No. 756,877. PATENTED APR. 12, 1904.

F. O. MILLER.

SHIPPING CRATE.

APPLICATION FILED AUG. 14, 1903.

NO MODEL.

Fig. 1.

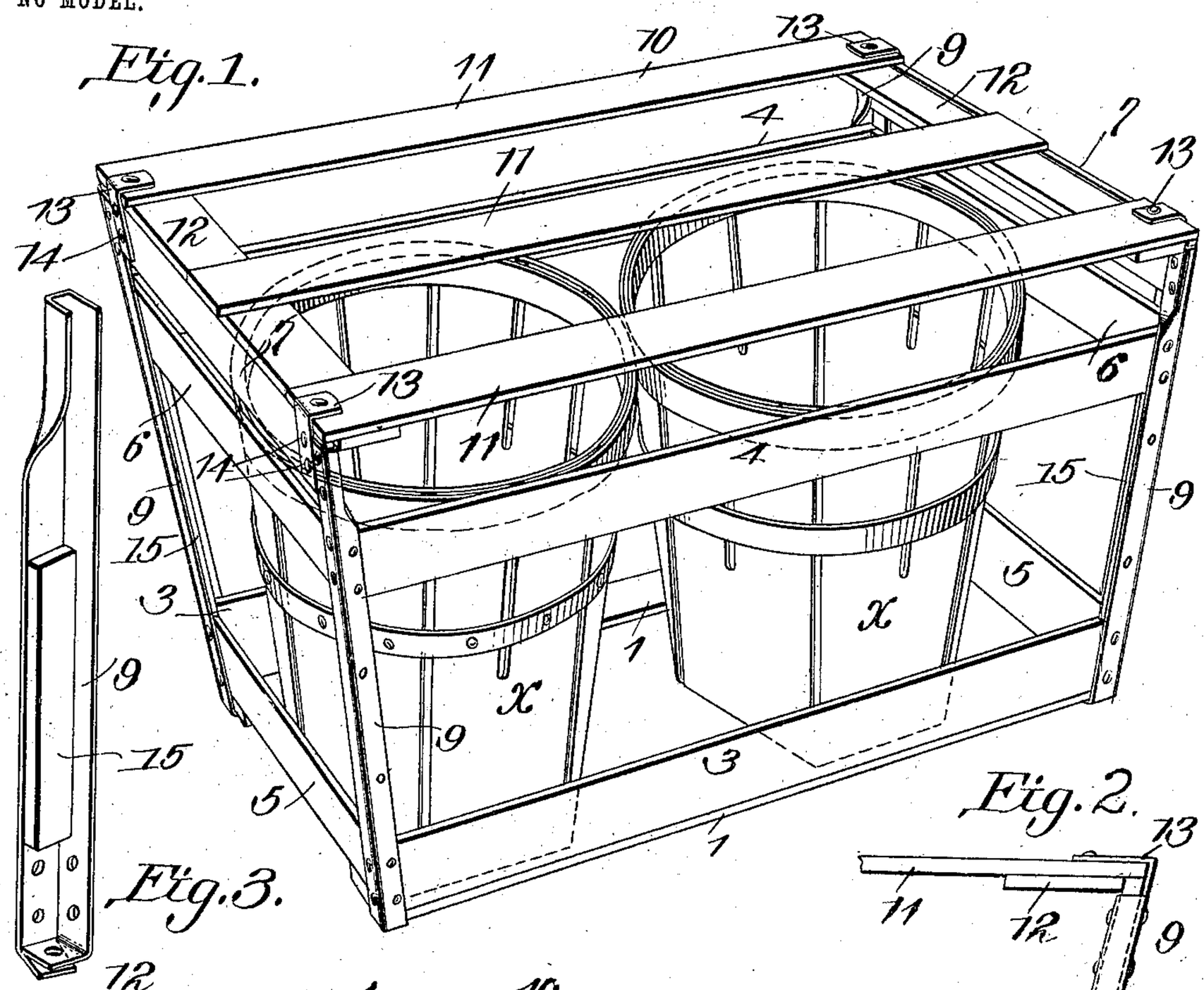

Fig. 3.

Fig. 2.

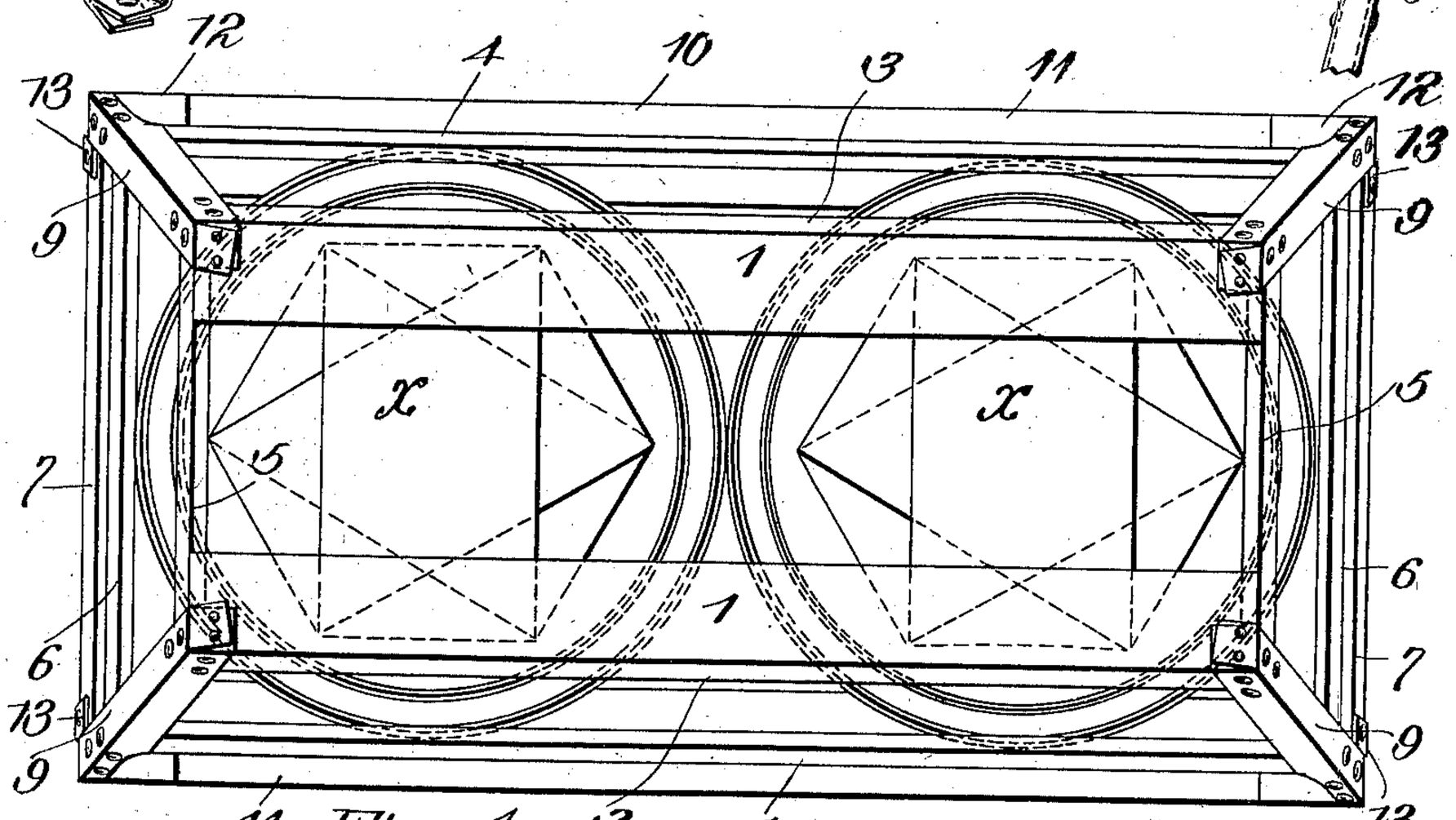

Fig. 4.

Witnesses

E. F. Stewart

Jno. E. Parker

F. O. Miller,

Inventor.

by Cachow & Co

Attorneys

No. 756,877. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

FRANK O. MILLER, OF HOLLEY, NEW YORK.

SHIPPING-CRATE.

SPECIFICATION forming part of Letters Patent No. 756,877, dated April 12, 1904.

Application filed August 14, 1903. Serial No. 169,503. (No model.)

To all whom it may concern:

Be it known that I, FRANK O. MILLER, a citizen of the United States, residing at Holley, in the county of Orleans and State of New York, have invented a new and useful Shipping-Crate, of which the following is a specification.

This invention relates to certain improvements in shipping-crates, and especially to crates of that class employed for holding baskets or other receptacles employed in the transportation of fruits, vegetables, and the like.

One of the principal objects of the invention is to provide a crate of simple construction and arranged in such manner that a number of crates may be nested together for reshipment.

A further object of the invention is to provide a crate with metallic corner-braces so arranged as to afford support to both the sides and ends of the crate and in this connection to provide side or end members at a level above the remaining members braced and held in place by the metallic corner-strips.

A still further object of the invention is to provide a crate of such construction as to compel the packers or shippers to place the fruit-baskets into the crate in proper position and in such manner that they will receive the best support and, further, to provide a support for both the bottoms and the rims of the baskets, so that independent movement of the latter in any direction will be prevented.

A still further object of the invention is to provide a crate in which fruit in heaped or topped baskets will be protected from injury, the cover of the crate being supported at a distance above the rims of the baskets and out of contact with the heaped fruit.

A still further object of the invention is to provide a crate with a detachable cover so arranged as to be held firmly against the ends of the crate and to provide such covers with metallic strips that may be secured to the end members of the crate by a single nail or other fastening device in order to firmly lock the cover in position.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a crate constructed in accordance with the invention. Fig. 2 is a detail side view, on an enlarged scale, of one corner of the crate, showing the metallic bracing-strip. Fig. 3 is a detail view of one of the corner-braces detached. Fig. 4 is an inverted plan view of the crate, showing the bottoms of the fruit-baskets and the positions which they assume in said crate.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The bottom of the crate is formed of two wooden strips 1, and each side is formed of a bottom strip 3 and a top strip 4, the latter being of somewhat greater length than the bottom strip. Each of the ends of the crate is formed of a lower strip 5 and two upper strips 6 and 7, the strips 6 being disposed in the same horizontal plane with the strips 4, and these upper strips at both sides and ends being adapted to engage the rims of the baskets X and prevent movement of the latter.

At each corner of the crate is a metallic strip 9, having a longitudinal bend and forming an angle-bar, of which one web is secured to the end strips and the other web to the side strips. At the lower end of these metallic members a slit is formed in the fold-line, and the two webs are bent at the bottom of the crate, one underlapping the other, and both are secured by nails or similar fastening devices to the bottom strips, so that all portions of the crate will be firmly bound together.

The upper portions of the metallic braces are bent somewhat in the form of a channel-bar and embrace the ends of the strips 7, nails or similar securing devices being employed to hold the braces and strips together.

Both the sides and ends of the crate diverge from the bottom upward, and all the crates

are made of uniform size, so that they may be readily nested together when it is desired to reship the same to the packer.

The inclined walls or side and end members of the crate are arranged at angles corresponding to the lines of the fruit basket X, and the distance between the two strips 4 is just about equal to the diameter of the rim of the basket, while the distance between the strips 6 is equal to twice the diameter of the basket-rim.

The fruit-baskets are as a rule made of veneer, three strips being generally used and bent into approximately V shape, so that the bottom of the basket will as a rule be hexagonal in form or, if four strips, the bottom may be octagonal. The distance between the lower side strips 2 is about equal to the smallest diameter of the bottom of the basket, but is less than the major diameter, so that the shipper is compelled to place the baskets in position in the crate in such manner that one of the veneer strips of which the basket is formed shall extend across the bottom of the crate in a direct transverse line, and thus be more firmly supported, while at the same time rendering it unnecessary to employ an auxiliary bottom strip for the support of the central portion of the basket. The baskets are usually heaped or rounded with the fruit, and in order to protect the top of the fruit a cover 10 is used. This cover is preferably formed of three or more longitudinal strips 11 of a length about equal to the distance between the outer faces of the upper strips 7 and a pair of transverse strips 12, nailed or otherwise secured to the longitudinal strips and so arranged as to fit snugly against the inner walls of the strips 7 and prevent inward movement of the latter. As an additional protection the cover is provided with corner-straps 13, which are formed of a short strip of metal, having one end secured to the cover and the opposite end being previded with a suitable opening 14, through which a nail may be driven to secure the strip to the end of the crate.

In some cases it may be desirable to add to the stiffness or rigidity of the crate by the employment of additional braced strips 15 in the angular spaces formed by the corner-braces and extending between the upper and lower strips of the side or end pieces, as shown in Fig. 1.

With a crate constructed in this manner the baskets of fruit will be firmly held both at the base and rim and the box will be protected, so that the shipper is enabled to heap or round the baskets without any risk of bruising or otherwise injuring the fruit during shipment.

Having thus described the invention, what is claimed is—

1. In a crate, a bottom, side and end members, of which the ends are of greater height than the sides, metallic strips bent to form angle-bars, the webs of such angle-bars being secured to the side and end members of the crate, and the two angularly-related webs being bent into parallel relation at points above the top of the side members, thereby forming channel-bars for embracing the upper portions of the end members.

2. In a crate, a corner strip or member formed of a strip of metal bent into the form of an angle-bar for the greater portion of its length, the two webs at the upper end of said strip being bent to form a channel-bar, and an auxiliary bracing and spacing strip secured to said angle-bar.

3. In a crate, a bottom, spaced strips constituting side and end members, corner-braces formed of angle-bars, auxiliary spacing and bracing strips carried by the angle-bars at points between the strips which form the side and end members, the upper ends of the braces being bent to form channel-bars and serving to hold the upper portions of the end members.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK O. MILLER.

Witnesses:

MAMIE SULLIVAN,

MAUD MY HILL.