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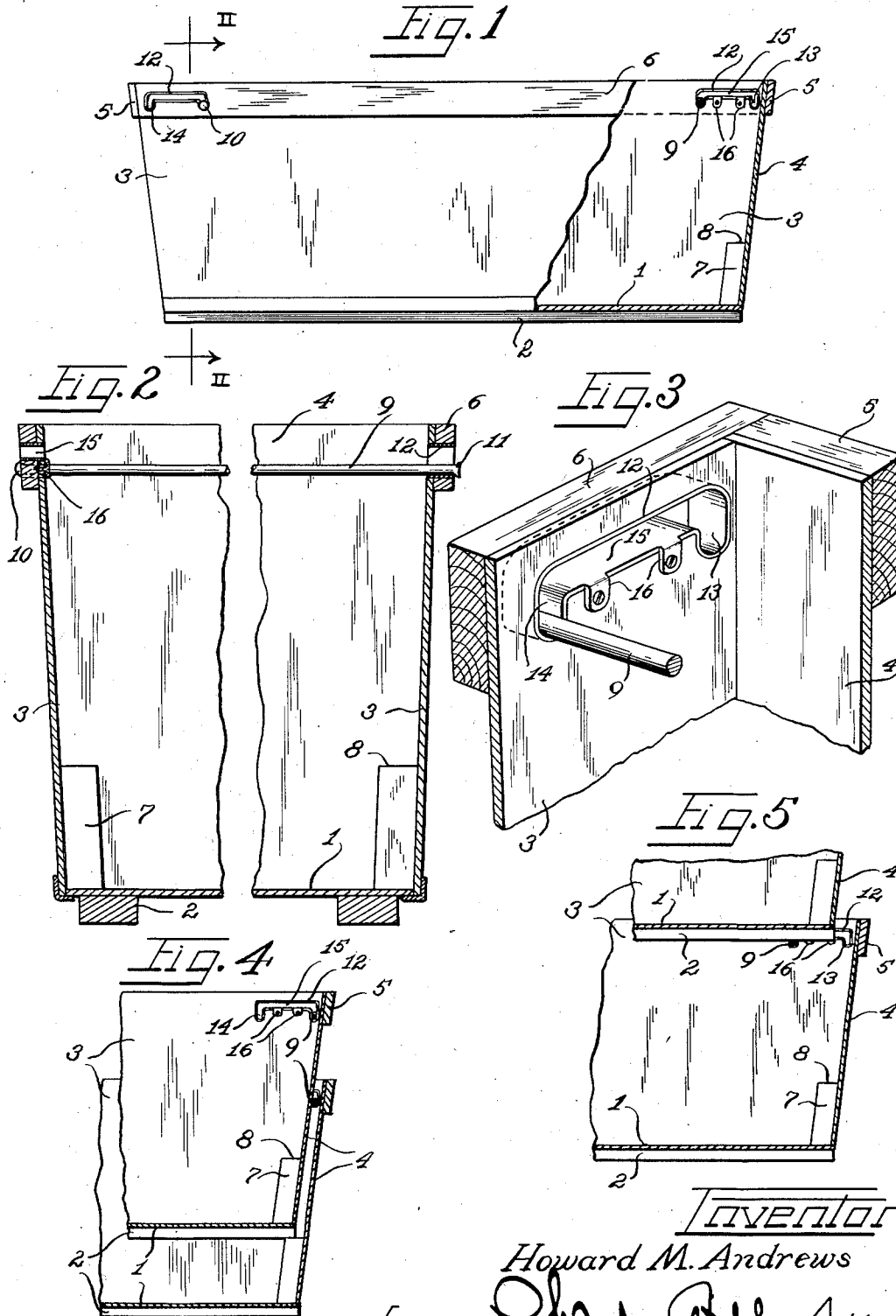
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2,026,204

CRATE OR BASKET

Filed Jan. 9, 1935

2 Sheets-Sheet 1



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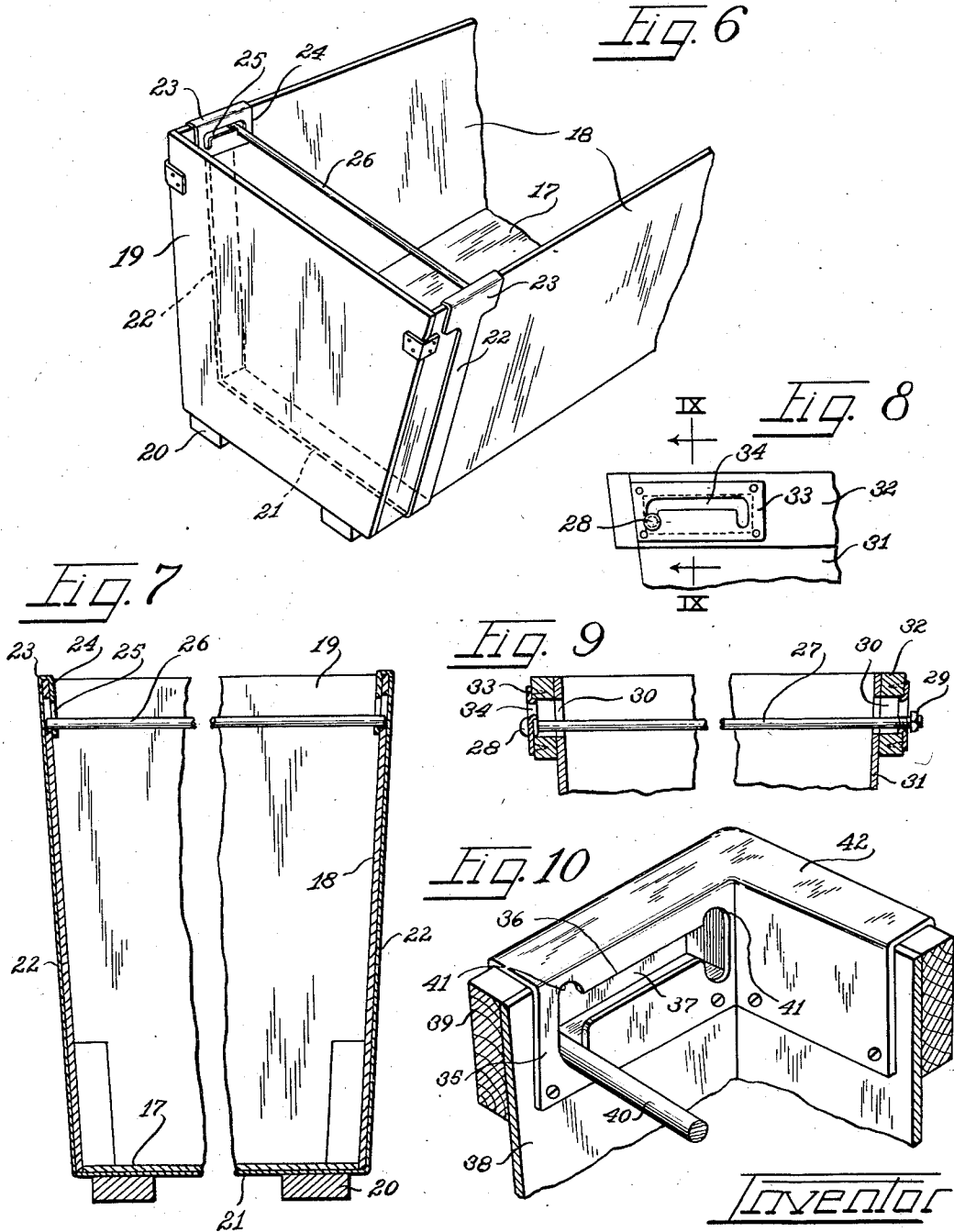
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CRATE OR BASKET

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16 Claims. (Cl. 220—97)

This invention relates to an improved type of nesting crate or basket wherein cross-bars are mounted transversely within the upper portion of the crate or basket in suitable guides permitting the cross-bars to be moved inwardly away from the ends of the crate or basket into positions to permit another crate or basket to be supported thereon, or if desired, the transverse bars may be shifted outwardly into positions closely adjacent the inner surfaces of the end walls to permit one crate to slip downwardly into a lower crate in compact nested relation.

It is an object of this invention to provide a crate or basket with grooved guides in upper opposite margins thereof to permit longitudinal shifting of cross-bars or rods in the grooved guides to permit the crates or baskets to be nested one within the other when the cross-bars are in their outermost positions within the crate or basket, and furthermore permitting the crates or baskets to be superimposed or stacked one above the other when the cross-bars are in their innermost positions to serve as supports for a crate or basket positioned above another.

It is a further object of this invention to provide crates or baskets with grooved guide members to support movable transverse bars within the crates or baskets to be moved into crate stacking positions within the crates or baskets or into released or non-supporting positions within the crates or baskets to permit the same to be compactly nested one within the other.

It is an important object of this invention to provide improved crates or baskets wherein the upper margins of opposite walls are provided with guide openings for the reception of the ends of supporting bars or rods and into end recesses or pockets for holding the rods in set positions of adjustment, said recesses or pockets being connected by longitudinal openings or main slots through which the ends of the cross-bars may be moved when shifted into position for use or non-use, without interfering with exterior portions of the crates or baskets.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawings.

The invention (in its preferred forms) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a side elevation of an improved crate or basket embodying the principles of this invention, with parts broken away.

Figure 2 is an enlarged fragmentary transverse section taken on line II—II of Figure 1.

Figure 3 is an enlarged fragmentary interior perspective view of one of the upper corners of the crate or basket illustrating the detailed form of one of the bar supporting guide members secured in one of the walls of the crate or basket.

Figure 4 is a fragmentary vertical detailed section taken through the end portions of two nested crates or baskets with the supporting bars in their outermost positions to permit nesting of empty crates or baskets.

Figure 5 is a fragmentary vertical sectional view showing a lower crate or basket with the supporting rods in their innermost supporting positions to hold an upper crate or basket in superimposed or stacked relation when said crates or baskets are filled.

Figure 6 is a fragmentary end perspective view of a crate or basket provided with a modified form of a crate stacking unit forming part of a crate reinforcing strap.

Figure 7 is a fragmentary transverse detailed section taken through the crate and stacking unit of the device illustrated in Figure 6.

Figure 8 is an enlarged fragmentary side view of an upper corner of a crate or basket, illustrating another modified form of a stacking unit.

Figure 9 is a fragmentary transverse detailed section taken on line IX—IX of Figure 8.

Figure 10 is an enlarged fragmentary perspective view of an upper inner corner of a crate or basket illustrating still another type of stacking unit.

As shown on the drawings:

In the form of the device illustrated in Figures 1 to 5, inclusive, the improved crate, box or basket comprises a bottom 1 reinforced by bottom rails or cleats 2. Secured to the sides and ends of the bottom 1 are the bottom margins of the side walls 3 and end walls 4 which are inclined upwardly and outwardly from the bottom to form a tapered crate or basket. The bottom, side and end walls of the crate may be formed of lightweight material, such as sheet wood, fibre, fibre board, composition board or metal plates, depending upon the purpose for which the crate or basket is to be used.

The upper margin of the tapered basket is reinforced by transverse end cleats or bars 5 and side bars or cleats 6 which form a rigid reinforcing rim around the exterior of the upper portion of the crate or basket. The end and side rim members 5 and 6 are preferably formed of wood and are secured to the walls of the crate by nails,

rivets or other suitable securing means. If desired, inner corner blocks or brace bars 7 may be rigidly secured in the lower inner corners of the crate or basket with the upper ends of said blocks so positioned that they afford stops or shoulders 8 to permit the bottom cleats or runners 2 of an upper crate when nested in a lower crate to seat thereon, as clearly illustrated in Figure 4. The reinforcing corner blocks 7 prevent the crates or baskets from tightly gripping one another in frictional locking engagement when in nested position.

Mounted within the upper ends of the open topped crate or basket are crate stacking or supporting units each comprising a supporting bar or rod 9, the end portions of which project through a pair of guide members. One end of the supporting bar or rod 9 is provided with a head 10 while the opposite end is upset to provide a retaining head 11. The heads 10 and 11 have diameters greater than the width of the guide grooves of the guide units so that the rods cannot be removed. Each of the guide units comprises a continuous metal band 12 made in the form of a loop, the end bights of which are deflected at substantially right angles to form an outer socket or pocket 13 and an inner socket or pocket 14 connected by a main guide groove 15. Integrally formed at right angles on the inner edge of the lower strip of the guide unit are a pair of spaced retaining tongues or lugs 16 having openings therein for the reception of mounting screws. As clearly illustrated in Figure 3, each of the side walls 3 at each of their upper corners is provided with a substantially U-shaped opening which registers with a similar U-shaped opening provided in the side rim member or top rail 6. The U-shaped guide band 12 is tightly projected into the inner side of the basket or crate into the pair of registering U-shaped openings in the side wall 3 and the top rail 6 with the open side of the guide units flush with the inner surface of the side walls 3 and the outer surface of the top rails 6. When a guide member is fitted in position, as illustrated in Figure 3, the retaining screws are projected through the openings in the lugs 16 and extend into the side wall 3 and the top rail 6 to securely hold the guide member in position.

Each of the crate or basket stacking units consists of a pair of guide bands 12 and a single supporting rod or bar 9 which projects through the guide bands with the bar heads 10 and 11 preventing the guide bands from being removed from the rod 9. As previously mentioned, the heads 10 and 11 are of a diameter greater than the depth or thickness of the looped portion of the guide bands and of a diameter slightly less than the receiving grooves in the side walls 3 and the top rails 6 to permit the heads of the cross-bar to be projected through the openings before the guide bands 12 are secured in place.

The improved stacking units, each consisting of a pair of U-shaped guide bands 12 and a connecting rod or bar 9, may be shipped as units to the crate manufacturer and then installed as described, or, if preferred, the guide bands 12 and the rods 9 may be shipped separately to permit a pair of the guide bands to be mounted in position in the receiving grooves in the upper side corners of a crate or basket, after which the free end of the supporting bar 9 may be projected transversely through the basket and through the guide bands. The straight projecting end of the

rod 9 may then be offset to provide the retaining head 11.

When the crates or baskets are empty and are not in use, the same may be nested one within the other, as illustrated in Figure 4, with the bottom of one crate engaged within a lower crate and resting upon the upper shoulders 8 of the stop blocks 7. The nesting of the crates or baskets is permitted when the transverse supporting rods are moved through the grooved guide bands 12 to seat in the outermost sockets or pockets 13 adjacent the inner sides of the end walls 4 of the crates or baskets. When the crates or baskets are filled, they may be stacked or superimposed one above the other by merely shifting the rods 9 from the sockets 13 through the guide grooves 15 into the inner pockets or sockets 14 a sufficient distance away from the inner sides of the end walls of the baskets to permit the bottom of an upper crate or basket to be projected into the upper portion of a lower crate to seat upon the supporting rods or bars 9 similar to the arrangement illustrated in Figure 5. By this convenient stacking arrangement, it will be noted that there are no exterior bails or other devices pivotally engaged on the upper ends or portions of the crates or baskets, and furthermore, that the stacking units of the present invention are completely retained within the upper end portions of the crate or basket, requiring merely the inward or outward shifting of the supporting rods or bars 9 into position within the crates to permit the same to be either nested one within the other or stacked in superimposed relation.

Figures 6 and 7 illustrate a modified form of crate or basket of the tapered type comprising a bottom wall 17, inclined side walls 18 and end walls 19 rigidly secured together. Bottom rails or runners 20 are secured to the under surface of the bottom wall 17. In this form of the crate or basket, modified forms of stacking units are provided at short distances from each end of the crate or basket. Each of the stacking units comprises a U-shaped loop or band consisting of a bottom strap 21 which connects the lower ends of side straps 22. Integrally formed on the upper end of each of the side straps 22 is a channel-shaped head 23 which tightly fits or seats over the upper edge of a side wall 18, as clearly illustrated in Figure 6. Each of the channel heads 23 has the inner flange 24 provided with a U-shaped guide slot or groove 25 in register with an opening or slot provided in the upper margin of each of the side walls 18 for the reception of the straight end of a stacking bar or rod 26.

As clearly illustrated in Figures 6 and 7, the stacking rods or bars 26 may be moved to seat in the sockets or pockets at the inner ends of the guide grooves 25 to permit another crate or basket to be stacked in superimposed relation upon a lower crate or basket, or if desired, the supporting rods 26 may be shifted outwardly in the guide grooves 25 to seat in the outermost sockets or pockets in out-of-the-way positions to permit the interfitting or nested engagement of the crates or baskets when the same are empty. In the form of the device illustrated in Figures 6 and 7, the U-shaped bands or hoop members serve as reinforcing members for the crates or baskets while the upper grooved U-shaped head members of the hoops or bands serve as means for adjustably or movably supporting the supporting rods or bars 26 in position to permit the nesting or stacking of the crates or baskets.

Figures 8 and 9 illustrate another modified

form of a crate stacking unit consisting of a stacking or supporting rod or bar 27 having a head 28 integrally formed on one end thereof while the other end is threaded for the reception of a nut

29. The ends of the supporting rod 27 project outwardly through U-shaped slots or openings 30 provided in the upper margins or corners of the crate side walls and the top rails 32 of a crate or basket of the tapered type hereinbefore described. Secured on the outer surfaces of each of the top rails 32 is a metal plate 33 having a U-shaped guide slot or groove 34 provided therein and positioned to the outside of the recesses or openings 30. The ends of the supporting or stacking rod 27 project outwardly through the guide slots 34 and are prevented from being pulled outwardly through said slots by means of the head 28 and the nut 29. In this form of the device, the supporting or stacking rods or bars 27 are moved into their outermost positions, as illustrated in Figure 8, when it is desired to nest the crates or baskets one within the other. In case it is desired to stack the crates when full, the supporting rods 27 are moved inwardly to seat in the pockets or recesses at the inner ends of the guide slots 34 to be positioned to afford a seat for the bottom of an upper crate or basket to hold the same in stacked or superimposed relation with a lower crate or basket.

Figure 10 illustrates still another modified form of stacking unit for a crate or basket. In this form of the device, channel cross-sectioned angle brackets or corner pieces 42 are secured in position on the upper corners of the crate or basket to reinforce the same. As clearly illustrated in Figure 10, each of the corner brackets has a longitudinal inner side flange or wall 35 thereof provided with an I-shaped guide slot or groove 36 which registers with a notch or recess 37 provided in the upper corner of the side wall 38 and the side top rail 39 of a crate or basket. Projecting transversely across the upper end portion of each end of the crate or basket is a stacking rod or bar 40, the ends of which are straight and project through the guide slots 36 into the recesses 37 to be enclosed by the top and side walls of the corner brackets 42.

In case it is desired to use the stacking rods or bars as handles for carrying the crate or basket, the various guide grooves or slots, such as 37, may be formed with upper notches or recesses 41, similar to the arrangement illustrated in Figure 10, to form upper notches or seats for the end portions of the bars or rods to prevent the same from slipping through the main guide slots when the rods are used as handles for carrying the crate or basket.

It will, of course, be understood that various features of construction may be varied through a wide range without departing from the principles of this invention, and it is therefore not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. A nesting crate or basket comprising a tapered body having U-shaped guide slots provided near the upper corners of a pair of opposite walls thereof, and supporting members positioned transversely within the body with the ends of said members engaged in the guide slots permitting the supporting members to be moved into the outer ends of the guide slots to permit the nesting of one crate or basket within another, said supporting members also adapted to be moved into

the inner ends of the guide slots into position to permit the bottom of an upper crate or basket to be supported thereon to hold the crates or baskets in stacked or superimposed relation.

2. A crate or basket comprising walls, a bottom, a rim reinforcing member secured to said walls, a pair of said opposite walls having U-shaped guide slots therein, and a plurality of supporting rods disposed within the crate with the ends of said rods engaged to travel in said slots into position to permit nesting or stacking of crates.

3. A crate comprising a bottom, a plurality of walls, a rim secured to the upper margins of said walls to reinforce the same, a pair of said walls and the rim portions thereof having U-shaped slots therein, U-shaped guide bands secured in said slots to line the same, and supporting rods positioned within the crate with the ends of said rods projecting into the guide bands for movement into positions adjacent the inner surfaces of the end walls of the crate to permit nesting of crates, said supporting rods also movable to seat in the inner ends of the guide bands to permit crates to be superimposed one upon another.

4. A nesting and stacking crate comprising a bottom, a plurality of walls, looped guide bands embedded in opposite walls of the crate, and supporting members positioned transversely within the crate with the ends of said supporting members projecting through the looped guide bands for movement into crate nesting or crate stacking positions.

5. A nesting and stacking crate comprising a bottom, a plurality of walls, looped guide bands embedded in opposite walls of the crate, supporting members positioned transversely within the crate with the ends of said supporting members projecting through the looped guide bands for movement into crate nesting or crate stacking positions, and means on said supporting members to hold the same against removal from the crate.

6. A nesting or stacking crate comprising a bottom, a plurality of walls, said walls having an opposite pair thereof provided with metal guide members secured to said opposite walls and having guide slots therein in register with the openings in said walls, and supporting members shiftably disposed inside the crate and engaged within the upper portion of the crate and projecting through the guide slots to permit the supporting members to be moved into different positions in the crate to permit nesting or stacking of crates.

7. A crate including, in combination, a stacking unit comprising a pair of U-shaped metal loops, means for securing the same to opposite walls of the crate, a rod projecting through said loops, and means on the ends of said rod for preventing removal of the loops therefrom.

8. A nesting and stacking crate including, in combination, a stacking unit comprising metal guides secured to opposite walls of the crate and having guide slots formed therein with the ends of the guide slots positioned at substantially right angles to the main portions of said slots, stacking rods positioned transversely within the crate and projecting through the guide slots, and means formed on said stacking rods to prevent the same from being removed from the crate, said stacking rods movable within the crate into opposite ends of the guide slots to position the stacking rods in either crate nesting or crate stacking positions.

9. A nesting and stacking crate comprising a

tapered body having an open top, U-shaped guide loops embedded in opposite walls of the crate, apertured lugs integrally formed thereon for securing the U-shaped loops to the crate walls, supporting rods positioned within the crate and projecting outwardly through the slotted guide loops and shiftable in said loops into crate nesting and stacking positions, and heads formed on the ends of said supporting rods to hold the rods against removal from the crate and from said guide loops.

10. A nesting and stacking crate comprising a tapered body having an open top, reinforcing bands engaged around the body, channel-shaped heads formed on the ends of the reinforcing bands and seated over the upper edges of the body, said channel heads having guide grooves formed therein, and stacking rods engaged within the body and projecting into the guide grooves of the channel-shaped heads, said rods movable into the outer and inner ends of said guide grooves into nesting and stacking positions, respectively.

11. A stacking and nesting crate comprising a tapered body having an open top, reinforcing bands engaged around the body and having the ends thereof deflected to seat over opposite upper margins of the body, said deflected portions of the reinforcing bands having U-shaped guide grooves therein, and supporting rods positioned within the crate and projecting through the guide grooves.

12. A nesting and stacking crate comprising a body having an open top, corner brackets secured on the corners of the body portion and having irregularly shaped guide grooves in the inner walls thereof, and supporting rods positioned within the crate and projecting into the guide grooves to permit the rods to be shifted within the crate into the opposite ends of the guide grooves into positions to permit nesting or stacking of crates.

13. A nesting and stacking crate comprising a body having openings in opposite walls thereof, metal guide plates secured to said walls and having guide slots therein registering with the openings in the walls, shiftable supporting rods projecting through the upper portion of the crate and through said wall openings and guide slots of said plates, and means on the ends of said rods for holding the same against removal from the crate and from disengagement with the guide plates.

14. A nesting and stacking crate comprising a body having U-shaped guide grooves in opposite walls thereof, and supporting members projecting across the interior of the crate and into the guide grooves to permit the supporting members to be shifted in the guide grooves to seat in the end portions thereof to permit either nesting or stacking of crates.

15. A nesting and stacking crate comprising a tapered body having an open top, and stacking members engaged entirely within the crate and shiftable into position adjacent the inner end surfaces to permit nesting of another crate therein and into position removed from the inner surfaces of the end walls to permit another crate to be supported in stacked relation on said members.

16. The combination with a container including side walls, of stacking means for supporting a second container therein including spaced shiftable supporting members disposed inside of said first mentioned container, and means connected to said side walls for shiftablely supporting said members inside the first container and constructed to support said members in one position in which said second container may be supported thereon in stacked relation to the first and in another position in which the second container may be nested in the first with said members between the walls of the nested containers.

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