

The AMERICAN MODEL BUILDER

COMPLETE MANUAL OF INSTRUCTIONS
Full details of construction given for all Models that can be built with the Thirteen Progressive Outfits of The American Model Builder

PATENT APPLIED FOR

Manufactured by The American Mechanical Toy Co., Dayton, Ohio, U. S. A. MADE IN U. S. A.

As the old saying has it, "Imitation is the finest form of flattery" and, if this is true, then Meccano has been flattered indeed over the years. Since 1901 many copies of Meccano have appeared in different places around the world, most only to disappear again in due time. In this feature we discuss one of the more enduring systems which was first introduced around 1912 — only a few years after the Meccano Trade Name had been registered.

The AMERICAN MODEL BUILDER

An early competitor for Meccano made in the U.S.A.

Readers who are familiar with the Meccano manuals from 1910 — 1920 (or indeed in the 1930's) will be forgiven for thinking, at first glance, that the illustrations for Figs. 1 and 2 on this page are taken from a piece of original Meccano literature. However, a closer inspection reveals that the name "American Model Builder" appears across the bottom of the illustrations, which are reproductions from the 1913 manual of instructions issued by Meccano's most serious rival in the constructional mechanical toy field. Even the page heading showing "MAKES MECHANICS EASY" is an obvious crib from Frank Hornby's early con-

struction system which originated under the name of "MECHANICS MADE EASY".

From very humble beginnings at the start of this century, Frank Hornby patented his original MECHANICS MADE EASY creation in 1901 and proudly reported in his own "Life Story of Meccano" that he registered the name of Meccano in the U.K. during September 1907 and, five years later, in Germany during July 1912 in order to prevent any other manufacturer from pirating the trade name. However, this in no way deterred the AMERICAN MECHANICAL TOY COMPANY of Dayton, Ohio,

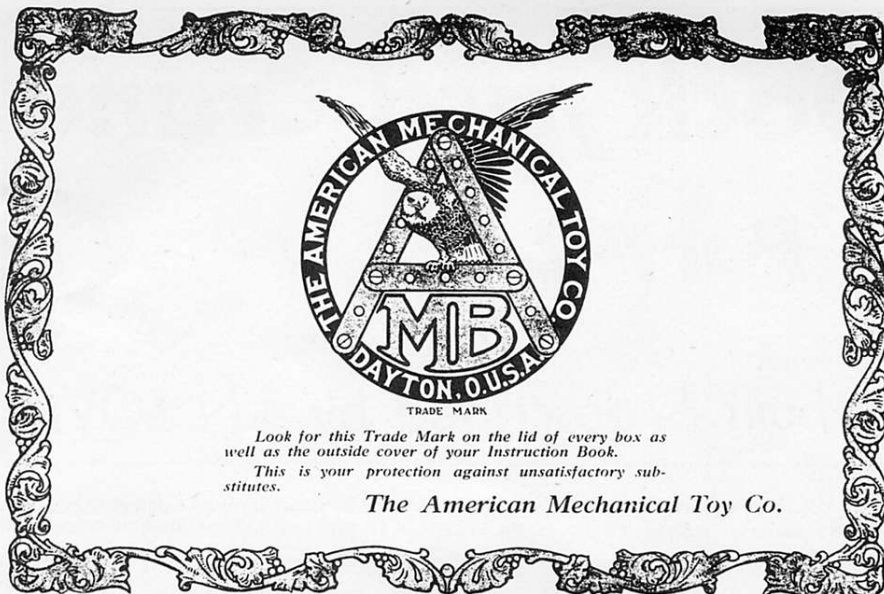
from pirating the Meccano system, which they did very successfully for a period of some twenty years after 1912.

It is perfectly obvious from the first six models shown below that the American Model Builder Manuals were barely-disguised copies of the Meccano manuals of the period. In most cases the models were direct copies, strip for strip, wheel for wheel, bolt for bolt and the printed description of the parts required was virtually in the same phraseology. Even the mention of "Flanged and Grooved Wheels" was an indication of the identical form of manufacture and description at the time,

Fig 1, below left, and Fig. 2, below right, simple models which could be built from the early American Model Builder Outfit No. 1. Note the virtually identical form of parts to those of the Meccano system of the period. Even the design of Meccano's "Flanged and Grooved Pulleys" had been copied as can be seen from the Ladder on Wheels in Fig. 2. Also in Fig. 2, note the difference in the holes in the Flanged Plate between models 19 and 20.

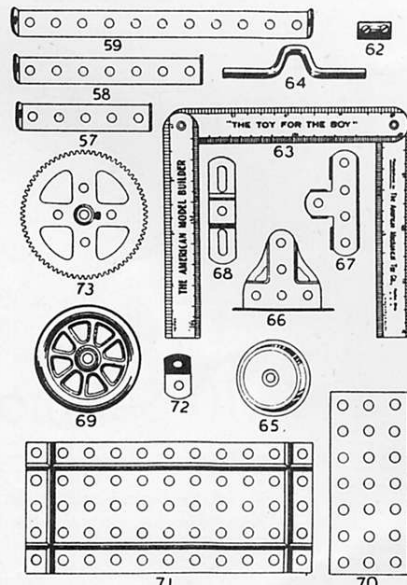
MAKES MECHANICS EASY		5		MAKES MECHANICS EASY		7	
<p>MACHINIST'S LADDER Fig. No. 13</p> <p>PARTS REQUIRED.</p> <ul style="list-style-type: none"> 4 3 1/2" Perforated Strips. 5 2 1/2" Perforated Strips. 10 Angle Brackets. 22 Nuts and Screws. 	<p>REVOLVING TRUCK Fig. No. 14</p> <p>PARTS REQUIRED.</p> <ul style="list-style-type: none"> 1 Large Rectangular Plate. 2 1" Pulley Wheels. 2 2 1/2" Perforated Strips. 1 4 1/2" Axle Rod. 1 2" Axle Rod. 8 Angle Brackets. 10 Nuts and Screws. 	<p>LADDER ON WHEELS Fig. No. 19</p> <p>PARTS REQUIRED.</p> <ul style="list-style-type: none"> 6 1 1/2" Perforated Strips. 12 2 1/2" Perforated Strips. 10 Angle Brackets. 1 Large Rectangular Plate. 2 2 1/2" Axle Rods. 4 Flanged and Grooved Wheels. 44 Nuts and Screws. 	<p>TRAVELING JIB CRANE Fig. No. 20</p> <p>PARTS REQUIRED.</p> <ul style="list-style-type: none"> 2 1 1/2" Perforated Strips. 2 2 1/2" Perforated Strips. 3 2 1/2" Perforated Strips. 6 1" Pulley Wheels. 1 Hook Wheel. 1 Hook. 2 Angle Brackets. 1 2" Axle Rod. 2 4 1/2" Axle Rods. 1 1 1/2" Crank. 1 Large Rectangular Plate. 1 Sector Plate. 17 Nuts and Screws. 1 Collar and Set Screw. 				
<p>PULLEY SHAFT Fig. No. 15</p> <p>PARTS REQUIRED.</p> <ul style="list-style-type: none"> 1 Large Rectangular Plate. 4 2 1/2" Perforated Strips. 1 4 1/2" Axle Rod. 4 Angle Brackets. 4 1" Pulley Wheels. 10 Nuts and Screws. 	<p>WINDMILL Fig. No. 16</p> <p>PARTS REQUIRED.</p> <ul style="list-style-type: none"> 1 Large Rectangular Plate. 4 2 1/2" Perforated Strips. 6 2 1/2" Perforated Strips. 1 4 1/2" Axle Rod. 1 Crank. 2 1" Pulley Wheels. 4 Angle Brackets. 2 Collars and Set Screws. 16 Nuts and Screws. 1 Hook Wheel. 	<p style="text-align: center;">MADE WITH THE AMERICAN MODEL BUILDER, OUTFIT NO. 1 OR 1 AND 2.</p>					

All the Models shown on this page can be made with The American Model Builder Outfit No. 1



Look for this Trade Mark on the lid of every box as well as the outside cover of your Instruction Book. This is your protection against unsatisfactory substitutes.

The American Mechanical Toy Co.



Above left, the bold and unmistakable Trade Mark of the American Mechanical Toy Company. Note the American Eagle incorporated in the symbol. Above right, some new parts which were introduced into the American Model Builder system in 1915. The 2½" Gear Wheel gave a reduction ratio of 3 : 1 with the ¾" Pinion, thus allowing clocks to be built. Opposite page, a reproduction of the cover of the early American Model Builder manuals.

although there were one or two minor departures in style between genuine Meccano and American Model Builder parts. "LADDER ON WHEELS" in our Fig. 2 shows a 5½" x 2½" Flanged Plate with elongated holes in the side flanges and this later form of Flanged Plate became standard for a while after 1913, as subsequent A.M.B. manuals show.

Figs. 3 and 4 give the range of American Model Builder parts available in 1913 and the similarity with Meccano parts of the time leaves no one in doubt about which firm did the copying! Nevertheless, the few anomalies which existed are worthy of mention. Readers will recognise the general form of the great majority of parts, but there is a 'grey' area over the introduction of Sprocket Wheels and Sprocket Chain. Neither the 1912 nor 1914 Meccano Instruction Books illustrate Sprocket Wheels or Chain, although it did appear in the Meccano Inventor's Outfit of 1915 (See MMQ for April 1976).

But the American Model Builder Manuals after 1912 definitely showed models driven by sprocket chain, such as the Funicular Railway described in the 1913 American Model Builder manual as the "INCLINED CHAIN RAILWAY" Fig. No. (Model No.) 149 on page 64 of that book. Meccano models did have chain drive to models like the large Ferris Wheel before 1912, but it was not via sprockets, but by simple twisted link chain which hopefully

obtained a friction grip round the grooves of the early-patterned Flanged Wheels. Those sprocket wheels illustrated in Fig. 3, Part Nos. 36 and 37, are 1" dia. and 1½" dia. respectively although they give the impression of being smaller from the illustrated parts list. The total of 62 A.M.B. parts listed was comparable with the Meccano range of the period, but bore no resemblance in terms of subsequent numbering.

Two special parts are worthy of individual mention and these are Part No. 51, Eccentric Wheel, and Part No. 52, Oscillating Rack. The Eccentric Wheel permitted six different throws from a crank pin, while the Oscillating Rack was able to convert crank pin constant rotation into reversing stroke pinion drive by means of a 'sawing' action. Nothing like this ever appeared in the Meccano system. No. 42 was a combined spanner and screwdriver while No. 57 was a special screwdriver with knurled handle. Meccano did follow suit on similar designs, but not for more than a decade after the American Model Builder introduced them.

A retrograde step by the American Mechanical Toy Company was the downgrading of its manuals after 1912 when the half-tone printing blocks giving almost photographic quality to the manuals was replaced largely by line drawings and the quality of paper deteriorated from the fine glazed art finish of the 1912 editions. In 1915 they introduced a supplementary book of instructions listing

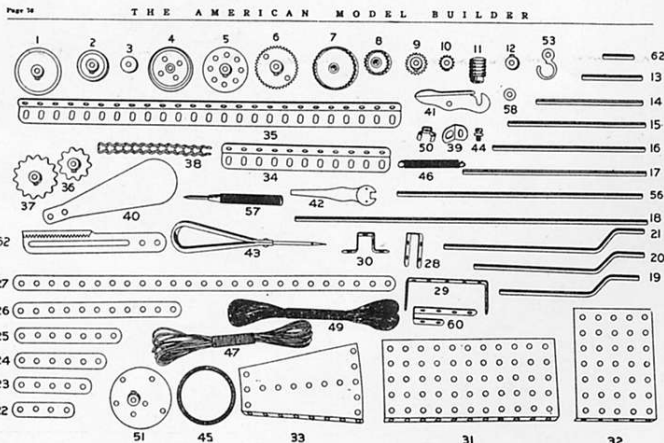
some 370 models (all line drawings), no doubt culled from the annual model building competitions announced inside the covers of each successive year's standard instruction manuals. Covers on the standard A.M.B. manuals maintained the appealing domestic scene of the boy at play, but wisely included 'Dad' in the situation.

There was no mistaking the Trade Mark of the American Model Builder which dominated the rear cover of all the manuals as is shown above and it made good use of the National U.S.A. symbol of the Eagle perched inside the Company's motif. Collectors in the U.S.A. (and elsewhere), even if they are converts to the Meccano system, preserve many fine examples of these early A.M.B. sets and literature and we are indebted to Dr. Clyde Suttle of California for the loan of his early manuals on which this article is based.

At the period in question, eight outfits were available in the American Model Builder range from No. 0 to No. 7 and they ranged in price from 50 cents to 25 dollars.

Again, however, there was no comparison in contents with the Meccano range of sets from 1 to 6 at the time, although the top set, No. 7, of the A.M.B. outclassed the top set, No. 6, of the Meccano system circa 1915 in the contents of Strips, Angle Girders and Nuts and Bolts. However, Meccano was still the survivor!

Fig. 3, below left, the full range of American Model Builder parts as illustrated in the 1913 manual. Note parts 42, 51, 52 and 57 to which special reference is made in the text above. Fig. 4, below right, a descriptive parts list of the A.M.B. system in 1913. Note the similarity between the description of these parts and the equivalent parts in the Meccano system, but the difference in sequential numbering between the two.



THE TOY FOR THE BOY

PRICE LIST OF SEPARATE PARTS

No. 1. 1½" Pulley Wheels	at 10c Each	No. 32. Small Rectangular Plates	at 10c Each
No. 2. 1" "	" 10c "	No. 33. Sector Plates	" 10c "
No. 3. ¾" "	" 05c "	No. 34. 8½" Angle Girders	" 40c Doz.
No. 4. 1½" Flanged Wheels	" 80c "	No. 35. 12½" "	" 80c "
No. 5. 1½" Bush Wheels	" 15c "	No. 36. 1" Sprocket	" 50c Each
No. 6. 1½" Gear Wheels	" 85c "	No. 37. 1½" "	" 80c "
No. 7. 1½" Crown Gears	" 30c "	No. 38. Chain 4 ft. Length	" 80c "
No. 8. ¾" "	" 55c "	No. 39. Angle Brackets	" 10c Doz.
No. 9. ¾" Pinions	" 80c "	No. 40. Propeller Blades	" 15c Pair
No. 10. ½" "	" 15c "	No. 41. Pawls	" 10c Each
No. 11. Worm Wheels	" 90c "	No. 42. Spanner and Screw Driver	" 10c "
No. 12. Collars and Set Screws	" 05c "	No. 43. Large Screw Driver	" 10c "
No. 13. 2" Axle Rods	" 2½c "	No. 44. Nuts and Bolts	" 10c Doz.
No. 14. 3½" "	" 2½c "	No. 45. Pulley Belts	" 05c Each
No. 15. 4½" "	" 05c "	No. 46. 1¾" Springs	" 05c "
No. 16. 5" "	" 05c "	No. 47. Blue Cord 15 ft.	" 25c "
No. 17. 6" "	" 05c "	No. 48. Green Cord 80 ft.	" 05c "
No. 18. 11½" "	" 10c "	No. 49. Eye Pieces	" 05c "
No. 19. 4½" Cranks	" 10c "	No. 50. Eccentric Wheels	" 15c "
No. 20. 5½" "	" 10c "	No. 51. Oscillating Rack	" 15c "
No. 21. 6½" "	" 10c "	No. 52. Hooks	" 05c "
No. 22. 8" Perforated Strips	" 20c Doz.	No. 53. Instruction Book No. 1	" 05c "
No. 23. 2½" "	" 20c "	No. 54. Complete Manual of Instruction	" 15c "
No. 24. 3" "	" 20c "	No. 55. 8" Axle Rods	" 10c "
No. 25. 3½" "	" 20c "	No. 56. 7" Knurled Screw Driver	" 15c "
No. 26. 4½" "	" 20c "	No. 57. Washers	" 05c "
No. 27. 12½" "	" 20c "	No. 58. Set Screws	" 10c Doz.
No. 28. Single Bent Strips	" 05c Each	No. 59. Hanger Strips	" 05c Each
No. 29. Large Bent Strips	" 05c "	No. 60. ½" Wood Screws	" 10c Doz.
No. 30. Double Bent Strips	" 05c "	No. 61. 1" Axle Rods	" 10c Doz.
No. 31. Large Rectangular Plates	" 15c "	No. 62. 1" Axle Rods	" 2½c Each