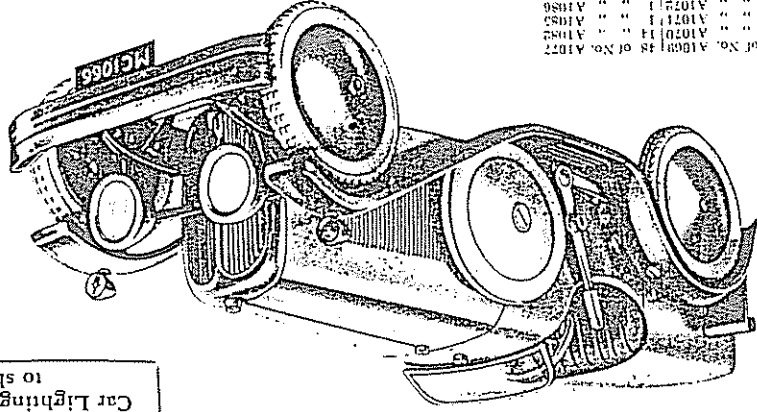
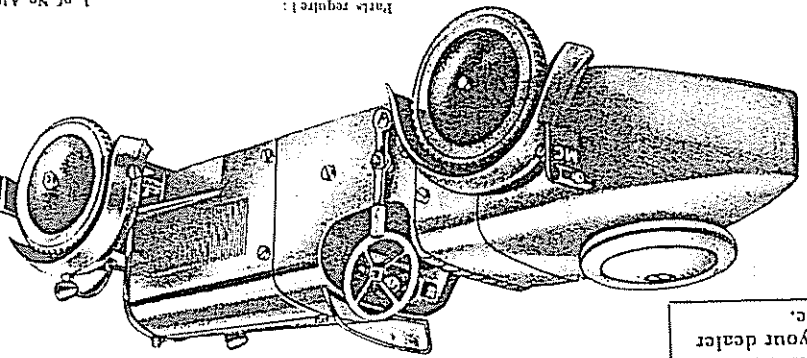


The light sports two-seater is a type that has been produced to meet the demands of motorists who require a car having a distinctive appearance and a high performance, coupled with the utility and comfort of the standard model. It is less expensive than a car designed to take part in actual racing, but its possession enables its owner to experience many of the thrills of that sport. Many of the features of the light sports car are reproduced in Model No. M3. This model has a shorter wheelbase than the standard car described earlier, and several modifications were therefore made when assembling the bodywork and propelling mechanism. In assembling the central portion of the body (see Fig. 5) the Seat 21 is bolted to the Dash 19, but the Centre Section 20 is omitted, the Tapered Tail Section being bolted in position directly behind the Seat. The Mechanism is bolted to the Frame Members by Bolts passed through the second set of holes in the Frame (Nos. A1021 and A1022) are fitted to this car. The Front Mudguards are held in place by means of the upper Front Mudguard Bracket.



Model No. M3. Light Sports Two Seater

Increase the fun and realism by fitting your models with a Motor Car Lighting Set. Ask your dealer to show you one.



Model No. M4. Grand Prix Special

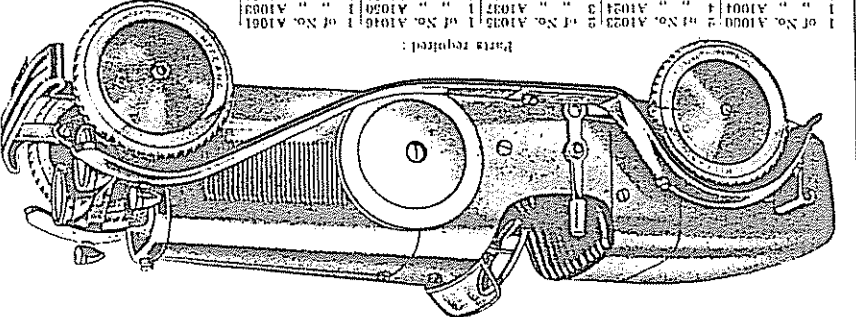
Road racing is a dangerous but highly exciting sport, and although this type of racing does not take place in England, many British cars are entered in foreign road racing events, while in certain cases English drivers pilot foreign racing machines. One of the most famous events of this type is the Le Mans 24-hour race run over the Sarthe Circuit in France. This circuit is made up of ordinary roads, and the event provides a gruelling test of skill and endurance.

This model is similar in the main to the standard car described earlier. The Curved Radiator and Tapered Rear Section are used in this model however, and the Radiator No. A1001 and Clamping Plate A1006 are, therefore, employed in the radiator and bonnet assembly shown in Fig. 1. The Tapered Rear Section (No. A1016) is used in assembling the bodywork. It will be seen that the Front and Rear Mudguards (Nos. A1020 and A1022 respectively) are used. The Front Mudguards are held in place by Brackets being held to the frame by the Bolts that are used to hold the Steering Column Bracket to the Frame of the car. (See Fig. 5). The Imitation Spare Wheel Cover is secured to the top of the Tapered Rear Section.

Sports Models are fascinating types of the modern motor vehicle, and the Motor Car Constructor enables fine examples of this type to be built. The term "sports" model covers a wide range of cars, including the well-known baby cars fitted with specially-designed four cylinder engines, light cars with engines of six cylinders, and larger vehicles having eight or 12 cylinders and fitted with two or more carburetors.

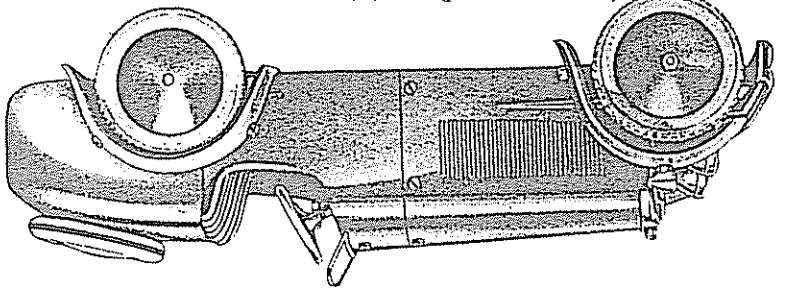
Model No. M1 has long bonnet and low racing lines that are typical features of these sports cars. The actual assembly of the model is dealt with in detail earlier, and if the instructions are followed carefully no difficulty will be experienced in building the car. The Front and Rear Number Plates are supplied blank, and an individual touch may be given to the models by adding registration numbers.

To operate the complete model, first place the brake in the "on" position by drawing the Brake Lever toward the rear of the car. Then wind up the motor with the key provided, and place the car on the ground. Next rotate the Steering Wheel so that the front wheels are set for the car to run in the required direction, and finally release the brake by moving the lever forward. The car will then travel for about 50 yards at high speed.



Model No. M1. Sports Tourer

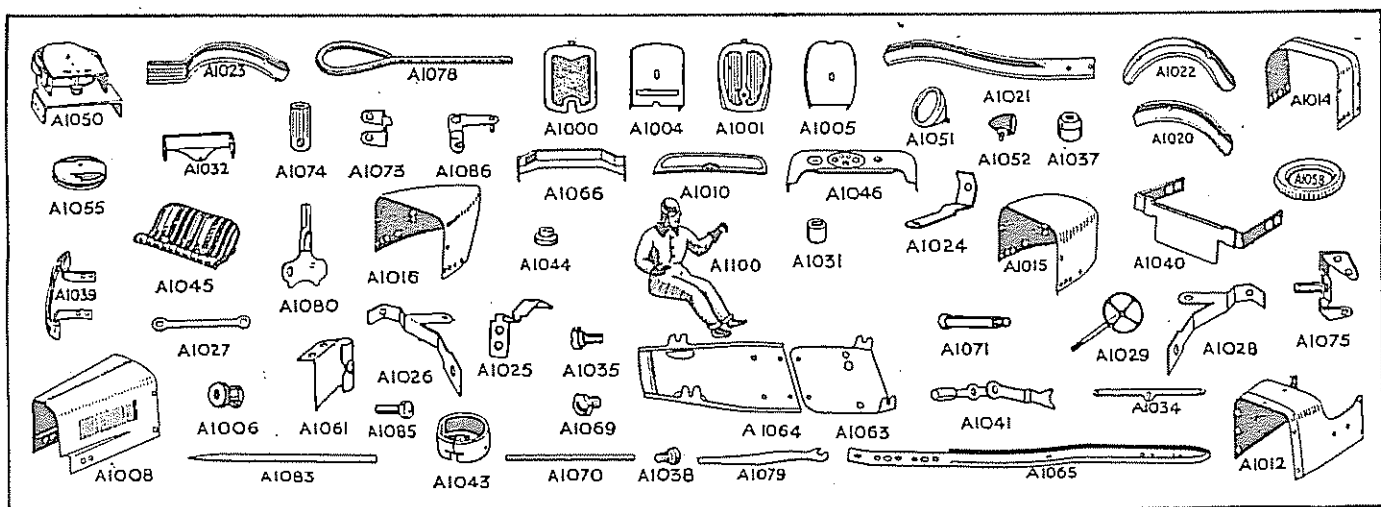
Modern racing cars are classified in accordance with the cubic capacity of the cylinders of the engine. The "baby" type of racing car, such as the M.G. Midget, thus comes in the 750 c.c. class; its engine having a capacity of approximately 700 cubic centimetres; while at the other end of the scale we find the Bentley, the Alfa Romeo, and the Mercedes-Benz. Model No. M2 incorporates many of the features of a light racing machine. The model has a shorter wheelbase than the standard car described earlier, and this entails several modifications in the assembly of the bodywork and driving mechanism. In assembling the central portion of the body (see Fig. 5) the Seat 21 is bolted to the Dash 19 as shown, but the Centre Section 20 is not included; the Rounded Tail Section 24 (Fig. 5) being secured in position directly behind the Seat. After the Tail Section has been bolted to the Frame, the Imitation Spare Wheel Cover is mounted in place as shown in the illustration. The Mechanism is now placed in the front and bolted in position, the second set of holes in the frame members being used. The end set of holes are only employed when long wheelbase cars such as models Nos. M1 and M4 are being built. The Front and Rear Mudguards (Nos. A1020 and A1022) are fitted to this model.



Model No. M2. Light Six Speed Model

Parts required:

1 of No. A1000	1 of No. A1001	1 of No. A1002	1 of No. A1003	1 of No. A1004	1 of No. A1005	1 of No. A1006	1 of No. A1007	1 of No. A1008	1 of No. A1009	1 of No. A1010	1 of No. A1011	1 of No. A1012	1 of No. A1013	1 of No. A1014	1 of No. A1015	1 of No. A1016	1 of No. A1017	1 of No. A1018	1 of No. A1019	1 of No. A1020	1 of No. A1021	1 of No. A1022	1 of No. A1023	1 of No. A1024	1 of No. A1025	1 of No. A1026	1 of No. A1027	1 of No. A1028	1 of No. A1029	1 of No. A1030	1 of No. A1031	1 of No. A1032	1 of No. A1033	1 of No. A1034	1 of No. A1035	1 of No. A1036	1 of No. A1037	1 of No. A1038	1 of No. A1039	1 of No. A1040	1 of No. A1041	1 of No. A1042	1 of No. A1043	1 of No. A1044	1 of No. A1045	1 of No. A1046	1 of No. A1047	1 of No. A1048	1 of No. A1049	1 of No. A1050	1 of No. A1051	1 of No. A1052	1 of No. A1053	1 of No. A1054	1 of No. A1055	1 of No. A1056	1 of No. A1057	1 of No. A1058	1 of No. A1059	1 of No. A1060	1 of No. A1061	1 of No. A1062	1 of No. A1063	1 of No. A1064	1 of No. A1065	1 of No. A1066	1 of No. A1067	1 of No. A1068	1 of No. A1069	1 of No. A1070	1 of No. A1071	1 of No. A1072	1 of No. A1073	1 of No. A1074	1 of No. A1075	1 of No. A1076	1 of No. A1077	1 of No. A1078	1 of No. A1079	1 of No. A1080	1 of No. A1081	1 of No. A1082	1 of No. A1083	1 of No. A1084	1 of No. A1085	1 of No. A1086	1 of No. A1087	1 of No. A1088	1 of No. A1089	1 of No. A1090	1 of No. A1091	1 of No. A1092	1 of No. A1093	1 of No. A1094	1 of No. A1095	1 of No. A1096	1 of No. A1097	1 of No. A1098	1 of No. A1099	1 of No. A1100
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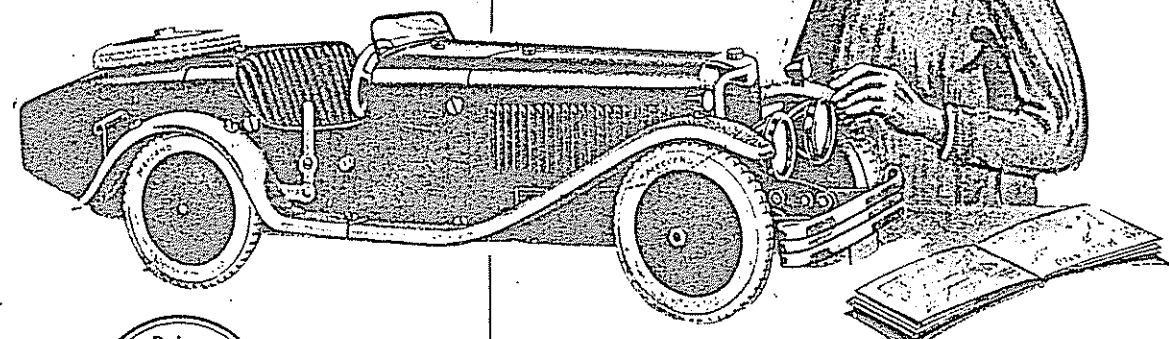


Contents of Motor Car Constructor Outfit No. 2

No.	Quantity	No.	Quantity	No.	Quantity
A1000	1	A1031	1	A1003	1
A1001	1	A1032	1	A1004	1
A1004	1	A1033	1	A1005	1
A1005	1	A1035	2	A1006	1
A1006	1	A1037	3	A1008	1
A1008	1	A1038	1	A1010	1
A1010	1	A1039	1	A1011	1
A1012	1	A1040	1	A1012	1
A1014	1	A1041	1	A1013	1
A1015	1	A1043	1	A1014	1
A1016	1	A1044	1	A1015	1
A1018	1	A1046	1	A1016	1
A1020	1	A1048	1	A1017	1
A1021	2	A1050	1	A1018	1
A1022	2	A1051	1	A1019	1
A1023	2	A1052	1	A1020	1
A1024	4	A1053	1	A1021	1
A1025	2	A1055	1	A1022	1
A1026	1	A1056	1	A1023	1
A1027	1	A1057	1	A1024	1
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A1098	1			A1095	1
A1099	1			A1096	1
A1100	1			A1097	1

MOTOR CAR CONSTRUCTOR

INSTRUCTIONS FOR OUTFIT No. 2



Price United Kingdom 3d. South Africa 5d. New Zealand 5d. Canada 10c.

BRITISH AND GUARANTEED

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INSTRUCTIONS

How to Build Model Motor Cars with Motor Car Constructor Parts.

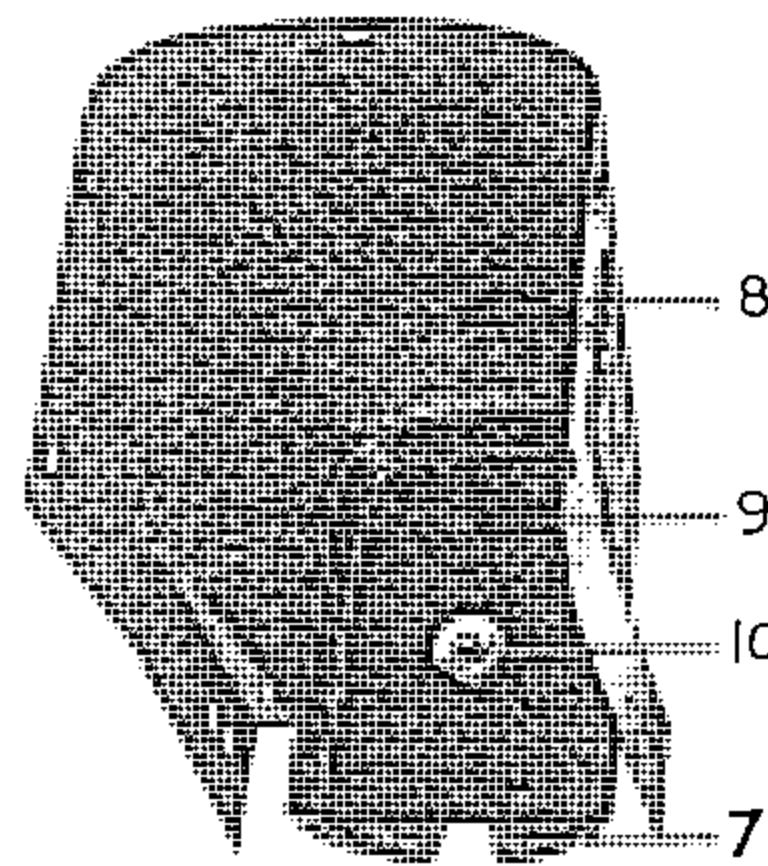


Fig. 1

The assembly of the model is commenced by taking the two Frame Side Members 1 (Fig. 6) and joining these together by means of the Front Cross Frame 2. The 1/4 in. Bolts holding the Front Cross Frame also carry the Upper Front Mudguard Brackets 3, right-hand and left-hand, and the Axle Brackets 4. The Front Mudguard Tie Rod 5 is fixed in position by means of the Bolts projecting from the Head Lamps 6.

The Radiator (No. A1000) is next secured to the Bonnet section, this assembly being shown in Fig. 1. The Radiator 7 is laid flat on the table and the front end of the Bonnet 8 is pushed inside the flanges of the Radiator. The Clamping Plate Nut 10 is screwed on to the projecting stud and tightened against the Clamping Plate 9, thus clamping the Radiator securely in position.

The steering gear is now assembled. One section of this is shown in Fig. 3. First the Bell Crank Stud 14 is pushed through the centre hole in the Bell Crank and secured to the Steering Column Bracket 15 by means of a Nut, a lock-nut being added to prevent it from working loose. The Stud 14 has a smooth shoulder so that the Bell Crank can move freely. Care should be taken to see that the Nuts or the steering gear are screwed very tightly in order to ensure perfect fit.

The Steering Column Bracket 15 complete with Bell Crank and Nut Block is next fitted in position. The Bracket is first placed between the Frame Side Members at the wide-portion, and pushed along the Frame until the pairs of holes in the lugs of the Bracket coincide with the pairs of holes close to the front of the Frame Sides. The Bell Crank should be at the rear of the Bracket as shown in Fig. 10. The Bonnet 8 complete with Radiator is then placed over the Frame Members, so that the pairs of holes at each side of the front portion of the Bonnet coincide with the holes in the Frame Side Members immediately behind the Front Mudguard Brackets 3 (Fig. 6). Four 1/4 in. Bolts are passed through the Bonnet, Frame and Steering Bracket members, to lock them rigidly in position.

The Lower Front Mudguard Brackets are secured by these Bolts in models Nos. M2 and M4.

The long pointed rod, known as a Drift, included in the Outfit, is for the purpose of assisting the assembly of a model by bringing into alignment the holes through which a Bolt is to be passed. The pointed end of the Drift is inserted into the holes and pressed forward with a slight side-to-side motion, and the effect of this is to pull the holes into alignment so that a Bolt can be easily inserted.

The Bumper Bar Unit is assembled and attached to the Frame Side Members as shown in Fig. 5. First the Bumper Bracket with

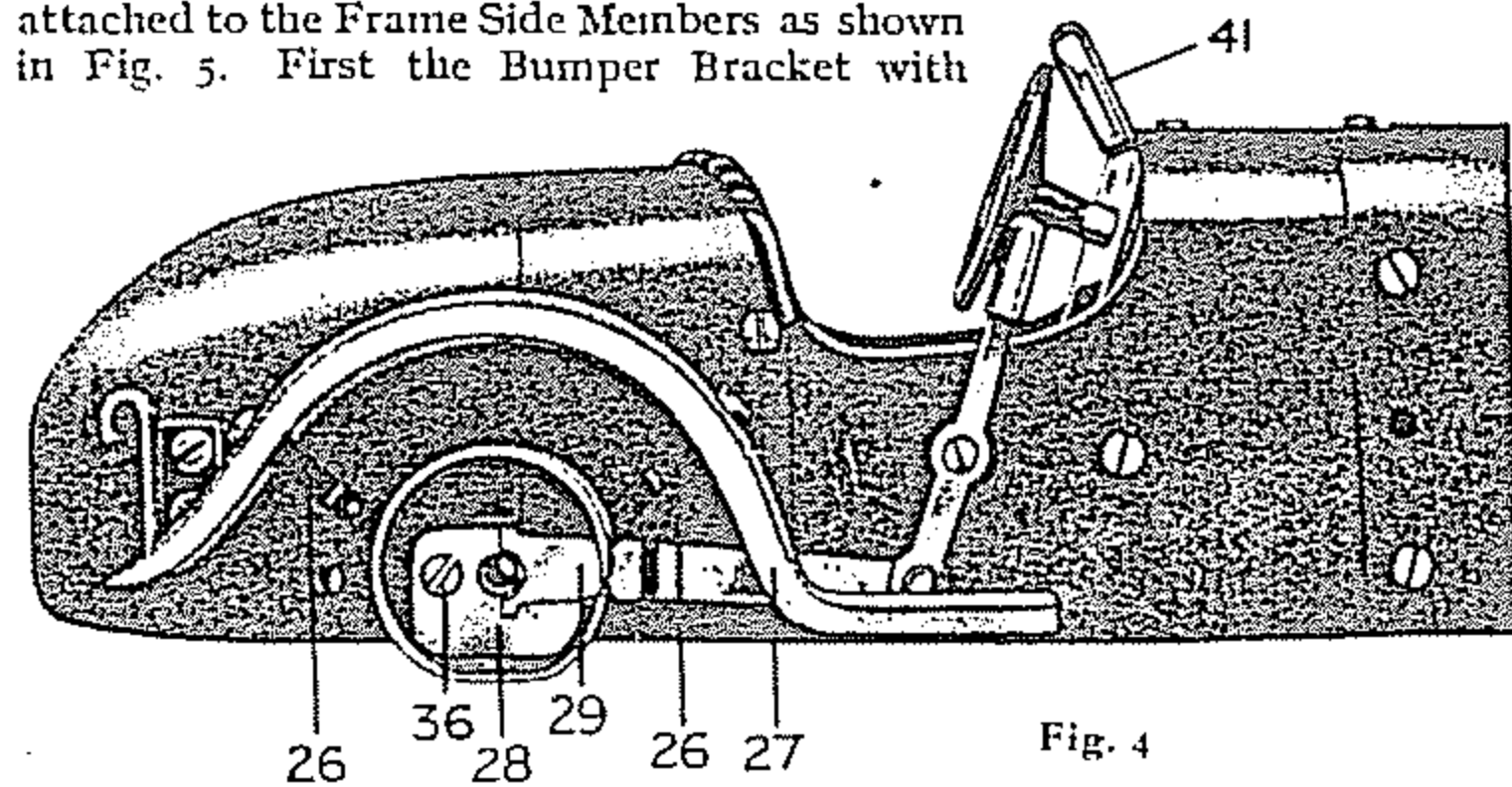


Fig. 4

Front Number Plate 18 (Fig. 7) is placed in position in the Bumper Bar 16. The complete Bumper unit is then secured to the ends of the Frame Members by means of four 1/4 in. Bolts.

The centre portion of the bodywork of the model is now assembled and attached to the Frame. It is made up of three separate parts, the Dash, the Centre Section, and the Seat unit. These are secured together by placing the Centre Section 20 (Fig. 8) over the rear of the Dash 19, pushing the Seat 21 into place, and afterwards bolting the Centre Section to the Dash by means of the Bolts 22. The Seat 21 is held in place at the right-hand side by the 5/16 in. Bolt passing through the Bush on which the Brake Lever is pivoted, and at the left by a standard Bolt. The Driver is already bolted to the seat as supplied in the Outfit, but should be removed to allow for the fitting of the Instrument Board and Steering Wheel at a later stage.

When the centre portion of the bodywork is completed it is mounted in position on the Frame of the car and coupled to the Bonnet, which is already in position. The front end of the Dash 19 (Fig. 5) is placed under the rear end of the Bonnet 8, and Bolts are passed through both sections and through the holes in the Frame 1 to hold the centre portion in position. A Bolt is passed through the front lower hole at each side of the Centre Section, through the Dash and Frame Member, and fitted with a Nut on the inside. The rear end of the Centre Section should not be bolted to the Frame at this stage.

The rear Number Plate 25 is now bolted to the Rounded Rear Section (No. A1015) by means of two Bolts fitted with Nuts. In models carrying the Imitation Spare Wheel Cover on the Rear Section, the Cover should now be fixed in place. The Rear Section is placed over the ends of the Frame Members 1 and is pushed into position over the Centre Section 20. The Rear Section is held to the Centre Section by means of two

Bolts (Fig. 5). Before the Motor unit is fixed in place, the Rear Mudguard Brackets 26 should be bolted to the Rear Mudguards 27 (Fig. 4).

In order to fit the Motor unit, the car is turned over and the Motor casing is placed in position so that the axle holes in the side lugs coincide with the holes in the Rear Section 24. To hold the Motor in place during assembly, the Rear Axle may be temporarily inserted in position. One pair of Mudguard Brackets 26, with Mudguard 27 attached, are arranged in position at the left-hand side of the car looking from below, and on top of these the Brake Drum 28 is placed. Two 1/4 in. Bolts 36 are then passed through the Brake Drum, Mudguard Brackets, Body, and Motor lugs, and two similar Bolts are used to hold the Mudguard Brackets in position at the right-hand side of the car, but in this case the Brake Drum is omitted. Before the Bolts are tightened up, the holes for the Rear Axle should be lined up so that the Axle will rotate freely when ready for assembly. The rod should be removed after the Bolts are screwed up tightly, and the next stage is the assembly of the brake mechanism.

To complete the internal expanding brake, the Brake Rod 29 is slipped sideways into the slot in the Brake Drum 28 as shown in Fig. 9. In doing this, care should be taken to see that the Brake Lever is on the outside of the Brake Rod. After being placed in this position the Brake Rod is twisted so that it slips into the wider portion of the slot in the Drum. The Lever is then swung round on its pivot and passed between the running board and the body. It is necessary to lift the running board away from the body slightly while the pivot at the lower end of the Brake Lever is brought up into place. The Brake Lever is fitted on the Distance Bush so that the Lever is held away from the bodywork of the Car. The special 5/16 in. Bolt is passed through the Bush so that its head retains the lever in place, and after passing through the

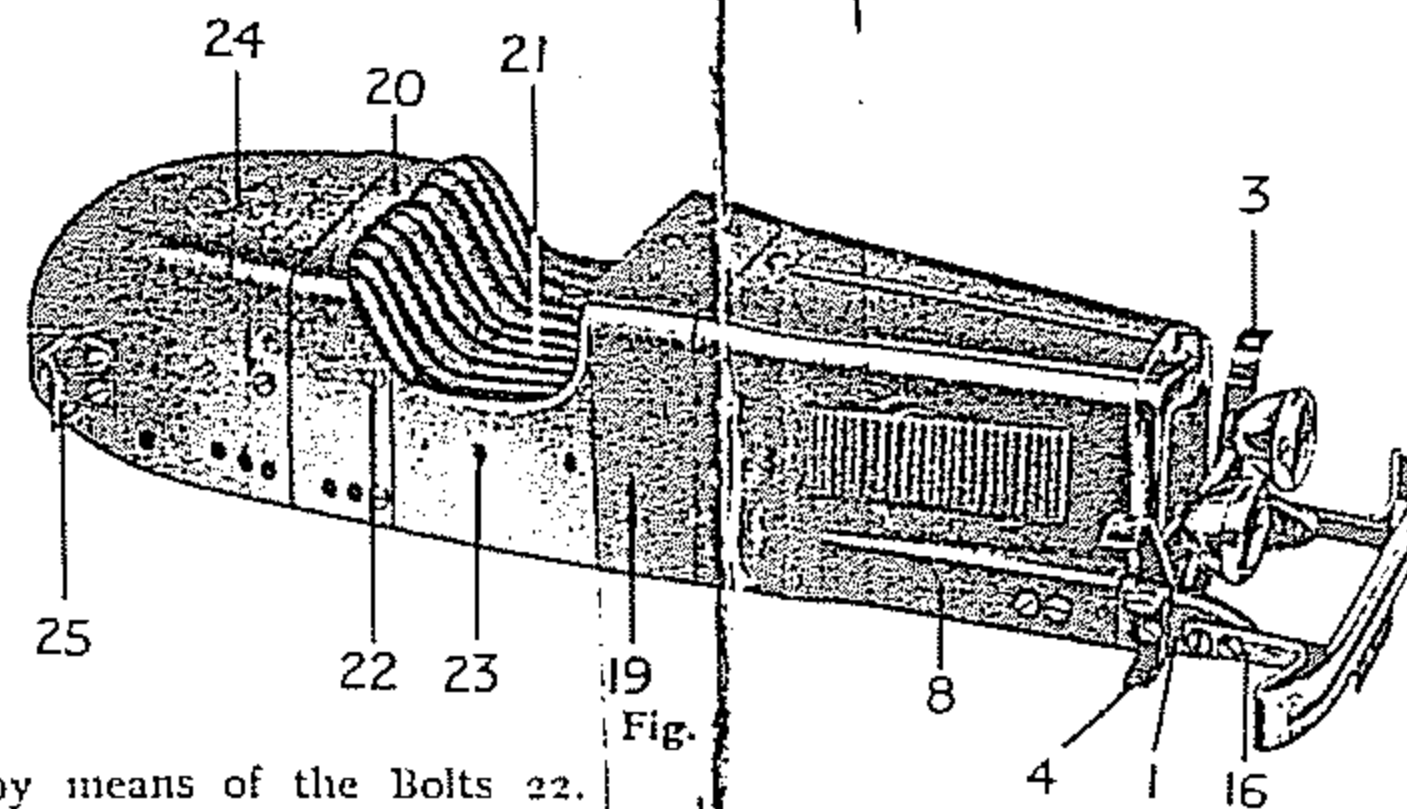


Fig. 5

fitted to the end in which the two depressions are cut. The Axle 31 is pushed through the left-hand side (from below) of the frame, and the Driving Pinion (No. A1074) and Collar 32 are placed on the Axle. The free end of the Axle is then passed through the right-hand side of the frame of the Car, and another Collar 33 is placed on the Axle 31. Next the Wheel 30 is pushed inward so that the Brake Drum 28 fits closely to the Wheel, but does not actually touch it, and the Collars 32 and 33 are locked in position against the sides of the frame. The Driving Pinion is now moved into position so that it meshes with the teeth of the Contrate Wheel 34 of the Motor, and is secured rigidly by means of its Grub Screw. The Rear Axle assembly is completed by fitting the second Wheel 35.

The steering mechanism and front wheel assembly are next completed. First the Sleeve 37 (Fig. 2) is slipped on to the Steering Column 38, and the Steering Column is passed through the hole on the right-hand side of the Instrument Board 39. The Collar 40 is placed on the Steering Column and is locked in place against the inside surface of the Instrument Board 39. The Instrument Board, complete with Steering Column 38, is placed in the bonnet space (Fig. 10) and the threaded end of the Column 38 is screwed into the threaded hole in the Nut Block 11. The Steering Column and Nut Block are provided with a left-hand thread. The perforated lug of the Windscreen 41 (Fig. 4) is held in between the Instrument Board and the Dash by a Bolt and Nut 42 and two Bolts secure the lower pair of lugs in the Instrument Board to the Dash section.

In carrying out any constructional work with the Car in an upright position, a support such as a cardboard box or a book should be placed under the bonnet to raise the Car above the table and prevent the Windscreen from being bent down and damaged.

The next step is to mount the right-hand and left-hand Stub Axles 43 in position on the Stub Axle Pivots 44, as shown in Fig. 10. The slotted portion of the Track Rod 45 is placed over the pin of the Bell Crank 12, and the ends of the Track Rod are secured to the Stub Axles 43 by means of the Track Rod Stud 46.

The Front Mudguards are fixed to their Brackets by the Side Lamps, and secured to the Rear Mudguards by the Bolts 47 (Fig. 10). The Spare Wheel Cover is attached to the right-hand side by means of the special Bolt and a Nut.

Before the Undershield is fitted to the Car the Driver should be secured in position with the special fixing Bolt and Nut. For this purpose a special Nut and Bolt are provided. The long Nut fits into the slot beneath the Driver, and the Bolt is inserted from under the seat. The Driver's hands appear to rest lightly on the Wheel, but allow a little clearance so that the Wheel turns freely.

The Front and Rear Sections of the Undershield (Parts Nos. A1064 and A1063) are overlapped and bolted together and the complete Undershield is then placed in position. The slotted lugs of the Undershield Sections fit in between the Frame Members and the inner sides of the bodywork, the Spanner being inserted through the D-shaped openings in order to hold the Nuts while the Bolts are tightened up. In order to insert the Bolts at the extreme rear of the Frame Members, the Rear Tyres should be rolled back. The Front Road Wheels are held in position on the Stub Axles (Fig. 10) by means of the Stub Axle Screws (A1069).

Dash section is inserted in the lug of the Seat and secured by a Nut.

The Rear Wheel 30, fitted with Grub Screw, is secured on one end of the Rear Axle 31 (Fig. 10). In order to do this the Tyre is rolled back and the Screwdriver is passed through the plain hole in the rim of the Wheel and the Grub Screw in the boss is rotated. The Rear Axle (A.1070) has three depressions cut in it so that the Rear Wheels and Driving Pinion can be held rigidly to the Axle by their Grub Screws. The Wheel should be

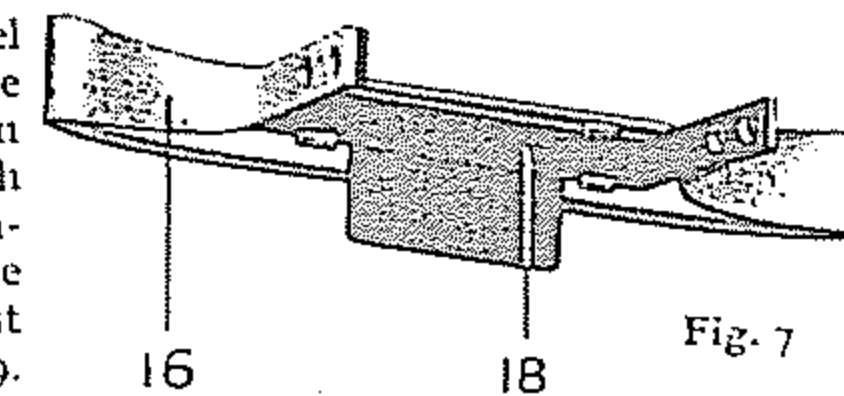


Fig. 7

on both straight and curved circuits.

MOTOR CAR LIGHTING SET

With this interesting addition the Head Lamps of the

No. 2 Motor Car Constructor Outfit can be fitted with Electric Lights, and switched on or off from the Instrument Board, just as in a real car. The Motor Car Lighting Set contains the following parts: Two pea lamps complete with flex, a battery clip for holding the dry battery in position under the bonnet of the model and a switch to be secured to the Instrument Board. The battery used is the standard "Ever Ready" pocket lamp type No. 730; we do not supply these batteries, but they can be obtained from any electrical store. Full instructions for fitting are supplied with each Set.

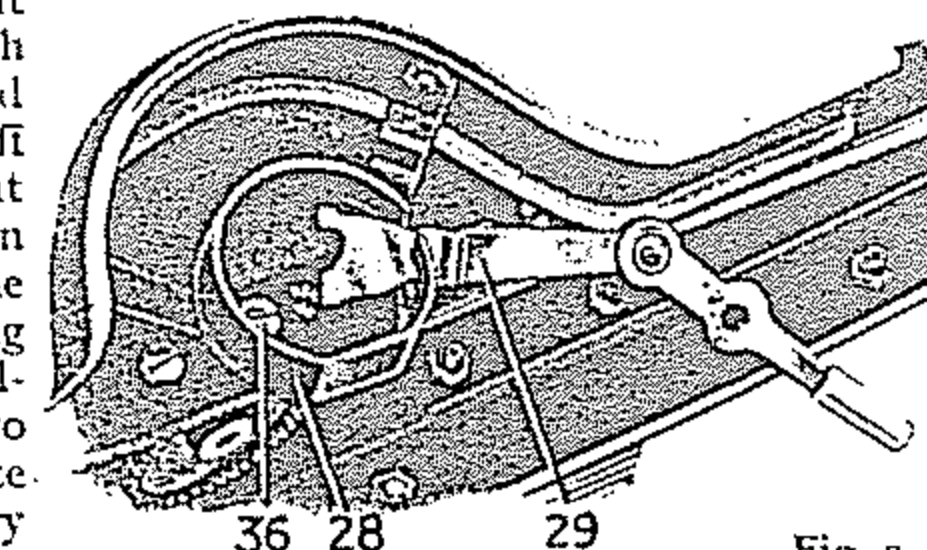


Fig. 9

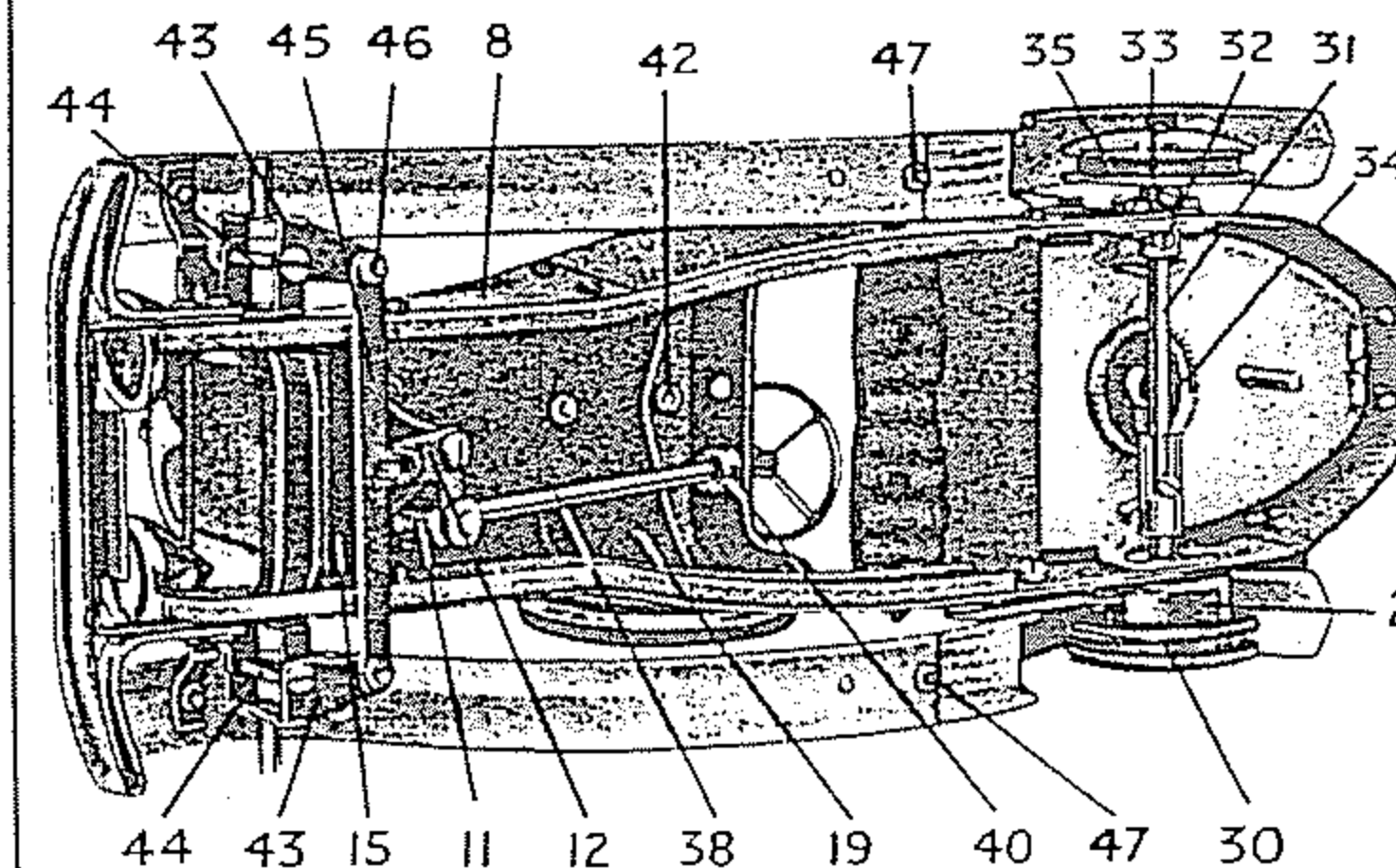


Fig. 10

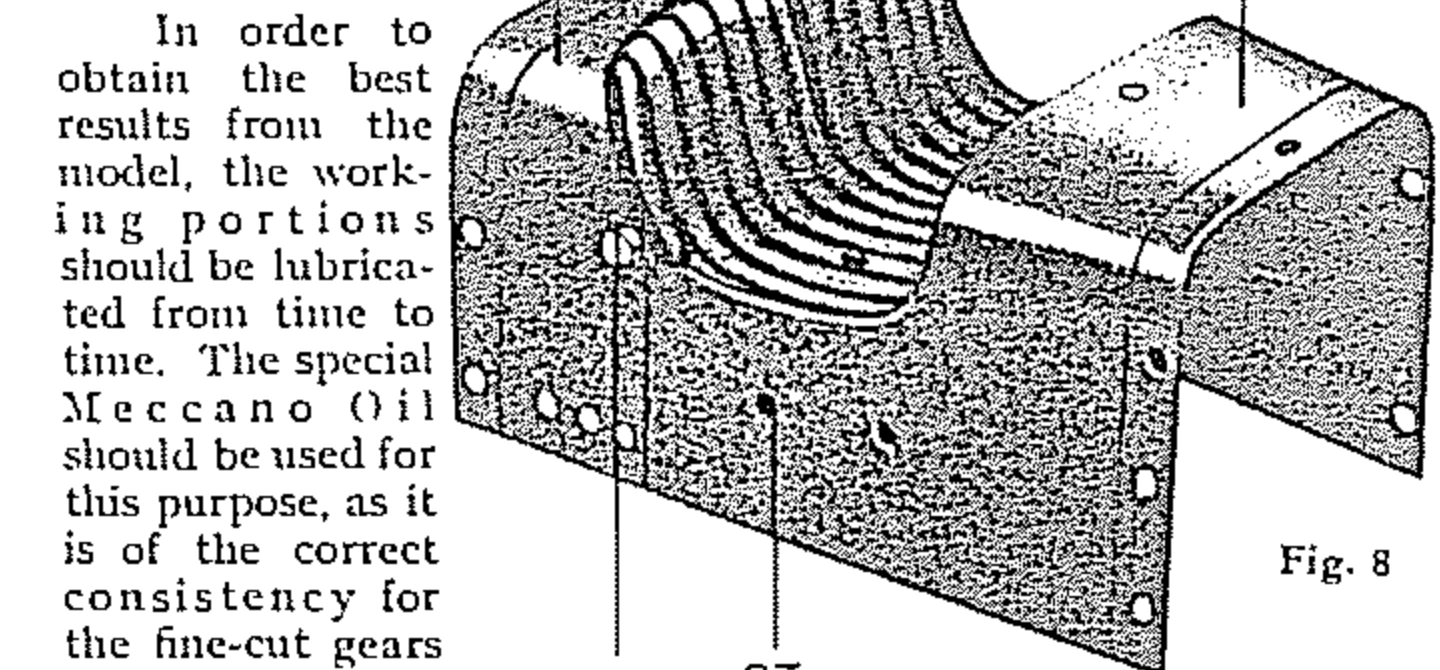


Fig. 8

In order to obtain the best results from the model, the working portions should be lubricated from time to time. The special Meccano Oil should be used for this purpose, as it is of the correct consistency for the fine-cut gears of the mechanism. The Oil may be applied by means of either a No. 1 or No. 2 Meccano Oil Can, the latter being the better suited to this purpose as it is an exact scale model of the "K" type oil can used by motor engineers.

Before the Motor is wound up the Brake Lever should be applied. It should be pulled back to the vertical position, but should not be forced beyond this, or damage may be done to the Brake Drum. The Motor should not be allowed to run down with the model off the ground, unless the thumb is pressed gently against one of the Rear Wheels to prevent these from spinning round too fast. If it is required to push the model along the ground without using the motor, the Pinion should be removed from the Rear Axle. On no account should the model be pushed along when the Pinion is in position, or the Motor spring may be broken.

When the model is completed it will race along at high speed, covering a distance of about 50 yards on one winding of the Motor spring. The front Wheels can be set for the car to travel straight ahead or to follow a curved path, and good fun can be had by making two chalk marks on the floor a considerable distance from the car, and setting the steering for it to travel between the two marks. If two or more cars are available exciting races can be arranged