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Frank Hornby: the man who put the world in a box

Google Doodle celebrates 150 years of the inventor of model train sets, Meccano and Dinky Toys

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World in a box ... A Hornby model train set. Photograph: Alamy

He brought us a world of miniature nuts and bolts, and diminutive plates and girders, clockwork train sets and model village landscapes, doll house furniture and fleets of toy cars, boats and planes. It is safe to say that no one had such a lasting impact on British childhood in the 20th century as [Frank Hornby](#), the Liverpoolian clerk whose 150th anniversary is celebrated in today's [Google Doodle](#).

While [Hornby's](#) name is now most closely associated with keeping middle-aged men preoccupied in their attics, basements and garden sheds, poring over their [Dublo train sets](#), he originally began his toy empire with construction kits for children. Patented in 1901 as the rather worthy sounding "[Improvements in Toy or Educational Devices for Children and Young People](#)", his sets of perforated metal strips and girders were intended to teach basic mechanical principles, like levers and gearing, to young inquiring minds.

Developed in his workshop at home, where he had made one-off toy trucks for his own sons from sheets of tin, Hornby's breakthrough came in designing a kit of perforated components. With his "Mechanics Made Easy" sets he gave the system ultimate

flexibility by punching holes on a regular grid across all of the pieces, allowing the parts to be bolted together as well as providing bearings for axles and gear shafts. Sold with a range of brass wheels and pulleys, gears and shaft collars, any number of complex mechanisms could be dreamt up – from bridges to cranes, to devices to ambush your unsuspecting sister – by enthusiastic children eager to "make and know", from where Hornby is thought to have derived his brand name "Meccano" in 1907.

As Meccano took off, produced from a factory in Liverpool that was barely able to cope with demand, Hornby wasn't content with making only static kits of parts, so began looking into clockwork mechanisms and designed his first O-gauge clockwork train in 1920. An electric train soon followed, along with a whole world of trackside accessories, complete with every element of the traditional English village. With mock-stone cottages, tumble-down mills, churches, bridges and viaducts, as well as landscape sold on canvas rolls, painted with fields, streams and roads, Hornby conceived an entire world in miniature. Including the villagers.


These "Modelled Miniatures" proved so popular in themselves that Hornby established yet another branch to his company, formalising the production of the die-cast vehicles in 1934 – and so Dinky Toys was born. The first range included a sports car, a coupe, a truck, a delivery van, a tractor, and a tank, but a year later there were over 200 different products in the Dinky range, including doll house furniture. As with his railway and Meccano sets, the realism was key, with liveries of well-known brands adorning the delivery vans – and a whole host of military vehicles and planes produced during the second world war for children to re-enact the joys of warfare at home. While some military models were clearly identified, others were given generic names, such as Heavy Bomber – allegedly disguised so that enemy agents would not be able to use the toys to identify allied aircraft.

It is this level of realism that proved the key attraction to everything Hornby designed. The things he made didn't look like toys, but precise versions of the real world, manufactured with exacting detail. His products were not packaged with the amoebic

forms and infantilising colours of today's toys, but gained their magical quality simply from taking things of fascination – industrial machines, trains, boats and planes – and shrinking them to the scale of 1:48, reducing the entire world to something that can fit in a box.

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Jazz singer recorded more than 200 albums, won 13 Grammys and recorded with many of the great figures of the era

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