

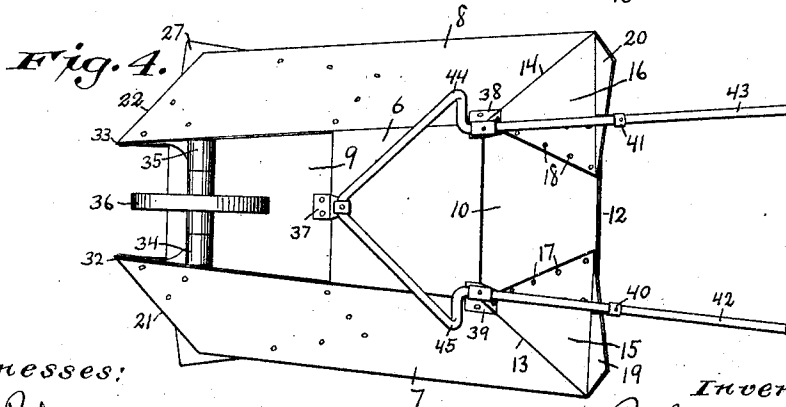
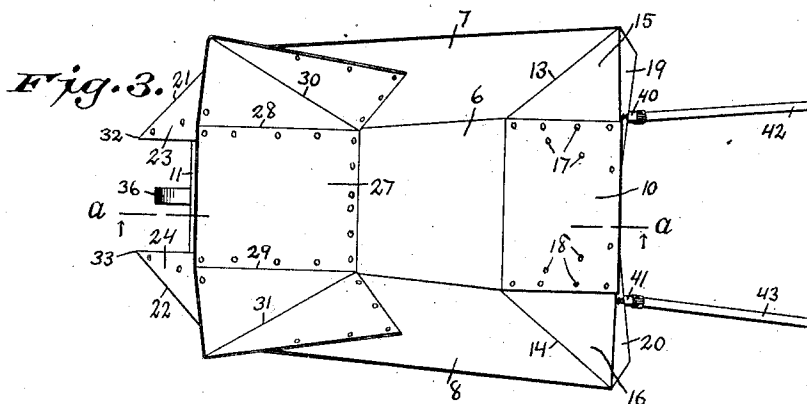
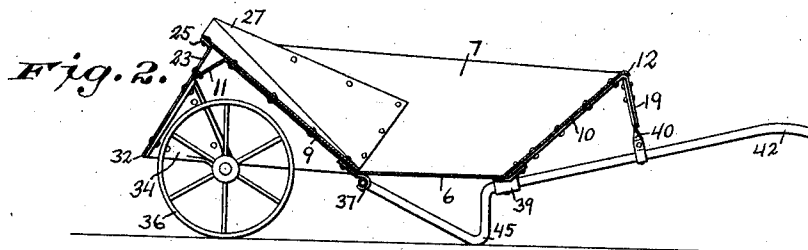
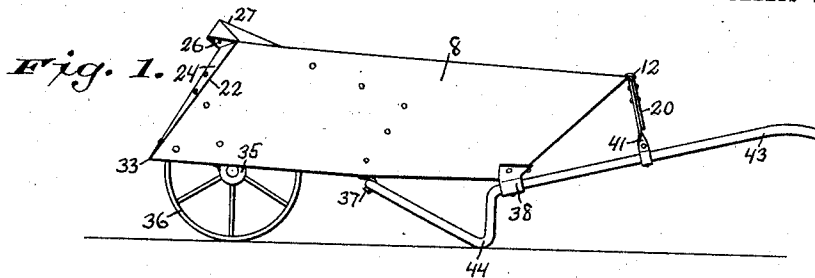
R. RADDATZ.
WHEELBARROW.

APPLICATION FILED JULY 15, 1910.

1,038,197.

Patented Sept. 10, 1912.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 5.

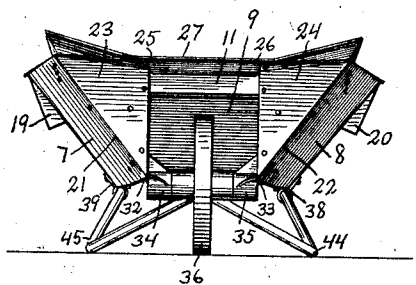


Fig. 6.

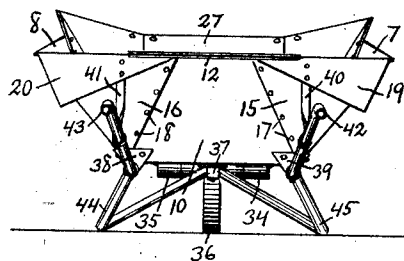


Fig. 7.

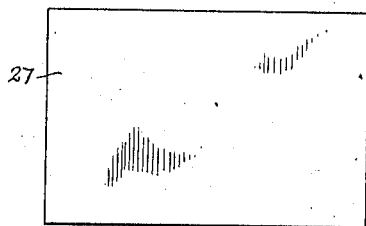
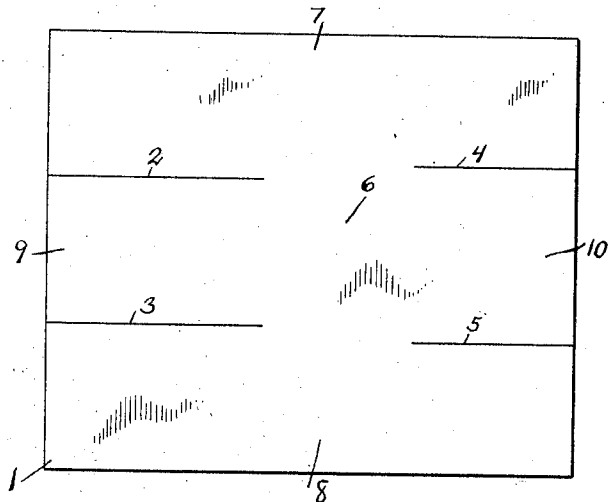


Fig. 8.

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UNITED STATES PATENT OFFICE.

RICHARD RADDATZ, OF MILWAUKEE, WISCONSIN.

WHEELBARROW.

1,038,197.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed July 15, 1910. Serial No. 572,069.

To all whom it may concern:

Be it known that I, RICHARD RADDATZ, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Wheelbarrows, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

This invention relates to wheelbarrows and the objects of the invention are to improve the construction of wheelbarrows so that the bodies of the same can be made from sheet metal in a simple and economical manner and in such a manner that the bodies of wheelbarrows can be made of great depth and large capacity even when made from the cheaper grades of sheet metal.

Further objects of this invention are to construct the bodies of wheelbarrows from square or rectangular sheets, which may be of any standard market size or any desired size according to the capacities desired or the uses to which the particular wheelbarrows are to be put, so as to utilize all the metal, without waste, in forming and strengthening the bodies and whereby the number of jointed seams in the bodies is reduced to the minimum in the manner to be described in this specification and the claims.

Referring to the drawings which accompany this specification and form a part thereof, on which drawings the same reference characters are used to designate the same elements wherever they may appear in each of the several views, and which drawings illustrate an embodiment of this invention, Figure 1 is a side elevation of a wheelbarrow; Fig. 2 is a vertical, longitudinal section, taken on the line *a-a* on Fig. 3; Fig. 3 is a top plan view; Fig. 4 is a bottom plan view; Fig. 5 is a front elevation; Fig. 6 is a rear elevation; Fig. 7 is a plan of the body blank; and Fig. 8 is a plan of the secondary blank.

Referring specifically to the drawings, the reference numeral 1 designates the body blank which is a flat sheet of metal of any desired or selected size according to the capacity required for the body of a wheelbarrow and this blank may be either square or rectangular as desired and according to

the required shape of the body of the wheelbarrow to be constructed, as will be readily understood.

Wheelbarrows are used and may be used for transporting different kinds of materials and are and may be used under different conditions of use, but for the purpose of simplicity of description and clearness of illustration I illustrate and describe a style of wheelbarrow especially designed for the transporting of concrete and similar materials and I prefer to construct such a wheelbarrow with the ends and sides sloping about as shown by the drawings, but it should be distinctly understood that I do not limit my invention by such showing as, of course, the sides and ends can be made perpendicular to the bottom or one or more of the sides or ends can be sloped according to the character of the material to be transported and the conditions of use of the wheelbarrow, as will be readily understood.

The body blank 1 is first slitted or provided with the cuts 2, 3, 4 and 5 whereby the proportions of the bottom 6, the sides 7 and 8 and the ends 9 and 10 are established. It will be noticed by reference to Fig. 7 of the drawings that while the cuts are parallel with the sides of the body blank the cuts 2 and 3 are not in line with the cuts 4 and 5 so that the bottom of the body of the wheelbarrow is wider at the rear end than at the front end. The sides and ends are then bent over to the required angles. This bending can be accomplished most conveniently by placing the blank 1 upon a form the exterior of which corresponds to the interior shape of the body of the wheelbarrow. The logical procedure in bending the body blank over a form would be to bend the ends first and then the sides. The extremity of the front end 9 is bent outwardly to approximately a right angle with the sloping front end to form a stiffening flange 11 and the extremity of the rear end 10 may be bent into a bead 12 to stiffen the rear of the wheelbarrow body. In order to close the body of the wheelbarrow at the rear the sides 7 and 8 are bent over to form corners 13 and 14 and so that the flaps 15 and 16 formed by such bending will lie flat against the rear end 10 and can be secured thereto by rivets 17 and 18 or in any other suitable or preferred manner. When the corners 13 and 14 are formed by bending

the sides 7 and 8 to form the flaps 15 and 16 and when the flaps 15 and 16 are secured to the end 10, triangular pieces 19 and 20 will project above the top of the end 10 and these triangular pieces should be bent over outwardly and downwardly to form stiffening flanges as clearly shown by the drawings, and they should be bent over before the extremity of the end 10 is bent over to form the bead 12. The triangular pieces 19 and 20 not only serve as stiffening flanges but also as useful means for attaching the handle to the body of the wheelbarrow.

The sides 7 and 8 are bent over to form diagonal folds 21 and 22 at their front ends whereby braces 23 and 24 are formed. The folds 21 and 22 extend from the lower corners of the front ends of the sides diagonally upward and back to points opposite the upper end or edge of the end 9, and above the same on account of the upper edge being bent over to form the strengthening flange 11, as clearly shown by the drawings. The braces 23 and 24 are riveted or otherwise secured to the strengthening flange 11 and have triangular flanges 25 and 26 turned or bent outwardly thereon at their upper edges. The wheelbarrow body as thus far described has openings at the front end between the sides 7 and 8 and the front end 9. The body is completed by securing the secondary blank 27 inside thereof by riveting it, or otherwise fastening it, to the sides 7 and 8, the front end 9 and the flanges 25 and 26, as clearly shown by the drawings. Because the flanges 25 and 26 are triangular, as illustrated and described, the secondary blank 27 dips down in the center, this form being obtained by providing the secondary blank with two folds 28 and 29 in addition to the two corner folds 30 and 31. In dumping concrete and like materials from the wheelbarrow the principal wear takes place on the secondary blank 27 so that in effect this blank is the wear resisting part of the wheelbarrow and when it is worn out it can be replaced at small cost and it will not be necessary to discard the entire wheelbarrow.

The front end of the wheelbarrow terminates in two points 32 and 33 which project beyond the upper edge of the secondary blank 27 and within the hollow interiors thereof are secured wheel journals 34 and 35, to which the wheel 36 is journaled. These wheel journals 34 and 35 are preferably castings which conform to the shape of the spaces behind the points 32 and 33 formed by the sides 7 and 8 and the braces 23 and 24 and preferably they are riveted both to the sides 7 and 8 and to the braces 23 and 24 so as to stiffen and strengthen the wheelbarrow at the points 32 and 33 because these points 32 and 33 are used as fulcrum points in dumping the material from the

wheelbarrow. The wheel 36 is journaled far enough back in the wheel journals 34 and 35 so that the points 32 and 33 project beyond the wheel so that the wheelbarrow can be turned up on said points without the wheel causing it to run backward.

The wheelbarrow can be provided with any suitable handle such, for example, as the one illustrated by the drawings which consists of a piece of pipe bent to a V-shape at its middle and secured to the body of the wheelbarrow by the clips 37, 38 and 39. Straps 40 and 41 are also riveted to the triangular pieces 19 and 20 for further strengthening and stiffening the handle. The two ends of the pipe form the handles or hand grips 42 and 43 proper and between the clips 38 and 39 and the clip 37 the pipe is bent downwardly and outwardly to form legs 44 and 45, as clearly shown by the drawings.

The secondary blank 27 is preferably thicker than the body blank 1 as most of the wear when material is dumped from the wheelbarrow comes on the secondary blank, and it will be understood, of course, that the edges of the sides 7 and 8 can be beaded or otherwise strengthened and stiffened if desired and other changes made without departing from the spirit and scope of my invention.

In the claims the word "rectangular" is used in the generic sense to include both square and rectangular shapes.

What I claim is:

1. A wheelbarrow body formed from two rectangular sheet metal blanks, one of which is larger than the other, the larger blank being provided with cuts and having parts bent up with respect to the bottom to form the sides and front and rear ends, the rear ends of the sides being bent over and secured to the rear end to completely close the rear end of the body but the front ends of the sides being extended beyond the front end leaving openings between the front end and the sides, the smaller blank being bent to fit against the sides and front end and being secured thereto to close said openings.

2. A wheelbarrow body formed from two rectangular sheet metal blanks, one of which is provided with cuts to proportion the bottom, sides and ends of the body, the sides and ends being bent at angles with respect to the bottom and secured together and the second blank being secured inside the bent first blank.

3. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end and the front ends of the sides being bent over to form

diagonal folds whereby braces are formed which are secured to the front end of the body.

4. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end, the front ends of the sides being bent over to form diagonal folds whereby braces are formed which are secured to the front end of the body, and a secondary blank secured inside of said body formed from said first mentioned blank, said secondary blank being secured to the front end of said body, the sides and to said braces.

5. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end, the tops of said flaps being bent over to form strengthening flanges, the front ends of the sides being bent over to form diagonal folds whereby braces are formed which are secured to the front end of the body, the tops of said braces being bent to form flanges, the extremity of the front end also being bent to form a strengthening flange, and a secondary blank secured inside of said body formed from said first mentioned blank, said secondary blank being

secured to the front end of said body, the sides and to said braces.

6. A wheelbarrow body formed from a rectangular sheet metal blank provided with cuts to proportion the bottom, sides and ends, the sides and ends being bent at angles with respect to the bottom, the rear ends of the sides being bent over to form flaps which are secured to the rear end, the front ends of the sides being bent over to form diagonal folds whereby braces are formed which are secured to the front end of the body and whereby points are formed at the front ends of the sides, wheel journals secured in the hollow interiors of said points, and a wheel journaled in said wheel journals so that the points project beyond said wheel.

7. A wheelbarrow body formed from a sheet metal blank provided with cuts to proportion the bottom, sides and front and rear ends, the sides and ends being bent upwardly with respect to the bottom and the sides extending beyond the front end and bent to form the diagonal folds whereby the triangular braces 23 and 24 are formed to provide pyramidal-shaped ends at the front end of the wheelbarrow body.

In witness whereof I hereto affix my signature in presence of two witnesses.

RICHARD RADDATZ.

Witnesses:

CHAS. L. GOSS,

FRANK E. DENNETT.