Aug. 2, 1955 H. H. WALKER 2,714,461

OIL DRUM CARRIER

Filed April 17, 1953 2 Sheets-Sheet 1

Fig. 2

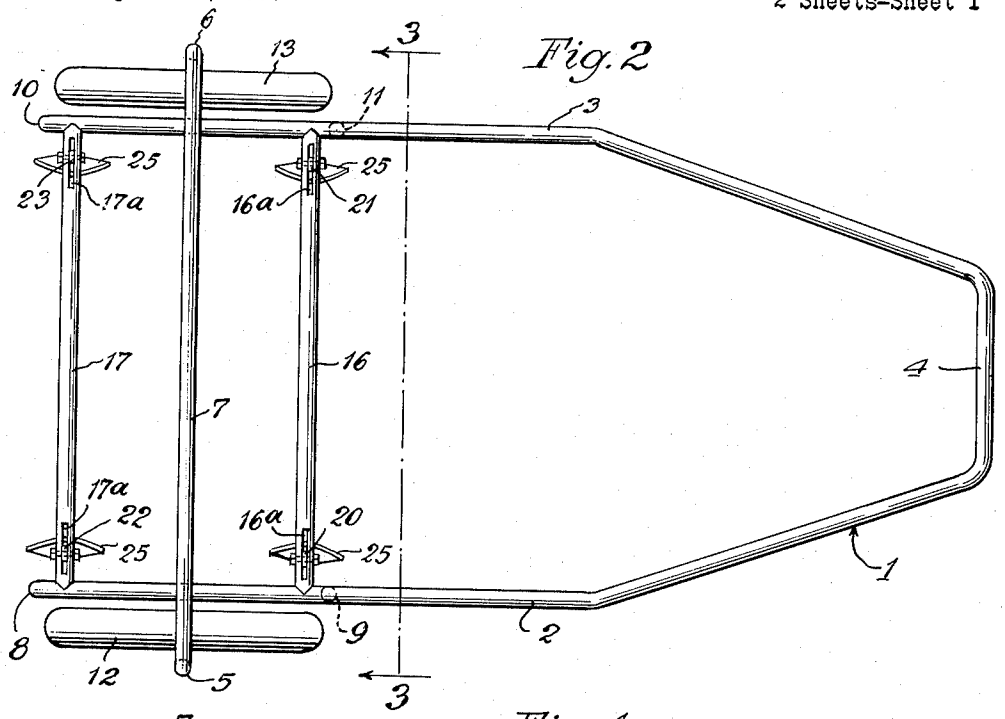


Fig. 1

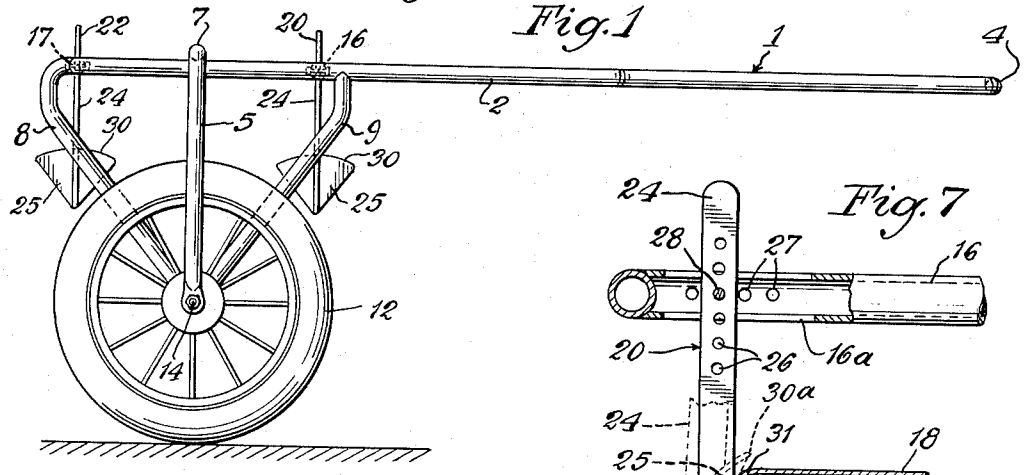


Fig. 7

Inventor
Harry H. Walker
by Parker & Carter
Attorneys

Aug. 2, 1955 H. H. WALKER 2,714,461

OIL DRUM CARRIER

Filed April 17, 1953 2 Sheets-Sheet 2

Fig. 3

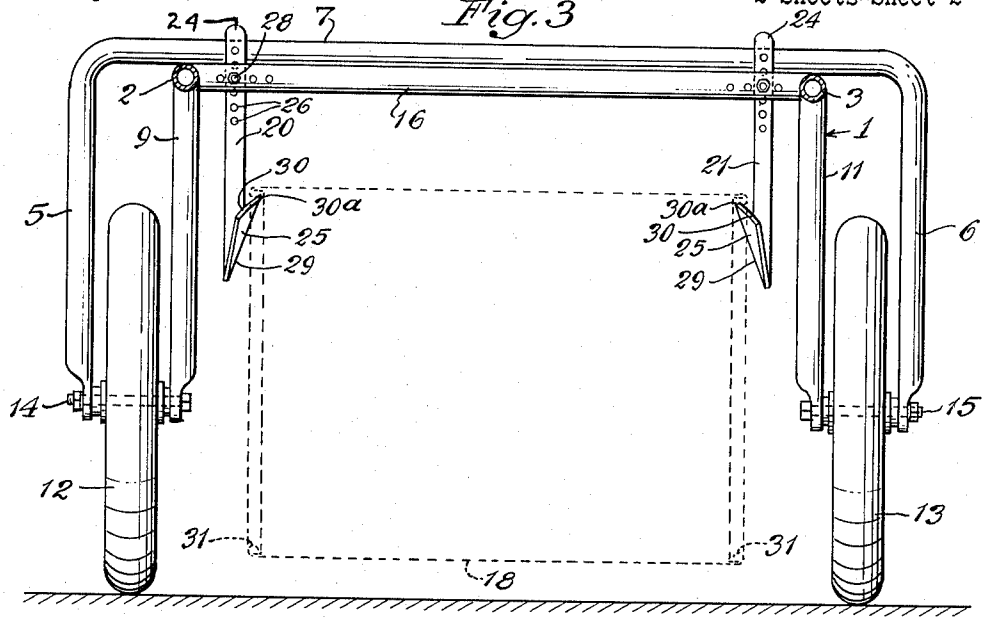


Fig. 4

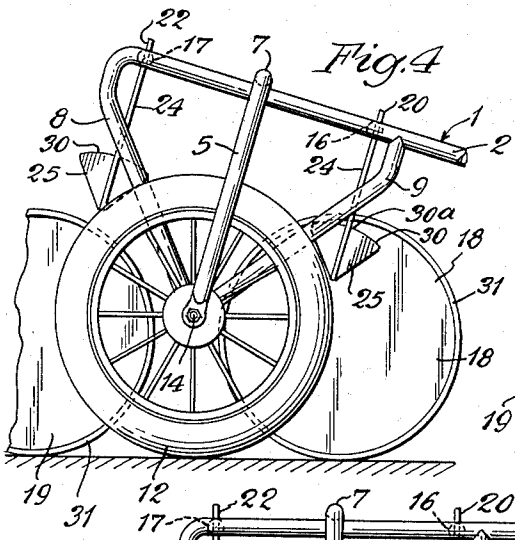
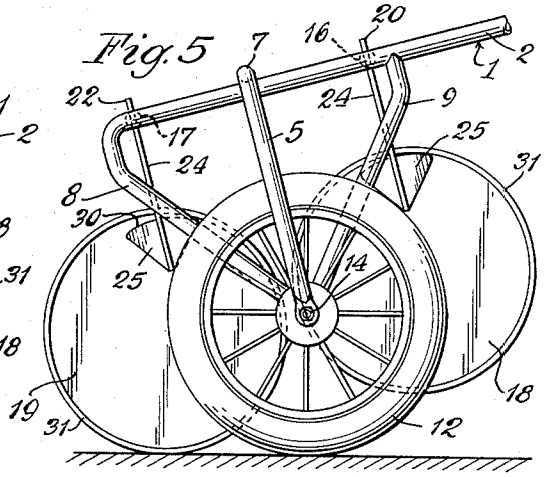


Fig. 5



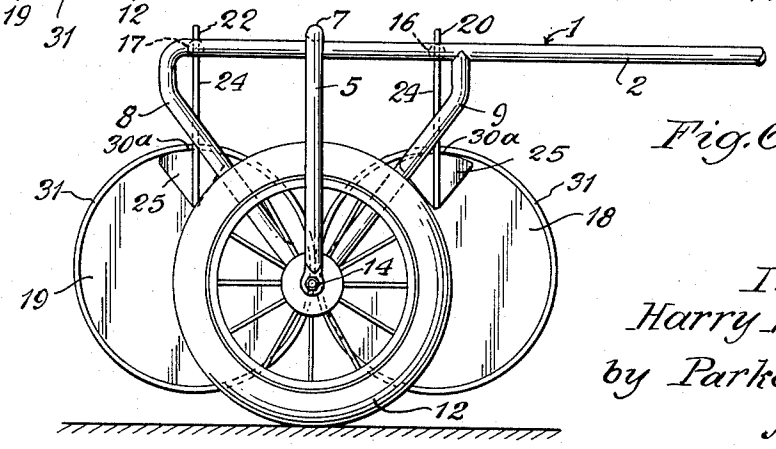


Fig. 6

Inventor
Harry H. Walker
by Parker & Carter
Attorneys

United States Patent Office 2,714,461 Patented Aug. 2, 1955

2,714,461

OIL DRUM CARRIER

Harry H. Walker, Beirut, Lebanon

Application April 17, 1953, Serial No. 349,397

4 Claims. (Cl. 214—384)

This invention is directed to an improved article carrier. The invention is particularly directed to an oil drum carrier which is adapted to be manually actuated in its drum-supporting and carrying functions.

One object of this invention is the provision of an improved article carrier which is especially adapted to pick up and transport a plurality of oil drums.

Another object of this invention is the provision of an improved wheeled carrier providing for balanced transportation of a load.

Another object of this invention is the provision of an improved manually actuatable carrier which is designed and arranged so that an extremely simple manipulation of the carrier effects engagement of the load and raises the load to carrying position.

Another object of this invention is the provision of an improved carrier for oil drums and the like, wherein the design of the carrier in providing for balancing of the load serves to aid the function of the carrier in engaging and raising a drum or load to be transported.

Other objects will appear from time to time in the course of the ensuing specification and claims.

Referring generally now to the drawings:

Fig. 1 is a side elevational view of my improved carrier;

Fig. 2 is a plan view of the embodiment of the invention shown in Fig. 1;

Fig. 3 is a sectional view of the device shown in Fig. 2 taken along the section lines 3—3 of Fig. 2;

Fig. 4 is an elevational view of the embodiment of the invention shown in Fig. 1 and showing one operative position of the invention shown in Fig. 1;

Fig. 5 is a diagrammatic view showing a side elevation of the invention shown in Fig. 1 and showing another operative position of the invention shown in Fig. 1;

Fig. 6 is a diagrammatic view shown as a side elevation of the embodiment shown in Fig. 1, but showing another operative position of the carrier shown in Fig. 1; and

Fig. 7 is a detailed view of one of the drum-engaging and supporting elements employed in the invention when engaging an oil drum to be transported.

Referring specifically now to the drawings, wherein like elements are designated by like characters throughout, 1 represents a frame member having longitudinally extending side portions 2 and 3. At one end thereof the side portions 2 and 3 converge and join together to form a handle 4. The frame 1 includes depending wheel-supporting members 5 and 6 which are preferably formed integrally with a transverse extending member 7, which is joined as by welding or the like to the members 2 and 3. The wheel-supporting members 5 and 6 are spaced outwardly from the side members 2 and 3, as will be seen best in Fig. 2. Depending from each of the side members 2 and 3 are a pair of additional wheel supports 8, 9, 10 and 11. The wheel supports 8 and 9, 10 and 11 converge at a point generally aligned with the depending extremity of the wheel supports 5 and 6. A pair of ground-engaging supporting members in the form of a pair of wheels are mounted on the depending supports 5, 8 and 9, and 6, 10 and 11, as at 12 and 13. Wheels 12 and 13 are preferably journaled on axes 14 and 15 carried by the wheel supports 5, 8, 9 and 6, 10 and 11, respectively, as will be seen best in Fig. 3.

The converging wheel supports 8, 9 and 10, 11 are so proportioned as to serve as guards for the wheels and preclude interference of the drums with the wheels.

A transversely extending supporting member 16 is joined to the side frame elements 2 and 3. Another transversely extending supporting member 17 is joined to the side frame elements 2 and 3. The supporting members 16 and 17 are preferably spaced at equal distances from the transverse axis of the wheels 12 and 13. The members 16 and 17 are spaced apart in a longitudinal direction by an amount generally equal to the diameter of a single oil drum to be transported. The elements composing the frame may be formed of tubular steel, although any particular material is not critical.

The wheels are of a size such that when taken with the length of the depending wheel supports, the frame members 2, 3 and transversely extending supporting members 16 and 17 will be spaced above the ground or surface upon which the wheels 12 and 13 are supported by a distance greater than the diameter of the largest drum which is desired to be carried.

A pair of drum-engaging members 20 and 21 are mounted on the transversely extended support member 16 and a similar pair of drum-engaging members 22 and 23 are mounted on the support member 17, as shown in the plan view of Fig. 2. Each drum-engaging member includes a generally elongated shank 24 insertable through a slot 16*a* or 17*a* in the transversely extending member 16 or 17, and an end portion 25 which is generally enlarged with respect to the shank, as will be seen best in Fig. 7. A series of spaced apertures 26 are disposed longitudinally of each shank. Each transversely extending support member 16 and 17 has a group of spaced apertures 27 formed therein. The drum-engaging members are mounted upon their associated transversely extending support member 16 or 17 by means of a pivot pin 28 received by one of the apertures in the shank and one of the apertures in the support member. Thus, the enlarged portions 25 of each drum-engaging member may be supported at a variety of distances from the ground or surface upon which the carrier is supported and each drum-engaging member is also adapted for a variety of positions disposed laterally or transversely of the carrier frame. The drum-engaging members are mounted on the associated support member in a position such that the transverse spacing of the drum-engaging members is generally equal to the length of heighth of an oil drum to be transported. The shanks are positioned in a vertical position such that the lower extremities of each drum-engaging member are spaced above the ground or surface a distance at least equal to and preferably slightly greater than the diameter of the drums to be transported.

If desired, suitable spring means may be associated with the shanks and support members to bias the members toward vertical position.

Each drum-engaging member has a surface 29 which is generally inclined to the longitudinal axis of the member. The surface 29 extends from the lower extremity of the member to a curvilinear surface 30 having an uppermost portion spaced inwardly from the body of the member. The curvilinear surfaces 30 are formed of arcs on the order of the arcuate end chimes of an average oil drum. Thus, when the members are spaced a transverse distance on the order of the length or heighth of an oil drum to be transported, as will be seen best in Fig. 3, the points 30 are spaced apart a transverse distance which is less than the heighth or length of the drums to be carried. Thus, when the operator of the carrier desires to transport an oil drum, the handle 4 may be swung about the axis of the wheels 12 and 13 to a point where the surface 29 of the drum-engaging members contact the end

chimes **31** of the drum to be transported. Further depression of the drum-engaging members (as a result of continued movement of the handle) results in the surfaces **29** sliding over the end chimes **31** to a position where the inner extremities **30** of the surfaces are disposed beneath the chimes **31**. As the surfaces **29** ride over the end chimes, the drum-engaging supporting members are cammed out of a vertical supporting position. Then when the inner extremities **30** are positioned beneath the end chimes, the enlarged portions of the drum-engaging members swing the drum-engaging members back toward the vertical position so that the inner extremities of the drum-engaging members are disposed inwardly of the end chimes. By moving the handle **4** in the opposite direction, the drum-engaging members will be elevated and this elevation will carry the engaged drum with them.

Whereas I have shown and described an operative device, I wish it to be understood that this is to be taken in an illustrative or diagrammatic sense only. There are many modifications that will fall within the scope of the invention which will be apparent to those skilled in the art. The scope of the invention, therefore, will be limited by the scope of the hereinafter appended claims.

The use and operation of my invention are as follows:

The operator of the carrier manipulates the carrier solely by the use of the handle **4**. When the operator desires to transport one or more oil drums, he simply wheels the carrier over a row of drums which is indicated at **18** and **19** in Fig. 4. In this position the wheels of the carrier straddle the row of drums.

When the carrier is disposed over a row of drums, the operator swings the carrier frame about the axis of its wheels by simply moving the handle **4** upwardly or downwardly. The swinging movement of the handle results in one pair of drum-engaging members, as shown at **20** and **21** in Fig. 4, riding over the end chimes **31** of a single drum, as will be seen best in Fig. 7. When the inwardly spaced points on the drum-engaging members have moved past the end chimes of the drum, the carrier is swung about its wheel axis in the opposite direction. The weight of the drum-engaging members serves to snugly position the inwardly spaced points of these members beneath the end chimes of the curvilinear bearing surfaces of the members. During reverse movement of the handle the members engage the chimes and elevate the drum to a transporting position spaced above the ground level or surface over which the carrier moves. The curvilinear surfaces serve to give the drums stability while being transported and while being elevated. When the drum **18** is elevated to a position shown generally in Fig. 5, the operator may, if desired, wheel the carrier off to any desired location for deposit of the drum. Or, if desired, the operator may continue the swinging movement of the frame in the elevating direction and depress the other pair of drum-engaging members **22** and **23** to a point where they engage the end chimes of an adjacent drum, as is shown best in Fig. 5. After engagement of the second drum, the handle **4** is swung in the opposite direction, thus elevating the second drum to a point where both suspended drums are spaced generally at the same distance from the ground or supporting surface.

When in this position, which is indicated generally in Fig. 6, each drum balances the mass of the other drum, thus making for ease of operation with little effort when moving the carrier and drums.

An advantageous feature of the invention resides in the provision of novel mounting means for the drum-engaging members permitting accommodation of the carrier to a variety of sizes of drums. The operator simply selects the size of drum to be transported and slips the pivot pin **28** through selected apertures **26** and **27** to accommodate the particular size of drum.

After the drums are transported to any desired location, the handle **4** is swung about a wheel axis to a point where one drum rests upon the ground or supporting surface and the drum-engaging members are disengaged from the chimes of this drum. The handle **4** is then swung in the opposite direction to a point where the drum is lowered into contact with the ground or supporting surface and the drum-engaging members for this drum are then swung out of engagement with the end chimes of the drum. The carrier may then be readily wheeled into position for transporting another drum or pair of drums.

I claim:

1. An oil drum carrier including a frame provided with a handle extending therefrom, said frame being swingably mounted about a generally horizontal axis on a pair of ground-engaging wheels, a pair of depending drum-engaging members positioned on one side of said axis and spaced apart a distance on the order of the length of an oil drum to be carried, each of said drum-engaging members being pivotally mounted on said frame for unrestrained swinging movement, each of said drum-engaging members having a projecting portion facing inwardly and toward the other drum-engaging member, each portion having an upper generally curvilinear surface, each said projecting portion being normally spaced above the upper portion of said oil drum, each portion having an inner surface inclined to the longitudinal axis of its member, each of said drum-engaging members having a normal generally vertical position, each of said projecting portions being formed and adapted upon swinging movement of said handle in one direction to move across an end chime of said oil drum, movement of said handle in the opposite direction being effective to cause said projecting portion to engage the end chime and thereby elevate said oil drum.

2. A wheeled carrier for articles having projected flanges at opposite ends thereof including a generally elongated frame, said frame having depending ground engaging supporting members spaced transversely of the longitudinal axis of said frame and adapted to straddle an article for transport, said frame being swingably mounted with respect to said supporting members about a transverse axis, said frame including a pair of depending article engaging members spaced alongside each ground engaging member and adapted to have a normal position spaced above an article to be transported, each article engaging member being mounted for swinging movement and spaced from the longitudinal axis of said frame a distance such as to engage an article upon swinging movement of said frame about said transverse axis, said depending members having inclined, inwardly facing surfaces adapted to ride over the end flanges of the article on depression of the members, said depending members having curvilinear projecting portions spaced above the lower portion of the members and adapted for positive engagement with the end flanges of said article upon elevation of said members.

3. The structure of claim 2 characterized by and including an article carrier having a pair of depending members on each side of the transverse axis.

4. The structure of claim 2 wherein each depending member is mounted for vertical and horizontal adjustment on a transversely extending frame member.

References Cited in the file of this patent

UNITED STATES PATENTS

77,501	Martin	May 5, 1868
399,621	Leahy	Mar. 12, 1889
564,284	Johnson	July 21, 1896
1,344,174	Clogston	June 22, 1920
2,377,845	Westfall	June 5, 1945
2,396,325	Jimenez	Mar. 12, 1946
2,416,483	Hope	Feb. 25, 1947
2,430,712	Evans et al.	Nov. 11, 1947