



*Wheelbarrow and produce. Off to market?*



# WHEELBARROW

In the garden, a wheelbarrow is essential, and children will find no end of uses for it. They can help carry plants, soil, sand, not to mention dolls and toys, and with this sturdy design, they can even carry one another about!

## DIAGRAM 1 (see Materials, page 100)

Mark and cut out the two sides (1). To ensure the two sides are identical, clamp them both together with a G clamp (US. 'C' clamp) and cut both together.

When both sides are cut, shape each handle with a spokeshave for an easier grip.

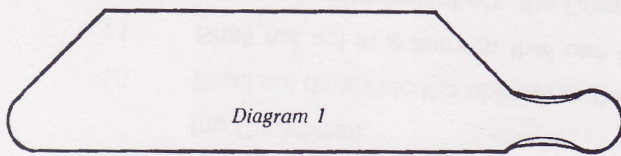


Diagram 1

## DIAGRAM 2

Mark out the base of the wheelbarrow (2). Do this by marking a line in the centre of the base along the longest length. At one end, mark 6in (150mm) on each side of the line and at the other end mark 3in (75mm) each side of the line. Allow for the thickness of the sides,  $\frac{7}{8}$ in (22mm) and join the marks together and cut out the shape with a tenon saw.

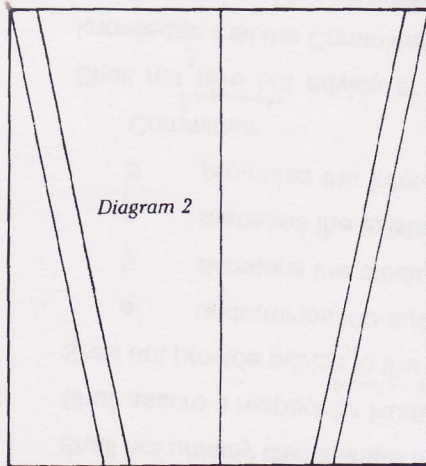


Diagram 2

## DIAGRAM 3

When the base is cut out and the angles determined, place the front piece (3) and the rear piece (4) in position on the base and mark out the angles on the bottom of both pieces. Square the lines, round and cut to shape.

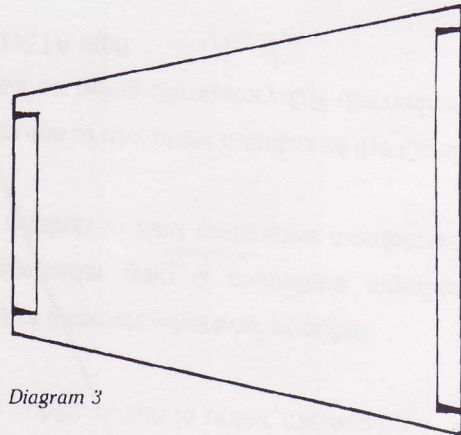


Diagram 3

## DIAGRAM 4

Mark out the curve on the top of each piece and cut to shape with a coping saw. Glue and screw the two sides and the front and rear pieces to the base and to each other. Check that they are vertical to the base.

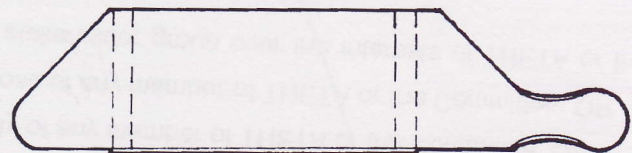


Diagram 4

## DIAGRAM 5 (see over)

Mark and drill out a hole at the end of each side for the axle. Using a sliding bevel, set this to the angle of the base and move it  $3\frac{1}{2}$ in (87mm) along the side piece towards the front. Mark a line across the two side pieces.

Alternatively, mark  $3\frac{1}{2}$ in (87mm) along each piece from the end of the base and joint these two marks together. From these marks, square a line along the outside of the side piece and 1in (25mm) from the bottom mark the centre of the axle. With a twist bit, drill a  $\frac{7}{8}$ in (22mm) hole keeping the bit at the correct angle. With the first side place a scrap piece of timber behind the hole and



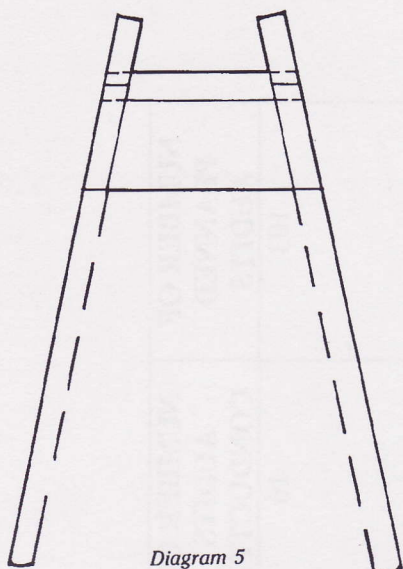


Diagram 5

allow the bit to enter the scrap piece, so as not to splinter the inside face of the timber. Remove the scrap piece of timber when the hole is drilled. Drill through the second side until the point of the bit shows through the timber. Take out the bit, place the bit through the hole already drilled in the first side and complete drilling the second piece.

#### DIAGRAM 6

Cut out the wheel (5) with a coping saw and drill a 1in (25mm) hole in the centre. In the axle (6) drill two  $\frac{1}{4}$ in (6mm) holes equal distance from each end and  $1\frac{1}{4}$ in (30mm) apart.

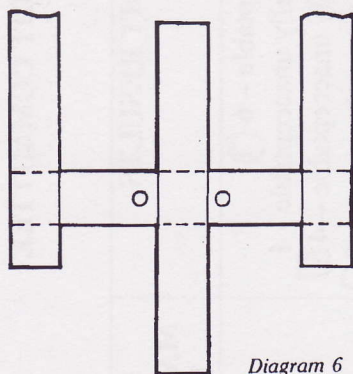


Diagram 6

Push the axle through the hole in one side and locate the wheel on the axle. Continue to push the axle through to the hole in the second side. Glue the axle in position. With a smoothing plane remove the ends of the axle and leave them flush with the sides. Insert the two dowels (7) in the holes drilled in the axle, to centralise the wheel.

#### DIAGRAM 7

Cut the two legs (8) to length and mark the angle required for the leg to fit into the corner of the side and rear pieces. Shape the legs either by planing or sawing to the required angle.

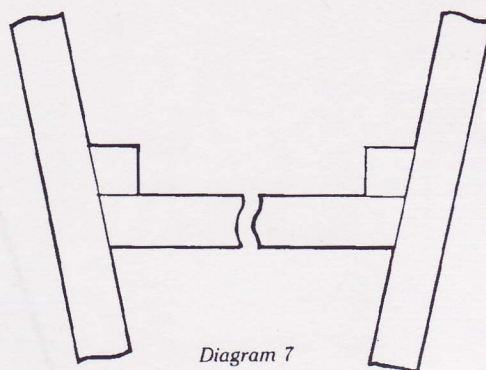


Diagram 7

Sand down the assembly and paint. It is advisable to paint the wheel before fixing. As the toy will be used outside, follow the instructions on painting for exterior use.

### MATERIALS FOR WHEELBARROW

1. Sides (2), timber:  $30 \times 6\frac{1}{2} \times \frac{7}{8}$ in (760  $\times$  165  $\times$  22mm)
2. Base, plywood:  $14 \times 14\frac{1}{2} \times \frac{1}{4}$ in (355  $\times$  365  $\times$  6mm)
3. Front, timber:  $6 \times 6\frac{1}{2} \times \frac{7}{8}$ in (150  $\times$  165  $\times$  22mm)
4. Rear, timber:  $12 \times 6\frac{1}{2} \times \frac{7}{8}$ in (305  $\times$  165  $\times$  22mm)
5. Wheel, timber:  $5\frac{1}{2}$  diameter  $\times \frac{7}{8}$ in (140  $\times$  22mm)
6. Axle, dowel:  $5\frac{1}{2} \times \frac{7}{8}$ in diameter (140  $\times$  22mm)
7. Dowels (2), dowel:  $2 \times \frac{1}{4}$ in diameter (50  $\times$  6mm)
8. Legs (2), timber:  $12 \times \frac{7}{8} \times \frac{7}{8}$ in (305  $\times$  22  $\times$  22mm)

