No. 633,279. Patented Sept. 19, 1899.

F. B. BAUGH.

CRATE.

(Application filed Apr. 13, 1899.)

(No Model.)

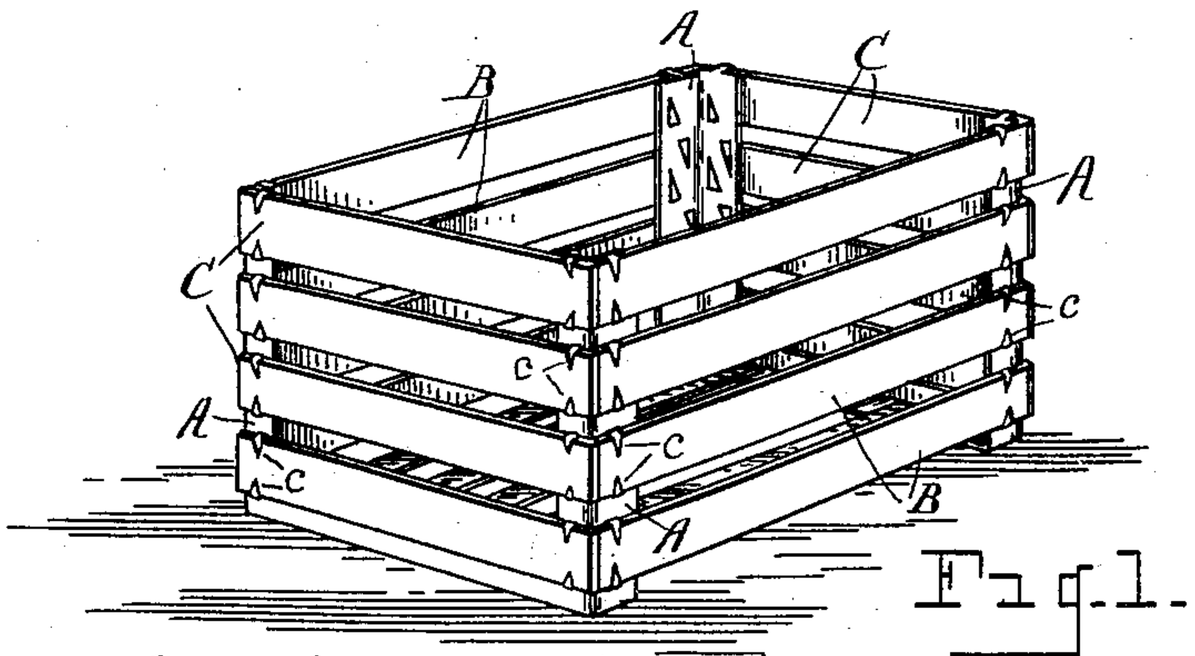


Fig. 1.

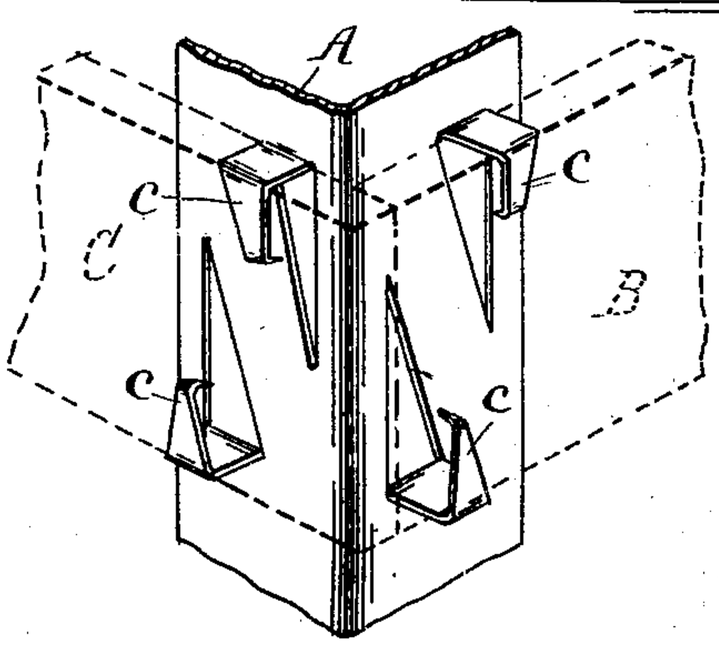


Fig. 2.

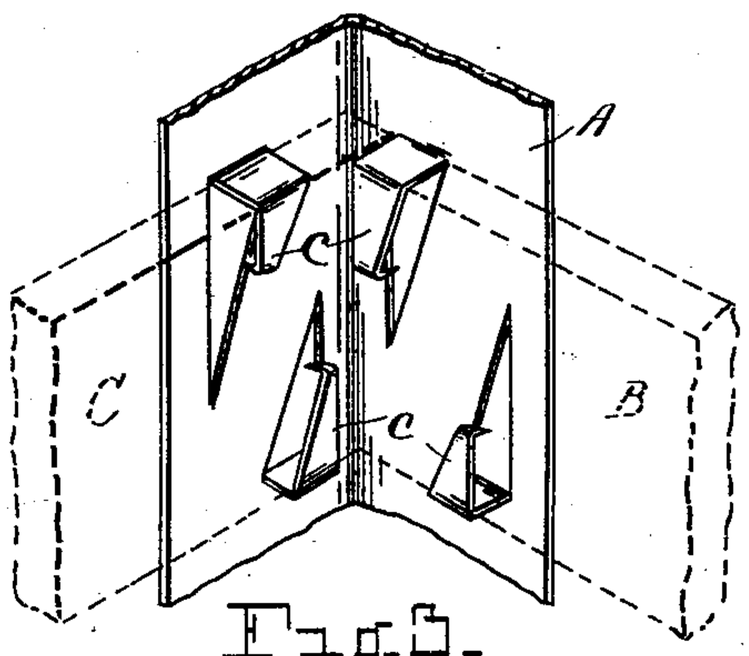
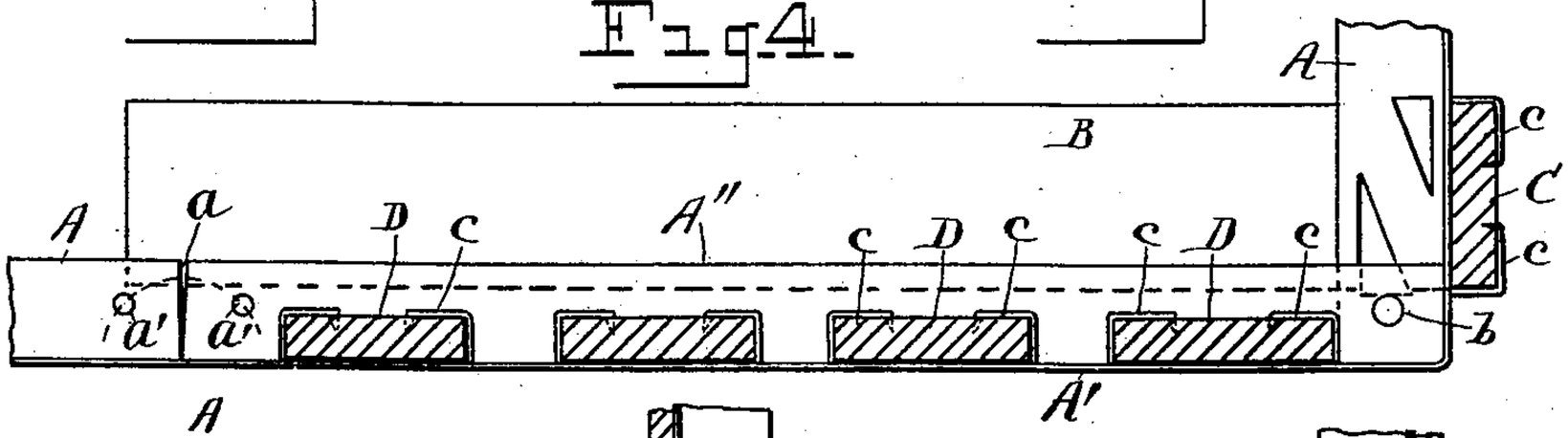


Fig. 3.

Fig. 4.



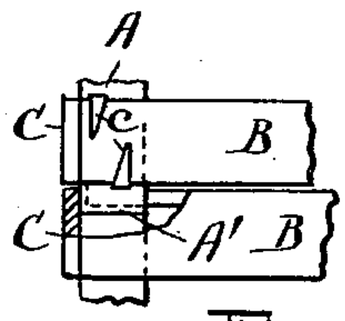


Fig. 5.

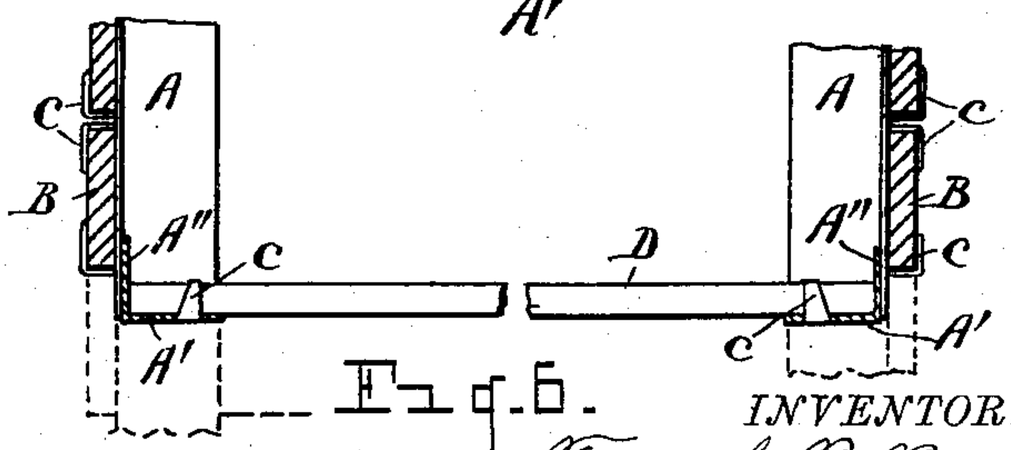


Fig. 6.

WITNESSES.

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CRATE.

SPECIFICATION forming part of Letters Patent No. 633,279, dated September 19, 1899.

Application filed April 13, 1899. Serial No. 712,842. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. BAUGH, a citizen of the United States, residing at Brighton, in the county of Livingston, State of Michigan, have invented certain new and useful Improvements in Crates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in crates; and it consists in the construction and arrangement of parts hereinafter fully set forth and pointed out particularly in the claims.

The object of the invention is to provide a crate of simple, light, and inexpensive construction, in which the arrangement is such as to insure rigidity and durability, to enable the nesting of the crates one within the other, and to provide a handy and safe means for the handling and storing of vegetables and other articles. This object is attained by the construction of crate illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved crate. Fig. 2 is an enlarged detail in perspective, showing manner of attaching the slats of the crate to the metallic angle-strips at the corners. Fig. 3 is a like view showing the slats of the crate secured to the inner faces rather than the outer faces of said corner-strips. Fig. 4 is an enlarged detail in transverse section through the bottom of the crate, other parts being broken away. Fig. 5 is a detail, partly in section, illustrating the nesting of the crates one in the other. Fig. 6 is a detail in section through a portion of the ends and bottom of the crate, other parts being broken away, also showing by dotted lines the nesting of the crates.

Referring to the letters of reference, A designates the metal strips which give form to the crate and by means of which the slats of the crate are secured in place. These strips are L-shaped or rectangular in cross-section and are continuous, extending down one corner of the crate, across the end thereof at the bottom, and up the opposite corner, there being two of said strips employed in the construction of the size of the plate shown herein, one strip at either end of said crate. These strips are formed of sheet metal of the requisite gage and length for the size of the crate to be formed and are bent, as shown, through their longitudinal center to form the opposed sides or flanges projecting laterally at right angles to each other. To provide for bending the outer portions of said angle-strips upwardly, so as to form the vertical corners of the crate, one of the lateral flanges of said strip is cut through, as shown at *a* in Fig. 4. Said flange is severed in two places to enable both ends of said strips to be bent upwardly, and the distance between the incisions in said flange is equal to the required width of the crate across the bottom. After cutting through one of the flanges of said angle-strip, as described, the end portions of the strip are turned upwardly, as shown, and secured in a vertical position by passing a rivet *b* through the registering apertures *a'* in the overlapping severed ends of said flange, as shown at the right of Fig. 4. The vertical portions of said angle-strip form the opposite corners of the crate, while the complementary horizontal portion of said strip forms the corner of the bottom of the crate at one end. To provide for securing the slats of the crate to said metal strips, integral tongues *c* are struck from the sides of said strips by any suitable means and are so formed as to give them a sharp penetrating point. These tongues, as will be seen, are arranged in pairs, being so located as to be adapted to be folded over the opposite edges of each of said slats and forced into the face thereof, as clearly shown, by which arrangement the slats are securely held against longitudinal or lateral displacement. The distance between each pair of said supporting-tongues determines the distance between the slats of the crate. It will therefore be understood that said tongues may be so located as to cause the slats of the crate to stand any desired distance apart.

As will be seen on referring to Fig. 1, the side slats B of the crate are supported by the tongues extending from one face of the metal strips, while the end slats C are supported by the tongues formed upon the opposite face or angle of said strips, whereby the sides and

ends of the crate are firmly united and held in a rectangular form. The bottom slats D of the crate rest at their opposite ends upon the horizontal flange A′ of the bottom portion of said strip, while the ends of said slats abut against the vertical flange A″ thereof, thereby, in conjunction with the embracing-tongues *c*, maintaining said slats firmly in place. Because of the employment of the metal angle-strips in the corners of the crate, to which the slats of the sides and ends of the crate are secured, a very stanch and rigid crate is produced, which will not rack or twist out of its rectangular shape.

In the use of crates of this character for the handling and storing of vegetables it is essential that said crates shall be so formed as to nest one in the other. Provision is made for the nesting of these crates by the offset formed by the lower side and end slats of the crate, so that the portions of the metallic strips which cross the ends of the bottom of the crate are adapted to fit into the top of another of said crates when nested together, as shown in Fig. 5 and by dotted lines in Fig. 6.

In all of the figures but Fig. 3 the side and end slats of the crate are shown attached to the outer faces of the angle-plates. It is evident, however, as shown in Fig. 3, that said slats may be attached to the inner face of said angle-plates, so as to place said plates upon the outside of the corners of the crates, if desired.

It will be observed that in the construction of crate herein shown no nails or screws are employed and that the crate consists wholly of the metallic strips with their attaching-tongues and the slats of the crate secured by said tongues. It will also be understood that the acuminated ends of the tongues which are forced into the slats of the crate are so shaped as to obviate splitting, so that there is no liability of the slats becoming loose from their fastenings, as is the case where nails are employed. The angle formation of the metal strips at the corners adds rigidity thereto and prevents the breaking down of the corners of the crate by a weight upon the upper edge thereof. It will also be understood that a crate formed as herein shown may be readily repaired, owing to the fact that should a slat become broken the attaching-tongues may be readily disengaged therefrom, the slat removed, and a whole slat secured in the place thereof without in any way interfering with the other slats of the crate, the malleability of the attaching-tongues permitting this operation without injury thereto.

In crates of larger size than the one herein shown it may be found necessary to use a strip down the sides and across the bottom at the center of the crate, in which case a flat metal strip will be employed bent to conform to the sides and bottom of the crate and provided with the attaching-tongues adapted to engage the slats of the bottom and sides, as herein described.

Having thus fully set forth this invention, what I claim is—

1. In a crate, the vertical metallic strips provided with malleable engaging-tongues, the slats of the crate engaged and supported by said tongues which are folded upon and driven into said slats, the horizontal metallic strips also having engaging-tongues, and the bottom slats of the crate supported on the horizontal strips and engaged by the tongues thereof.

2. In a crate, the combination of the slats forming the sides and bottom, a continuous metallic strip crossing the slats of the sides and bottom, said strip having the integral tongues struck therefrom, said tongues being adapted to be folded upon and secured to said slats to support and maintain said slats in their proper relative positions.

3. In a crate, the combination of the corner-pieces rectangular in cross-section, said corner-pieces having tongues upon the opposed sides thereof, the slats forming the sides and ends of the crate embraced by the tongues of said corner-pieces which are folded upon and driven into said slats to maintain them in place.

4. In a crate, the combination with the slats of the crate, a metallic strip crossing said slats, said strip having integral tongues struck therefrom, said tongues being formed with acuminated points and so positioned as to fold over the opposite edges of the slats and lap onto the face thereof, the acuminated ends of said tongues entering the slats to maintain them in place.

5. In a crate, the combination of the continuous angle-strip forming the corners and crossing the bottom of the crate at the ends, said strips having the engaging-tongues upon the right-angled faces thereof, the slats forming the sides and ends of the crate engaged by said tongues, the slats of the bottom of the crate lying on the horizontal portion of said strips and engaged by the tongues thereof.

In testimony whereof I sign this specification in the presence of two witnesses.

FREDERICK B. BAUGH.

Witnesses:
CARL A. KELLEY,
EUGENE HICKS.