inner face of said plates and inclosing the upper edge of said corner post and overlying said flanges.

10. A corner piece for boxes composed of ends and sides having corner posts located in the angles at the meeting ends thereof, said corner piece comprising outer and inner plates joined by an edge piece overlying the upper edge of the box, a rest projecting from one of said inner plates to overlie the end of a corner post, a flange projecting from

the edge of said rest against the side of the corner post at its end, and a shield secured to the inner plates and surrounding the upper end of said post and overlying said flange.

11. A corner piece for boxes including a sheet metal plate constructed to rest against the end and side of a box at the corner thereof, said plate having a rest bent outwardly from the metal comprising the plate, and a corner post comprising a part of the box and secured to the end and side thereof and with its end underlying said rest.

12. A corner piece for a box including a plate formed to rest against the inner surface of the end and side of a box thereof, a rest projecting from one side of said plate and having a free edge resting against the other side of said plate, and a corner post comprising a part of the box and secured to the side and end thereof and with its end underlying said rest.

13. A corner piece for a box, said piece including a plate having two parts bent at right angles to each other to fit the box corner, said plate having an opening at the lower edge to receive a corner post, a rest projecting from one of the sides above said opening, and a corner post comprising a part of the box and secured to an end and side thereof and with its end underlying said rest.

14. A blank for a corner piece, said blank having a minor opening from one edge thereof to approximately the center, and a major opening extending on opposite sides of the minor opening, and a tab for a rest, said tab projecting from the edge of the major opening at one side of the minor opening.

15. A blank for a corner piece, said blank having an opening extending toward the center thereof, the outer portion of said opening having parallel edges and its inner portion having edges converging, and a tab projecting from the edge of the plate next to the mouth of said opening and formed by a cut parallel with a line formed as an extension of one of the parallel edges of said opening.

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Witnesses:
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