Nov. 18, 1958 K. H. SCHWEITZER 2,860,885

CHILD'S SEAT FOR NESTING CARRIERS

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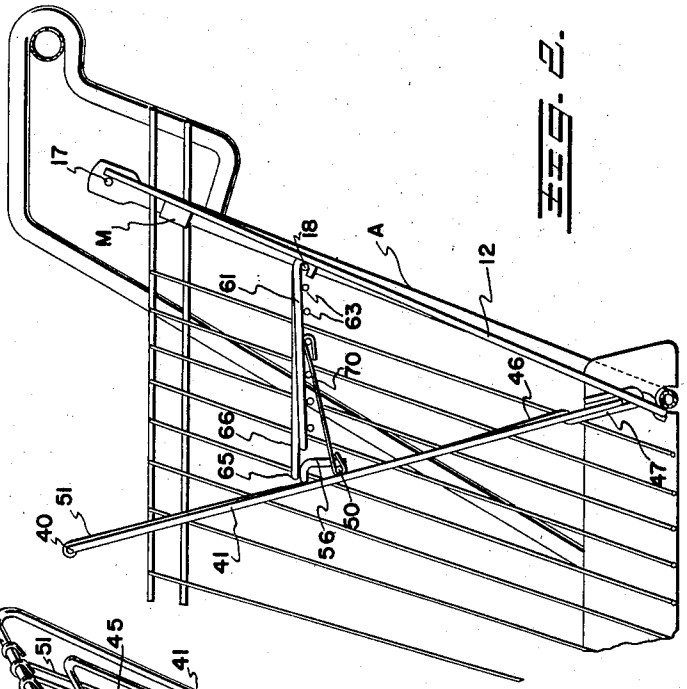

FIG. 2.

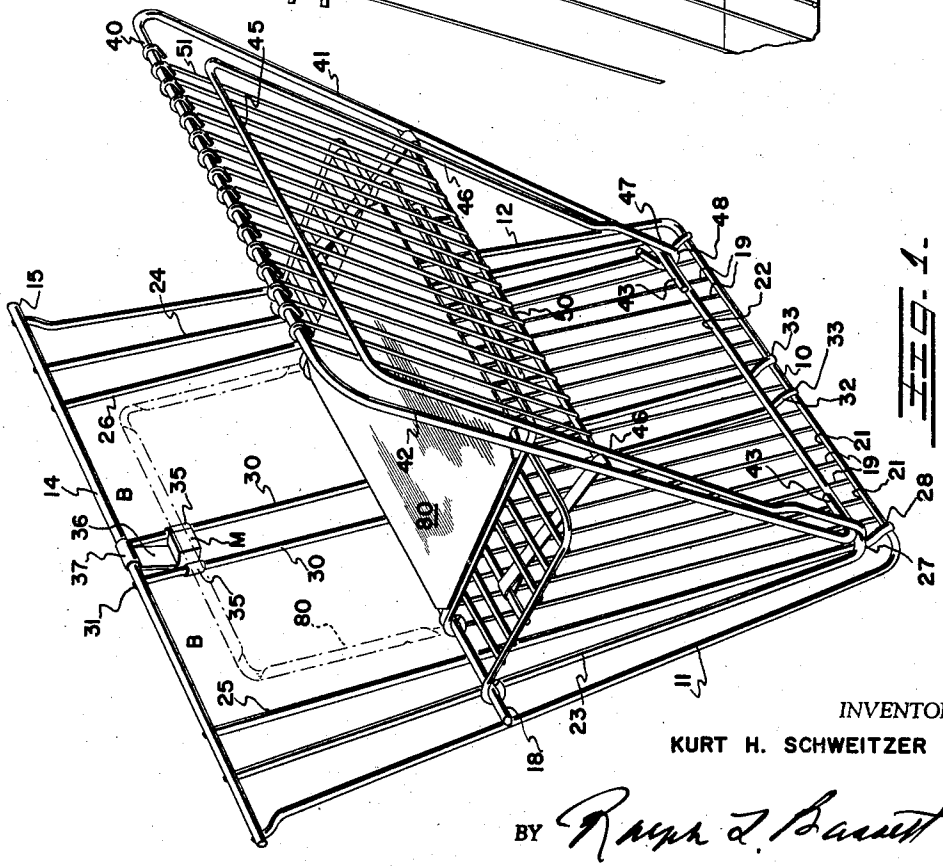

FIG. 1.

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FIG. 3.

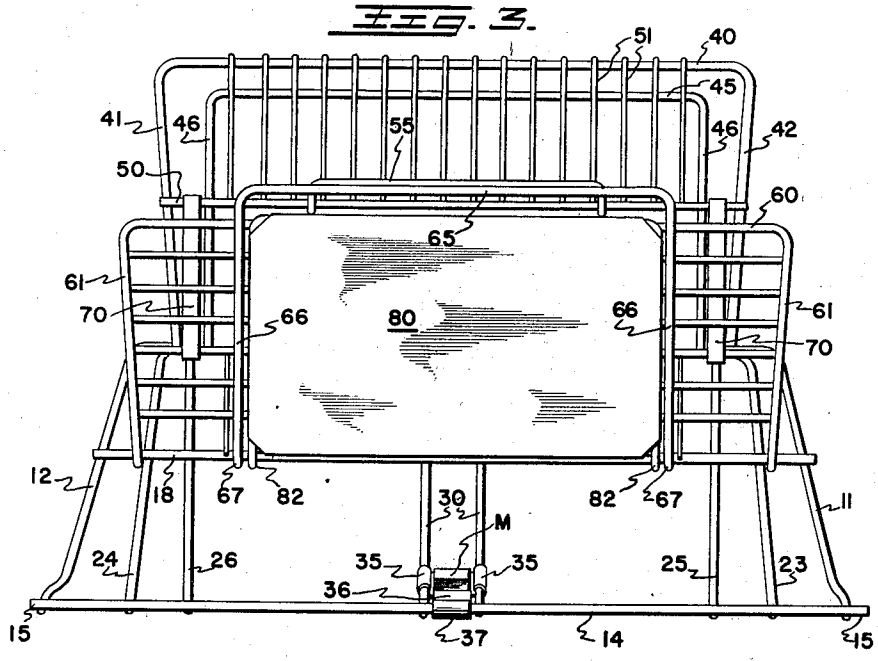
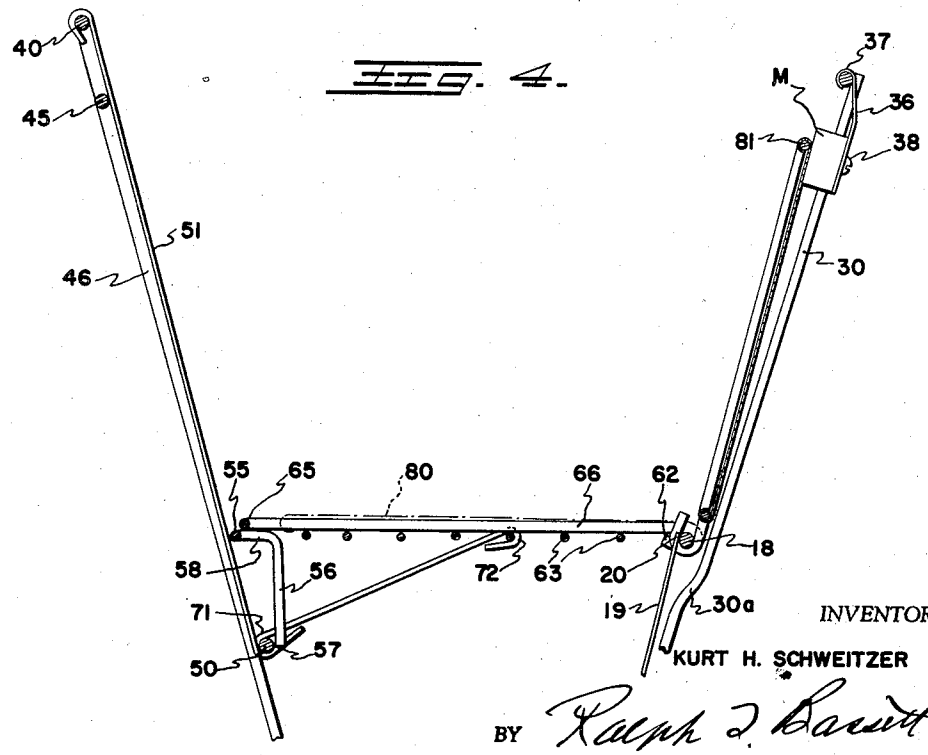


FIG. 4.



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CHILD'S SEAT FOR NESTING CARRIERS

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11 Claims. (Cl. 280—33.99)

This invention relates to improvements in nesting carts of the type used by customers in grocery stores of the self-service type. In the prior art a child's seat is mounted on the swinging gate of the basket and the back of the seat is of panel form and pivoted to the gate structure so that the panel will fold against the swinging gate when the seat is not occupied, to close the leg openings in the gate. It has been found that customers in using nesting carts having child seats of the type in question separate the back panel from the swinging gate and use the child's seat for supporting smaller commodities. When this is done, the small commodities may escape through the leg openings in the gate causing the commodities to fall to the floor and resulting in breakage, loss, etc.

The object of the present invention is to provide a child's seat for use on a swinging gate, the gate being provided with leg openings for the child, and the seat being so constructed and arranged that it will act as a closure for the leg openings in the swinging gate to prevent the loss of commodities which may be placed in the area between the swinging gate and the back panel of the seat structure.

Another object of the invention is to provide a structure of this type in which separate means are provided for supporting the independently movable seat element so that when the seat element is in elevated position to form a closure plate for the leg openings in the swinging gate, the seat supporting structure will form a commodity supporting panel capable of holding the smaller articles which might be purchased by a customer.

Another object of the invention is to provide a child's seat including a back panel, a seat supporting structure, and a seat element, all of which are adapted to be swung against the swinging gate when assuming a collapsed position, the swinging gate having means for locking the seat element to itself when the parts are so collapsed, but permitting the back panel and seat supporting structure to swing to open position to form a commodity-receiving auxiliary receptacle.

Another object of the invention is to provide fastening means mounted on the swinging gate which will retain the seat element in its folded position against the swinging gate, the fastening means requiring no structural details or projections on the seat which might prove uncomfortable to a child resting thereupon, and permitting release of the seat from its folded position against the swinging gate to horizontal or seating position without the manipulation of any mechanism whatsoever.

These and other objects will more clearly hereinafter appear by reference to the accompanying drawings forming a part of the instant specification and wherein like characters of reference designate corresponding parts throughout the several views, in which:

Fig. 1 is a perspective view of a folding carrier gate assembly provided with the present invention;

Fig. 2 is a fragmentary view of the invention embodying portions of the conventional cart frame, the seat element being in lowered position;

Fig. 3 is a top plan view of the structure of Fig. 1; and

Fig. 4 is a transverse section through the assembly showing the seat in elevated position.

In the disclosure of the instant invention a swinging gate such as is used in folding and telescoping carts illustrated in Patent No. 2,689,133 is shown as including an outer frame or wicket of U-form, the frame embodying the base 10 and vertical legs 11 and 12, the latter being conected by hinge bar 14, the hinge bar 14 having extremities 15 pivotally mounted in a frame A of the upper rear edge portion of the conventional nesting or telescoping carrier basket. This structure permits the gate to swing inwardly on its pivots 17 during telescoping association with a nesting cart of similar construction. A transverse stay in the form of a rod 18 connects the legs 11 and 12 of the outer U-shaped frame at an elevation in the swinging gate structure substantially defining the preferable height of a child's seat to be hereinafter described. A plurality of stays 19 are welded at their upper extremities to the inner face of the transverse stay or cross brace 18 as shown at 20 in Fig. 4, the vertically arranged spaced stays 19 being connected at their lower extremities to the outer face of the base 10 of the U-shaped frame. These stays 19 are uniformly spaced for a greater portion of the width of the swinging gate and the area between the sides of these stays and the arms 11 and 12 of the swinging gate frame is closed by an inner wicket member and vertical brace bars.

The inner wicket includes the base 22 and the vertical arms 23 and 24. The inner wicket is welded to the contacting intersecting stays 19 and to the hinge bar 14 as well as to the base 10 of the main gate frame. This second or inner U-shaped wicket lies in the same plane as the main or outer U-shaped wicket. Intermediate the inner wicket arms 23 and 24 and the adjacent vertical stays 19 are brace bars 25 and 26. The upper ends of these brace bars are welded to the outer face of the hinge bar 14, to the outer faces of the inner wicket at 27, and then have their lower ends bent inwardly and wrapped around and welded to the base 10 as at 28 to thereby increase the rigidity of the fabricated assembly.

Intermediate the rear gate structure and extending between the hinge rod 14 and the base element 10 are the spaced connecting rods forming vertical braces 30, the upper ends of these rods being welded at 31 to the outer face of the hinge rod 14 and extending downwardly in parallel relation to their lower extremities which are welded to the base 22 of the inner wicket and are then offset at 32 and welded at 33 to the inner face of the base 10. It will be noted that intermediate their length and immediately below the transverse stay or cross brace 18 the connecting rods or vertical braces 30 are offset as at 30^a so that their lower portions are generally in the plane of the main wicket frame. This fabrication provides leg openings B above the plane of the seat through which a child's legs may extend, the rods 30 permitting the child a measure of safety by providing straddling posts for the child's legs.

A permanent magnet M is positioned between the brace elements 30 at their upper extremities and is clamped thereto by transverse clamp strap 35. A further strap 36 extends upwardly from the clamp strap 35 and clamps about the hinge bar 14 at 37, as best shown in Fig. 4. The clamp straps 35—36 may be secured to the magnet by any suitable fastening such as the screw 38. It will be noted that by this three-point clamp the magnet is kept in a fixed position for engagement with the face of the seat element when it is raised to its upper position, as best shown in Fig. 4.

The back of the seat or swinging panel is formed of an inverted U-shaped wicket, including the base structure **40** and the arms **41** and **42**, the latter at their extremities being bent inwardly as at **43** to overlie the base **22** of the inner wicket structure of the swinging gate and forming a support for permitting swinging movement of the back panel structure on the upper adjacent surface of the base **22** of the swinging gate. A second inner inverted U-shaped wicket member including the base **45** and the arms **46** completes the back frame and it will be noted that the extremities of the arms 46 are inwardly offset at **47** to clear the inwardly extending arms **43** of the outer wicket arms and are then looped as at **48** about the base **22** of the inner fame of the swinging gate to provide a hinge structure to permit the back to swing on this pivotal structure with the extremities **43** forming the supporting bearings. At a point generally medial of the back panel structure a transverse brace member or medial stay **50** extends and is welded to the wicket structures heretofore described at the points of intersection. A plurality of stays **51** connect the base **40** of the inverted outer frame member of the swinging back panel and the medial stay **50**, these stays being spaced apart uniformly throughout their length and providing a back for the seat to be hereafter described.

A stop member for the seat-supporting structure of inverted U-form and including the base structure **55** and the offset arms **56** is provided with the extremities of the arms welded at **57** to the cross brace **50**. The arms **56** are offset inwardly from the base **55** to provide supporting areas **58** upon which the seat-supporting structure rests. The seat-supporting structure includes a panel having a main frame of U-form including the base **60** and arms **61**, the latter being hinged to the cross brace **18** of the swinging gate by the looped extremities **62** forming the terminals of the arms **61** of the frame. A multiplicity of transversely extending wires **63** are welded to the bottom faces of the arms **61** to provide a supporting area for an inner U-shaped stop engaging member which includes the base **65** and the arms **66**, the latter being looped at their extremities **67** for hinged connection with the cross stay **18** of the swinging gate. The arms **66** are welded to the transversely extending wires **63** at points of intersection. It will be noted that the base **65** of the U-shaped inner frame of the seat-supporting structure projects beyond the base **60** of the outer frame to overlie and engage the shoulders **58** of the stop member carried by the back of the seat as heretofore described. Connecting links **70** have their inner extremities **71** looped about the cross brace **50** of the back panel and their outer extremities **72** looped about one of the medial transversely extending wires **63**, as best shown in Fig. 1. The inner hinge connection **71** is substantially below the outer hinged connection **72**, facilitating a relative closing movement between the hinged gate and the back panel when the seat supporting frame is swung to its vertical position. A seat or platform to support the child is shown at **80** and this seat or platform may be of sheet metal, plastic, or any other suitable material. This platform **80** has its margins wrapped about a U-shaped wire frame **81** and this frame which is rectangular in form has projecting loops **82** pivotally wrapped about the transverse stay or cross brace **18** of the swinging gate. The pivotal movement of the seat **80** and its wire frame **81—82** is independent of the movement of the seat supporting frame **65—66** and the seat may assume its vertical position, as shown in Fig. 4, either together with the frame **65—66** or independently of the frame. Normally when the back panel is collapsed against the swinging gate, both the seat supporting frame **65—66** and the seat **80** will swing upwardly to lie against the upper portion of the swinging gate, with the metal seat plate in engagement with the magnet M and secured thereby. It might be well to note that in the event a plastic seat is used, a metal insert should be provided at the point of contact with the magnet M so that there will be a securing or locking of the seat **80** against the magnet when the seat is swung vertically. The conventional structure provides a metal panel **80** and such metal panel will, of course, be locked against the magnet M as shown in Fig. 4. When the back of the seat is separated from the gate and swung to open position, the seat panel **80** will remain fixed to the magnet M and only the fabricated seat supporting structure **60—65** will assume a horizontal position. By this arrangement the seat panel **80** will act as a closure for the leg openings B—B in the upper part of the swinging gate structure and a small receptacle will thus be formed between the swinging gate and the seat back with the base of the receptacle formed by the seat support **60—65**. With the parts in this position it will be obvious that any commodities deposited in the small receptacle thus provided cannot escape through the leg openings but will be kept within the small receptacle and readily available for use and out of contact with the main load of commodities in the cart. This provides a small receptacle immediately available for holding fragile articles such as eggs, berries and the like.

Where the seat structure is to be used to support a child, the seat panel **80**, by slight effort, can be released from its engagement with the magnet M and swung to the lower position as shown in dotted lines in Fig. 4. By lowering this seat panel **80** to the horizontal position, the leg openings B—B will be provided and the child can assume a seated position with its legs straddling the separating post structure formed by the vertical braces **30**. Thus, the present structure provides a two-fold objective, i. e. a child's seat and a divider to form an auxiliary compartment to facilitate shopping. It will be noted that the structure is so designed that it may either form a part of an original assembly or it may be attached to any standard nesting gate. In fact, the attachment of the fabricated equipment may be by substituting a new gate structure with the seat attached or the seat may be attached to a similar hinged gate to function for the dual purpose heretofore described.

What I claim is:

1. A seat structure for use in a nesting carrier, a gate member having hinge mountings at its upper end, a panel member hinged at its base to the bottom portion of the gate member, one of said members being formed with leg openings, a link means connecting the gate member and the panel member permitting said panel member to swing away from the gate member a limited distance, a seat support hinged on one of said members for movement from a vertical position when the panels are together to a horizontal seating position when the panels are separated, means supporting said seat support when in its horizontal position, and closure means for the leg openings hingedly mounted adjacent the bottom of the leg openings independently of said seat support and adapted to be swung to a horizontal position over the seat support to form a seating surface and to a vertical position against the leg openings for closing the latter when the gate and the panel members are separated to provide an area for the storage of commodities.

2. The structure of claim 1 so characterized in that means are provided for securing the closure means against displacement when in position closing said openings.

3. In a folding seat structure for use in a telescoping carrier having a swinging gate formed with leg openings at its upper portion, a seat structure including in combination with a swinging gate, a panel structure forming a seat back swingably secured to the lower portion of the gate, a seat-supporting structure swingably mounted medially of the gate structure, stop means on one of said swinging members for supporting the seat-supporting structure in a horizontal position, means connecting and limiting the relative movement between the swinging gate

and the panel structure, a seat, means for hingedly mounting said seat to the gate structure for movement independently of the seat-supporting structure from a position resting on the horizontally positioned seat-supporting structure to a vertical position against the gate for closing the leg openings, and means for retaining the seat in its vertical position while permitting the seat-supporting structure to assume a horizontal position.

4. In a folding seat structure for use in a telescoping carrier having a swinging gate formed with leg openings at its upper portion, a seat structure including in combination with a swinging gate, a panel forming a seat back swingably hinged to the base portion of the gate, a seat support swingably mounted medially of the gate structure, means connecting the panel and seat support for limiting the relative swinging movement therebetween, means on said seat structure for supporting said seat support in horizontal position, a seat, means swingably mounting said seat medially of the gate structure for independent movement toward and away from the seat supporting structure, and fastening means carried by the gate for engaging the swinging seat to retain the same in vertical position.

5. A telescoping grocery cart having a bottom wall, front wall and side walls, a gate forming the rear wall of said cart, said gate being pivoted to the upper rear portion of said cart for movement from a generally upright position to a generally horizontal position, leg openings in the upper portion of said gate, a seat, a seat support and a back rest, said seat, seat support and back rest being connected together to form a baby seat assembly, means for supporting said seat assembly within said cart in baby-supporting position, wherein said seat and seat support are in a generally horizontal position and said back rest is in generally upright position when said gate is in a generally upright position and for movement of said assembly towards said gate when the gate is pivoted upwardly towards horizontal position, and means adjacent the bottom portion of said leg openings for supporting said seat for swinging movement from its generally horizontal position to a generally upright position independently of movement of said gate, back rest and seat support to overlie and close said leg openings while permitting said back rest and said gate to remain in their generally upright position and said seat support

in a generally horizontal position, said seat and back rest when in their generally upright position and said seat support and portions of said side walls forming a compartment within said cart.

6. The structure of claim 5 characterized in that said leg openings are defined by an intermediate member and spaced outer members.

7. The structure of claim 6 further including means positioned on said intermediate member for engaging said seat to retain it in its upright position.

8. The structure of claim 7 characterized in that said means for engaging said seat to retain it in its upright position comprises a magnet.

9. The structure of claim 5 characterized in that said seat support includes spaced frame elements and cross wires for supporting articles positioned between said gate and said back rest.

10. A seat structure for use in nesting carriers, a gate member having hinged mountings at its upper end, a panel member hinged at its base to the bottom portion of the gate member, one of the members being formed with leg openings, a seat supporting structure hingedly mounted on one of said members and movable from a horizontal seating position to an upper position against the member to which it is hinged, means on the other member for holding the supporting structure in horizontal seating position, and a seat hinged to the member formed with the leg openings and at a point adjacent the bottom of the leg openings, said seat being mounted for swinging movement independently of the movement of the seat supporting structure and being movable from a horizontal position on the seat supporting structure to a vertical position closing the leg openings.

11. The structure of claim 10 characterized in that means are provided for securing the seat against displacement when in position closing said leg openings.

References Cited in the file of this patent

UNITED STATES PATENTS

488,436	Kilgore	Dec. 20, 1892
2,508,670	Goldman	May 23, 1950
2,662,775	Goldman	Dec. 15, 1953
2,769,645	Young	Nov. 6, 1956
2,813,725	Holdinghaus et al.	Nov. 19, 1957