R. T. VAN VALKENBURG.

COLLAPSIBLE CARRIER.

APPLICATION FILED MAR. 25, 1921.

1,414,535.

Patented May 2, 1922.

2 SHEETS—SHEET 1.

FIG. 1.

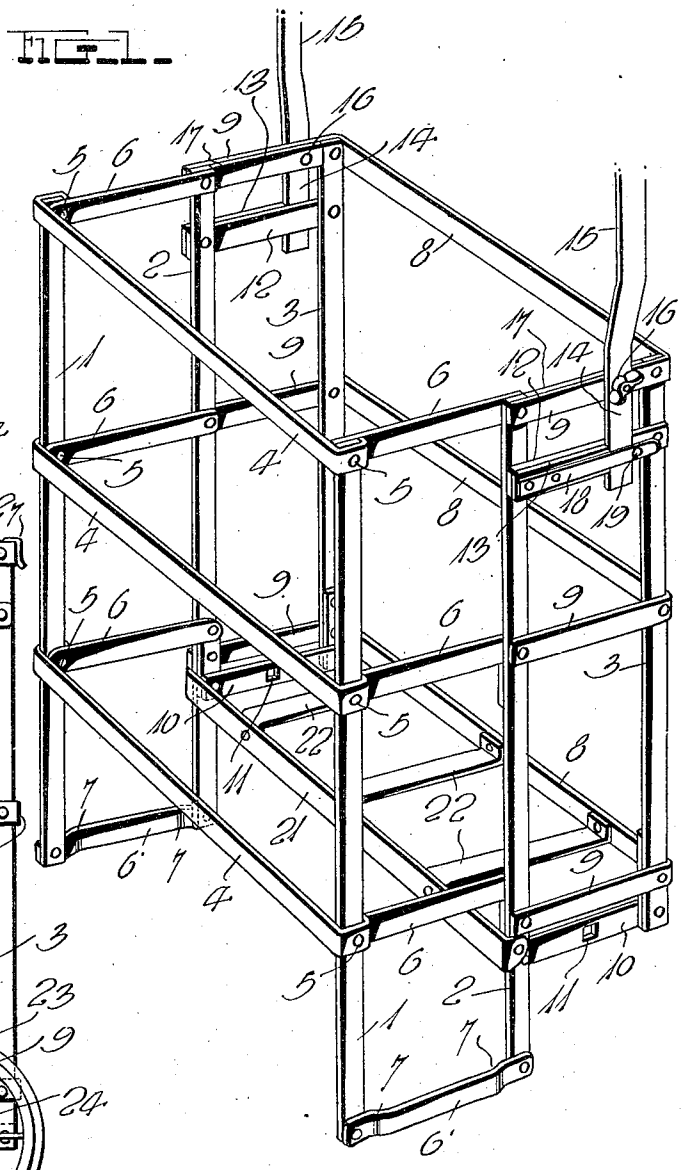
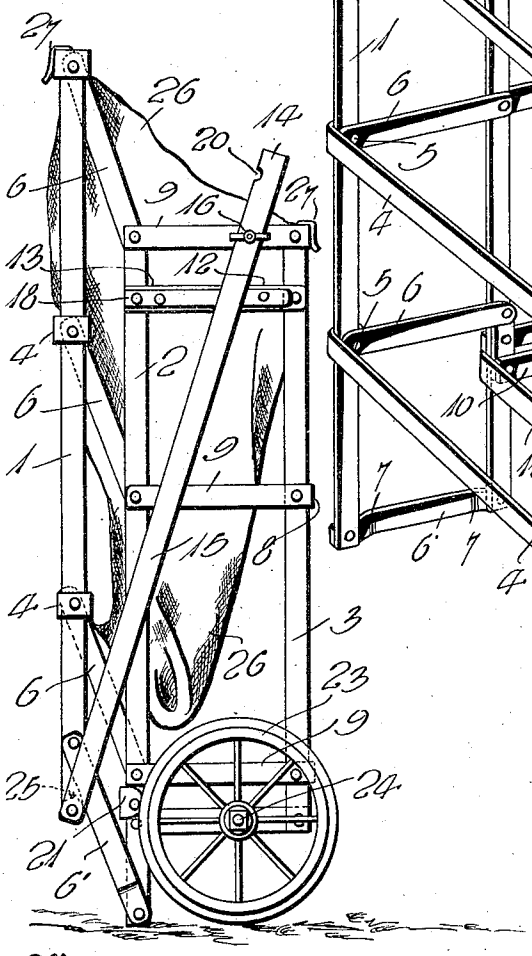


FIG. 2.



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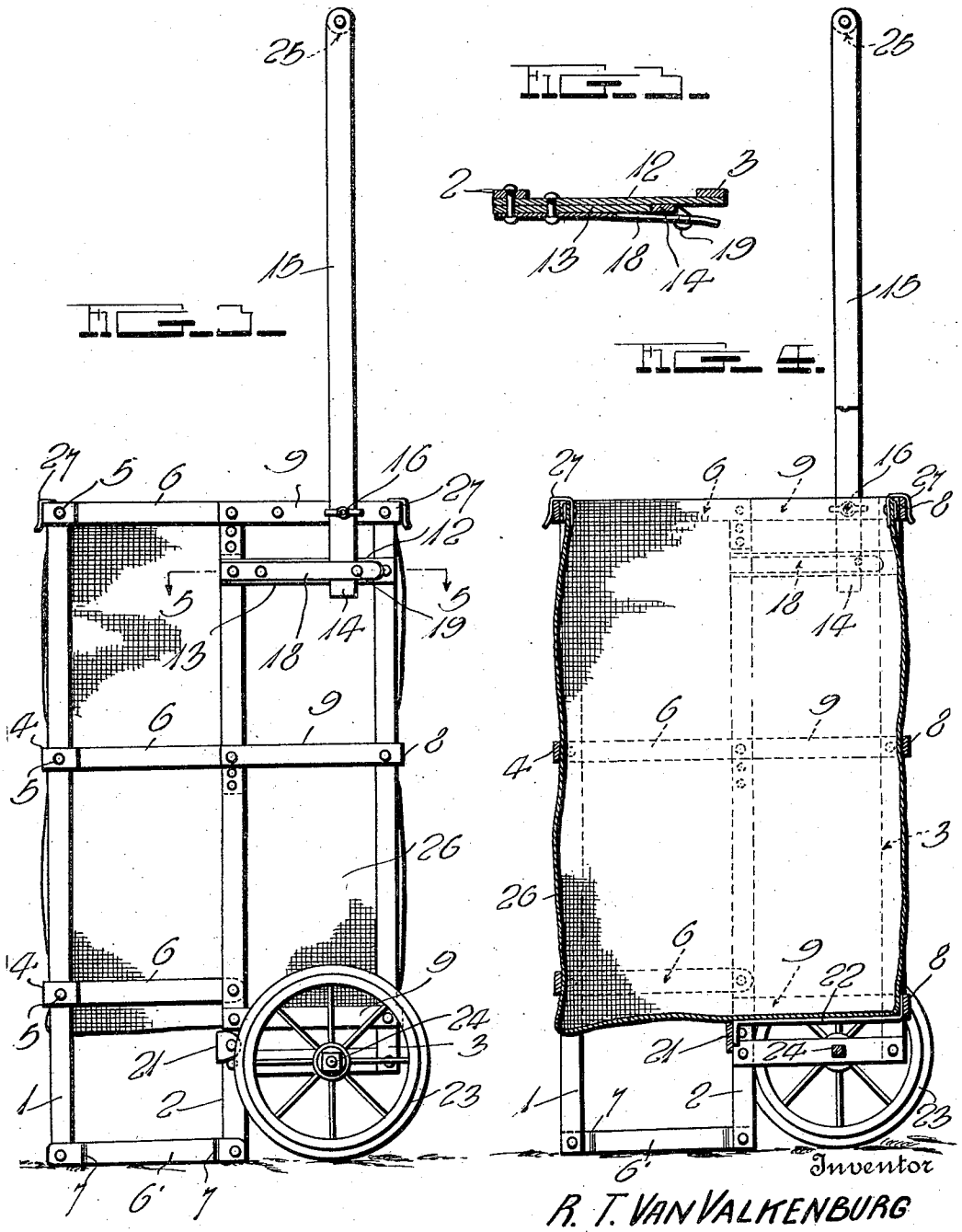
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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE CARRIER.

1,414,535. Specification of Letters Patent. Patented May 2, 1922.

Application filed March 25, 1921. Serial No. 455,388.

To all whom it may concern:

Be it known that I, RANDALL T. VAN VALKENBURG, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Collapsible Carriers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved collapsible carrier for use in carrying material from one place to another and one object of the invention is to provide a carrier having an improved frame construction, one section of which may be folded upwardly from an extended or operative position to a folded or inoperative position.

Another object of the invention is to so construct this frame that the handle which is pivotally mounted may be swung to a lowered position to extend beneath the folded section and be secured in the lowered position to hold the folded section in a raised or collapsed position.

Another object of the invention is to so construct this frame that the foldable section when raised into a collapsed or folded position may provide convenient means for taking hold of the carrier and moving it from one place to another.

Another object of the invention is to so construct this carrier that it may be readily supported in a vertical position but at the same time permitted to be readily tilted when in use thus permitting it to be moved easily upon its supporting wheels.

Another object of the invention is to so construct this carrier that it may be used for carrying large articles such as a piece of ice by placing the ice directly into the frame.

Another object of the invention is to so construct this device that a sack may be placed in the frame and supported from the upper portion thereof when it is desired to carry a quantity of small articles.

Another object of the invention is to provide a carrier of the type described which may be formed almost entirely of strips of metal riveted together with certain of the rivets forming pivots for permitting the collapsible portion of the frame to be swung upwardly to the collapsed position.

This invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of the frame portion of the carrier when in position for use.

Figure 2 is a view in side elevation showing the sack in the frame and the frame collapsed.

Figure 3 is a side elevation showing the collapsible portion swung down to the operative position.

Figure 4 is a vertical sectional view through the carrier.

Figure 5 is a fragmentary sectional view taken along the line 5—5 of Fig. 3 to show the construction of one of the latches for holding the handle in a raised or operative position.

This improved carrier is provided with a frame having vertical bars 1, 2 and 3. The vertical bars 1 are connected by cross bars or straps 4, the ends of which are bent around the bars 1 as shown in Fig. 1. These straps or bars 4 are secured by rivets 5 which in addition to securing the bars 4 to the bars 1, also serve to pivotally connect the links 6 with the bars 1. These links 6 are pivotally connected with the bars 2 and it will thus be seen that the vertical bars 1, cross bars 4 and links 6 form a section which may be swung upwardly from the operative position of Fig. 1 to the collapsed or inoperative position of Fig. 2. The lower links 6′ which connect the lower ends of the bars 1 with the bars 2 are secured to the outer faces of the bars 1 and 2 instead of the inner faces and further have their end portions bent as shown at 7 so that the collapsible section of the frame may be easily swung upwardly without any binding.

The vertical bars 3 are connected by connecting bars 8 which have their end portions bent to provide side arms 9 which are secured to the bars 3 and also to the bars 2 by rivets or other suitable fasteners. In addition to the side arms 9, the bars 2 and 3 carry connecting bars 10 having axle receiving openings 11 and further carry bars 12 upon which are secured abutment strips 13 which terminate short of the bars or standards 3. These abutments strips 13 will engage the end portions 14 of the side bars 15 of the handle and thus limit the upward swinging of the handle and prevent it from swinging beyond a vertical position when swung upon its pivot 16. These pivots 16 are in the form of bolts which pass through the reinforcing strips 17 and upper side arms 9 and carry wing-nuts

upon their outer end portions for engaging the side arms of the handle and securely locking the handle in a set position. Resilient latching strips 18 are secured to the abutment strips 13 and have their free end portions provided with pins 19, one pin 19 being carried by one of the strips 18 and adapted to fit into the notch 20 formed in the end portion 14 of the side arm 15 which engages the abutments strips to which the latch is secured. It is to be understood that only one latch may be employed if so desired, or a latch may be secured to each of the strips 13. A bracing strip or bar 21 is connected with the bars or standards 2 at a point adjacent the short bars 10 to provide a supporting bar for the forward end portions of the strips 22 which extend between and are secured to the bar 21 and lower bar 8. It will thus be seen that these strips 22 together with the bar 21 and lower bar 8 will form a bottom for the relatively rigid portion of the frame. The wheels 23 which are mounted upon the axle 24 will be of sufficient size to rest upon the ground with the frame in an upright position and the lower end portion or feet forming sections of the standards 2 resting upon the ground.

When this device is in use and it is desired to carry a relatively large object such as a piece of ice, this object will be placed in the frame and will rest upon the bottom formed by the bar 21, strips 22 and lower bar 8. The handle will be swung up as shown in Fig. 1 and held by the latch or latches 18, the wing-nuts of the fasteners 16 being tightened. The frame can then be tilted back and moved readily upon the wheels 23. When not in use, the collapsible section may be swung upwardly as shown in Fig. 2 and the handle swung down so that the handle bar 25 thereof extends beneath the bars or standards 1. The wing-nuts will then be tightened and the handle will serve as means for retaining the collapsible section in the raised position. If it is desired to carry small objects such as potatoes or any other material which would pass between the bars of the frame, a sack 26 may be placed within the frame. This sack is provided with hooks 27 for engaging the upper bars or strips 4 and 8. The sack will therefore be suspended in the frame and the material to be carried may be placed in the sack. It is of course understood that if desired additional hooks may be provided for engaging the upper bars 6 and the arms 9 of the upper bar 8. The frame can be folded to the collapsed position with the sack in place as shown in Fig. 2 and the device can be put away in a small amount of space. It should be noted that when not in use, the device will remain in a vertical position and be supported in this vertical position by the standards 2, the lower ends of which will provide the supporting legs. As previously explained, the upper cross bar 4 provides a strip which can be grasped and used as a hand-hold for handling the device when collapsed. There has thus been provided a collapsible carrier which will be light and easy to handle and which may be used for carrying bulky or small objects and which can be further collapsed into a relatively small mass and put away in a small space where it will remain in a vertical position and not be liable to fall over.

I claim:—

1. In a carrier, a frame having a rigid section having a bottom, end walls and a rear side wall and open at its front, depending means carried by the bottom for engaging the ground to retain the rigid section in an upright position, and a foldable section pivotally connected with the end walls of the rigid section whereby the foldable section may be folded towards the rigid section to a collapsed position.

2. A carrier comprising a frame having a rigid section having a bottom, end walls an outer side wall and open at its front, supporting wheels at the ends of the rigid section and depending means for engaging the ground to retain the rigid section in a vertical position, and a foldable section having an outer side wall for engaging the ground, and end walls formed of bars pivotally connected with the end walls of the rigid section and outer wall of the foldable section whereby the foldable section may be folded upwardly towards the rigid section to a collapsed position.

3. The structure of claim 2 and a handle having side arms pivotally connected with the end walls of the rigid section and a cross bar carried by the side arms for extending beneath the side wall of the foldable section and engaging the end walls thereof to retain the foldable section in a raised and inoperative position.

4. The structure of claim 2 and a handle having side arms pivotally connected with the end walls of the rigid section and a cross bar carried by the side arms for extending beneath the side wall of the foldable section and engaging the end walls thereof to retain the foldable section in a raised and inoperative position, the side arms being pivotally mounted through the medium of bolts having securing nuts for engaging the side arms and releasably holding the handle in a set position.

5. The structure of claim 2 and a handle having side arms pivotally connected with the end walls of the rigid section and a cross bar carried by the side arms for extending beneath the side wall of the foldable section and engaging the end walls thereof to retain the foldable section in a raised and inoperative position, abutment strips carried by the end walls of the rigid

section to limit upward movement of the handle, and latching means for releasably holding the handle in a raised position.

6. In a carrier, a body having a bottom, a rear wall and end walls and open at its top and front, an auxiliary section extending from the end walls in front of the open front of said body and movable towards the body to a folded position, ground engaging wheels connected with said body, ground engaging means for retaining the carrier in an upright position, and a handle connected with said body and movable into and out of an operative position.

7. A carrier of the character described comprising a frame having a body portion having a bottom, end walls and a rear side wall and open at its forward side, an auxiliary section extending in front of said body from the upper end of the end wall, ground engaging supporting means carried by said bottom, and a sack fitting into said body and resting upon the bottom thereof, the open upper end portion of said sack being provided with means for engaging the upper portions of the auxiliary section and body to releasably support the sack in the body.

In testimony whereof I have hereunto set my hand.

RANDALL T. VAN VALKENBURG.