



# BASIC MODEL RAILROADING

## Part 9: SCALES O, G and 1

### O Gauge – O Scale

O Gauge (a track width of 32mm or 1 1/4" to a modern scale of 1:48 in North America) is a direct descendant of the larger trains of the early toy train era. That era is generally accepted as having begun at the Leipzig (Germany) trade fair in 1891, where the German firm of Märklin Brothers defined the original toy train gauges 5 (120 mm), 4 (75mm), 3 (67mm), 2 (54 mm) and 1 (45mm).

Toy trains evolved quickly from a simple circle around a Christmas tree, to a new kind of year-round toy for the children of the well-to-do; and then to the population at large, whose financial and space resources were generally rather more limited.

Gauge O first appeared around 1900, and during the 1920s and 30s established itself as the “electric train” size that was every boy’s dearest wish. There are countless adults in their 70s and up who fondly remember their first Lionel (North America) or Märklin (Germany) or Hornby (UK) or other O Gauge train set.

Gauge O had displaced Gauge 1 in the UK by 1920, in Germany by about 1930, and displaced Standard or Wide Gauge (the equivalent of Gauge 2 in North America) by about 1930.

After WWII, the toy train era finally gave way to model railroading as an adult hobby.

European manufacturers briefly resumed Gauge O production in a half-hearted fashion. (Fleischmann actually introduced gauge O after WWII, but it only lasted during the 1950s.)

The transition to the smaller S and HO gauges was stimulated by prosperity, improved miniaturization of electric motors, and the appearance of electronic applications.

Arguably, the two most significant transformations in the 1950s era towards prototypical resemblance were the replacement of tin by plastic as a manufacturing raw material, and the move from three-rail to two-rail electrification.

The traditional larger scales continued to fade away, but in North America Lionel persevered (not very successfully), and underwent a number of corporate twists and turns until a remarkable thing happened – this traditionally popular pre-WWII scale had a booming revival with the 1990s comeback of the household Lionel name with upgraded designs, and with newly competing manufacturers, such as MTH, Atlas and others.

Gauge O trains are robust, ideal for youngsters, but are rather more expensive than the smaller scales.

They are now being offered both as 3-rail trains, compatible with the track of the Lionel trains of yesteryear, and also with modern 2-rail and 3-rail “Hi-rail” or “Fastrack” track versions. (Those who have inherited a Lionel set from the toy train era and want to indulge their nostalgia can expand what they have with new traditional [tinplate] track (or vintage tinplate track that can be picked up at flea markets or on the internet).

Traditional Lionel tinplate three-rail track is also compatible with Hornby Gauge O track which is also readily available in the second-hand market. (Transition track from the traditional to the newer 3-rail versions are also available).

It should be noted that the couplers between modern and traditional tinplate equipment are not compatible.

Power is now 12V DC, and DCC is available with marvellous sound and lights.

Exponentially, Gauge O requires between two and four times the space of an equivalent HO layout.

Gauge O is better suited to a permanent rather than a modular layout design, and also of course requires a good-sized space for a credible and satisfying rectangular layout – say, something in the order of 16 ft by 8 ft, with an interior operating space. An alternative proposition might be to consider an end-to-end layout (optionally bracketed to a wall) with a width anywhere from a 12” to a 24”.

Gauge O layouts with modern 2-rail or hand-laid track are ideal for highly detailed slow-running switching operations and diorama-type displays.

Traditional tinplate trains are generally referred to as “O Gauge trains”, whereas modellers working to scale are referred to as being in “O Scale”.

In conclusion, anyone considering Gauge O should do their research, especially if they plan to persevere with traditional 3-rail Gauge O, as they will be in good part dependent on the after-market.

### **G Scale and Scale 1**

The introduction of “G scale” LGB trains in 1968, running on Gauge 1 track, definitely contributed to a renewed interest in the larger scales, and after the immediate post-WWII decline of Gauge O, prompted a revival of both Gauge 1 and Gauge O.

True G (for “Garden”) scale is actually narrow gauge Scale 2 (1:22.5 [Europe]), or Scale 2n, with a gauge of 45 mm (1 3/4”); as opposed to standard gauge Scale 1 (1:32), also with the 45 mm gauge (Gauge 1). (The difference in scale is readily noticeable in the dimensions of the track such as between that made by LGB, and that by Märklin, for example.)

There has been a real resurgence in popularity (with corresponding manufacturer support) for trains for the 45 mm gauge, and both the narrow gauge G scale and the standard gauge Scale 1 trains are now popularly, although somewhat confusingly, referred to as "G scale".

G Scale and Scale 1 are robust, ideal for youngsters, marvellously detailed, also highly suited to outdoor operation, but because of their size and relatively small market share, also expensive.

Research is recommended.

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08-12