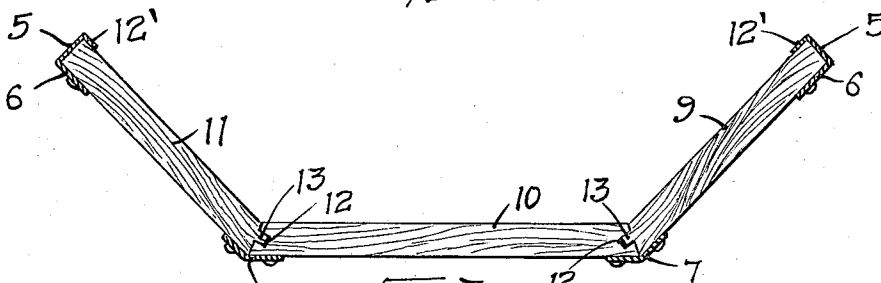
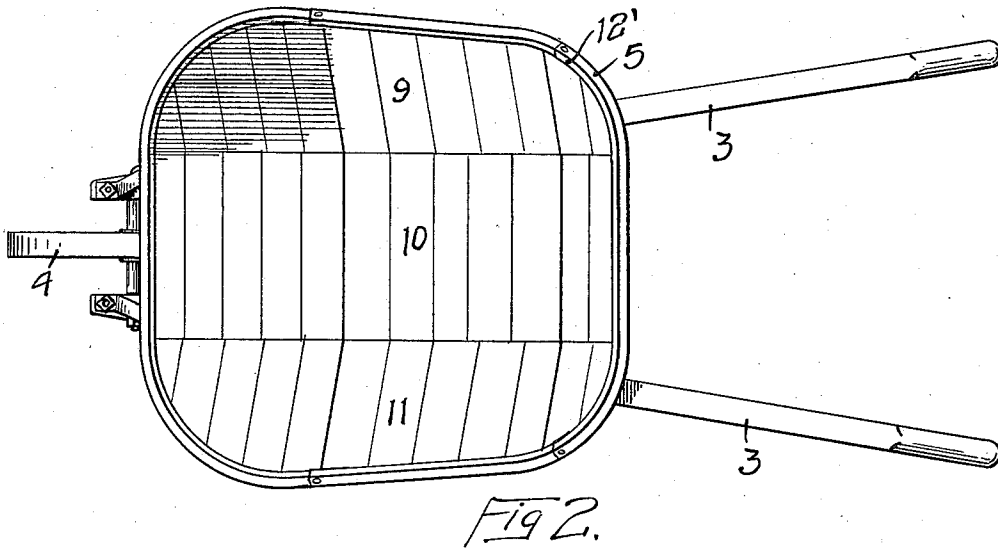
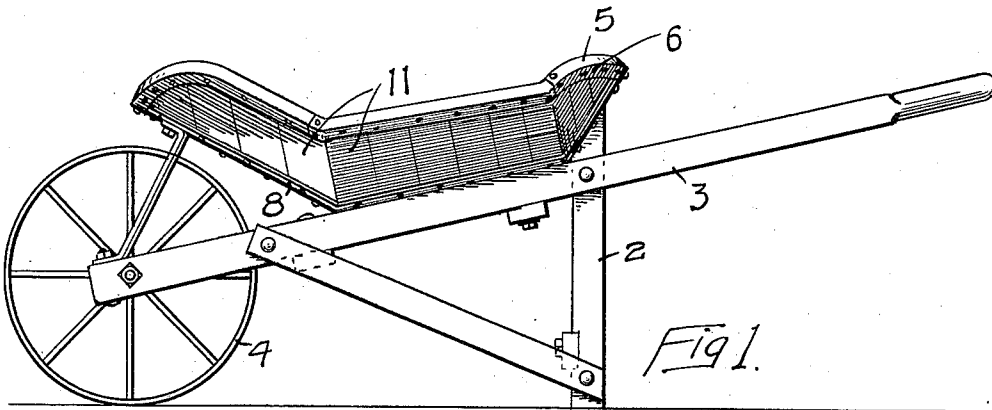


A. O. HUBBARD.
WHEELBARROW.
APPLICATION FILED JUNE 17, 1910.

1,015,024.

Patented Jan. 16, 1912.

2 SHEETS—SHEET 1.



WITNESSES
M. Walsten
J. A. Byrnes.

INVENTOR
ARTHUR O. HUBBARD
BY *Paul Paul*
ATTORNEYS

A. O. HUBBARD.
WHEELBARROW.
APPLICATION FILED JUNE 17, 1910.

1,015,024.

Patented Jan. 16, 1912.

2 SHEETS-SHEET 2.

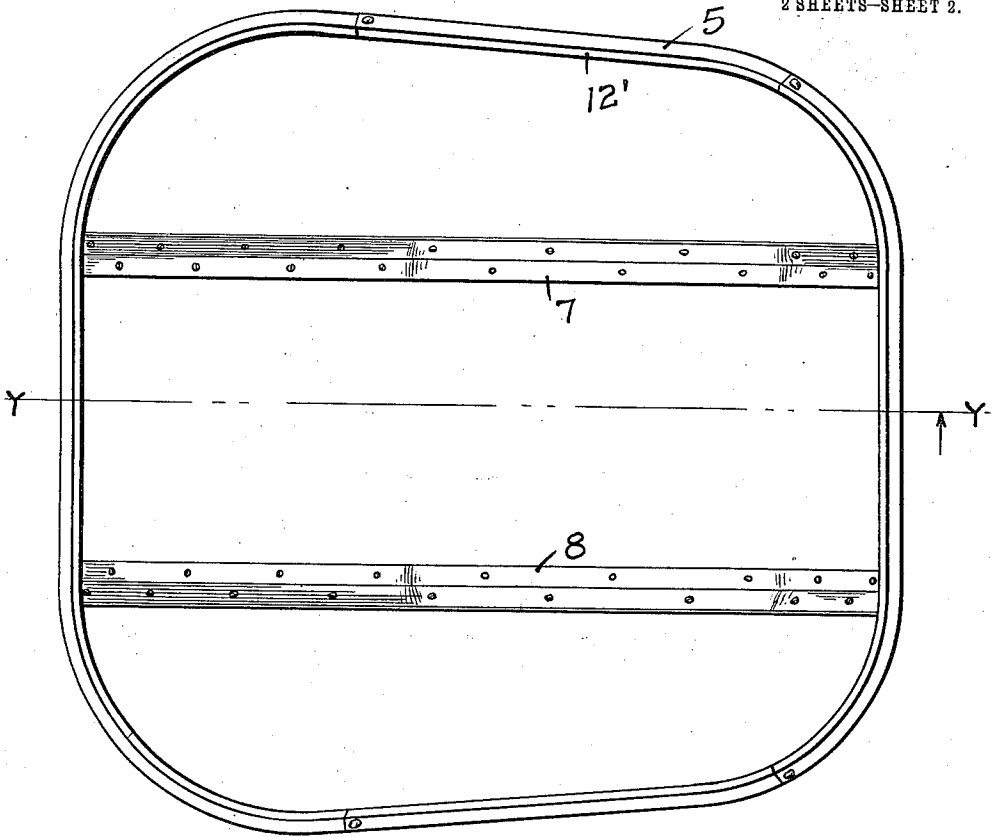


Fig 4.

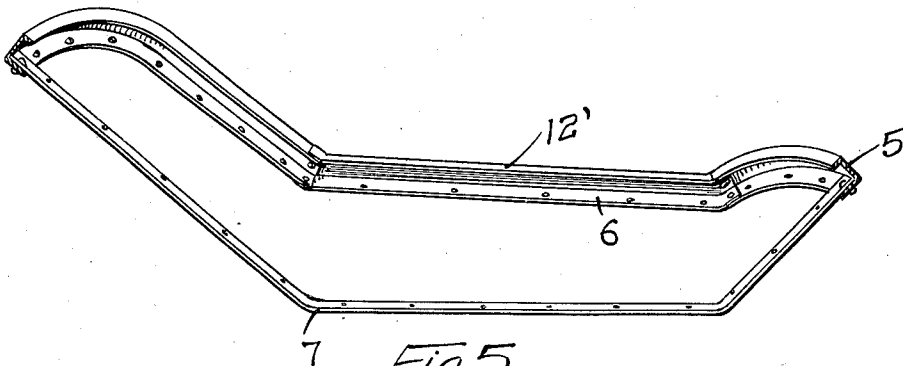


Fig 5.

WITNESSES
M. Watson
J. A. Byrnes

INVENTOR
ARTHUR O. HUBBARD
BY *Paul & Paul*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ARTHUR O. HUBBARD, OF MINNEAPOLIS, MINNESOTA.

WHEELBARROW.

1,015,024.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed June 17, 1910. Serial No. 567,525.

To all whom it may concern:

Be it known that I, ARTHUR O. HUBBARD, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful

Improvements in Wheelbarrows, of which the following is a specification.

My invention relates particularly to wheelbarrow trays and the object of the invention is to provide a construction which will be cheaper than an all metal tray and will permit the utilizing of small waste pieces of lumber in place of the long, bent pieces of clear stock usually used for wheelbarrow trays.

The invention consists generally in a metallic frame forming the rail of the tray and having cross bars and panels composed of short pieces of wood fitting within said frame and secured thereto and to said cross bars.

Further the invention consists in a tray having a circumferential rail and cross bars cooperating therewith to form a truss frame.

In the accompanying drawings forming part of this specification, Figure 1 is a side view of a wheelbarrow embodying my invention, Fig. 2 is a plan view of the same, Fig. 3 is a sectional view through the barrow tray, Fig. 4 is a plan view of the metallic frame of the tray, Fig. 5 is a sectional view on the line $y-y$ of Fig. 4.

In the drawing, 2 represents the legs of the barrow, 3 the side rails and handle bars and 4 the wheel, all of ordinary construction.

In a wooden barrow, it has been customary to make the tray of curved strips of lumber, suitably secured together and extending from side to side of the tray. Obviously, clear stock must be used for this purpose and such stock is not only extremely difficult to obtain at this time, but is too expensive for use in a barrow of moderate price. To obviate this objection to a wooden tray barrow, I provide a frame consisting of an angle bar rail having flanges 5 and 6, said rail extending continuously around the tray. Cross bars 7 and 8 are also provided, preferably of angle bar iron, extending from side to side of the rail and secured at their ends thereto and suitably curved or bent to correspond to the irregular bottom of the tray, the shape of which, as usual in barrows, tends to throw the load in the tray toward the front of the barrow and the supporting wheel. The spaces between the rails and the bars 7 and 8 are filled by wooden

panels, each composed of comparatively small wooden strips 9, 10 and 11, the strips varying slightly in length and width according to their position in the panels. The middle strips 10 have transverse grooves 12 in their ends to receive tongues 13 on the ends of the strips in the side panels and the strips of the middle panel are secured by nails or other suitable means to the inner flanges of the bars 7 and 8, while the strips of the side panels are secured in a similar manner to the outer flanges of these bars, the joints between the panels being effectually closed by the matched ends of the strips. The outer ends of the strips of the side panels are secured by nails or other suitable means to the flanges 6 and their outer ends about the flanges 5 which are wider than the thickness of the strips and have edges 12' that are bent down over the ends of the strips to aid in holding them in place and present a finished appearance to the edge of the tray. Some of these strips, as shown in Fig. 2, are comparatively small and all of them may be made from short waste pieces of lumber, which ordinarily would be of no value except for fuel. The cost of the barrow is thus materially reduced and at the same time material around a factory is utilized which is generally too small for manufacturing purposes.

By combining the angular steel frame with short pieces of lumber, any desired shape of tray with greater strength can be obtained. The upper portion of the angular steel rail forms a hoop around the upper edges of the tray and when the angular, parallel bands of steel extending through the center of the tray are secured to the hoop at their ends and short pieces of lumber secured at their ends to each of the angular steel bands or ribs and to the hoop, the tray assumes a truss-like form. Furthermore, by turning the upper edge of the steel hoop downward over the ends of the wooden pieces, they will be securely held and the tray will not change its form when subjected to different atmospheric conditions.

I claim as my invention:—

1. A wheel barrow tray comprising a metallic, circumferential rail, cross bars connecting the opposite sides of said rail and forming therewith a truss frame, a middle panel composed of comparatively small strips having their ends secured to said cross bars and side panels having their inner ends

secured to said cross bars and their outer ends secured to said rail.

2. A wheel barrow tray comprising a metallic, circumferential rail composed of angle bar and cross bars also composed of angle bar, said tray having a middle and side panels composed of comparatively short strips, the outer ends of said side panels fitting into the angle formed by the flanges of said rail and one of said flanges having its edge bent over the ends of the strips composing said side panels, and said middle panel and the inner ends of said side panels being secured to said cross bars.

3. A wheelbarrow tray comprising a metallic circumferential rail and cross bars composed of angle bar, said tray having middle and side panels composed of comparatively short strips, the strips of said middle panel having grooved ends secured to one of the flanges of said cross bars, and the strips of said side panels having tongues at their inner ends to enter the grooves in said middle panel and secured to the other flanges of said cross bars, the outer ends of said side panel strips being secured to said circumferential rail.

4. A wheel barrow comprising handle bars and legs therefor and a wheel, a tray mounted on said handle bars and comprising a metallic circumferential rail and cross bars therefor, said rail and cross bars forming a truss frame, panels filling the space inclosed by said rail, the edges of said panels being secured to said rails and cross bars respectively, the forward portion of said rail being upwardly and forwardly inclined and overhanging said wheel, and braces secured to said upwardly and forwardly inclined portion and to the forward ends of said handle bars on each side of said wheel.

5. A wheel barrow comprising handle bars, legs and a wheel, a tray, including a circumferential band, cross bars extending from the front to the rear of said band on each side of the middle portion of the tray, side panels composed of short strips secured to said rail and to said cross bars, a middle panel, also composed of short strips, secured to said cross bars, the forward portions of said rail and cross bars being upwardly turned and overhanging said wheel, and said rail and cross bars being composed of angle bars, substantially as described.

6. A wheel barrow tray comprising a metallic, circumferential rail, metallic cross bars therefor and forming therewith a truss frame and panels composed of comparatively short strips filling the openings be-

tween said rail and cross bars and having their ends secured to said rail and cross bars, substantially as described.

7. A barrow tray comprising a circumferential rail and angle bars secured to the forward and rear middle portions of said rail and forming with said rail a truss frame, panels composed of narrow strips arranged crosswise of the tray, the strips composing the middle panel between said bars having their ends secured to the inner flanges of said bars, and the strips composing the outer panels of said tray having their inner ends secured to the outer flanges of said bars and their outer ends secured to said rail.

8. A barrow tray comprising a circumferential rail having a forwardly and downwardly inclined middle portion, an upwardly and rearwardly inclined rear portion and a forwardly and upwardly inclined forward portion, a brace bar bridging the space inclosed by said rail and forming therewith a truss frame, and independent panels filling the openings between said rail and bar.

9. A wheel barrow tray comprising a metallic circumferential rail composed of angle bar and cross bars forming with said rail a truss frame, a middle panel interposed between said bars and secured thereto, side panels having their inner edges secured to said bars and their outer edges secured to one of the flanges of said rail, the other flange of said rail being bent inwardly over the edges of said side panels.

10. A wheel barrow tray comprising a metallic circumferential rail and brace bars secured thereto and forming therewith a truss frame, a middle panel composed of comparatively short, narrow strips having their ends seated on said bars, and outer panels also composed of comparatively short, narrow strips having their inner ends seated on said bars and their outer ends seated on said rail.

11. A metallic frame for a wheel barrow comprising a rail and cross bars connecting the opposite portions thereof, said rail and cross bars being bent to form a truss frame, and suitable panels filling the openings in said tray and inclosed by said rail and secured respectively to said rail and cross bars.

In witness whereof, I have hereunto set my hand this 10th day of June, 1910.

ARTHUR O. HUBBARD.

Witnesses:

G. E. SORENSON,

J. A. BYRNES.