FIG. 2 is a top plan view of the basket shown in FIG. 1;
FIG. 3 is a transverse sectional view taken on the broken line 3–3 of FIG. 2;
FIG. 4 is a fragmentary, sectional view showing the manner in which superimposed baskets may be stacked upon one another;
FIG. 5 is a view similar to FIG. 4 but showing the relationship of other portions of the baskets than those shown in FIG. 4;
FIG. 6 is an enlarged, fragmentary, sectional view of mutually engaging portions of stacked baskets;
FIG. 7 is an enlarged, fragmentary plan view taken from the broken line 7–7 of FIG. 4;
FIG. 8 is a side elevational view showing the baskets intermeshed one within the other;
FIG. 9 is an enlarged, fragmentary side elevational view taken from the broken line 9–9 of FIG. 8;
FIG. 10 is a vertical, sectional view taken on the broken line 10–10 of FIG. 9;
FIG. 11 is a transverse sectional view taken from the broken line 11–11 of FIG. 9;
FIG. 12 is a fragmentary transverse sectional view taken on the broken line 12–12 of FIG. 8;
FIG. 13 is a utility view showing the manner in which the baskets of the invention can be utilized in conjunction with each other to dispense containers of comestibles to the purchasing public;
FIG. 14 is a vertical, fragmentary, sectional view showing in detail the displacement of the upper extremity of side bars outwardly to support the top frame member;
FIG. 15 is an enlarged, fragmentary, sectional view showing the co-operative relationship between the bottom frame member of a basket superimposed upon the top frame member of a lower basket;
FIG. 16 is a top plan view of two interlocked baskets of an alternative embodiment of the invention;
FIG. 17 is an enlarged, fragmentary, sectional view taken on the broken line 17–17 of FIG. 16; and
FIG. 18 is an enlarged, fragmentary, sectional view showing the manner in which the balls incorporated in the construction of FIG. 16 support the lower extremity of a basket disposed in superimposed relationship with a corresponding basket.

Referring to the drawings and particularly to FIGS. 1–5 thereof, I show a wire basket 10 constructed in accordance with the teachings of my invention. The basket 10 is characterized by the fact that it incorporates a sheet metal bottom pan 12 having a peripheral flange 16 thereupon which overlies and is secured to a bottom wire frame member 18, as best shown in FIGS. 3–5 of the drawings. The securement of the bottom pan 12 to the associated bottom wire frame member 18 may be accomplished by means of welding or the like.

The bottom pan 12 incorporates a plurality of upwardly directed ribs 14 which are adapted to support egg cartons disposed thereupon in spaced relationship with the lower portion of the bottom pan 12. The ribs 14 include openings 15 in the upper portions thereof which facilitate the steam-cleaning of the bottom pan 12 while still supporting the egg cartons disposed upon said ribs so that the ingress of dirt and moisture into contact with the lower extremities of the lowermost egg cartons will be prevented.

The basket 10 includes oppositely disposed side walls 20 which, as best shown in FIGS. 1 and 2 of the drawings, include a plurality of side bars 22 inclined from a vertical axis but located in a vertical plane. In other words, the upper extremities of the side bars 22 are located in converging relationship with each other but the inner surfaces thereof would contact the same vertical plane.
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Provided intermediate the side bars 22 of the side walls 20 are V-shaped side wall or frame members 24 which are inverted so that the base 26 of the V is located between and projects above the upper extremities of the associated side bars 22. The lower extremities of the side bars 22 are secured by means of weldments 28, to the external periphery of the bottom wire frame member 18, as best shown in FIG. 3 of the drawings.

Furthermore, the lower extremities of the side bars 22 are displaced inwardly, as best shown at 30 in FIG. 3 of the drawings, in order that the lower surfaces 32 of the side bars 22 may be located in the same horizontal plane. The displacement of the side bars 22 at the lower extremities thereof may be accomplished by the use of a suitably formed die.

The upper extremities of the side bars 22 are secured to a top frame member 34 and are, as best shown at 36 in FIGS. 1 and 13 of the drawings, displaced outwardly to locate the top frame member 34 outwardly of the bottom frame member 18. Similarly, the upper extremities 26 of the V-shaped side wall members 24 are displaced outwardly, as best shown at 38 in FIGS. 1, 5 and 6 of the drawings, to locate the inner surfaces of the side wall members 24 in the same vertical plane as the inner surfaces of the side wall bars 22.

Of course, the lower extremities of the legs of the side wall members 24 are displaced inwardly at 40, as best shown in FIG. 4 of the drawings, at their points of connection with the bottom frame member 18 to dispose the bottom frame member 18 inwardly of the top frame member 34.

An intermediate frame member 50 constitutes a limiting means and encompasses the side walls 20 and, as best shown in FIGS. 1 and 4–6 of the drawings, the side bars 22 and the side wall members 24 are displaced outwardly at 50, the intermediate frame member 50 directly below and in spaced relationship with the top frame member 34. The side walls 20 interposed between the side walls 20 are constituted by converging side bars 62 located with their inner surfaces in the same vertical plane, as best shown in FIGS. 1, 4–6 of the drawings. The lower extremities of the side bars 62 are inwardly displaced at 64 to secure said side bars in operative engagement with the lower frame member 18.

The upper extremities of the side bars 62 are displaced outwardly at 66, as best shown in FIGS. 2 and 4–5 of the drawings, to dispose the upper frame member 34 secured in said extremities outwardly of the lower frame member 18. Moreover, the side bars 62 are bent outwardly, as shown at 67 in FIGS. 1 and 4–6 of the drawings, to support the intermediate frame member 50 in the same vertical plane as the top frame member 34.

While the side bars and side wall members 22 and 24, respectively, have been described as displaced outwardly at 52 and the side bars 62 have been described as displaced outwardly at 67 to support the intermediate frame member 50, while said side bars and said side frame members are located in substantially the same vertical plane for purposes of like or alternative means to be utilized to support the intermediate frame member 50.

For instance, the intermediate frame member 50 may have inwardly directed projections thereupon adapted to engage the outer surfaces of the side bars 22 and 62 and the side wall members 24 and thus the necessity for outward displacement of said bars and members is eliminated since said inwardly protrusions on the intermediate frame member 50 may be substituted therefor. Furthermore, I have described the basket as constructed with a wire frame and a sheet metal pan. It is conceivable that the principles of the invention may be applied to baskets having component parts other than the bottom pan formed from sheet metal but still applying the teachings of the invention and I do not intend the invention to be limited to the fabrication of the baskets in exactly the same way and from exactly the same materials shown and disclosed.

It should be understood, at this juncture, that the various vertical side bars 22 and 62 and the side frame members 24 are described as having their inner surfaces in the same vertical plane with the express limitation that there are indentations in said inner surfaces where the side bars 22 and 62 and the side frame members 24 are bent or displaced outwardly to permit them to support the upper frame member 34 and the intermediate frame member 50 outwardly of the bottom frame member 18, for a purpose which will be described in greater detail below. Moreover, although the various frame members are shown as being formed of wire of circular cross section, as are the various side bars, if should, of course, be understood that the frame members and side bars could be fabricated of wire of any desired cross section.

The bottom frame member 18 is provided, as best shown in FIGS. 1, 6 and 7 of the drawings, with outwardly directed loops 68 which serve, in conjunction with apertures 70 formed in the flange 16 of the pan 12, as means for engaging the upper extremities 26 of the side wall frame members 24 to locate and mount one of the baskets 10 in superimposed relationship with another, as best shown in FIGS. 4 and 5 of the drawings.

Therefore, as best shown in FIG. 15 of the drawings, the bottom frame member 18 of the superimposed basket 10 is actually located inwardly of the top frame member 34 of the lower basket except that the loops 68 and the lower extremities of the side bars 62 engage the top of the top frame member 34 to stabilize the upper basket on the lower basket. Of course, as clearly shown in FIG. 5 of the drawings, while the loops 68 at the lower extremities of the side walls 60 engage the upper extremities 26 of the side wall frame members 24, the opposite side walls 20 and the associated portion of the bottom frame member 18 are spaced inwardly from the adjacent portion of the top frame member 34.

The baskets 10 receive a plurality of containers 90 such as elongated egg cartons and, since the width of the basket between the side walls 60 is greater than the length of the cartons 90, the cartons are placed transversely of the longitudinal protrusions or ribs 14 with their outer extremities in engagement with either the side bars 22 or side wall frame members 24. When the cartons 90 of eggs or other commodities are being shipped in the baskets 10, the baskets 10 are disposed in upright positions.

If desired, during shipping and storage of containers located therein, the baskets 10 can be superimposed upon another, as shown in FIG. 16 of the drawings. When superimposed one upon the other, the loops 68 that the portions of the bottom frame member underlying the side walls 60 are engaged by the upwardly projecting upper extremities 26 of the side wall frame members 24 and the baskets 10 are secured against relative displacement of the upper basket from the lower basket.

As previously pointed out, the lower extremities of the side bars 62 of the side walls 60 actually engage upon the upper surface of the top frame member 34 of the lower basket 10, as best shown in FIG. 15 of the drawings, to assist in stabilizing the upper basket 10.

When the baskets 10 are located in a suitable display fixture 100, they may be placed on their sides upon supports 102 in the inclined position shown in FIG. 13 of the drawings. Since the extremities of the containers 90 are firmly located between the side bars 22 and the side frame members 24, the containers 90 will not fall from the positions in which they are placed in the baskets 10.

In other words, the uniformly disposed inner surfaces of the side bars 22 and the side frame members 24 exert a sufficient compressive load upon the adjacent extremities of the containers 90 to hold them in position.

After the supply of containers 90 in a plurality of baskets 10 has been disposed of, the disposition in the nested relation shown in FIGS. 8–11 of the drawings wherein the baskets are rotated so that the loops
68 of superimposed baskets are disposed one above the other and the side bars 62 of the side walls 60 of superimposed baskets intersect but are maintained in the spaced relationship shown in FIG. 8 of the drawings.

The maintenance of the side bars 62 of the side walls 60 in such a relationship, in conjunction with the maintenance of the side wall frame members 24 and side bars 22 of the side walls 20 in spaced relationship, is accomplished by the engagement of the intermediate frame member 50 of the upper basket upon the upper frame member 34 of the lower basket.

In other words, before wedging engagement of the various side bars 22 and 62 and side frame members 24 upon each other occurs, the intermediate frame member 50 of the upper basket 10 will engage upon the upper frame member 34 of a lower basket 10 to keep the various side bars and frame members in the spaced relationship shown in FIGS. 8 and 11 of the drawings. Therefore, the possibility that the baskets 10 will become wedged in locked relationship with each other is eliminated. The elimination of wedging eliminates the possibility that the baskets will be damaged by the imposition thereupon of excessive loads in an attempt to separate wedged baskets.

The desirable result of achieving a basket which will engage the hook of uniform size to maintain them against shifting in the baskets when the baskets are laid upon their sides and which will still interconnect without wedging within an adjacent basket is the result of the disposition of the inner surfaces of the various side bars and side frame members in the same horizontal plane and the provision of the intermediate frame member 50 in a position in which it will engage upon an upper frame member of a lower basket. The position of the intermediate frame member in this manner is accomplished by the outward displacement of intermediate portions of the side bars and side frame members.

As best shown in FIG. 12 of the drawings, when two baskets 10 are disposed in the interrelated relationship of FIG. 8, the vertical side bars 62 of the upper basket are spaced from the corresponding bars 62 of the lower basket by spaces 63 and are also spaced from the adjacent inner surface of the intermediate frame member 50 of the lower basket by spaces 62, thus wedging contact between the vertical side bars 62 of the upper and lower baskets is avoided by impingement of the intermediate frame member 50 of the upper basket upon the top frame member 34.

Furthermore, the side bars 62 of the upper basket are spaced by the spaces 65 from the intermediate frame members 50 because of the fact that the side bars 62 of the upper basket are disposed inwardly of the intermediate frame member 50 by the outward displacement of the side bars 62 at 67, as best shown in FIG. 4 of the drawings.

Consequently, the upper basket can be pulled easily out of interesting relationship with the lower basket because no wedging or binding action of the component parts of the baskets takes place. Of course, it is to be understood that the distinction of the nonwedging relationship of the side bars 62 is equally applicable to the side bars 22 and the side wall members 24 which are similarly spaced in respect to each other and to the juxtaposed intermediate frame member of the lower basket in the same manner as the side bars 62.

An alternative embodiment of the basket of the invention is shown in FIGS. 16-18 of the drawings. In this embodiment, the basket is substantially the same in construction with the previously discussed basket 10. Therefore, identical parts are called out in the drawings by identical reference numerals.

The main difference between the basket 110 and the basket 10 lies in the provision of a rotatable ball 112 at two opposed sides of the basket 110 adjacent the upwardly projecting member of the V-shaped frame members 24. The balls 112 are elongated and have looped extremities 116 which engage the corners of the top frame members 34. The top frame members 34 are bent inwardly at 115 to accommodate the loops 116 and to prevent the loops 116 from projecting outwardly beyond the perimeter of the associated top frame member 34.

The balls 112 are rotatable into an inner position, as best shown at the left-hand side of FIG. 16 of the drawings and in FIG. 18. Each of the balls 112 incorporates a centrally located, inwardly bent portion 120 which, when the ball is in the inner position, engages the underside of the pan 12 of a superimposed basket 110, as best shown fragmentarily in FIG. 18 of the drawings. Each of the balls 112 also includes offset portions 122 adjacent the opposite extremities thereof adapted to engage upon adjacent surfaces of the associated side bars 22 to support the ball 112 in the inner position and thus enable it to engage the pan 12 of a basket superimposed thereupon.

In addition to serving as retractable supports for a superimposed basket 110, the balls 112 can be utilized to lock two adjacent baskets 110 in side-by-side relationship with each other, as best illustrated in FIG. 16 of the drawings. First the baskets are placed with the side bars 22 thereof in proximity to each other with one of the balls 112 disposed outwardly of the associated side bars 22 and side frame members 24, as best shown in FIGS. 16 and 17 of the drawings. Then the ball 112 of the associated basket is rotated to cause the portion 120 thereof to engage and encompass the inverted base 26 of the V-shaped side member 24, thus locking the baskets to each other and preventing inadvertent displacement of the baskets with respect to each other while they are being transported or moved upon a pallet or the like.

Therefore, the balls 112 serve the dual function of supporting a superimposed basket 110 upon a lower basket and also serve the additional function of interlocking a plurality of baskets in side-by-side relationship during transportation thereof. When not in use, the balls 112 can be best shown in FIG. 17 of the drawings, or can be left in the basket-supporting position in which they are disposed internally of the side walls of the baskets.

I claim:

1. In a rigid basket for the reception of comestibles and adapted to be nested within an identical basket, the combination of: a perimetric bottom frame member; a perimetric top frame member; an intermediate frame member between said bottom and top frame members, said frame members being of the same configuration; and a plurality of side bars extending between said bottom and top frame members to define vertical basket sides, each of said bars incorporating a pair of outwardly disposed offset portions substantially coterminal with the thicknesses of said top and intermediate frame members and secured to the inner surfaces thereof, respectively, and an inwardly disposed offset portion substantially coterminal with and secured to the outer surface of said bottom frame member, the vertical planes within which the innermost surfaces of said top and intermediate frame members fall being spaced outwardly of the vertical planes within which the corresponding outer surfaces of said bottom frame falls a distance greater than the thickness of one of said side bars, said side bars being angularly oriented to permit reception therebetween of the side bars of said identical basket, said intermediate frame member being located below said top frame member a distance sufficient to engage the top frame member of said identical basket to thereby prevent wedging engagement between said side bars and the side bars of said identical basket received therebetween.

2. In a basket for the transportation and storage of containers of uniform length and width, the combination of: a bottom; a frame-like open top spaced above said bottom; an intermediate frame-like member located between said top and bottom and substantially parallel thereto; and side walls connecting said top and bottom, said side walls each being constituted by a plurality of side bars disposed substantially in a vertical plane but
with their longitudinal axes inclined with respect to the vertical centerline of each side wall, the lower extremities of said bars in each side wall being secured to the corresponding edge of said bottom at the exterior thereof, the upper extremities of said bars being secured to the corresponding edge of said top at the interior thereof, and intermediate portions of said bars being secured to said intermediate member at the interior thereof, each side bar having outwardly and inwardly projecting offsets, respectively, at said upper and lower extremities thereof, and an outwardly projecting offset at said intermediate portion of said offsets being of a vertical dimension substantially equal to the thickness of said top, bottom, and intermediate members, respectively, and the portions of said side bars adjacent thereto being straight, the inner edge of said top and the inner edge of said intermediate member being disposed outwardly of the outer edge of said bottom a distance greater than the thickness of one of said side bars, said intermediate member being located below said top a distance sufficient to engage the top of an identical basket to thereby prevent wedging engagement of the adjacent side bars of the nested baskets.

3. In a basket for the transportation and storage of contents of uniform length and width, the combination of: a bottom; an open frame-like top parallel to and spaced above said bottom and having a continuous inner edge; side walls connecting said top and bottom, said side walls each being constituted by a plurality of side bars disposed substantially in a vertical plane but with their longitudinal axes inclined with respect to the vertical centerline of each side wall, the lower extremities of said bars in each side wall being secured to the corresponding edge of said bottom at the exterior thereof and the upper extremities of said bars being secured to the corresponding edge of said top at the interior thereof; and an intermediate frame member located between and parallel to said top and bottom and having a continuous inner edge encompassing said side walls and secured at its inner edge only to said bars at intermediate portions between the extremities thereof, said intermediate frame member being adapted to engage the top of an adjacent basket when nested therewith to prevent wedging of said side bars with the side bars of a nesting basket, each side bar incorporating upper and lower straight portions located in said plane, said upper portion being defined by outwardly projecting offsets on the outer extremity and an intermediate portion of said bar and said lower portion being defined by the outwardly projecting offset on the intermediate portion of said bar and an inwardly projecting offset on the lower extremity of said bar, said intermediate offsets on said bars mounting said intermediate frame member and the offsets on the lower extremities of said bars mounting the corresponding edge of said bottom, the inner edges of said top and intermediate frame member being disposed outwardly of the outer edges of said bottom a distance greater than the thickness of one of said side bars.

4. In a self-nesting wire basket of uniform interior dimension from the top to the bottom thereof, the combination of: a bottom wire frame having a sheet metal pan secured thereto; a top wire frame disposed in spaced and parallel relationship with said bottom frame; an intermediate wire frame located between said top and bottom wire frames and parallel thereto; and a plurality of side bars secured to the outer sides of said bottom frame at their upper extremities, to the inner sides of said top frame at their upper extremities, and to the inner sides of said intermediate frame at intermediate portions of said side bars, said side bars on each side of said basket being in vertical planes and angular with respect to said top wire frame, each side bar incorporating vertically oriented offsets at the upper extremities and intermediate portions thereof constituting the points of securement of said top frame and intermediate frame, respectively, to said side bars, and inwardly projecting, vertical offsets at the lower extremities thereof constituting the points of securement of said bottom wire frame to said side bars, the portions of said side bars between said offsets being straight, the inner edges of said top and intermediate wire frames being disposed outwardly of the outer edges of said bottom wire frame a distance greater than the thickness of one of said side bars.

5. In a self-nesting wire basket of uniform interior dimension from the top to the bottom thereof, the combination of: a bottom wire frame having a sheet metal pan secured thereto; a top wire frame disposed in spaced and parallel relationship with said bottom frame; a plurality of side bars secured to the outer sides of said bottom frame at their lower extremities and to the inner sides of said top frame at their upper extremities, said side bars on each side of said basket being in vertical planes but inclined inwardly and outwardly projecting offsets on the upper extremity and intermediate portion of said bar and a plurality of side bars secured to the outer sides of said bottom frame at their upper extremities and to the inner sides of said top frame, the upper edges of certain of said side bars extending above said top frame and constituting detent means; and a wire ball mounted to said top frame for rotation about a horizontal axis between a position inwardly of said top frame for supporting the bottom frame of an identical nesting basket, and a position outwardly of said top frame in engagement with a corresponding detent means on an identical, adjacent basket, said ball being sufficiently resilient that it is adapted to be deformed into alignment with said
corresponding detent means for receiving the same within said bail to maintain the adjacent baskets in close juxtaposition.

8. In a self-nesting wire basket of uniform interior dimension from the top to the bottom thereof and adapted to be disposed in side-by-side, adjacent relationship with an identical basket, the combination of: a bottom wire frame; a top wire frame disposed in spaced relationship with said bottom frame; a plurality of side bars secured to the outer sides of said bottom frame at their lower extremities and to the inner sides of said top frame at their upper extremities, the upper portions of certain of said side bars extending above said top frame and constituting detent means; and a ball mounted to said top frame for rotation about a horizontal axis between a position inwardly of said top frame, for supporting the bottom frame of an identical nesting basket, and a position outwardly of said top frame to engage a corresponding detent means on an identical, adjacent basket for retaining the same in close juxtaposition, said bail including offset portions located so as to be disposed at the sides of said detent means upon engagement of said bail with said detent means whereby said offset portions engage said detent means and prevent substantial relative sideways movement of the side-by-side baskets.

9. In a self-nesting wire basket of uniform interior dimension from the top to the bottom thereof and adapted to be disposed in side-by-side, adjacent relationship with an identical basket, the combination of: a bottom wire frame; a top wire frame disposed in spaced relationship with said bottom frame; a plurality of side bars secured to the outer sides of said bottom frame at their lower extremities and to the inner sides of said top frame at their upper extremities, the upper portions of certain of said side bars extending above said top frame and constituting detent means; and a wire ball mounted to said top frame for rotation about a horizontal axis between a position inwardly of said top frame, for supporting the bottom frame of an identical nesting basket, and a position outwardly of said top frame to engage a corresponding detent means on an identical, adjacent basket for retaining the same in close juxtaposition, said bail including a centrally located deformed section which is adapted to strike the top of said detent means upon rotation of said bail to said position outwardly of said top frame, said ball being sufficiently resilient to be deformed for forcible movement over and onto said detent means for engagement therewith to lock the adjacent baskets together, said deformed sections, in the position of engagement of said bail with said detent means, engaging the sides of said detent means to prevent relative sideways movement of the side-by-side baskets.

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