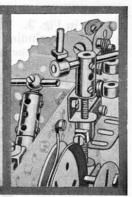


HOW TO USE

Meccano Parts

VII.—WHEELS, PULLEYS, etc. (CLASS N)



For the purpose of this series of articles we have grouped all the Meccano parts into two main sections, termed the Structural and Mechanical Sections, and these sections have been further divided into a number of separate classes. The complete grouping is as follows. Structural Section: Class A, Strips; Class B, Girders; Class C, Brackets, Trunnions, etc.; Class D, Plates, Boilers, etc.; Class E, Nuts and Bolts, Tools and Literature. Mechanical Section: Class M, Rods, Cranks and Couplings; Class N, Wheels, Pulleys, Bearings, etc.; Class O, Gears and Toothed Parts; Class P, Special Accessories; Class Q, Miscellaneous Mechanical Parts; Class T, Electrical Parts; Class X, Motors, Accumulators, etc.

HE parts grouped under Classes N and O comprise some of the most in-teresting and im-

portant components of the Meccano system, for they form the means whereby a model may be set in motion. It is a thrilling moment when, having completed the main structural portions, one proceeds to insert the Gears, Pulleys, etc. that will enable the model to function exactly like its prototype.

The Meccano Wheels are extremely varied in design and application. Part No. 19a, 3" diameter Wheel, has a smooth circumference and is provided with ten spokes. It is intended for use as a travelling wheel in vehicles of all descriptions.

The 3" and 11" Flanged Wheels are intended primarily for use in all kinds of models that are required to run upon rails, such as locomotives, tramway cars, etc. They have

other important uses, however, chief of which is their employment as belt pulleys. An excellent belt pulley may be formed by bolting two Flanged

is vertical. If an ordinary grooved pulley were employed, there would be a danger | forming the ends of a realistic cylinder, the

in that issue showed two of these wheels

centre portion of which was formed by a Sleeve Piece. Incidentally, another novel use for the part was shown in Fig. 4 in the same issue, for the chimney of the Meccano Traction Engine illustrated therein is topped by a ¾" Flanged Wheel, the boss of which is inserted in the upper

Sleeve Piece.

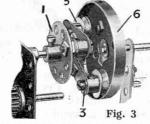
If larger flanged wheels are required they may be built up from existing parts. Fig. 6 shows two sizes of flanged wheels used in a large Meccano locomotive. The bogie wheels of this model each consist of a Wheel Flange bolted to a Face Plate, whilst the main driving wheels are formed from a Hub Disc secured to a Circular Plate (the latter part is grouped under Class D).

In addition to this im-

portant adaptation, the Hub Disc is admirably suited to form a flywheel or large travelling wheel. Fig. 7 shows one of the rear travelling wheels of the Meccano Traction Engine,

Parts in Class N: Wheels, Pulleys, Bearings, etc.

						V	Vhe	els								
Part No.					Pric		Part No.						Prio	ces		
		19a Wheels, 3" diam. with set screws eacl 20 Flanged Wheels, 1½" diam. "						118 119		oisc, 5½" o el Segm	diam. ents (8		each		3	
	20b 24	Bush W		3"	, ,	0	5 4 4	132		e, 11½" d eels, 2¾"			"	0	4	
	109			" diam.	,,	ŏ	4	137		Flanges		***	,,	0	3	
						I	Pull	eys								
	19b 19c	Pulley	Wheels	, 3" dian	n. with c	entre	boss	and	set-screv	v			each	0	7	
	20a	27	"	2" "	"	27		37	22	***			**	0	5	
	21 22	23	33	1½" "	23	**		33	,,	1444	***		,,	0	4 3	
	23a	35	33	1 " "	"	33		.17	"				**	0	3	
	22a 23	"	"	1" "	without	- 77		**	**		***	•••	27	0	2 3	
	123		ulleys			"		".	"		- :::		"	1		
	151 152	Pulley	Blocks,	Single S Two	heave					***	***	***	29	0	8	
	153	"	"	Three	31						***	***	"	1	0	
						B	eari	ngs								
	167	Geared comp	Roller	r Beari	ngs, each	s. 20	d.	168			4" diam.		each	3	0	
	167a	Roller Races, geared, 192 168a Ball Races, Flanged										•••	11	0	6	
	167b	Ring Frames for Rollers , 3 0 1682 Poll Coolings complete											"	0	9	
	167c	16 te		er Bearn	ngs,	1	0		Ball					1	9	



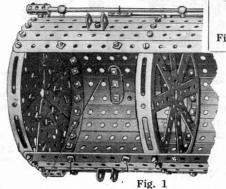


of the cord leaving the groove-owing to the fact that it would not be in direct line with it.

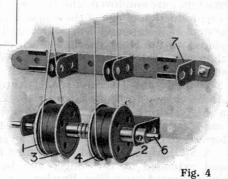
In Fig. 4 the Flanged Wheels form part of a belt reversing gear. In this case each belt pulley consists of two 1½" Flanged Wheels, and one wheel in each pair is fixed while the other is loose. The mechanism is so designed that while one belt is driving on to a fixed Flanged Wheel the other rides on a loose wheel, and the arrangement may be reversed when

desired by slipping each belt simultaneously from one Flanged Wheel to the other.

An important adaptation of the 3" Flanged Wheel was described in connection with the Sleeve Piece (Class D) in the May, 1929, "M.M." An illustration



Wheels together as shown in Fig. 2. This illustration represents a model governor driven by an endless cord, and the wide belt pulley is used to take the drive because the axis of the driving pulley is horizontal whilst that of the driven pulley



and as will be seen it consists of two Hub Discs bolted together so that a wheel of specially wide tread is obtained. As this model is sometimes called upon to draw very heavy loads, a number of nuts and bolts are inserted round the circumfer-