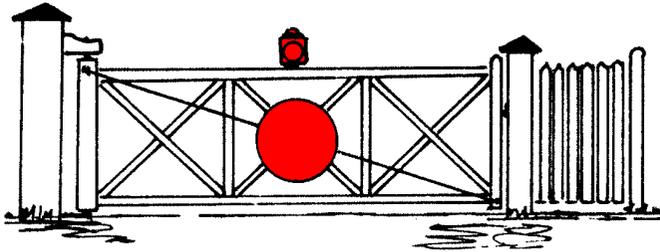


LC7 LEVEL CROSSING KIT

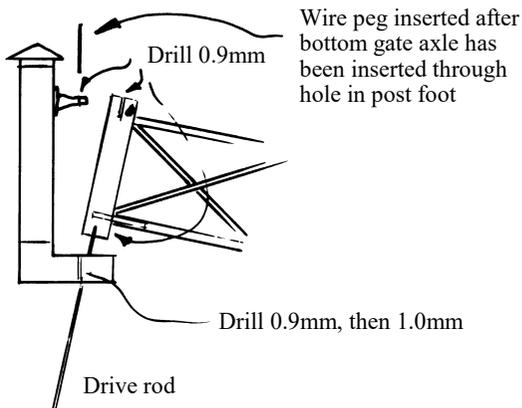


ASSEMBLY INSTRUCTIONS

Obtain a good photograph of the type of crossing you intend to model.

Assembly should be undertaken with a pencil bit soldering iron, low melt solder and a liquid flux. Tin all brass parts with ordinary solder first. Two-part epoxy adhesive is also suitable for assembly and care should be taken to avoid gumming up the moving parts such as hinges.

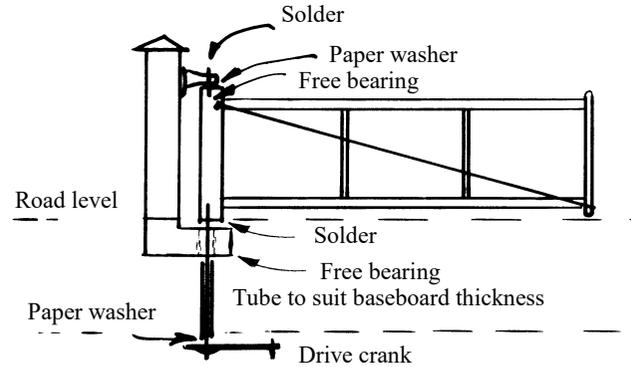
1. Trim off any sprues, feeds or flash on the components.



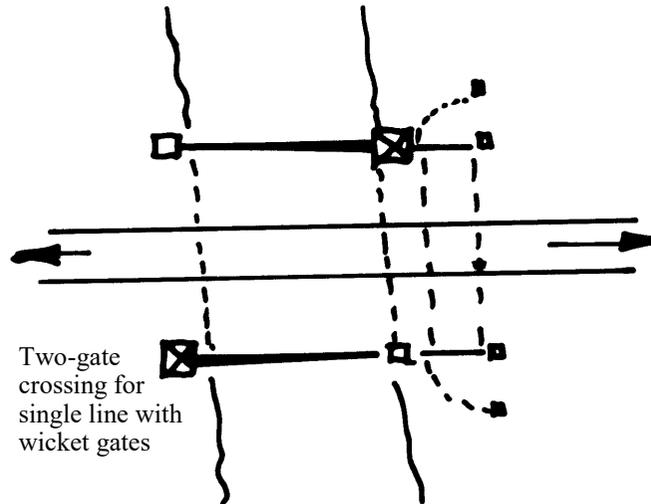
2. Drill out the top and bottom hinge positions on the main gate post with a 0.9mm drill. The gate post foot hole should then be opened out to 1.0mm to ease fitting of the bottom axle.

3. Measure the baseboard thickness and cut a 0.9mm wire drive rod to pass through this, and locate in the bottom of the gate when in position. Drill a 0.9mm hole in the base of the

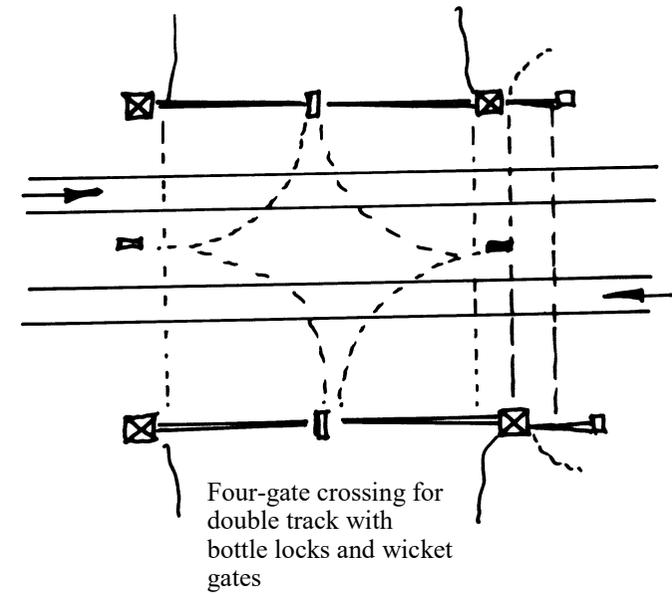
gate heel post, and fix the drive rod in place. Check that the assembly will pass through the base of the hinge post foot, with the top of the gate heel post sitting comfortably under the gate post top hinge bearing.



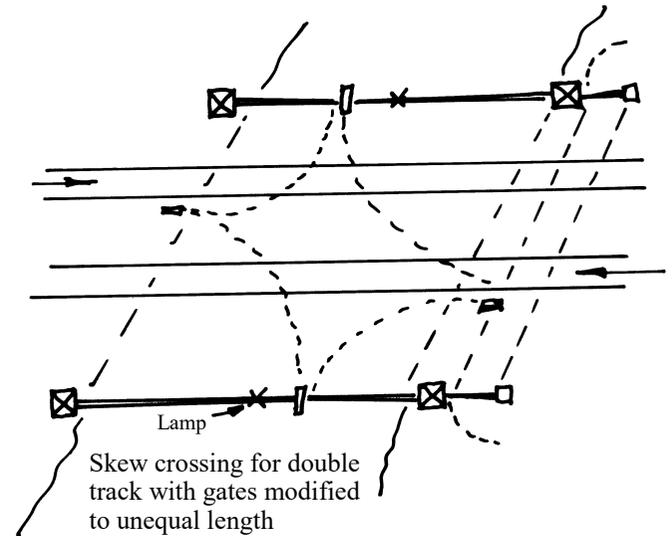
4. The gate's top hinge is made with a 0.9mm wire peg through the top hole, passing into the gate heel post. This peg will eventually be soldered to the top hole, with a paper washer to stop solder straying into the gate. It should be left loose for now so the gate can be removed easily. Alternatively, a 14BA screw can be passed through a clearance hole in the gate hinge into a pre-tapped hole in the gate heel.



Two-gate crossing for single line with wicket gates



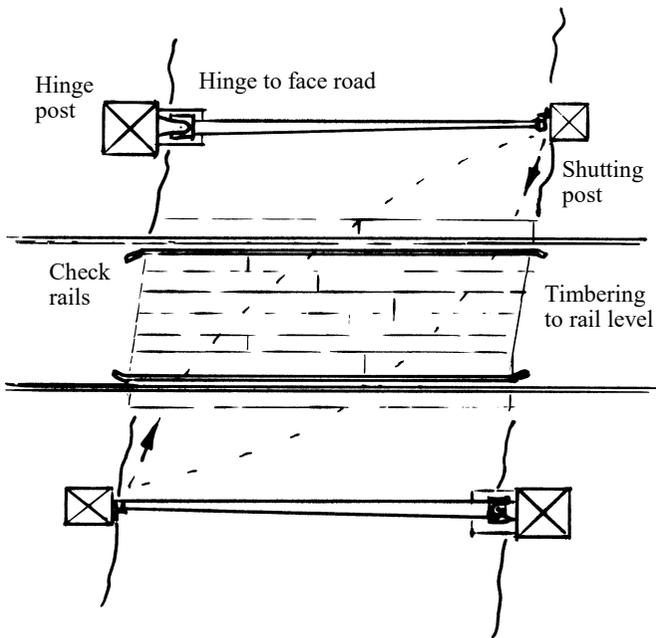
Four-gate crossing for double track with bottle locks and wicket gates



Skew crossing for double track with gates modified to unequal length

5. Based on the plans above, mark out the centre lines of both the track and the roadway. Mark the positions of the gate posts (and the shutting posts for single track crossings). Diagonal lines from each should be equal.

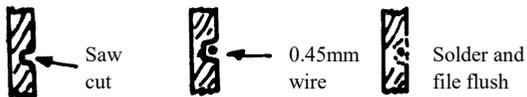
6. Drill a hole beneath the foot of the gate hinge post, through which will pass the drive rod from the gate above. The hole should be of a size to accommodate a piece of brass tubing suitable for the axle diameter as shown above. Glue the tubing in place when satisfied, and install the gate hinge post temporarily. Insert the gate and locate the shutting post.



6. At this stage it is best to detail the roadway and the track, laying in check rails and crossing timbers to road level. The etched bottle lock covers provided are normally only used for a four gate crossing. Single gates usually have their locks fitted to the inner edges of the shutting post, for hand or remote operation.

7. If all of the clearances are satisfactory, remove the gates and add the detail:

a) Board of Trade regulations required that child and dog proof guard rails were fitted to the gates at intervals not exceeding 9", starting at the bottom gate rail. They were usually made from 3/4" wrought iron tubing (gas pipe), replicated on the model by the supplied 0.45mm diameter wire. The bottom rail should be 6" from the bottom gate rail, and at least two others at 9" centres above that.

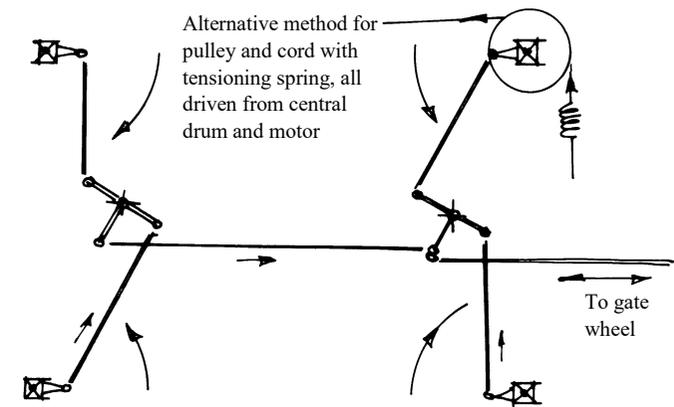


The tubes were later replaced or augmented by diamond mesh expanded metal, for which a piece of material is supplied. The mesh was usually fitted to the road side of the gate.

b) Wire straining rods were normally fitted to each side of the gate, running diagonally from the top of the gate heel down to the toe of the gate, as shown on the previous page. These are also made from 0.45mm wire.

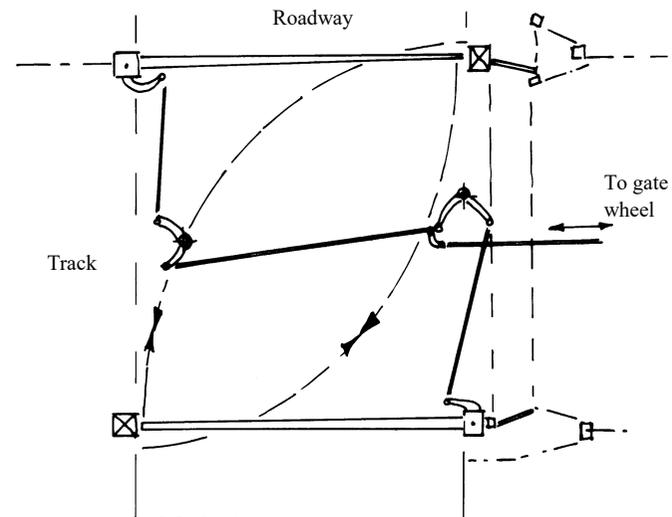
c) Establish the location of the wicket gates and their hinge and closing posts. On single gate crossings, these were normally adjacent to the main gate posts, so that they were under the supervision of the gateman. On larger installations, these were frequently moved away from the gate itself, via a fenced walkway, so that foot traffic came under the direct sight of the crossing box signalman. Refer to a photo if possible.

8. Spray the gates and the posts with white car primer and pick out the detail ironwork in black. The large etched target should be painted red and fixed to the road side of the gates, on the road centre line. The gate lamp, also painted red, should be fixed above it. On four gate crossings, the target was usually divided vertically and a half of each side was fitted to the outer ends of each gate, so that when closed to road traffic, the whole target was presented. The gate lamp in that case was fitted only to the nearside gate.



Method for a four gate crossing

Methods of operation are many and varied and will depend upon your own skill and ingenuity. Some sample methods, based upon prototype practice are shown:



Method of driving a pair of gates through cranks and rods