

The 2mm SCALE ASSOCIATION

PRESFLO DIAGRAM 1/272.

PRODUCT CODE 2-568 2mm: ft scale.

Parts included in the kit: - cast resin hopper, nickel silver etch, approx. 25 mm of 0.7mm diameter wire for mounting the vacuum cylinders, approx 25mm of 0.90mm diameter wire for the discharge pipe, approx 50mm of 0.45mm diameter wire for the vacuum pipe, top hat bearings (ref. 2-041), vacuum cylinders (ref. 2-347), instructions if requested. Good prototype photographs can be found on the web at www.gallery6801.fotopic.net and also in the books 'Working Wagons' volumes 1, 2 and 3 by Santona publications.

Note that the kit can be built with either the short brake levers (as originally constructed) or with the longer brake levers which were used on some of the special traffic conversions.

The following table indicates the recommended sequence of construction and the parts required. All small holes (e.g. for handrails, ladder rungs) will require opening up by means of pricking them through with a pin on a very firm surface or alternatively by drilling them out.

Step	Part no's	Q'ty Req'd	Description
1	35 36	1 1	ROLLER BEARING AXLEBOXES AND SPRINGS, FIGURE 2. Align the upper layer part 35 over the lower layer part 36 by means of top hat bearings temporarily located through the end holes. Sweat the two layers together. Cut the tabs as shown in figure 2, then fold up and attach the outermost layer. The complete axlebox and spring units can then be released from the etch.
2	24	1	CHASSIS, FIGURE 1. Fold up solebar and plate irons but leave the brake parts flat. Fit top hat bearings 2-041 for the wheels.
3	28 27 29	1 2 1	BRAKE PACKINGS, FIGURE 1. Fit parts 28 + 27 and 29 + 27 behind the chassis solebars as shown. Note that the half-etched side of the small section of plate irons of parts 28 and 29 must face inwards towards the centre of the wagon. Now fold up the brake parts of the chassis part 24 and solder them into place against the inner face of parts 27.
4			Fold over the tip end of the middle brake shaft supports - 180 degree fold and note that the fold line is on the outside of the fold. See figure 1.
5	34	4	CLASP BRAKES, FIGURE 1. Note that both left hand and right hand sets of clasp brakes are required and that a spare of each handing is included on the etch. Form the two offsets as shown using the half etched zones on the back (inside) face. The bends should be about 45 degrees and the offset distance about 0.38mm. Fit them into place (the holes fit around the flanges of the top hat bearings and the outer sections should be soldered to the brake parts of the chassis, see figure 3 for correct alignment).
6	16 17 31 32 35	1 1 1 1 1	FLOOR, PACKING LAYERS AND STEP IRONS, FIGURE 1. Remove part 33 and the adjacent scrap triangle from the centre of part 5. Although figure 1 shows part 5 with the V-hangers and brake hangers folded up into place, this step is best done with part 5 flat and still attached in the fret. Fold up the step irons on parts 16 and 17. Solder two top hat bearings 2-041 into the holes at each end of the chassis part 24; these are to align all the packing layers onto the wagon floor part 5. Now assemble all four layers together (part 24 + part 16/17 + part 31/32 + part 5).

7	25,26 22 3,4 8,9 or 10,11	1 of each 2 1 1 of each 1 of each	SOLEBARS AND BUFFER BEAMS, FIGURE 1. Fold as shown and attach to the floor/chassis assembly; the projections from the top of the solebars parts 25 and 26 locate through the holes in part 5. Fit the buffer beams parts 22, using 0.65mm diameter dressmaker's pins through the buffer holes for alignment. Remove the whole assembly from the etch and cut off the unwanted brake hangers, fold up and attach the chosen ones and restrain them by means of the 'tails' which project from the plate irons (these tails to be bent to suit). Fold down the V-hangers, and complete the brake gear (note that it is double sided independent, that the vacuum brake shaft is held in place by the bracket part 4 which butts up against the flanges of the top hat bearings used in aligning the floor packing layers (see step 6), and that the middle section of the vacuum brake shaft (i.e. the section between the 'arms' of part 4) should be cut out).
8	14,15 19,23 20,21 1,2	1 of each 1 of each 2 of each 1 of each	HOPPER END SUPPORT FRAMES, FIGURE 4. Fold parts 14 and 15 as shown; attach the horizontal supports (parts 19, 20, 21, 23) with the half etched detail on the underside, and ensure that the edges of these parts are flush with the edges of parts 14 or 15. For the vacuum cylinder end, assemble the cylinder support bracket parts 1 and 2, then thread this and the two vacuum cylinders 2-347 in their correct place onto 0.7mm diameter wire which spans between the end support verticals.
9	Resin cast hopper	1	ASSEMBLY OF CHASSIS WITH HOPPER. Bend the 0.45mm nickel silver vacuum pipe as shown; it should run along the edge of the floor immediately behind the 'legs' of the resin hopper when the chassis and hopper are assembled (note that the pipe can alternatively be formed in sections, with the 'joints' between sections being hidden behind the hopper 'legs'). The base of the hopper end support frames parts 14 and 15 should 'plug' into the equivalent shaped recess in the top surface of the wagon floor and should be level with this floor. At the same time the resin hopper should sit on its supports and the horizontal hopper end supports parts 19,20,21,23 should rest on top of the horizontal end ribs of the cast hopper. Gluing is recommended for this stage as the resin hopper will not tolerate heat from a soldering iron. Ensure that the hopper bottom outlet (i.e. the lowest part of the whole hopper) faces away from the vacuum cylinder end of the chassis and towards the access ladder end.
10	12 13	1 1	ACCESS LADDER, FIGURE 5. Note that the etch contains 2 ladders but only one is needed. Prick out or drill the rung holes and fold up as shown in figure 5. Part 13 is a jig to hold the ladder stringers in correct alignment whilst the rungs are being soldered in place (0.25mm soft copper wire is recommended for the rungs). After trimming all the rungs back to the stringers, remove the ladder from the etch (important: study figure 6 carefully to see how the ladder is to be released from the etch and how the upper ends of the stringers fold in order for them to be attached to the top of the hopper; note that this process involves flattening out folds which were formed when the stringers were first folded up within the etch).

11	30	1	<p>ATTACHING LADDER AND CATWALK, FIGURE 6. Note that two ribs on the top of the resin hopper must be filed off now. The 'tongue' which projects from the top of the ladder assembly is to be trapped between the next pair of resin ribs on the hopper roof and the catwalk covers over this tongue. The notch in the end plank of the catwalk is to fit around the left hand stringer of the ladder. Holes are provided in the chassis floor for the bottom of the ladder and the ladder should be vertical.</p>
12			<p>FINISHING DETAILS. These are best explained by reference to good photographs. The hopper operating wheel (both solid and spoked varieties are provided) only occurs on one side of the wagon, and the inner end of its wire shaft should be soldered onto the top of the discharge pipe. Drill a hole in the base of the hopper (a 'dimple' is provided for this) for the discharge pipe which should be bent from the 0.9mm wire provided. Parts 7 are optional buffer backplates and may be useful with turned buffers. Parts 18 are the nameboards which were fitted on the sides of the hoppers at various times. Part 33 folds as shown in figure 6 (note that the fold line is on the outside of the fold), and this is a template to assist you to bend wire handrails each side of the top of the access ladder to the correct profile. The two notches in the top edge of part 33 are for the ends of the handrails which fit into the roof of the hopper (dimples are cast into the hopper roof for you to drill out for these handrails).</p>

End of instructions.

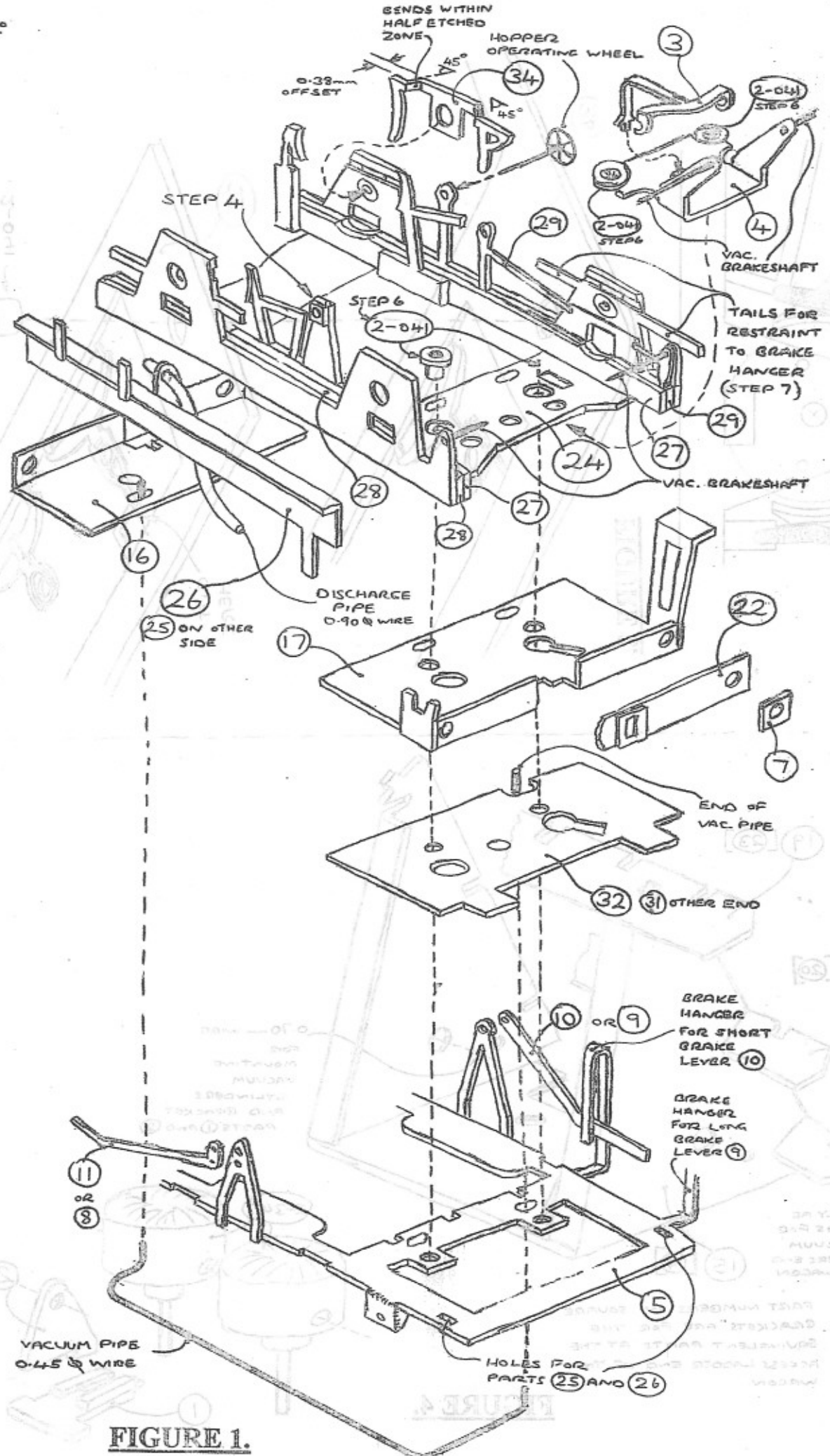


FIGURE 1.

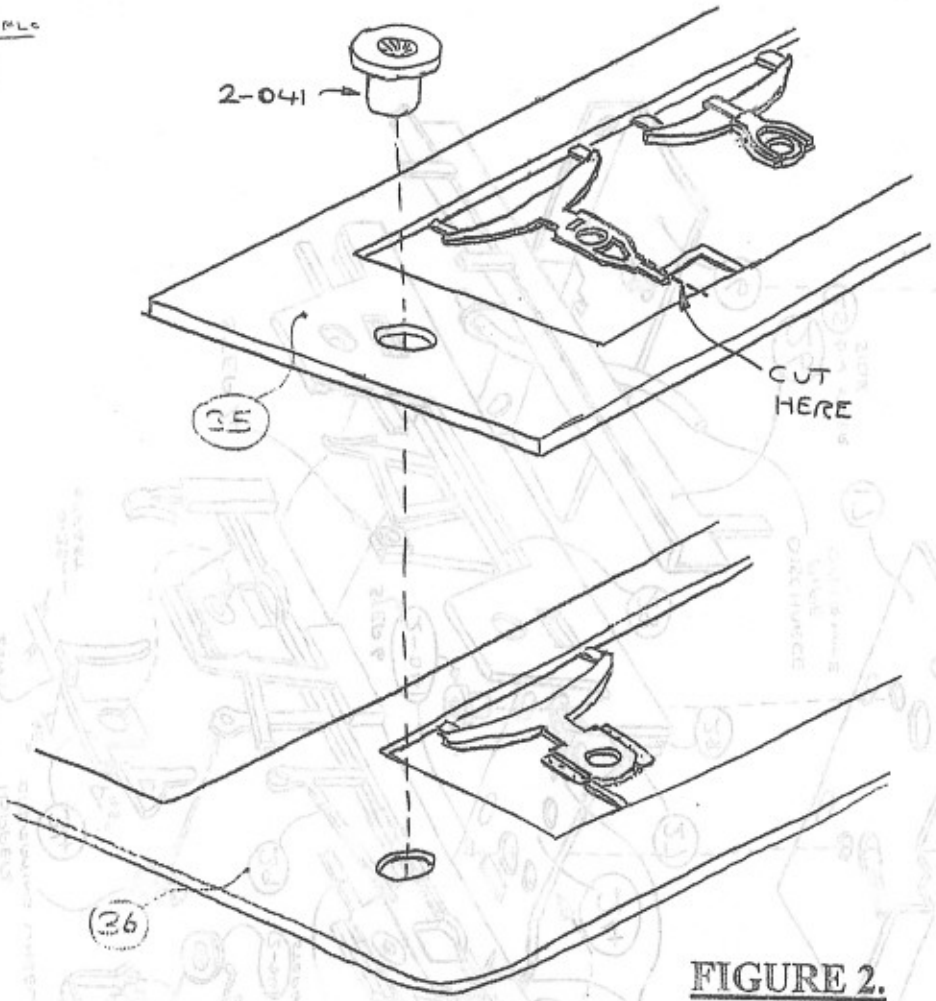


FIGURE 2.

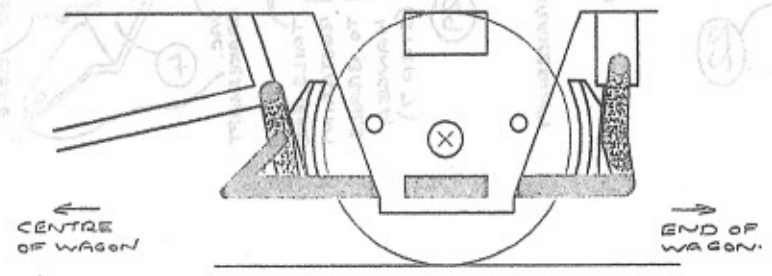


FIGURE 3.

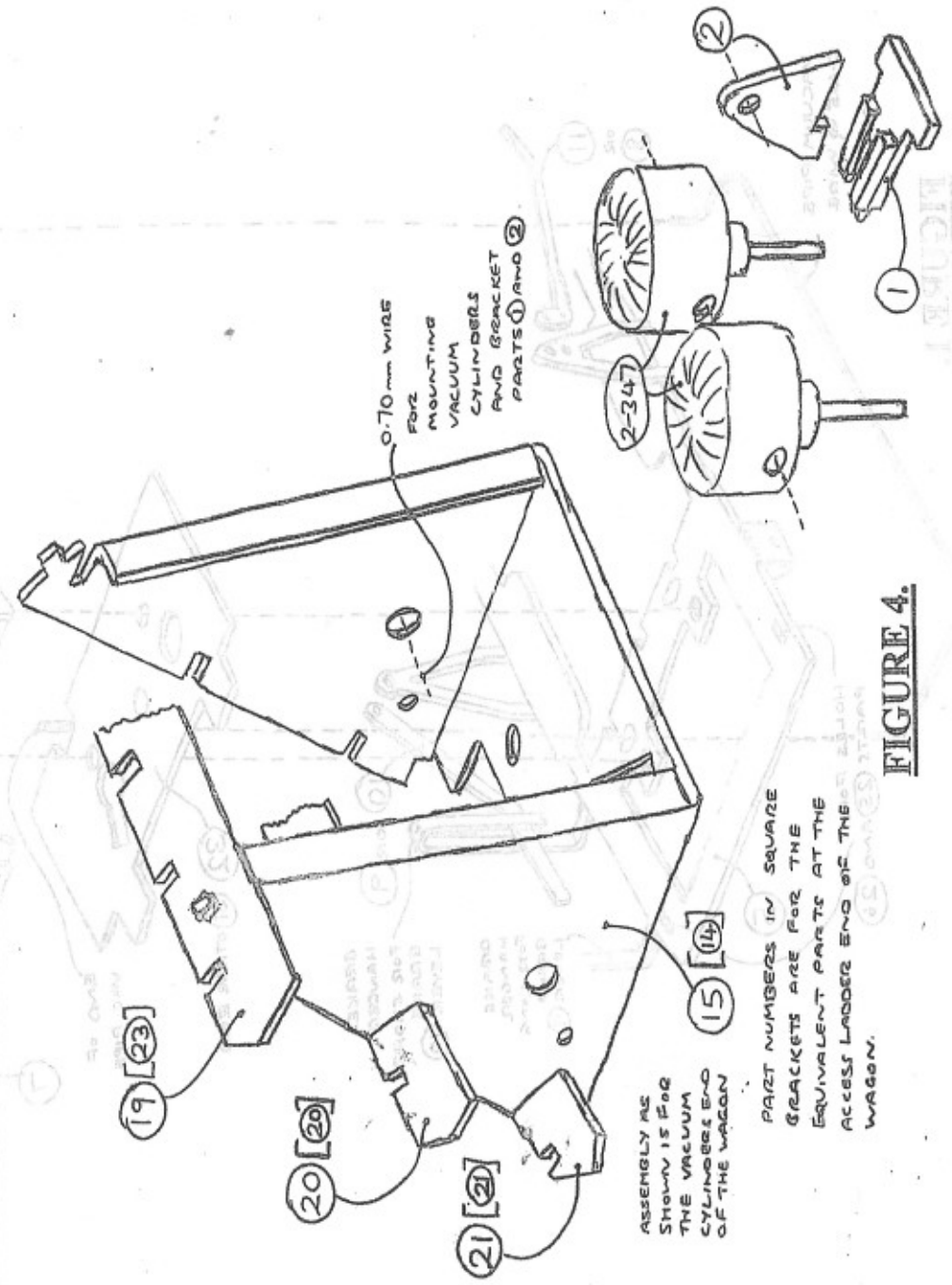


FIGURE 4.

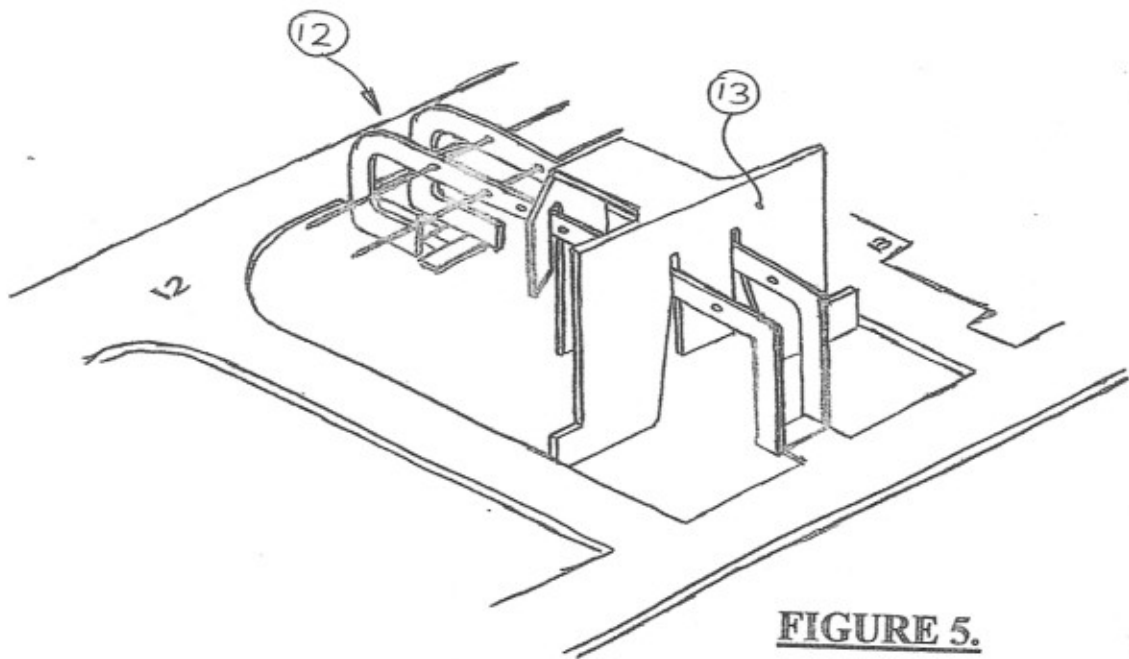


FIGURE 5.

End of instructions

handrails)
 (handrails are cast into the hopper roof for you to drill out for these
 the ends of the handrails which fit into the roof of the hopper
 correct profile. The two notches in the top edge of bar 13, are for
 bend wire handrails on the side of the top of the access ladder to the
 on the outside of the hopper. This is a template to assist you to
 trace. Bar 13 folds as shown in the drawing (note that the top line is
 unsharpened which were filed off the hoppers at various
 packages and may be used with the hoppers. Bars 18 are the
 be seen from the drawing provided. Bars 18 are the
 (a, dimple, is provided for this) for the discharge hopper
 the top of the discharge pipe. Drill a hole in the base of the hopper
 and the inner end of its wire ends which are
 shown in the drawing (the hole is provided on one side
 good photographs. The hopper operator
 REMOVE THESE TWO RIGS

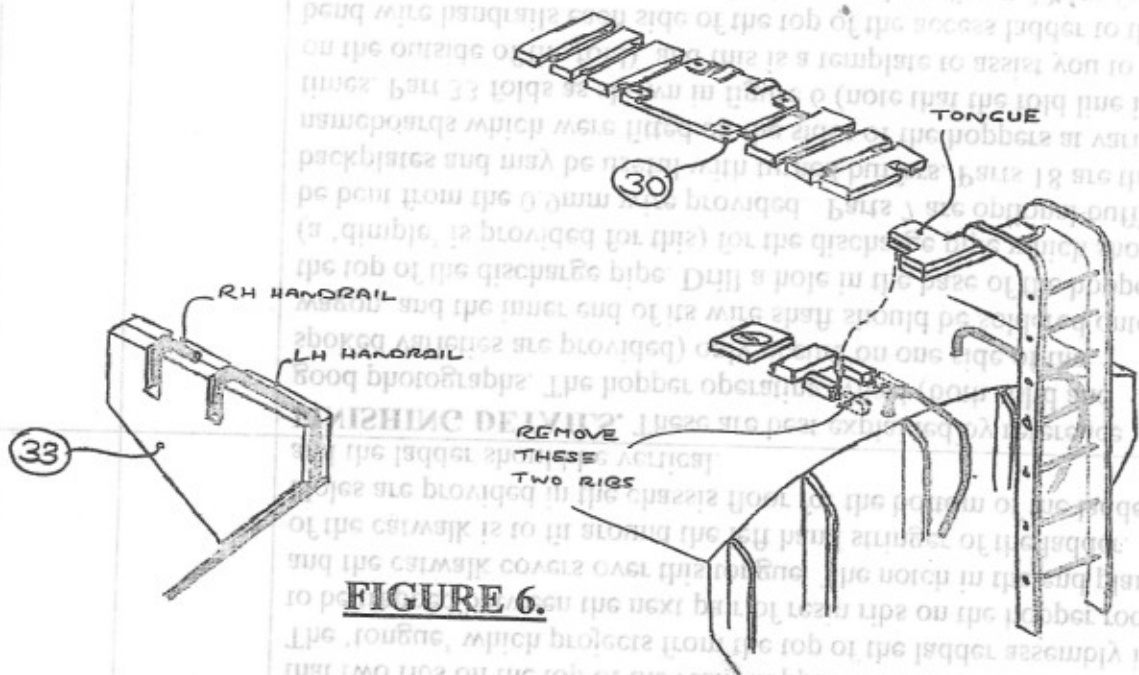


FIGURE 6.