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WHEELBARROW STRUCTURE

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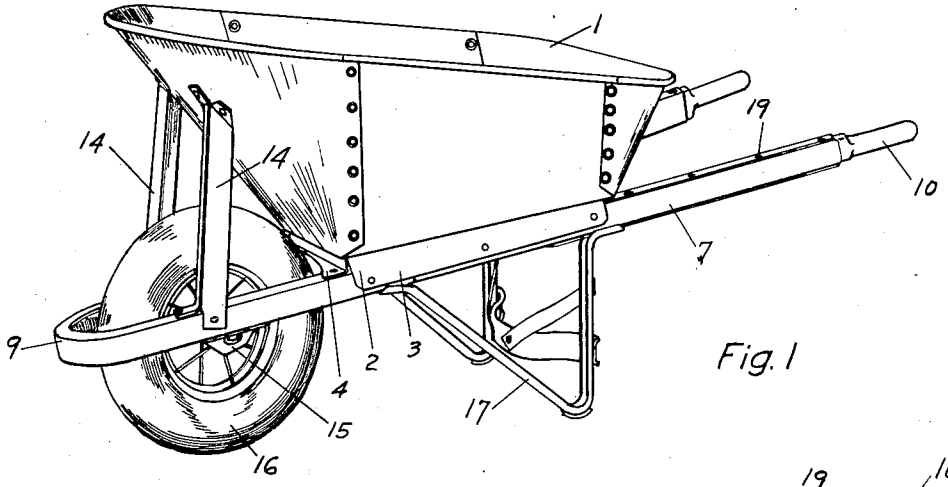


Fig. 1

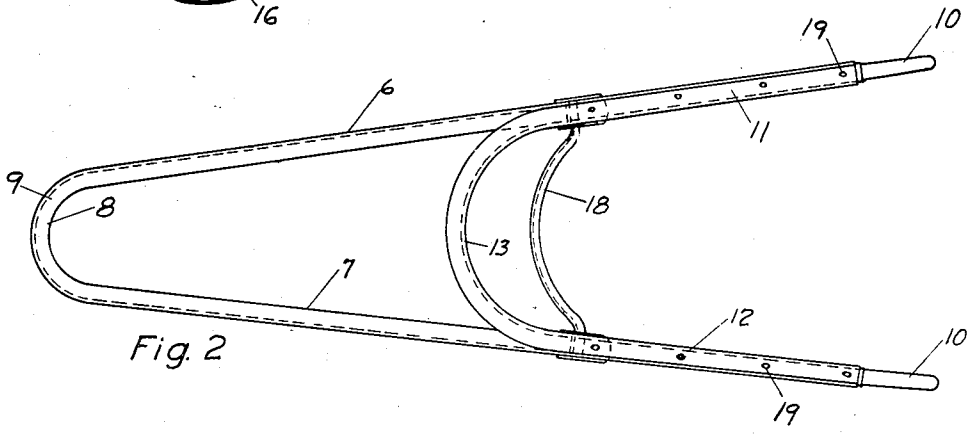


Fig. 2

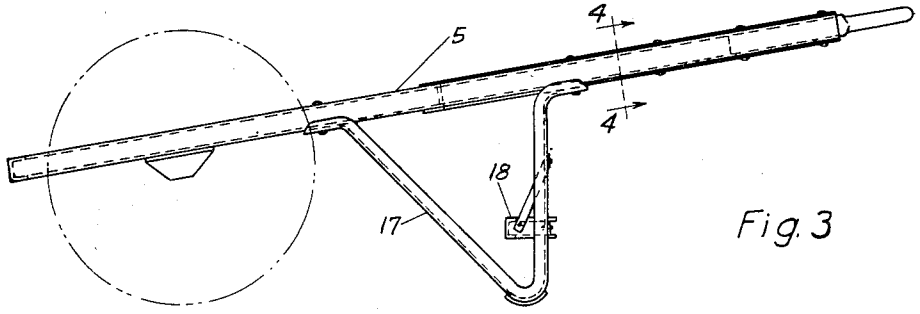


Fig. 3

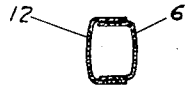


Fig. 4

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WHEELBARROW STRUCTURE

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Application June 29, 1932, Serial No. 619,831

5 Claims. (Cl. 280—52)

This invention relates to an improvement in wheelbarrow structure and has particular reference to wheelbarrows of the type shown in application No. 580,792, filed December 14, 1931.

It becomes the primary objects of this invention to provide an improved wheelbarrow structure which permits fabrication thereof entirely from rolled stock and possesses the necessary rigidity with a minimum amount of material. It will be readily apparent that in the production of a light weight wheelbarrow of aluminum alloys or the like, that it is to highly important that the amount of metal employed be reduced to a minimum.

Other objects and advantages which reside in my improved structure will become apparent as the description progresses. It is to be strictly understood, however, that I do not intend to limit my invention to the exact details herein described and illustrated but I intend to include as part of my invention all such changes and modifications which would suggest themselves to the skilled artisan and would fall within the scope of the annexed claims.

In the drawing,

Fig. 1 is a perspective view of my improved wheelbarrow structure.

Fig. 2 is a plan view of the frame structure with the tray, double bottom and wheel removed.

Fig. 3 is a side elevation of Fig. 2.

Fig. 4 is a cross sectional view of the handle structure taken on line 4—4 of Fig. 3.

With reference to the drawing, a wheelbarrow is illustrated having a tray 1, which may be of usual design, supported upon a wedge shaped double bottom 2 having flanged edges 3 and 4 riveted or otherwise secured to the frame generally designated 5. The frame 5 consists of an elongated U-shaped structure, having rolled channel members 6 and 7 bent at 8 to form a nose 9. This nose 9 serves as a fulcrum when the load is tilted forward from the tray. In order to reinforce that portion of the members 6 and 7 between the tray and the handles 10 and to increase the rigidity of the frame, a U-shaped channel having arms 11 and 12 and a curved portion 13 is telescoped with the members 6 and 7 in the manner shown in Fig. 4 with the flanges in juxtaposition. These telescoped members are secured together with rivets 19 or the like to provide a box section within which the handles 10 are inserted and secured.

The wedge shaped double bottom member 2 is of sheet material and has tapering side flanges 3 and an L-shaped front 4. The edges of flanges 3 are secured to the members 6 and 7 in parallel alignment with the edge thereof so that the surface of the bottom member 2 is inclined to the members 6 and 7 to correctly position the tray 1 relative to the handles 10 and the ground when the wheelbarrow is in use. Preferably, the tray 1 is removably secured to the bottom 2. It will be readily apparent that the bottom 2 materially aids in providing the necessary rigidity of structure, and at the same time reinforces the bottom of the tray 1. This reinforcing function permits lighter gage material to be employed in the fabrication of the tray 1 than would be otherwise possible.

Removable braces 14 are preferably interposed between the members 6 and 7 and the front upper portion of the tray 1. These braces tend to prevent twisting of the frame and materially stiffen the tray 1.

Flanges 15 are supported on the under side of the members 6 and 7 and constitute bearings for the axle of the wheel 16 which is preferably equipped with a low pressure pneumatic tire. Legs 17, formed from rolled channels, are secured to the under side of the members 6 and 7, and are braced by a channel member 18 slightly deflected inwardly to provide clearance for the operator's feet.

Although the above described construction is especially adapted for economical fabrication from aluminum alloys, it is obvious that any construction, which permits the entire fabrication from light sheet and channel members and still possesses the necessary strength and rigidity can be used. Such construction is not in any sense limited to any particular material.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. A wheelbarrow consisting of a frame, a tray supported thereupon, and a wheel mounted therein, said frame comprising an elongated U-shaped channel member having inwardly projecting flanges, a second U-shaped channel member having outwardly projecting flanges, the flanges of said second member telescoping with the flanges of said first member inwardly from the free ends of both of said members to form box section handle portions, the closed end of said second member being located substantially centrally of said first member and constituting a transverse brace therefor, and leg portions supporting said members.

2. A wheelbarrow consisting of a frame, a tray supported thereupon, and a wheel mounted

therein, said frame comprising an elongated U-shaped member, a second U-shaped member secured to said first member inwardly from the free ends of both of said members to form handle portions, a wedge shaped double bottom supported upon said first member centrally thereof for supporting said tray, bearings located on said first member adjacent the closed end thereof for said wheel, the closed ends of said members being spaced to provide clearance for said wheel, and leg portions supporting said members.

3. A wheelbarrow consisting of a frame, a tray supported thereupon, and a wheel mounted therein, said frame comprising a tray supporting member having a closed end and two free ends, a second member having a closed end secured to said first member inwardly from the free ends of both of said members to form handle portions, bearings for said wheel adjacent the closed end of said first member, the closed ends of said members being spaced to provide clearance for said wheel, and constituting transverse braces for said frame, and leg portions supporting said members.

4. A wheelbarrow consisting of a frame, a tray supported thereupon, and a wheel mounted therein, said frame comprising an elongated U-shaped member, a second U-shaped member secured to said first member inwardly from the free ends of both of said members to form handle portions, the closed end of said second member being located substantially centrally of said first member, and constituting a transverse brace therefor, and leg portions supporting said members.

5. A wheelbarrow consisting of a frame, a tray supported thereupon, and a wheel mounted therein, said frame comprising tray supporting side members having free ends, a U-shaped member secured to said first members inwardly of the free ends of the aforesaid member to provide hollow handle portions, the closed end of said U-shaped member being located substantially centrally of said first members and constituting a transverse bracing member for said frame.

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