

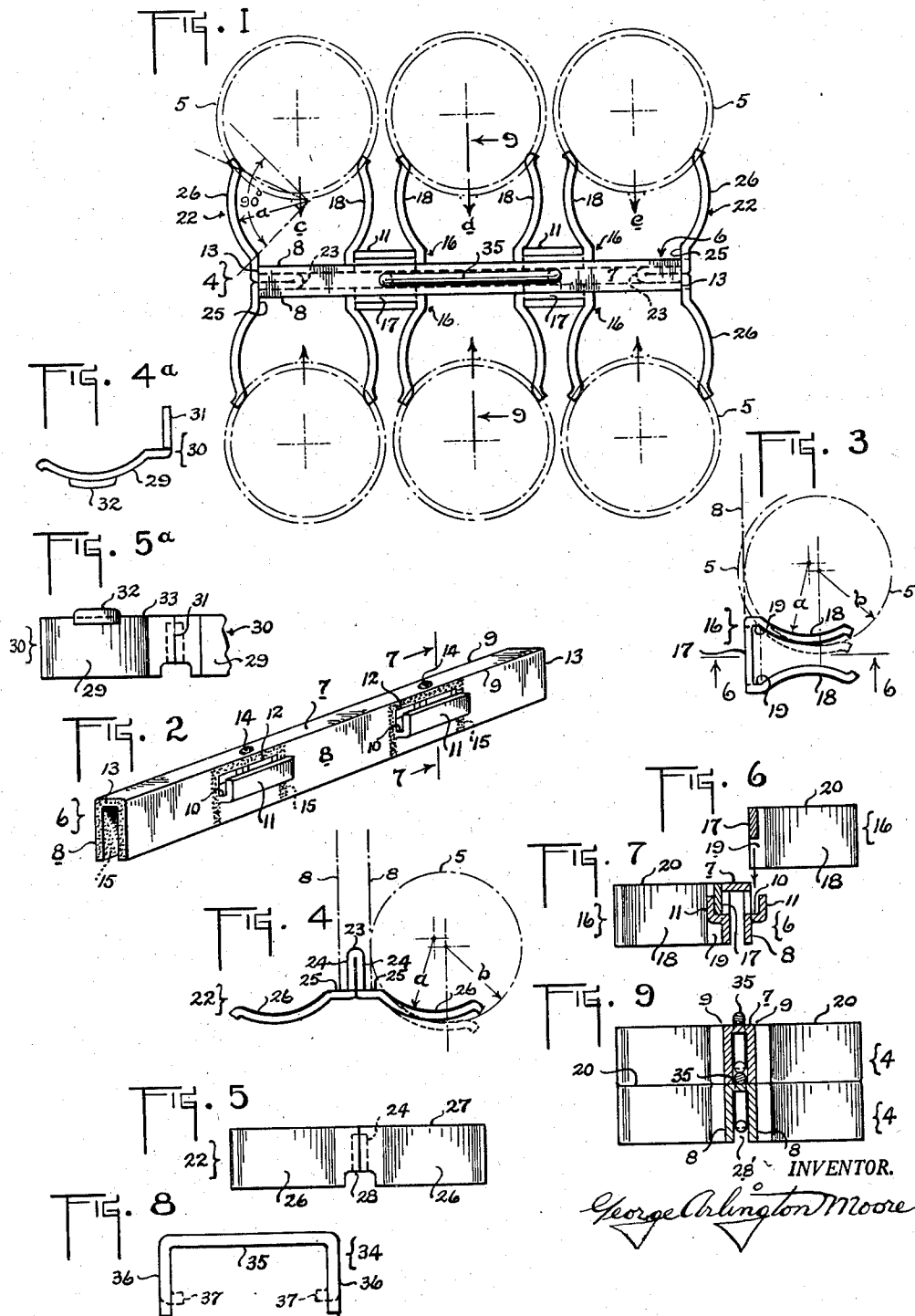
March 24, 1959

G. A. MOORE
PORTABLE CARRIER

2,879,100

Filed Jan. 12, 1956

2 Sheets-Sheet 1



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G. A. MOORE
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2 Sheets-Sheet 2

FIG. 10

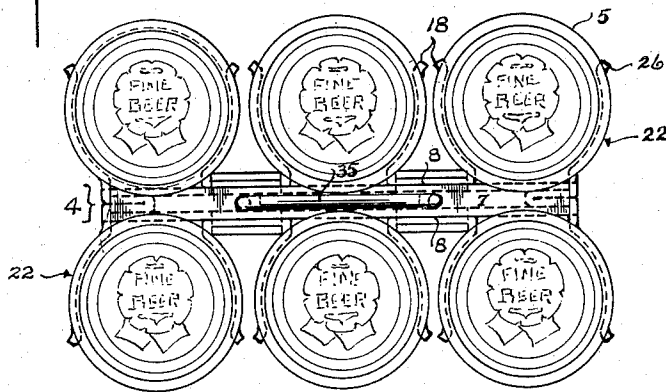


FIG. 11

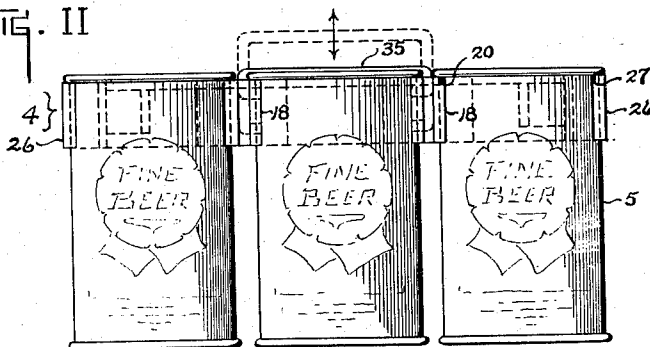


FIG. 12

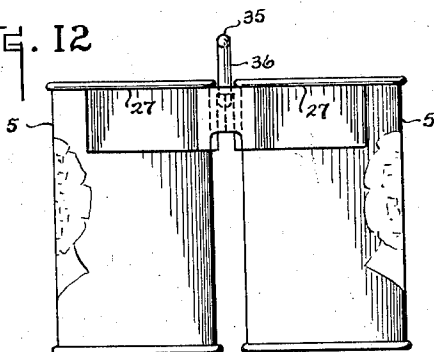
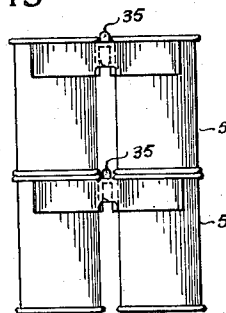


FIG. 13



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2,879,100

PORTABLE CARRIER

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Application January 12, 1956, Serial No. 558,754

14 Claims. (Cl. 294—87.2)

This invention relates to a new and improved portable carrier for saleable products packed in sealed containers and to carry them for distribution to the point of sale and then take-home by the consumer, like cans of beer, orange juice or other products for example, being arranged in desired multiples that are firmly retained in the carrier. More particularly, the invention pertains to a light weight re-useable carrier that may be made of metallic sheet or other suitable material of which novel parts are fabricated and related in an assembly to form the carrier, the structural parts thereof being fastened together to complete the carrier by making use of suitable resinous adhesive and thereby avoid warp forming stresses that may otherwise set up in the material of the assembled structure.

A principal object of this invention is to provide a new improved portable self-display carrier for support of a selected group of canned frozen products that require refrigeration whereby the carrier is adapted to fully expose these products for initial quick freeze, and in the same supporting manner for commercial distribution, display in cold cabinets of retail stores and consumer refrigeration.

A primary object of the invention is to provide an improved and efficient carrier fabricated of an assembly of aluminum parts in such novel manner that its sturdy structure affords extended reuse after serving its initial purpose by packers of the intended products for distribution, and upon obsolescence of the carriers they may be sold for premium scrap value thus contributing to economy, the aluminum scrap being melted and fabricated into new carriers thereby conserving the natural resources of the basic material of which the carriers may be made.

Another object of the invention is to provide a novel and improved carrier construction that will strongly support a plurality of like containers for orderly and attractive product display in stores whereby the containers are substantially fully exposed for self-display at the point of sale.

Still another object of the invention is to provide an improved portable carrier having a novel and simplified structure easy to make economically and being adapted to facilitate the loading thereof with a plurality of like-containers that may be automatically co-ordinated co-incident with the speed of the container filling and sealing operations.

A further object of the invention is to provide a novel carrier that is constructed in such manner that when loaded with multiple like containers they may be stacked uniformly flat upon one another and when empty they may be flatly stacked together in tiers for storage, transportation and re-use purposes.

Another object is to provide the portable carrier with a carry handle arrangement that will co-ordinate the orderly and compact stacking of loaded or empty carriers.

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Still another object of the invention is to provide an improved carrier having a substantially rigid central part from which flexible part members alternately co-operate to form a plurality of receiving pockets that are arranged in a novel manner with which to retain a group of containers in the carrier by both rigid and flexible co-acting means.

Other objects and novel features of the invention will appear more fully hereinafter from the following detailed description when considered in connection with the accompanying drawings, specification and claims appended hereto.

In the drawings, which illustrate parts and assembly thereof to show an embodiment of the invention wherein, like reference characters will refer to like parts:

Fig. 1 is a plan view of the completed structure of the carrier and showing in dot-dash circular lines the indicated relative positions of a plurality of like containers about to be inserted into the portable carrier;

Fig. 2 is a view in perspective showing a body part used in the assembly of the carrier, an application of resinous adhesive upon portions of the part being indicated by stippled surface portions on the walls thereof;

Fig. 3 is a plan view of a spring tempered part used in duplicates for assembly upon portions of the body part of Fig. 2, the upper arcuate shaped leg portion being shown in normal position with respect to an outlined container body and a designated wall portion of the body part of Fig. 2 shown in dot-dash lines including eccentric centers of radii;

Fig. 4 is a plan view of another spring tempered part used in duplicate for assembly in and upon the opposed ends of the body part of Fig. 2, the right leg of the part being shown in normal arcuate relationship with circular and two parallel straight dot and dash lines coincident with the dot-dash line portions shown in Fig. 3;

Fig. 4a is a plan view showing a modification that may be made in forming the structure of the part shown in Fig. 4;

Fig. 5 is a view in front elevation of the part shown in Fig. 4;

Fig. 5a is a view in front elevation of the modified part shown in Fig. 4a and showing a fragmentary portion of its related and opposing duplicate part;

Fig. 6 is a view in side elevation of the part shown in Fig. 3, the base end wall portion of the part being shown in cross section taken along line 6—6 of Fig. 3;

Fig. 7 is a view of the body part of Fig. 2 taken in cross section along line 7—7 thereof and showing the assembled relationship therewith of a duplicate of the part shown in Fig. 6 about to be assembled opposite to the other part;

Fig. 8 is a view in side elevation of a handle part to be used in the assembly of the carrier;

Fig. 9 is a view of two assembled carriers showing the body part and handle in cross section taken along line 9—9 of Fig. 1 and showing the flat stacking relationship of empty carriers being centered by the handle part;

Fig. 10 is a plan view showing the carrier of Fig. 1 loaded with a plurality of secured like containers;

Fig. 11 is a side elevation of the loaded carrier shown in Fig. 10;

Fig. 12 is an end elevation of the loaded carrier shown in Figs. 10 and 11, and

Fig. 13 is a view in end elevation showing at least two of loaded carriers as may be arranged in flatly stacked relationship and centered by the retracted handle part of each carrier.

Referring to the drawings in more detail, Fig. 1 shows the completed assembly of the parts that forms the carrier 4 as made ready for use to engage with a plurality of desig-

nated like containers 5 pre-arranged in two opposing rows and each container being registered in a relative position to be automatically inserted into the carrier, and when inserted each container being firmly secured therein by making contact with a combination of rigid and flexible retaining parts of the carrier 4. The parts comprising the carrier may be fabricated of any suitable sheet material, however, the parts are preferably fabricated of aluminum sheet, for example 3s and/or 52s alloy of suitable gauge thickness, or such other alloy that will provide flexing spring temper characteristic with quality hardness that will retain the fabricated shape of the parts formed thereof and thereby withstand rough handling of the carrier without damaging its utility requirements. To this end, the fabricated parts are economically fastened together in assembly relationship by use of any suitable resinous adhesive, such as isocyanate or epoxy resinous compound, and thereby avoid the necessity to otherwise employ localized intense heat upon wall portions of the assembly such as would be required if the parts thereof were brazed or welded together as by conventional practice which would anneal and soften the spring temper hardness required of the flex-acting parts and also set up warp forming stresses in the structure that would defeat the intended efficiency and useful purpose of the carrier. The type of sealed containers intended for use of the carrier are those having projecting top rims such as conventional cans. The container retaining means employed and upon which the design of the carrier is based provides a rigid flat right angular wall portion and the top wall portion thereof supports the shoulder edge portion of the container rim and the side wall portion bisects the body wall of the container transversely of its shoulder edge. This support means is further augmented by additional and novel spring active retaining means that holds each of the containers firmly against the rigid flat right angular wall portion of the carrier. The vertical wall portions and spring retaining means being opposed so that the containers are supported in any desired number of opposite and multiple pairs, each pair being secured in alternate holding relation with respect to the parts arranged for retaining them in the carrier.

The individual parts fabricated for the assembly of the carrier 4 illustrated in Fig. 1 consists of a first part 6 illustrated in Fig. 2 and showing an elongated flat surface channel shape body which constitutes the central body part of the carrier. This part may be formed of 2s or 3s aluminum sheet of suitable thickness and bent channel shape to provide a flat top wall portion 7 and two opposed right angular flat side walls 8 that are parallel. The longitudinal corner edges 9 of the top and side walls being substantially sharp edged. The length of the part 6 is less than the overall length of a row of spaced containers intended for the carrier. Each side wall 8 is provided with a pair of opposed and longitudinally spaced offset wall portions constituting two transversely opposed pairs of louvers that are partially sheared from the walls 8 and being bent outwardly to provide a bottom wall portion 10 at right angles from the wall 8 and then upwardly to form the wall portion 11 facing parallel with the particular dependent side wall 8. The longitudinal sheared edge 12 of each louver is spaced downwardly of the sharp corner edges 9 in order to leave a substantial margin of the side wall 8 cross above the edge 12. These louvers are formed to provide retaining bottom base slots for the support of the second parts of the assembly illustrated in Figs. 3, 6 and 7. The opposed ends 13 of the part 6 are flat and square. The U-shape openings in the ends provide means for the support of third parts of the assembly illustrated in Figs. 4 and 5. A pair of longitudinally opposed holes 14 of desired shape and size are provided through the top wall 7, each hole being substantially central between each pair of the transversely opposed louvers. Three border surface portions of the side walls 8 adjacent each louver

is provided with an application of suitable resinous adhesive designated by stippled dots 15 including other application upon the end surfaces 13 and on inner surface portions of the side walls 8 adjacent the ends thereof. This application is made just prior to the assembly of the parts thereupon. Alternatively, an application of the resinous material may be applied upon the surface portions of the parts to be assembled together. Prior to the assembly of fitted parts the side walls 8 of the part 6 are relatively flexible.

The second fabricated part 16 is illustrated in Figs. 3 and 6. This part for purposes of illustration is used in a total of four duplicates when assembling the carrier. The part is preferably made of 52s aluminum alloy sheet of desired thickness, or of any other alloy that will have similar spring flexing characteristics desired when shaped and heat treated to have the quality temper hardness required to maintain its originally arcuate shaped contour after being flexed by use of the carrier. The part 16 consists of a strip of said sheet bent to provide a flat vertical end wall portion 17 and two opposed arcuate shaped leg portions 18 transverse thereof. The integral bent corner of each leg being at right angles to the end wall 17 so that the inner surface of the corner portion of the wall 19 will project outwardly at ninety degrees therefrom and be in spaced relation to the outer extended arcuate portion of the leg 18. Each pair of opposed legs 18 constitutes two integral arcuate shaped concave spring active prongs convexly opposed to each other and having inwardly opposed flared ends. The outer ends of the prongs 18 terminate outwardly of the indicated center point taken of the radius b as shown in Fig. 3. The radius bend a of each prong is substantially equal to the radius b which denotes the body radius of a container intended for the carrier. Upon the assembly of the carrier the base end wall portion 17 of each pair of the prongs 18 is arranged to flatly engage upon marginal portions of the side walls 8 of the part 6. The radius a of each prong is therefore taken from an eccentric center that is offset inwardly and upwardly of the center point taken for the radius b in order to initially position the arcuate shaped portion of each prong in proper register to exert firm clamping power when opposed by the engaging body portion of containers. The potential clamping power of each pair of prongs is augmented by the novel arrangement provided for the fulcrum pivot of each single prong leg that is projected outwardly and transverse of its base end wall 17. The depth of each prong wall portion 18 is greater than the end wall portion 17 as illustrated in Fig. 6, the cross section being taken along line 6—6 of Fig. 3, so that the bottom end of the wall 17 is adapted to engage upon the bottom wall portion 10 formed in the louvers of part 6 when being assembled together as shown in Fig. 7 illustrating the assembly of a duplicate part 16. The top edge surfaces 20 of the part 16 are uniformly flat and coplanar in relationship so that these surfaces 20 will be coplanar in relationship with the surface of the top wall 7 of the part 6 when assembled. The inner opposed surfaces 19 of the part 16 as shown in Figs. 3 and 6 are adapted to flatly engage in abutment upon the opposed end edge surface portions of the offset louver wall 11 of the part 6 when assembled therewith as shown in Fig. 7 illustrating the part 6 taken in cross section along line 7—7 of Fig. 2, and a duplicate part 16 taken in cross section along line 6—6 of Fig. 3.

The third part 22 to be used in duplicate to constitute one pair is illustrated in Figs. 4 and 5 and consists of a bent strip of sheet comparable to the material used in making the part 16 hereinbefore described and shown in Fig. 3. In part 22 (Fig. 4) there is formed a bent loop portion 23 having two opposed flat wall portions 24 that may be spaced apart so that the outer surfaces of the looped walls will be coincident with the inner opposed surface portions of the walls 8 of the part 6 ad-

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jacent the ends 13 thereof. Lower corner ends of the opposing walls 24 are each bent outwardly at right angles thereof to provide a pair of flatly opposed wall portions 25 that blend with a pair of longitudinally opposed projected arcuate bent prongs 26, each prong having an arcuate curvature of projected length coincident with the prong of the part 16 as hereinbefore described with respect to the radii a and b respectively. The top edge surfaces 27 of the flat wall portions 25 and the prongs 26 are coplanar in relationship as shown in Fig. 5. The top of the looped wall portions 24 is spaced downwardly of the top edges 27. The vertical depth of the prong walls 26 is greater than the depth of the wall portions 24 because a bottom central portion 28 of the flat wall portions 25 is spaced upwardly of the bottom longitudinal edges of the opposing prongs 26. The purpose being to expose a lower slot portion of the part 6 at each end portion thereof when the carrier is assembled that may be utilized to fit upon a slide bar to center the carrier for loading purposes if desired.

A modification of the part 22 is illustrated in Figs. 4a and 5a whereby the part 30 may be made in two halves if desired and be suitably fastened together upon the matching surfaces of the wall portions 31 to be substantially identical in the shape of the part 22. A further modification is shown of an offset raised portion 32 that may be formed to the arcuate prong leg 29 to provide a sectional rim portion upon the top edge 33 of the part 30 or the part 22. This rim section may either be formed integral as shown or be separately attached upon the part 30 in any suitable manner to provide a facility in the assembled carrier to arrest longitudinal movement of empty or loaded carriers when being stacked upon each other similar to the manner shown in Figs. 9 and 13 respectively.

The fourth part 34 is shown in Fig. 8 and consists of a U-shape bent wire rod of round or square cross section to constitute a retractable handle bar 35 for assembly into the carrier. The opposed projections 36 of the handle bar are openly spaced to be coincident with the spaced holes 14 provided in the part 6. These projections 36 are inserted into the holes 14 and the ends thereof are then bent at substantially right angles to be about parallel with the top wall portion 7 of the part 6 and thereby prevent any possible disengagement of the handle from the carrier. The part 34 when retracted will dispose the handle bar portion 35 upon the flat wall 7 of the part 6 as shown in Figs. 1 and 9, and to be utilized for novel purpose hereinafter to be described.

Further assembly of the carrier as shown completed in Fig. 1 consists of placing each of four duplicate parts 16 into each louver provided in the side walls 8 of the part 6 so that the outer surface portions of the end wall 17 will flatly engage upon the resinous adhesive coated surface portions of the side walls 8. The top surface of edges 20 of the parts 16 are disposed in coplanar relation with the surface of the top wall portion 7 of the part 6 as shown in Fig. 7. This coplanar relationship is accomplished by the bottom edge surface of the central vertical wall portion 17 being engaged upon the horizontal face of the offsetting flat wall portion 10 of each louver. The outer opposed surface portions of the end wall 17 are extended downwardly coincident with the depth of the side walls 8. The wall portion 11 of each louver is spaced outwardly of the side wall 8 so that the inserted central end wall portion 17 of the part 16 will wedge against the pre-applied resinous adhesive 15 disposed upon the exterior surface portions of the side walls 8. Each assembled part 16 is firmly locked against longitudinal movement by its engagement with the opposed ends of the offset louver wall portions 10 and 11 that inwardly engage with the opposed right angular bent wall portions 19 adjacent the opposed pair of the projecting spring active prongs 18 of each part.

The next and final step taken in the assembly of parts

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consists of inserting the looped wall portions 23-24 of each of two parts 22 into each open end 13 of the part 6 thereby making the side walls 8 thereof rigid. Each looped end of the part 22 is wedged into the open ends 13 and upon the pre-applied adhesive 15 and without spreading the side walls 8 out of parallel. The coated face of the ends 13 are flatly engaged with the right angular bent wall portions 25 of the part 22 so that the flat top surface of the edges 27 thereof at each end of the part 6 are disposed in coplanar relation with the top surface of the wall 7 thereof. Hence, all of the assembled parts 16 and 22 have their respective top surface edges disposed in uniform coplanar surface relationship with the top of the wall 7 that is disposed longitudinally central of the spring active parts. The assembled carrier is then subjected to a uniform oven heat to cure the resinous adhesive which firmly unites the parts together without drawing the temper out of the spring active prongs of the assembled parts nor cause the structure of the carrier to warp or distort in any manner that may otherwise unduly set up unequal stresses in the structure. Hence, by making use of the resinous type of adhesive such unequal stresses in the metal parts can not take place, stresses are neutral when curing the resinous material to combine the parts together.

Upon completion of the portable carrier 4 as shown in Fig. 1 when made of aluminum, it may be anodized in various selective colors desired. For example the color can be gold, silver, jade including any other color that will be in harmony with the color decoration on the containers intended for assembly into the carrier. By being anodized the selected color will be etched into the surfaces of the carrier and will not deteriorate, scuff nor will the aluminum corrode under any reasonable conditions to which the carrier may become subjected, thus making the portable carrier distinctly attractive for display of the particular group of containers retained therein.

The portable carrier 4 as assembled is provided with a longitudinal central rigid part 6 having a flat top wall surface and two opposed vertical side wall surfaces. These wall surfaces converge at relatively sharp right angle corners 9 extending parallel with each other and across the base forming ends of the three opposite pair of pocket forming spring active prongs arranged at substantially right angles with respect to the side walls 8 having these sharp corner edges 9. Each pocket is formed of the prongs being positioned from left to right as shown in Fig. 1 and described as follows: a first pair of oppositely disposed pockets c are formed of the left side prongs 26 of the part 22 having its concavity portions facing the concavities of the left side prongs 18 of the parts 16. The second pair of oppositely disposed pockets d are formed of the right side prongs 18 integral with the left opposing prong portions that is the right side of the pockets c and the left side prong 18 of the oppositely disposed parts 16, the concavities being disposed in facing relationship. The third pair of the oppositely disposed pockets e are formed of the right side prongs 18 of the second pair of parts 16 and the prongs 26 of the right end part 22, the concavities being disposed in facing relationship. Hence, each of the left and right arcuate shaped prongs that forms each container holding pocket in the carrier is freely independent of each other with respect to its flexible clamping action when engaging with containers. Therefore, each prong member when being resisted by the container will be independently free to flexibly oscillate from a fixed corner end thereof that is firmly united upon the particular wall portion of the rigid part member 6 of the carrier and being reinforced by the abutted ends of the louver walls 11 and the end faces 13 of the body part 6. Each arcuate shaped prong 18 and 26 is projected so that its arcuate portion is disposed less than ninety degrees in the radius of a complete circle. Therefore the power of each spring active prong when

resisted by the engaging container will yield outwardly of its normal position but with enhanced spring resistance that will exert a firm grip upon the body of the container when inserted into the hereinbefore described pockets *c—d—e* of the carrier.

The carriers 4 may be stacked in bundle form as illustrated in Fig. 9 showing two carriers together and portions thereof shown in cross section taken along line 9—9 of Fig. 1. The top and bottom edges of each carrier are uniformly flat and level, therefore any desired number of carrier units may be stacked upon each other and be strapped together in any suitable manner to be handled for storage and transportation purposes. The handle bar 35 of each unit is in retracted position and fits into a slot 28' (Fig. 9) that remains in the bottom of the rigid part 6. The handle bar portion 35 therefore serves to substantially lock each alternate carrier against any movement side-wise and is arranged to permit the top and bottom flat edges of each alternate carrier to flatly meet together, each upon the other. This alignment facility of stacked carriers serves to protect the arcuate prong members thereof from being damaged during handling for storage and transportation.

To load the carrier with like containers, the carrier 4 shown in Fig. 1 may be placed in an elevated registered position and centrally between two oppositely disposed rows of like containers 5 (Fig. 1) and positioned upon their bottom ends. The containers are spaced to be in central transverse alignment with each opposing pair of receiving pockets *c—d—e* of the positioned carrier. For an example, each row of containers 5 while being conveyed upon a belt may be plowed or pushed inwardly toward each other as shown by the arrows in Fig. 1. The spring active prongs 18 and 26 when opposed will yield outwardly by the thrust imposed by each container upon being inserted until the full diameter of the body thereof passes inwardly of the outwardly flared terminal ends of the prongs, after which they close inwardly and strongly clamp upon the body of each container. The rigid and flat vertical wall portions 8 that forms the transverse base ends of each clamping pocket arrests the inward movement of each inserted container. The spring clamping action of the prongs 18 and 26 directs the container bodies into firm contact upon the corresponding portions of the rigid walls 8 so that a small portion of the top rim edge of the containers are flatly and squarely seated upon the corresponding surfaces of the top wall 7. Such engagement of the containers is further augmented for support by the top surface edges 20 and 27 of the clamping prongs 18 and 26 that support portions of the top rim shoulder edges of the containers in accordance with the illustrations given in Figs. 10, 11 and 12 of the drawings and showing the compact loaded carrier.

As above described, the contact of each container body and rim portion thereof upon a coincident portion of the rigid member 6 of the carrier constitutes a hook-like firm supporting means that is provided for augmenting the support of the inserted containers and co-acting with the support provided by the flexible prong members of the carrier that secures each of the containers in vertical position, aligned so by the rigid support given by the part 6, thereby providing means for the top and bottom ends of the retained group of the containers to be in flat coplanar level position. These co-acting effects in supporting the containers takes considerable strain off of the spring tempered members 16 and 22 of the carrier. Hence, it is not necessary to rely upon these members by themselves to keep each container in positive vertical position in the carrier. This also applies when manually lifting the loaded carrier by the handle means provided in the carrier whereby the weight of the packed containers vertically suspended therein is suitably balanced and distributed principally upon the rigid member 6 of the carrier which primarily keeps the containers in vertical position, this position being stabilized by the weight carry-

ing top edges of the prong projecting members of the parts 16 and 22.

The loaded carriers may be efficiently stacked together as illustrated in Fig. 13 showing the top and bottom ends of the containers engaged flatly upon each other without any interference of any part of the carrier. The handle bar 35 in retracted position co-ordinates the alignment of containers stacked and prevents any side-wise sliding of each stacked carrier unit as shown in Fig. 13. If desired, the parts 22 of the carrier 4 may be embodied with the rim section 32 shown in Figs. 4a and 5a that is intended to arrest longitudinal movement of the stacked carriers. This feature is useful for handling them in retail stores, warehouses and trucks where loaded carriers may be stacked high to conserve floor space. Stacked loaded carriers if desired may be strapped together in any suitable manner for transportation purposes from packers to the retail stores and thereby afford economy by eliminating the use of shipping case cartons. The retractable handle of the carrier may be utilized to clamp printed circular trade information upon the top of the carrier for commercial purposes pertaining to the product contained in the carrier.

The containers in the portable carrier are substantially fully exposed to advertise itself without resorting to printed brand identifying cartons for enclosing them as conventionally practiced. The use of the carrier can save large tonnage of paper-board used annually to make cartons for packing cans of beer, the cartons being discarded as waste material after its one time use. In contrast, the carrier of this invention may be utilized for the same useful purpose many times. When the carriers are made of aluminum and finally can not serve further useful purpose the aluminum material will yield a substantial price for scrap to melt in furnaces to make new carriers thus conserving the natural resources of the basic material.

The construction of the carrier affords a novel feature to make it easy to remove the containers from the carrier by making use of the leverage that is afforded by the container rim portion that is hooked over the sharp corner edges 9 of the rigid walls 8 of the carrier. For example, by pulling on a lower part of a supported container outwardly and upwardly in line with the prongs the container will fulcrum upon the corner edge 9 of the rigid walls 7 and 8 thereby being effective to easily release the container from the retaining pocket of prongs. The principle of the construction of the carrier is exceptionally flexible in its adaptability to provide group supporting means for four, six, eight, ten or twelve containers arranged in the manner shown in Fig. 1 by merely changing the length of the part 6 of the carrier and decrease or increase the number of the louvers thereof coincident with the simple duplication of the parts 16, the parts 22 remaining in the complement of one pair. The parts of the carrier may be modified in shape to accommodate the support of other types of like containers such as jars or bottles if desired.

While no substantial modification of the invention is illustrated or described, it should be understood by those skilled in the art that various changes may be made in the structure of the portable carrier without departing from the spirit of the invention. Reference will therefore be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

1. A portable carrier for containers having projecting rims comprising a body member having a channel shaped cross section to provide generally flat top and side walls with substantially sharp edged right angular corner portions and opposed flat and open ends, said side walls and ends having means providing fixed support of parts having two opposed integral arcuate shaped extensions and each extended portion being capable when resisted to independently flex outwardly from a base corner end thereof fixed by said support, each extended arcuate

shaped portion being arranged in alternate facing and openly spaced relation with respect to the other portion and thereby form a plurality of spring clamping pockets oppositely disposed upon said side walls of the body member, said pockets providing means for clamping body portion of engaging containers inserted therein and retain them upon rigid support means provided by top and side wall portions of said body member of the carrier, the shoulder edge of the container rim being engaged upon the top surface edges of said spring clamping extensions including a coincident portion of the top surface of said top wall of the body member, which rim support augments said clamping support of the body portion of containers, and thereby secure each of a plurality of containers in said carrier, a retractable handle being provided for said carrier permanently retained in sliding engagement through said flat top wall portion of the body member, a horizontal portion of said handle normally resting upon said top wall and thereby providing means to effect an alignment of empty or loaded carriers when being stacked together upon alternate top and bottoms thereof, and the horizontal portion of said handle providing means, when raised upwardly of said top wall, to manually carry the container loaded carrier in gravity suspended and weight balanced position.

2. A portable carrier for containers having projecting top rims comprising a central rigid body part having a flat top wall and two opposed flat vertical side walls with right angular converging corners thereof being sharp, thereby providing support means for body and rim portion of containers, each of said side walls having longitudinally spaced offset louver wall portions oppositely disposed and spaced downwardly of said top wall portion, said louvers providing support means for parts having flexible spring active wall portions that project outwardly transverse of said side walls, and each opposing end of said rigid body part having support means for each of another part having flexible spring active wall portions that complement said projected portions of first mentioned parts, said flexible portions having arcuate shaped prongs positioned in alternate facing relationship that initially coincide eccentrically with the body curvature of containers, the surface of top edges of said arcuate prongs being coplanar in relationship with the flat surface of said top wall portion of the central rigid body part of the carrier, said top edges meeting with coinciding portions of the shoulder of rim edges of engaging containers and said flexible spring active prongs providing means to clamp the body portion of said containers and keep them firmly registered and confined upon the first mentioned rigid support means.

3. A portable carrier for containers having projecting rims comprising an elongated body member having a channel shaped cross section and having a U-shaped retractable sliding handle engaged permanently through coincident holes provided in the flat top wall portion of body member, and side walls thereof having a pair of oppositely disposed L-shaped outwardly and upwardly offset wall portions, each said portion providing support means for each of U-shape parts having spring tempered arcuate shaped leg portions positioned transverse of supporting means and arcuate concavities outwardly opposed, each of said legs being independent of the opposed leg in its flexing action when being resisted by engagement with one of a plurality of containers, said body member having flatly opposed ends with openings provided by said channel shape thereof, each flat open end being engaged with another spring tempered part having two longitudinally opposed arcuate leg portions, each leg being independent of the opposed leg in its flexing action when being resisted by engagement with one of a plurality of containers, said supported parts being firmly secured upon surface portions of the elongated body member, and said leg portions in general being arranged so that each concavity of each leg faces in

spaced relationship with the concavity of an alternate leg provided by said U-shape parts to provide container retaining oppositely disposed pockets with openings aligned parallel with side walls that support said U-shaped parts and each said pocket having an elongated inner disposed flat end constituted by said side walls of body member, top and bottom surfaces of the body member and supported parts thereupon being coplanar in relationship to provide effective means to flatly stack empty carriers together, one upon another, said retractable U-shape handle being normally retracted so that a horizontal handle bar portion thereof lies downwardly upon the flat surface of its retaining top wall of the body part, said handle bar portion fitting into a portion of the open channel of an adjacent carrier thereby providing means for top and bottom surfaces of carriers to meet with surfaces of alternate carrier, and each alternate carrier being aligned with each other by means of said open channel engagement with the particular handle bar portion.

4. A portable carrier as set forth in claim 3 wherein said carrier when loaded with containers having means embodied in the carrier with which to guide and control orderly stacking thereof in tier alignment, one upon another, and whereby said handle bar portion being effective to align the adjacent bottom ends of carrier retained containers to rest concentrically upon top ends of adjacent carrier retained supporting containers, the handle bar portion of said retractable sliding portions thereof being effective to provide means with which to manually carry the particular loaded carrier in suspended weight balanced position.

5. A portable carrier for containers having projecting rims comprising a central elongated body component part of substantially channel shape in cross section providing a flat top wall and two opposed side walls with the parallel longitudinal corner edges of the top and side walls converging into sharp corners, the opposite ends of said walls being flat faced and initially open, said side walls and open ends providing means for adhesively affixed support of multiple pairs of transversely projected arcuate shaped spring active prongs arranged in spaced relationship to each other, each single prong of said pairs being independently pivoted from a transverse corner end of said support means, the concavity of each leg of the arcuate shaped prongs complementing each other to form in pairs by being separately positioned in alternate facing relationship thereby forming a series of spring active clamping pockets in which to retain said containers when engaging them into said pockets, a portion of the projected rim of each container when engaged into each pocket being securely hooked over a coincident portion of said sharp converging corner edge of the component body part of the carrier, and the body of the container being rigidly supported in fixed vertical position by its pocket clamped position against a coincident portion of the side wall of said component body part adjacent said rim hooked portion of the retained container.

6. A portable carrier for containers having projected top rims comprising a rigid central body member that is substantially channel shape in cross section providing a generally flat top wall and two opposed parallel side walls having converging longitudinal corner edges substantially sharp edged, said walls having flat faced opposed end edges upon which is supported and affixed each of two transversely opposed arcuate shaped spring tempered prongs that forms the outer legs of two oppositely disposed pair of container clamping pockets, the side walls of said rigid body member being provided with means for affixed support of a plurality of transversely and outwardly projected arcuate shaped spring tempered prongs oppositely disposed in pairs complementing in part said first mentioned prongs and constituting flexible spring clamping pockets in which to retain said containers when engaging them into said pockets, each of said last

mentioned pockets being formed of each of two separate legs of said arcuate shaped prongs that are arranged in alternate facing relationship, the flexible clamping support provided by said pockets for the engaging containers being augmented by further rigid support effected by the registering of the body of the clamped container firmly against the contacted surface portion of the side wall of said rigid body member of the carrier, a portion of the rim of the container being rigidly hooked over a coincident portion of said sharp converging corner edge of the top and side wall of the rigid body member, the surface of the top edge of each of said arcuate shaped prongs that form said pockets, and the exterior surface of said top wall of the central body member of the carrier, being coplanar in flat surface relationship coincident with the plane of the substantially uniform bottom edge of said projected rim of the engaging container in each of said pockets whereby, said container is rigidly secured and retained in vertical position in the carrier.

7. A re-usable carrier for multiple like-containers having projecting top rims comprising a rigid U-shaped elongated body member that provides a central flat top wall portion with two opposed side wall portions of the carrier and having opposite ends square and initially open, the converging longitudinal corners of said walls being substantially sharp edged, said side walls and open ends providing means for affixed support of a plurality of other component parts of said carrier that define a series of projecting arcuate shaped spring tempered prongs that are arranged oppositely disposed in pairs transversely positioned from each of said side walls, the arcuate shaped leg of each of two separate projected prongs being positioned in alternate relationship and facing each other whereby, each of a plurality of container clamping pockets is formed with which to engage and retain each of said containers in the carrier, each separate prong defining a leg side of a container clamping pocket being pivoted from a corner edge of the transversely affixed base end of each of two alternately positioned prongs that define single sides of more than one of said clamping pockets, the pivot corner of each of two opposing prongs that defines one of said plurality of container clamping pockets being spaced apart longitudinally along the exterior surface of the coincident side wall portion of said elongated body member of the carrier.

8. A portable carrier for cans or like-containers having projecting top rims comprising an elongated rigid body member of channel shape in cross section to provide a substantially flat top wall with two opposed flat side walls and sharp converging corner edges, each of said side walls being provided with oppositely disposed L-shaped louver wall portions having free top and opposite side edges off-set outwardly of the dependent side wall, each of said louvers providing fixed support of a pair of engaging arcuate shaped flexible prongs that project outwardly from each side edge of said opposite side edges and transverse of the retaining wall portion of the louver, the curvature of each prong of said pair progressing inwardly toward each other from each corner of the offset side edges of said louver whereby, each prong of each pair forms an alternate side of two spring clamping pockets for containers, each of the opposite ends of said rigid body member of the carrier providing fixed support of a pair of arcuate shaped prongs and each prong of said pair forming an outer side of each of two opposite pairs of said spring clamping pockets, the inner terminal end of the curvature portion of each outwardly projected prong, that forms a side of each of said spring clamping pockets, being constituted to form a pivot fulcrum point for the flexing of said prong, when engaging said containers into said pockets, said pivot point of each prong of the pair of prongs that form said spring clamping pocket, being spaced apart so that the body of the engaging container, when being inserted into the pocket, will be clamped against a coincident portion of the face

of said side wall of the rigid body member of the carrier, a portion of the shoulder edge of the rim of the engaging container being confined upon a coincident portion of the top wall of said rigid body member and upon the top surface edges of the body clamping prongs whereby, the containers are firmly secured in rigid vertical position in the carrier, the top end extremities of the secured containers being coplanar in relationship to permit uniform stacking of a plurality of container loaded carriers.

9. A portable re-use carrier for containers having projecting top rims and formed of an assembly of prefabricated parts arranged in relationship to provide a series of oppositely disposed container retaining pockets comprising a central channel shaped part that provides a top end wall having two opposed side walls, the longitudinal corner edges of said walls being at least in part substantially sharp edged, portions of each of said side walls being offset outwardly to provide oppositely disposed louver shaped sections, each offset section having a marginal bottom wall portion projected outwardly at right angles to the face of the depending side wall and an upwardly bent wall portion at right angles to said bottom wall and having its top edge spaced downwardly of the exterior face of said top wall portion of the channel shaped part, each of said louver sections being formed to provide affixed support of each part of a plurality of U-shaped parts, each part consisting of a flat base wall portion with two opposed integral arcuate shaped prongs projected transversely from said base wall portion, the longitudinal inside length of the U-shape base wall portion being coincident with the longitudinal length of said upwardly bent wall portion of the louver so that said U-shape part is fitted over the opposite side edges of the louver and the exterior marginal face of the base wall portion is flatly engaged upon the corresponding face portion of the adjacent side wall from which said louver is offset, the curvature of each of said arcuate shaped prongs of the louver supported part being alternately opposed so that the leg of each prong forms a side only of a spring clamping pocket provided to receive and retain a container intended for the carrier, each of the opposite face ends of said channel shaped part providing means for affixed support of another part provided with a pair of arcuate shaped prongs with the legs thereof each projected outwardly of each adjacent side wall of the central channel shaped part thereby providing an outer prong side of two oppositely disposed spring clamping pockets of said series of container retaining pockets of the carrier, each prong side of each pocket being so arranged that it can flex and grip the body of the inserted container independently of the opposing prong forming the opposite side.

10. A carrier for containers having projecting top rims comprising an assembly of pre-shaped parts consisting of an elongated central body member having a top end wall and two opposed side walls with initially open opposite ends, said side walls and open ends being provided with means for affixed assembly of flexible spring tempered arcuate shaped prongs arranged in series and projecting outwardly transverse from said side walls of the central body member, the prongs affixed in each open end thereof being formed in pairs constituting a single outer leg of one pair that is projected outwardly of each adjacent opposing side wall thereby forming the opposite end extremities of the carrier transverse of the central body member and closing said open ends to rigidize the side walls thereof, the intermediate affixed prongs of said series being arranged in pairs consisting of each part having two opposed arcuate shaped legs of the prong substantially in parallel and both prongs projecting outwardly transverse from the face of the supporting side wall of said central body member, two of said parts having prong legs oppositely disposed from each opposed side wall of said body member, the radius of the inner surface of each arcuate shaped prong of said series being

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formed from a center point disposed between each of two alternately opposed single legs provided by each pair of said other prong parts, thereby forming a series of spring clamping pockets for intended containers longitudinally aligned outwardly along and from each opposite side wall of said central body member, the terminal end of the curvature section of the arcuate portion of each prong that is adjacent to the affixed surface of the side wall of said body member being openly spaced longitudinally from the like terminal end of the alternate opposing prong constituting a spring clamping pocket, the surfaces of the top edges of said series of prongs being coplanar in relationship with the top surface of said top end wall of the central body member, the corner edges of said top end wall and side walls extending between said spaced terminal end of each opposed leg of the arcuate shaped prongs being substantially sharp so that the shoulder edge of the projecting rim of the containers when being inserted into the spring clamping pockets will rest upon corresponding surfaces of the carrier parts, the body of each container being firmly clamped inwardly against the corresponding surface of the side wall of said central body member and centrally between said spaced terminal ends of the opposing pair of arcuate prongs that forms the spring clamping pocket.

11. A carrier for a group of like-containers having top projecting rims and being formed of an assembly of adhesively affixed pre-fabricated component parts comprising a rigid longitudinally extended central body part having a flat top end wall extended with two opposed parallel side walls, said walls being initially open at opposite ends thereof, a retractable U-shaped handle bar being secured to slide through said top end wall, each of said side walls being provided with longitudinally opposed outwardly offset portions of its wall having open opposite sides and top, the top surface edge being spaced downwardly from the surface of the top end wall portion of said central body part, each part of a plurality of like parts being adhesively affixed inwardly of each of said offset portions of said side walls, said affixed parts each being defined as having two opposed arcuate shaped spring tempered prongs that are projected together outwardly transverse from said side walls, the arcuate shaped curvature of each prong being convexly opposed each to the other, each said part thereby providing a single leg that forms one side of the alternate side of a single leg of the adjacent longitudinally opposed part thereby forming a plurality of container clamping pockets, each of said opposite ends of the central body part providing adhesively affixed support of another part defined as having two oppositely extended like arcuate shaped spring tempered prongs, each leg of said latter mentioned prongs forming an outer side that is opposed to a leg of the first mentioned prongs, the latter mentioned pair of prong parts defining the opposite end extremities of the carrier assembly that crosses and closes the ends of said central body part of the carrier thereby augmenting the rigidity of the side walls of the central body part, said retractable handle bar portion, when retracted to rest upon said top end wall, providing means to center and anchor the carriers together when stacked upon each other, either when empty or container filled, and alternatively when raised upwardly from said top wall, co-acting to provide means with which to manually carry the container filled carrier.

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12. The carrier as set forth in claim 11 wherein said re-tractable U-shaped handle having lower inner disposed ends of the slidable legs bent substantially at right angles thereof so that said ends can not pass through the handle supporting holes provided through said top end wall, said bent ends, when the handle bar is retracted, being spaced upwardly from the bottom edges of the side walls and arcuate shaped prongs, which edges are disposed in coplanar surface relationship.

13. A carrier for containers having projecting top rims comprising a central channel shaped body member that provides a top end wall and two opposed side walls, the parallel converging corners of said walls being substantially sharp and the opposite ends of said body being faced square to align the central face of a pair of opposed arcuate shaped flexible prongs disposed at each of said opposite ends, each prong of a pair extending outwardly of and transverse from each of the adjacent side walls of the central body member, said central face of the pair of prongs engaged at each end thereof having a centrally projected portion that is fitted and secured into the opening of the channel shaped body thereby augmenting the rigidity of the structure of said body member of the carrier, each side wall thereof being provided with means for the support and securing of oppositely disposed parts, each part having a pair of arcuate shaped flexible prongs that project outwardly transverse from said supporting means, each pair of said prongs being arranged to provide an alternate leg side of a series of spring clamping flexible pockets for the gripping of the body of intended containers when inserted therein, the top edges of said prongs and the exterior face of the top end wall portion of the carrier being uniform in coplanar surface relationship in order to rigidly support a major portion of the shoulder edge of said projecting rim of the containers and thereby provide co-acting effects to augment the flexible clamping support of the containers and retain them in the carrier in positive mutual vertical position.

14. A portable carrier for containers having projecting top end rims comprising a substantially rigid main body member defined as being channel shape in cross section thereby providing a substantially flat top and two opposed side walls, the converging right angle corner edges thereof being substantially sharp, said side walls being provided with supporting means for securing thereto a multiple of plural outwardly projecting arcuate shaped flexible prongs, each prong being arranged in spaced relationship with the other and positioned transversely of the surfaces of said side walls thereby forming a series of container securing flexible pockets, each of said pockets being augmented in its support of the container when inserted therein by container securing means provided by said rigid body member of the carrier effected by the pocket registering of the container upon corresponding surface portions of said top and side walls of the rigid member.

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