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TELESCOPING GROCERY CARTS WITH SLIDING BOTTOM

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Filed Sept. 26, 1957, Ser. No. 656,360
3 Claims. (Cl. 280—33.99)

This invention relates to improvements in nesting type store service trucks and comprehends means for increasing the lading capacity of such trucks and facilitating the handling of the lading.

In the prior art, as in Goldman Patent No. 2,689,133 dated September 14, 1954, the lading capacity of the cart was increased by providing a second lower receptacle, this receptacle being fixed with respect to the truck structure and because of clearances somewhat limited as to capacity and further access to this lower receptacle was difficult because of the proximity to the superstructure.

It is the main object of the present invention to provide a second, lower lading holding receptacle for the nesting type store service truck, this second, lower receptacle being mounted for both pivotal and sliding movement, whereby access for loading and unloading is substantially enhanced.

A further object of the invention is to provide a lower lading-holding receptacle for the nesting type store service truck in which the lower receptacle is provided with a swinging gate to permit the nesting association with a similarity constructed service truck.

It is a further object of the invention to provide a nesting type store service truck having upper and lower receptacles, both of which are provided with swinging end gates to facilitate telescopic association with similarly constructed cart, one of the baskets being mounted for sliding and pivotal movement with respect to the other basket to facilitate loading and unloading of lading.

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

FIG. 1 is a side elevation of the invention;
FIG. 2 is an exploded fragmentary view;
FIG. 3 is a rear elevation of the lower basket;
FIG. 4 is a vertical elevation partly in section showing the guide structure;
FIG. 5 is a top plan view of the lower basket; and
FIG. 6 is an exploded fragmentary view of a modified form of the invention showing the pivoted guide frame associated with modified slide members.

In the present disclosure the base structure includes a forwardly converging U-shaped frame, the arms 1 and 2 of which are connected at their forward ends by the base of the U-frame structure indicated at 3. This frame is provided with swiveled front wheels 4 and rear wheels 6 and 7. The rear wheels are mounted on the rear vertical main frame members 9 and 10, which form the legs of an inverted U-shaped structure. The front vertical frame members 12 and 14 are spaced forwardly from the rear frame members 9 and 10. These rear frame members 9 and 10 extend below the horizontal frame structure 1 and 2 and mountings for the wheels 6 and 7 are carried by these projecting portions. The rear frame members 9 and 10 are offset forwardly as shown in FIG. 1, to facilitate the forward positioning of the upper basket structure A. The basket structure is mounted at its rear marginal bottom portion on the member comprising the base of the inverted U-frame member the legs 9 and 10 of which form the rear vertical frame structure. The upper ends of the uprights 12 and 14 are flattened at as 15 and bolted to the plates 16 at each side of the basket A, these plates 16 providing a reinforcing structure and also facilitating the attachment of parts forming the upper basket assembly.

The upper basket assembly A includes a horizontal U-shaped wicket structure embodying side arms 20 and forward end portion 22, the side arms 20 being vertically offset at 23 to overlie the side plates 16 to which they are attached by the straps 25. The upper basket as usual comprises forwardly converging sides 30, end wall 32 and bottom 33, these parts being formed by fabrication and the use of rods and wires which are appropriately welded at points of intersection. The rear portion of the basket includes upwardly and rearwardly extending spaced reinforcing rods 34 which are fixed at their lower ends by welding or otherwise to plates 16 and 17 while the upper portions of the rods are looped backwardly and downwardly as shown at 36 to provide recesses 37 in which the handle member 38 is mounted for rotation. The free end of the offset portions 36 of each of the rod members 34 is welded to the vertical reinforcing rods 40 of the basket structure, as shown at 41. The upper basket structure A is provided with the rear hinged gate 42 hinged to cross rod 43 for inward swinging movement upon telescopic association with a basket of similar construction, as is conventional in devices of this kind. The gate is limited in its outward movement by the usual cross brace and may be provided with a baby seat structure.

The present invention is primarily concerned with the mounting of the lower or second receptacle which is indicated generally at B. This receptacle is of the same general configuration as the upper receptacle A, having tapered side walls 50 and 51, forward end wall 52 and bottom 53. This basket structure B is fabricated of cross rods and wires, the upper and lower longitudinal rods in the sides 50 and 51 being indicated at 54 and being connected by U-shaped wickets which form the bottom and side wall structures for retaining lading heretofore described. The rear of the basket is provided with hinged gate 56, this gate being mounted on the rear frame members 57 and 58 (FIG. 3) which form the arms of an inverted U-shaped frame assembly having the base 59. The upper end portion of this frame assembly is bent rearwardly as shown at 60 (FIG. 1) to provide a handle element and a hinged gate 56 is mounted on pivots 61 and 62, on cross rod 59a; these mountings being spaced from the base portion 59 a sufficient distance to provide clearance to permit gripping the base member 59 forming the handle for the lower basket B. The rear portion of the basket bottom includes a relatively heavy rectangular frame including sides 63 and 64, front cross brace member 65 and rear brace 66. The rear brace 66 is welded to the rear end portion of the fabricated bottom 53 of the bottom basket B and forms a stop for the hinged gate 56 limiting the swinging movement of the latter. The slide frame members 63 and 64 are generally parallel and downwardly inclined while the side walls 50 and 51 of the lower basket converge forwardly, this arrangement spacing
the side members 63 and 64 from the side walls 50 and 51 of the basket, as shown in FIG. 2, to facilitate the movement of the basket as will more clearly hereinafter appear. The front cross brace 65 of the rectangular frame is offset upwardly to be shown for engagement with the fabricated bottom 53 of the lower basket structure B to which it is welded.

The above structure positions the side frame members 63 and 64 in spaced relation to the basket structure to create a laterally positioned track engaging guide structure which is adapted to travel in a guide frame or trackway pivotally carried by the underframe of the carriage.

The guide frame forming the trackway is pivoted to the front braces 12 and 14 and is formed of a heavy rod structure and includes a bottom U-shaped part having a base 70 and rearly extending arms 71 and 72. The rear terminal portions of the arms 71 and 72 are looped outwardly as at 73 and 74, respectively, and then extend forwardly to provide spaced upper guides 75 and 76 between which and the arms 71 and 72 the side frame members 63 and 64 travel. The upper members 75 and 76 of the pivoted trackway have their inner extremities bent laterally outward to provide projecting pivot arms 77 which extend into sockets 76 formed in the uprights 12 and 14. From this structure it will be seen that a trackway is defined between the rearly extending arms 71 and 72 of the swinging frame and within these spaced arms the side frames 63 and 64 fixed to the base of the basket are positioned for forward and rearward sliding movements, the forward sliding movement being limited by engagement of the front cross brace 65 with the uprights 12 and 14, while the rearward movement of the basket in the sliding guideway is limited by stop members 80 and 81, these stop members 80 and 81 having their forward ends fixed at 83 and 84 to the end portion of the cross brace 65 and project rearwardly a suitable distance and are offset outwardly as at 85 and 86 for abutting engagement with the lower part of the looped portions 73 and 74 of the guideways. Normally these stop members travel outwardly of these guideways and only function when the lower basket assembly is moved rearwardly a distance permitted by these stops. By this structure it will be obvious that the lower basket B is mounted to slide in the sliding guideways pivoted at 77 and 78 to the front uprights 12 and 14. The upward swinging movement of the basket is obviously limited to a position where the front of the basket engages the lower frame members 1 and 2, while the downward swinging movement is limited by a cross frame which reinforces the rear portion of the basket with its base portion 89 and includes forward and rearly extending arms 90 and 91 which project laterally of the basket a suitable distance so that they will seat upon the frame members 1 and 2 between the uprights 9 and 10 and 12 and 14, as shown in FIG. 2.

By this arrangement the lower basket B is mounted for both sliding and swinging movement, the front of the basket having its contents readily available for loading and unloading by said swinging movement, while the rear portion can be loaded and unloaded by shifting the lower basket rearward in the sliding frame.

It will be obvious that a basket constructed in accordance with the present invention will telescope with a basket of similar construction when two similarly constructed baskets are associated.

In the disclosure of FIG. 6 the side frame members 100 and 101 form the arms of a U-shaped frame in which the base 102 is an integral element forming a rear transverse brace for the lower basket structure. This lower basket structure includes the rear uprights 103 and 104 fixed at their lower extremities to the transverse brace member 102 and engaging in rearwardly projecting handle member 105 upon which is fixed the gate hanger 106. The swinging rear gate, fabricated from U-frame 107 and stays 108 is provided with hinges 109 which are mounted on the cross brace 106. This gate normally swings inwardly and its outward swinging movement is limited by engagement with the base member 102. The side frame members 100 and 101 are positioned laterally of the sides 110 and 111 of the basket and are connected to the cross rod 112 fixed to the longitudinally extending rods 114 forming a part of the fabricated basket bottom. The outer ends of the side frame members 100 and 101 are bent downwardly at their free end portions 115 and then extend inwardly at 116 and rearwardly at 117 to provide abutting or stop portions for engaging a portion of the pivoted trackway to be hereinafter described.

As in the first form, the pivoted trackway or guide frame is mounted for swinging movement in the vertical posts 12 and 14 of the cart assembly and normally rests upon the longitudinal converging side frame members 1 and 2 of the carriage structure. This pivoted guide frame forming a trackway for the side members 100 and 101 of the lower basket is fabricated preferably of heavy rod material and includes a base member 118 extending transversely of the main frame of the basket assembly rearwardly of the posts 12 and 14. The arms 120 of the base member 118 of the U-shaped frame extend rearwardly and are laterally spaced to be confined within the frame structure 9—10—12 and 14. These arms project rearwardly of the rear frame members 9 and 10 and are bent inwardly as at 112 into loop form extending arms 118, said arms 118 being substantially in the same horizontal plane as the arms 120 and terminating in upwardly inclined extensions 123 having their terminals 124 extending outwardly and penetrating the uprights 12 and 14 for pivotal supporting engagement therebetween. The rearly looped portions 121 of the arms 120 are bent downwardly as shown to provide a support for the side frame members 100 and 101 which are positioned between the parts 120 and 122, these frame members 100 and 101 being retained between the parts 120 and 122 by straps or clips 125. The straps or clips 125 are bent about these assembled parts to retain alignment therebetween at all times. As shown, the side frame members 100 and 101 of the basket are guided and supported by the parts 120 and 122 and rest upon the depending bent loop portions 121 so that the sliding movement of the basket is maintained in proper alignment and lateral swinging of the basket is prevented by the parts 120 and 122 between which the side members 100 and 101 are located.

A cross brace 126 connects the arms of the trackway and is welded at points of intersection. The cross brace 126 projects laterally of the pivoted trackway and terminates in laterally extending loops 127 which overlie the side frame members 1 and 2 and rest thereupon, thereby limiting the downward swinging movement of the pivoted guideway or trackway assembly but leaving this same structure free to swing outwardly as in FIG. 6.

The elements 117 of the side frame members 100 and 101 are normally positioned to abut the cross brace 126 as the basket is slid rearwardly, thus limiting the outward movement of the bottom basket but permitting the same to be swung on the pivots 124, either when in normal retracted position or when in its outer withdrawn position, which latter position it is caused to assume to facilitate loading and unloading.

What I claim is:

1. In a nestable basket carriage for self-service stores or the like, a frame, casters supporting the frame, a pair of forwardly converging baskets mounted on the frame in superimposed relation, each of the baskets having a pivoted end closure at one end with the pivots lying in the same plane, whereby the cants may be nested with cants of similar construction, a pivoted frame for supporting one of the baskets for movement relative to the other basket, and a longitudinally extending sliding connection between said last named basket and its pivoted frame whereby the baskets may be relatively longitudinally adjusted.

2. The structure of claim 1 characterized in that the bottom basket is the basket which is pivotally and slide-
ably supported on its mounting and means are provided for limiting its sliding movement in both directions.

3. In a telescoping grocery cart assembly, a main frame including laterally spaced side members, a front end connecting member for the side members, and upright members extending from the rear end portions of said spaced side members, wheels mounted on the frame, an upper basket assembly supported at the top portion of said frame, said basket assembly including forwardly tapered walls and a rear hinged gate to permit telescoping association with a similar basket assembly, a swinging guide frame including laterally spaced longitudinally extending side guide members and a connecting member, said guide members each including upper and lower guide rails, said swinging guide frame being pivotally mounted at its rear portion on said upright members below said upper basket, and a lower basket including laterally projecting side members which extend between the side guide members for travel therealong, said lower basket being swingably supported by said guide frame.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Inventor(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,479,530</td>
<td>Watson</td>
<td>Aug. 16, 1949</td>
</tr>
<tr>
<td>2,583,513</td>
<td>Maslow</td>
<td>Jan. 22, 1952</td>
</tr>
<tr>
<td>2,583,514</td>
<td>Maslow</td>
<td>Jan. 22, 1952</td>
</tr>
<tr>
<td>2,590,285</td>
<td>Wiltshire</td>
<td>Mar. 25, 1952</td>
</tr>
<tr>
<td>2,871,024</td>
<td>Young</td>
<td>Jan. 27, 1959</td>
</tr>
<tr>
<td>2,890,058</td>
<td>Cauthon</td>
<td>June 9, 1959</td>
</tr>
<tr>
<td>2,903,269</td>
<td>Hennion</td>
<td>Sept. 8, 1959</td>
</tr>
</tbody>
</table>