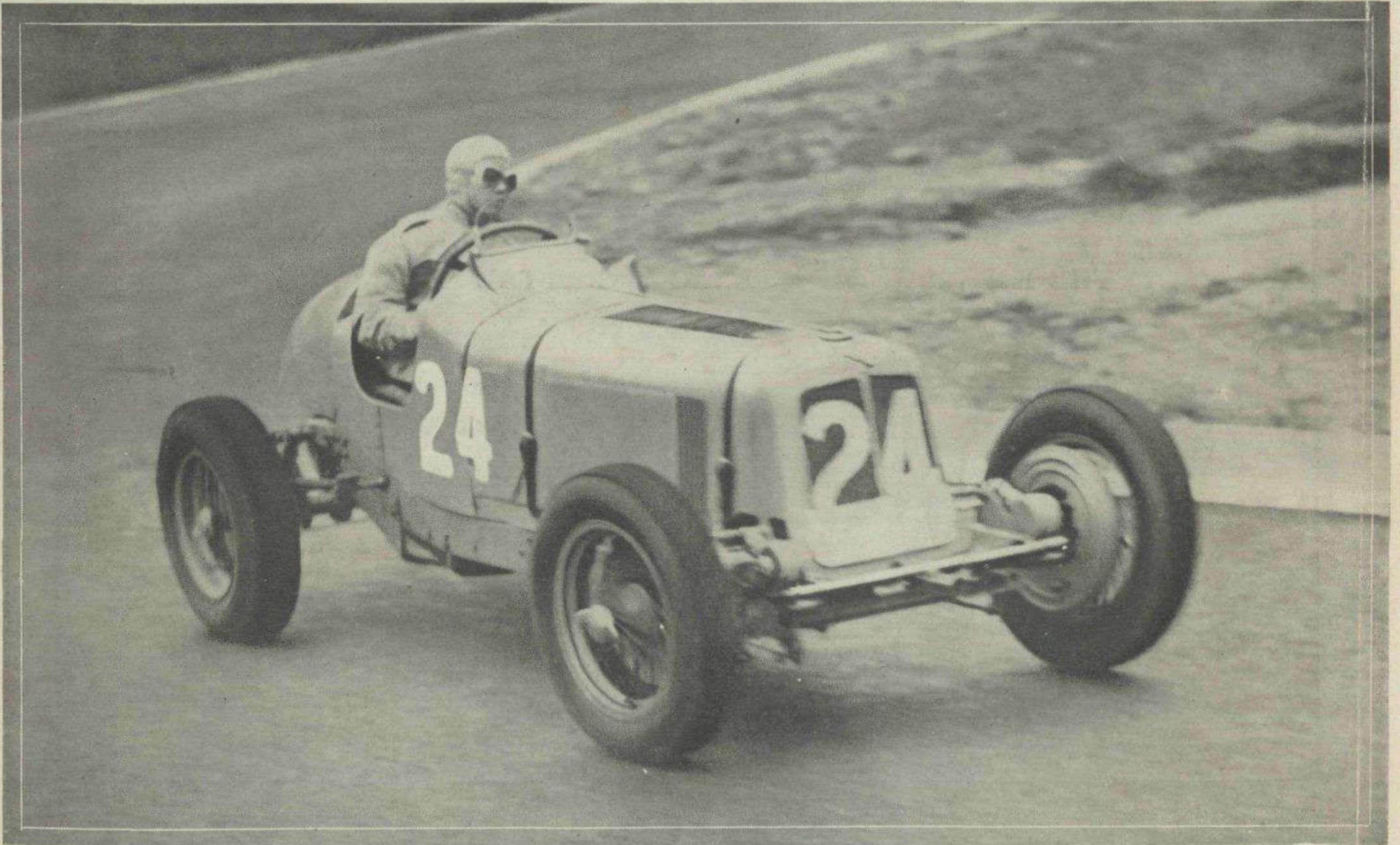


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VOLUME XIV.

(January, 1938 to December, 1938)

MOTOR SPORT,

Proprietors : THE TEESDALE PUBLISHING CO., LTD.

21, CITY ROAD, LONDON, E.C.1

1938

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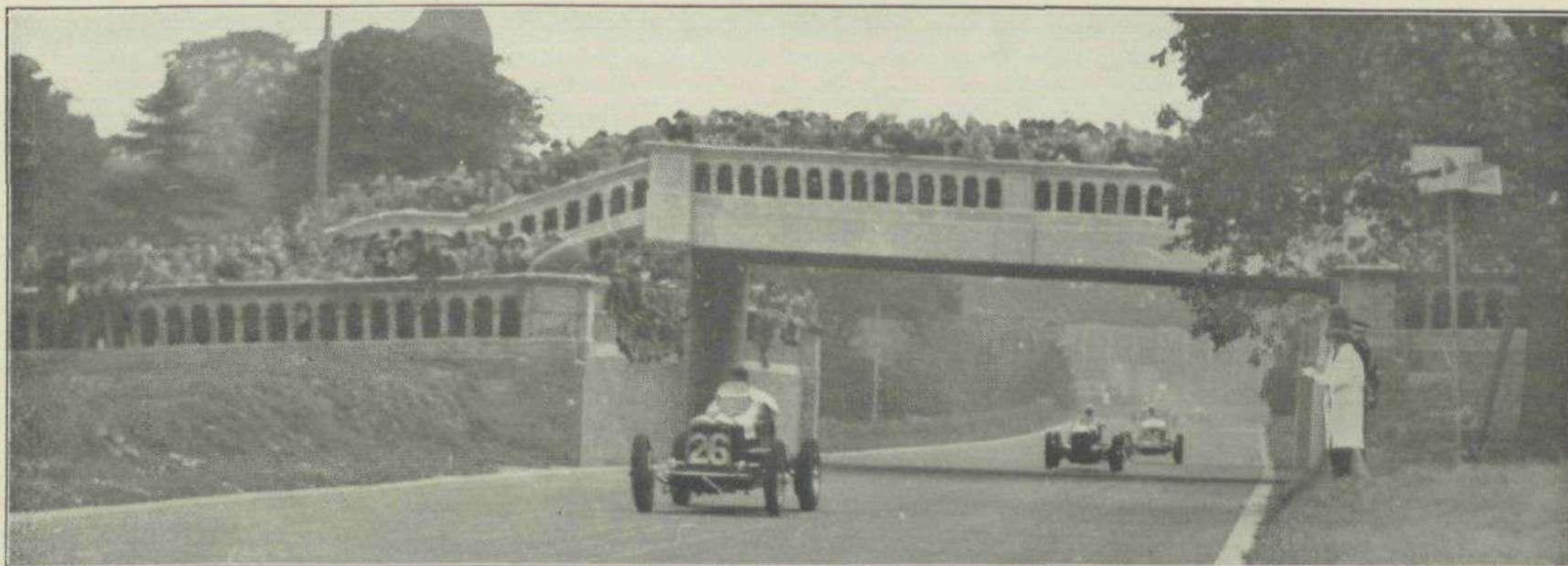
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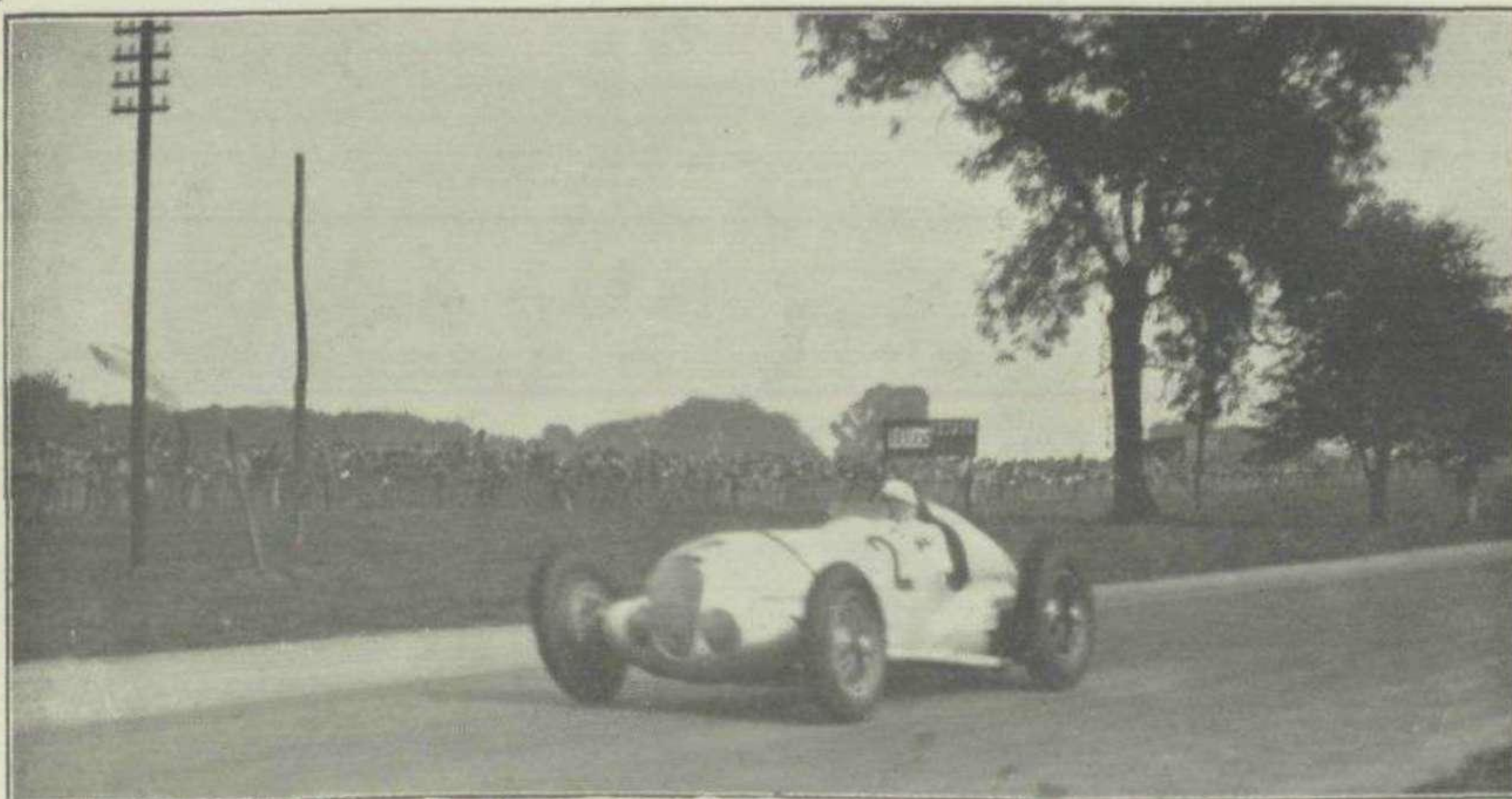
Earl Howe follows M. von Brauchitsch.

THE IMPERIAL TROPHY RACE. CRYSTAL PALACE, 1937



Charlie Martin leads the field.

THE DONINGTON GRAND PRIX, 1937



H. Lang (Mercedes-Benz) at 170 m.p.h.



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FOR SALE

Axles, front and rear for Riley Nine.....
 Austin body, 1927, four-seater, aluminium.....
 Austin Seven : 1929 engine and gearbox. Magneto ignition, engine, chassis, complete...
 " 3-speed gearbox, Austin special chassis frame.....
 Amilcar 8.9 h.p. Type C.H.S. Not run in since being rebored, and fitted with special alloy pistons. Crankshaft reground. New valves, double springs. High lift camshaft. New bearings for crank and camshaft. New crown wheel and pinion and bearings in back axle. New tyres and battery. Magneto, starter and dynamo overhauled. Aluminium louvred bonnet. Body not completed. Several spares available to purchaser.....
 G.P. front and rear axle.....
 A.C. Six cylinder head (approx. 1924) camshaft and crankshaft.....
 Back Axle for 8.9 h.p. Amilcar G.P., complete with hubs, shafts, crown wheel and pinion, torque tube, prop. shaft, etc., dropped front axle beam.....
 Bentley "B" type gearbox.....
 " All general spares.....
 " 3-litre Spares.....
 Bluemel telescopic steering wheel (unused). Several clockwise Bosch dynamos with distributor (4-cyl.) unused. Back axle (complete with shafts, brakes and drums).....
 Body, 2-seater built of dural on steel frame, suit M.G., Frazer-Nash, etc. Upswept cowling over steering wheel. Shape same as M.G. "Q" type, ready for cellulosing.....
 Bugatti Modified Brescia. Axle shafts, differential, crown wheel and pinion, straight tooth ratio 13/45, steering box, less column and wheel (new), crankshaft, ball bearings to centre and rear main, other journals plain, needs regrinding. Camshaft, 16 valve, all auxiliary J.O.H. drive gear, 4-cyl., S.E.V. magneto, as new, 12-volt starter, two dynamos 12-volt. 15 valves, as new.....
 " Brescia engine. 1½-litre, rebored, overhauled, fitted new pistons, bearings etc., has two carburetters, starter, distributor and clutch.....
 One camshaft.....
 Four road wheels (knock-on 21 x 4.50).....
 Camshafts and boxes, from Brescia Bugatti.....
 Racing camshaft for s.v. Anzani and parts to convert timing from chain to gear drive.....
 Carburetter, downdraught, suit Austin Seven.....
 " for Ford V8.....
 " Zenith triple diffused horizontal, 36 m.m. bore.....
 " Model 36 H.K. Horizontal Flange. 2½" between centre of bolt holes. Right-hand float chamber.....
 " (Two) Zenith N type Horizontal 36 m.m. top feed float chambers.....
 " 26 m.m. H.Z. Zenith.....
 " 26 m.m. triple diffused.....
 " R.A.G., suit Riley Nine.....
 " (New) racing 36 mm. Amal, with large assortment of spare jets and chokes
 Connecting Rods (tubular), Laystall for Austin Seven, size big ends 1½".....
 Cozette supercharger, No. 9 (clockwise) complete with drive suitable for s.v. Anzani engine.....
 Cylinder head with rocker gear for Riley Nine.....
 Chassis special single seater, complete with central steering (Marles), transmission (4.5 to 1, solid back axle), four new tyres, brakes relined. Only used in one speed trial.....
 Crankshaft, rear half of a two-piece Laystall, size of journals 1½".....
 Roller crankshaft and rods for s.v. Anzani.....
 Dunlop Competition tyres, tubes and wheels (interchangeable), nearly new, suitable for Ford Eight or Ten.....
 Dynamos.....
 Engine : Austin, 1927, engine and gearbox, without magneto and dynamo.....
 Blackburn V. Twin, 750 c.c. engine, all ready to fit to G.N. chassis. No magneto or carburetter.....
 G.N. full o.h.v. push-rod, 1,100 c.c. with many spares. Low compression pistons, and one high compression piston. Special large roller main bearings, high lift cams, drilled oilways, etc., in bits. Fellows magneto and single Zenith carburetter...
 1,500 c.c. s.v. Anzani, complete with magneto, dynamo, and starting motor, overhauled and in very good condition. Cylinder liners are fitted.....
 1927 Anzani Nash, polished axle, 3' 6" engine dismantled and overhauled. Talled

body with cowled radiator. Complete with wings, instruments, lamps, hood, etc. Needs assembling.....
 1,500 c.c. o.h.v. Meadows (push-rod) in pieces.....
 1,100 c.c. o.h.v. Salmson, complete with clutch and gearbox.....
 Zenith carburetter type 36 V.H., special exhaust system.....
 1,089 c.c. Riley engine, fitted special Ashby pattern magnesium electron pistons with rings. Comp. ratio 7.25 to 1, lightened flywheel, clutch, Duplex valve springs, twin S.U. carburetters and manifold. (No magneto, dynamo or starter). Suitable for a light chassis.....
 11.9 h.p. Morris Cowley engine, new piston rings, new S.U. carburetter, and H.C. gasket, Lucas magneto.....
 1923/4 Aston-Martin, side valve, engine (fixed head) special lightened con-rods, new pistons. (No flywheel, magneto or carburetter).....
 Talbot 10/23 h.p. engine and gearbox complete. Water pump, coil ignition...
 Two s.v. Anzani engines, good condition..
 Ford V8 and gearbox.....
 Frazer-Nash, One E.N.V. rear axle 4' 0", track 34½", spring centres, 14" diam. brakes, 42 Type Rudge-Whitworth hubs, unused.....
 One E.N.V. Wilson presselector gearbox, Type 110. Ratios 3.5 to 1, 2.25 to 1, top direct reverse 3.5 to 1. Also bell housing to suit No. 5 S.A.E. Flange unused. Chassis frame with 40" rear springs, unused.....
 Several twin port cyl. heads suitable for Meadows 12 h.p. engine.....
 Several cylinder blocks for various type of Anzani s.v. engines.....
 One s.v. Anzani engine suitable for supercharging. Fitted with roller bearing crankshaft and 100 ton steel connecting rods.....
 Several 710 x 90 Wire wheels (unused)
 Several V type windscreens.....
 Several folding windscreens.....
 Several spring spoke steering wheels, with centre boss to fit 1" diam. shaft
 One Frazer-Nash 3/4-seater body, complete with windscreen and seats.....
 Steering box.....
 Four normal, full length chains.....
 Sprockets.....
 18" steering wheel.....
 Powerplus 1½-litre engine. Special pistons and rods. 10 to 1 compression. Fittings for one or two carburetters. Complete with magneto.....
 Front axles (three).....
 Set of front axle clips.....
 FN latest type 100 ton back axle.....
 Frazer-Nash, Boulogne type, front axle 3' 8", complete with hubs, brakes, clips, springs, plates and shockers.....
 " Back axle, unassembled but complete with springs, radius rods and hubs. Bevel box with four-speed shaft and reverse shaft with bearing housings.....
 " frame, complete with gear level and brake shafts. Boulogne type body, four wheels with tyres and tubes.....
 G.N. roller bearing o.h.v. engine, H.C. pistons.....
 " Bosch magneto.....
 " transmission complete, and back axles.....
 " parts, cylinder barrels, heads, con-rods, timing-case and cover. Gauge, 14" dial blower.....
 " twin cylinder o.h.v. push-rod engine.....
 " chassis, equipped with high compression Morris Cowley engine and specially tuned. Would sell separately.....
 " Gearbox, four-speed, off 1934 Wolseley Hornet. front axle, steering box, wheels, countershafts, radius rods and sprockets.....
 " engine 90° V twin, 1,100 c.c. Two plugs per cylinder. Push-rod o.h.v., not quite complete.....
 Hartford shock absorbers.....
 J.A.P. engine and chain drive.....
 Lamps.....
 Lea-Francis, 1929 12/40. Complete set of gears, two axle shafts, differential with crown and pinion, clutch plate, lined, steering box, complete with wheel and controls, front brake drums, road springs, front and rear.....
 " 1930, 12/40 engine, back axle assembly, and four wheels.....
 " 1930 hyper model (parts available), rebored cylinder block, pistons (30 thou.), new con-rods and big ends,

cylinder head and valves. Wheels. Differential, complete with pinion, steering box and wheel. Front axle and assembly (brakes, etc.). Prop. shaft. Crankshaft (reground). Clutch (complete).....
 M.G. J.R. Racing, crankshaft (only used in one short race) crankshaft (used for two seasons), cylinder head complete with valves, springs, camshaft and all valve gear, etc. Three connecting rods, piston, front main bearing housing, one rear bell housing, dynamo, starter, flywheel, sump, valve cover, water pump (complete), distributor (complete), set of front timing gears, induction pipe, exhaust manifold, water manifold, B. R. 12 coil, set of clutch plates, oil filler body, and various oil pipes, all these parts can be sold separately.....
 M.G. J2 1933 One engine complete (damaged sump), four wheel caps (knock-on), one body (shell only), one windscreen without glass (fold flat), one rear petrol tank, one spare wheel carrier, one hood, tonneau cover and side screens, one rear axle assembly (complete), two rear springs, one front spring, two front hubs, one gearbox (without remote control casting), one speedometer and rev. counter (without drive) one oil gauge, cut out and fuse box, one prop. shaft (complete), two bucket seats, one set (four) shock-absorbers, one N/S front mudguard (cycle type)
 M.G. K3 Racing Magnette, spare crown wheel and pinion, crown wheel 44 teeth, pinion 9, new.....
 Magnetos.....
 Magneto, Scintilla, for Ford V8.....
 Morgan rear wheel, sprockets, two-speed bevel box, chains, propeller shaft.....
 " bevel shaft, specially made in high tensile steel, almost guaranteed not to bend. Fit model about 1927.....
 Morris 11.9 engine, rebored, all new bearings, new valves.....
 Meadows single port heads.....
 " block (not rebored).....
 " crankcase.....
 " sump.....
 " crankshaft with cone clutch.....
 " close ratio gearbox, complete with clutch casing.....
 " engine, complete 12 h.p. single carburetter (Solex), rebored and sleeved, Lucas magneto, dynamo and starter in good condition. Small wear in bores, good oil pressure.....
 " 12 h.p. complete blower, with roller bearing crank (No. 8 Cozette blower).....
 New Zenith horizontal carburetter for 12 h.p.....
 Pistons, two new H.C. alloy.....
 Petrol gauge.....
 Radiator, Morris beehive.....
 Rev. counter, Smith 2.1.....
 Scintilla Vertex, four cylinder.....
 Salmson 3-speed gearbox.....
 Solid back axle.....
 Front axle.....
 Transmission.....
 Flywheel.....
 Cylinder head.....
 Wheels.....
 Steering.....
 Sump.....
 Twin overhead camshaft.....
 Seat Covers and cushions.....
 Singer "Junior" tourer, good condition. No back axle. Chassis suitable for a "special".....
 Speedometer, Smith's A type.....
 Spring Steering Wheel, Ashby, as new, from 1934 Le Mans Aston-Martin...
 " Ashby, as new, from Rallton 1934, Series II.....
 Standard Big 9 1929 engine, clutch and gearbox, absolutely complete, but sump is damaged.....
 Steering gear less wheel.....
 Supercharger, from 1924 1½-litre Mercedes-Benz. (Roots type, gear-driven).....
 Supercharger, Marshall, new, complete with all fittings, suitable for Ford Eight or Ten.....
 Tyres, two 450 x 18 Dunlop Competition (ex Le Mans Singer). Done less than 1,000 miles and are unmarked.....
 Tyres, competition, Invicta tread, used once on Lancia Lambda, 780 x 150.....
 Continued on page 2

SECONDHAND SPARE PARTS—continued from page 1

Valves, set of K.E. for s.v. Anzani and sundry parts
 Vauxhall 30/98 o.h.v. engine and chassis. (All parts
 except crown wheel and pinion).....
 Vernon-Derby chassis (late) solid back axle, front
 axle, steering gear with spring wheel,
 front axle with brake assembly.
 Prop. shaft and four wheels with
 good tyres.....
 Van, Bedford, 2 ton, 27 h.p. twin rear wheels.
 Three years old. All tyres as new. Suitable
 for towing car to meetings. Very cheap.....
 Wheel, one wire (ex Le Mans Singer). Wheel in
 perfect condition, just been cellulosed.....
 Wheels, racing, one set, 42 mm.....
 Wings, pair of cycle.....

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Austin Spares : Starter
 Batteries
 Carburetters
 Dynamos
 Petrol Tanks
 Fold Flat Windscreen.....
 Front and Rear Axles
 Pair of doors (suit sports model).....
 Bucket Seats
 Pair of new Cycle-type Mudguards...
 Headlamps.....
 Wheels

Austin, Ulster : Dropped front axle
 Aero screen.....
 Manifold
 Remote control gear.....
 Racing magneto.....
 Downdraught carburetter
 Ulster body, any condition.....
 1928 gearbox, three-speed, extra large wheels for
 Austin Seven.....
 Alta cylinder head.....
 Alvis "blower" front drive, chassis, engine and
 drive
 Bentley Speed Six Induction manifold and twin car-
 buretter assembly, also quick
 lift camshaft.....
 Bugatti, modified Brescia. Cylinder block, valves
 in good condition, camshaft, with pulley
 drive for dynamo, oil pump, and 1 or 2
 con rods
 Exhaust Pipes, external.....
 Frazer-Nash front axle, suitable for Boulogne model,
 chains and sprockets.....
 Outside exhaust manifold and piping
 for fitting to Meadows engine (three
 port)
 T.T. replica body, rear petrol tank,
 or similar two-seater complete.....
 Stub axles, hub and brake gear.....
 Gearbox, light, for special chassis.....

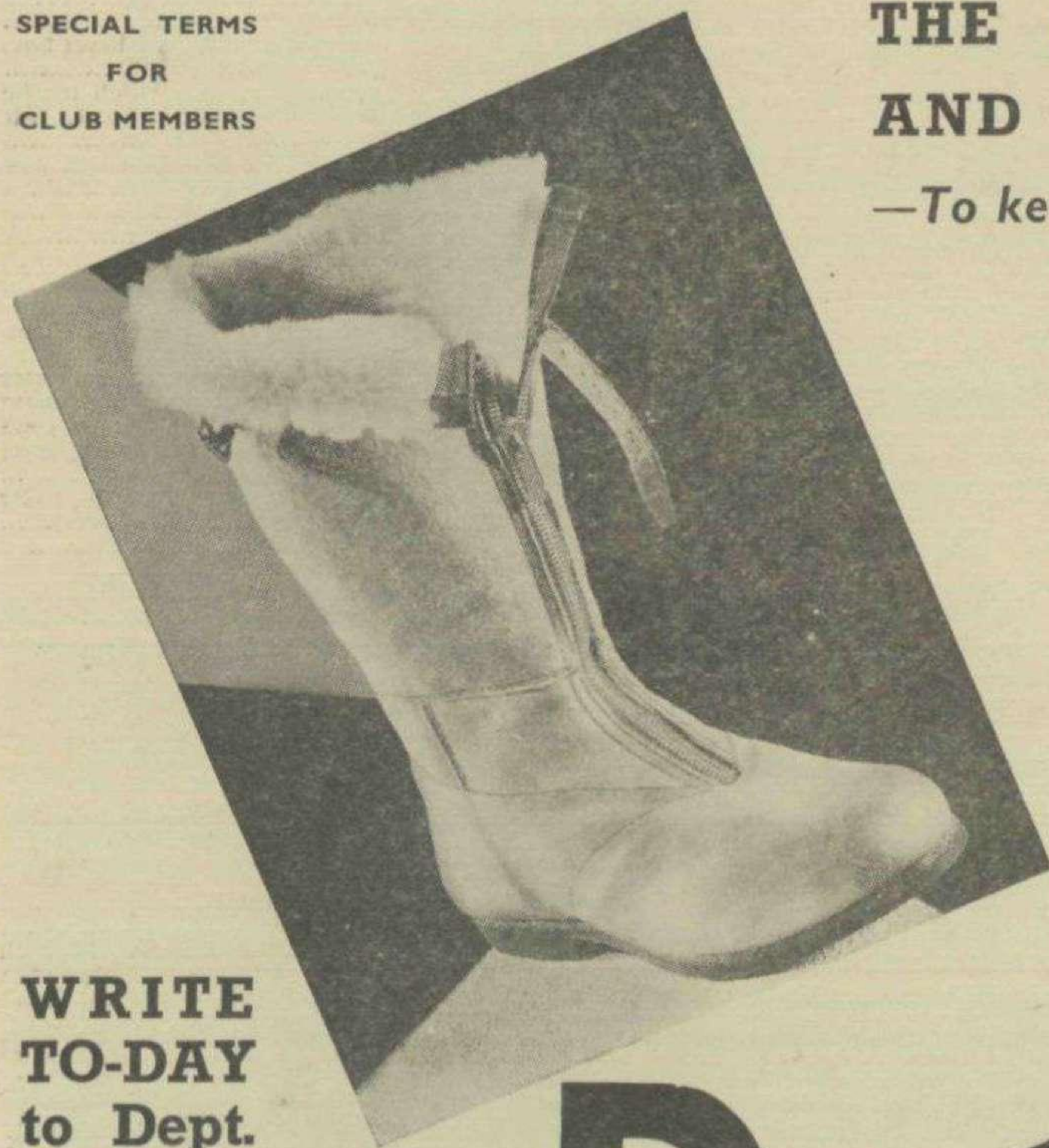
Headlamps. Fitted dipping reflectors, chromium
 plated, diam. of front, 8".....
 M.G. set of brakes.....
 M.G. J.2 Oil and radiator thermometer (dash-board
 type) and Tapley meter.....
 Spring wheels.....
 Type 37 1½-litre G.P. block (Bugatti).....
 Gearbox, 4-speed, for a 1930 O.H.C. Morris Minor...
 Cylinder head, complete with valves and rockers
 for a blown Lea-Francis (roller-bearing crank-
 shaft)
 6-volt battery, for motor-cycle (Exide).....
 6-volt battery, for car (Exide)
 Boyd-Carpenter body, any condition.....
 Brooklands Riley Engine
 " Series " with high lift cams and
 two carburetters
 Lea-Francis hyper sports engine, fitted with needle
 bearing, connecting rods and No. 9 blower.....
 Sturmey-Archer gearbox for Dunelt 250 e.c.....
 Instruction Book for 9.5 twin o.h.c. Salmson, 1926
 or 1927.....
 Spares for 1926 Delage tourer, D.I.S.S.....
 Particularly Required Rudge Spline hubs T47D....
 Two twin port Meadows, 12 h.p. heads.....
 Four con-rods steel, suitable for Meadows engine.
 Crown wheel and pinion. 10x47.....

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CLASHES ON THE CALENDAR

A CROWDED LIST OF INTERNATIONAL AND NATIONAL FIXTURES SCHEDULED FOR 1938

THE issue of the sporting calendar for 1938 reveals that never before has motor sport been so popular, for there is likely to be a greater number of events than ever—trials, races, speed events, rallies, hill-climbs, and what you will.

One wonders, however, whether this state of affairs is not becoming like a flourishing garden, where so many plants are allowed to thrive unchecked in close proximity to one another that all are in danger of being choked for want of room. This aspect, so far as trials are concerned, is dealt with elsewhere in this issue.

There are more than three hundred events already listed in the British calendar. Club representatives met last month at the R.A.C. to put in their applications for dates in the list now issued, but the list is not by any means closed. It may be noted that of the 335 permits issued during 1937 by the R.A.C. there were no fewer than 135 held on additional or altered dates subsequent to the publication of the calendar.

The practice of applying for additional dates during the season is to be deplored. There are cases where it cannot be helped, but in general the addition of unchartered events only makes confusion more confused. However, it is confidently anticipated by the R.A.C. that their task in the issue of permits for 1938 will not by any means be limited to the events now announced, so that the 1937 total will be greatly exceeded.

Twenty-one of the British events are International, and are included in the list given, but it must not be forgotten that there are a further sixty-two International events not given in the British calendar, making a truly gigantic total in all.

Even with the comparatively modest total of the international events, it has been impossible to avoid serious clashes. It has to be admitted that a number of the British events concerned are international only in status, and that none would be more surprised than the organisers if a strong foreign entry descended upon them. However, there is always this possibility, especially after the success of the Donington Grand Prix.

The first race for the formula cars is at Pau on April 10th, and since this is the day after the British Empire Trophy race, in which the new E.R.A.s are expected to make their debut, participation

in both would be difficult. Similarly the Tunis Grand Prix is the day after the International Trophy, and the Eifelrennen the day after the Nuffield Trophy. On the same day as the Eifelrennen is the Picardy Grand Prix.

A serious clash not involving a British event may be noted, for the French Grand Prix is on July 3rd, and the Vanderbilt Cup in the U.S.A. on July 4th. The probability that the French Grand Prix will,

most regrettably, be again confined to sports-cars eases the problem, but one camp is already on the horns of a dilemma, for the Ecurie Bleu, which has a contract for the Delahaye racing programme for next year, is likely to support the American race in preference to the chief event of its home country.

There is another clash between the Donington 12-hour sports-car race and the Belgian 24-Hour Race (presumably also for sports-cars), on July 9th and 10th. It is also unfortunate that only six days intervene between the Swiss Grand Prix and the 200-Miles Race, but Richard Seaman has proved in 1936 that it is possible to take part in both successfully. The 200-Miles Race, as already announced, will be at Brooklands.

Now to take the national events, the Brighton Speed Trials will take place on July 2nd this year, instead of in September, since its usual date has been occupied by the Dunlop Jubilee meeting at Brooklands, celebrating the fiftieth year of the pneumatic tyre. This latter, by the way, is an international event. In other years the Brighton Speed Trials have clashed with the M.C.C. Brooklands meeting, and, by a trick of the calendar, in 1938 the altered date clashes with the J.C.C. Brooklands Day. On the same day is a Vintage Sports C.C. meeting at Donington, not to mention a Southport meeting. On the following day is the second of the Bugatti club's Prescott hill-climbs, under an open permit. The first Prescott meeting, it will be noted, is on May 15th, under a closed invitation permit.

Easter and Whitsun fall very late this year, so that the Land's End Trial is not till April 15th and 16th, and the Edinburgh not till the beginning of June. A change of date is that for the North-West London M.C. Team Trial, which, usually in October, is now down for Easter Monday. No doubt the organisers wish to take advantage of the returning Land's End competitors. This places the event less than a week before the other big team trial of the year, that run by the "Sunbac."

The R.A.C. Rally is at a much later date than usual, taking place between April 26th and 30th. The Scottish Rally, which has put one over on the Sassenachs this year by achieving international status, owing to the Empire Exhibition, follows correspondingly late with Whitsun, from June 6th to 10th. The Southsea

TO ALL OUR READERS

We take this opportunity of wishing our many readers, both at home and abroad, the compliments of the forthcoming season.

In spite of the great increase in the prices of raw materials required to produce journals at the present time, MOTOR SPORT will be kept exactly the same as last year, both in its size and quality of production.

The price will continue each month as hitherto, **Sixpence per Month**

We are largely indebted to our paper suppliers, Messrs. W. D. Horrocks & Sons Ltd., and our Printers, without whose co-operation this would not have been possible. We tender them our thanks.

Here's Luck for 1938!

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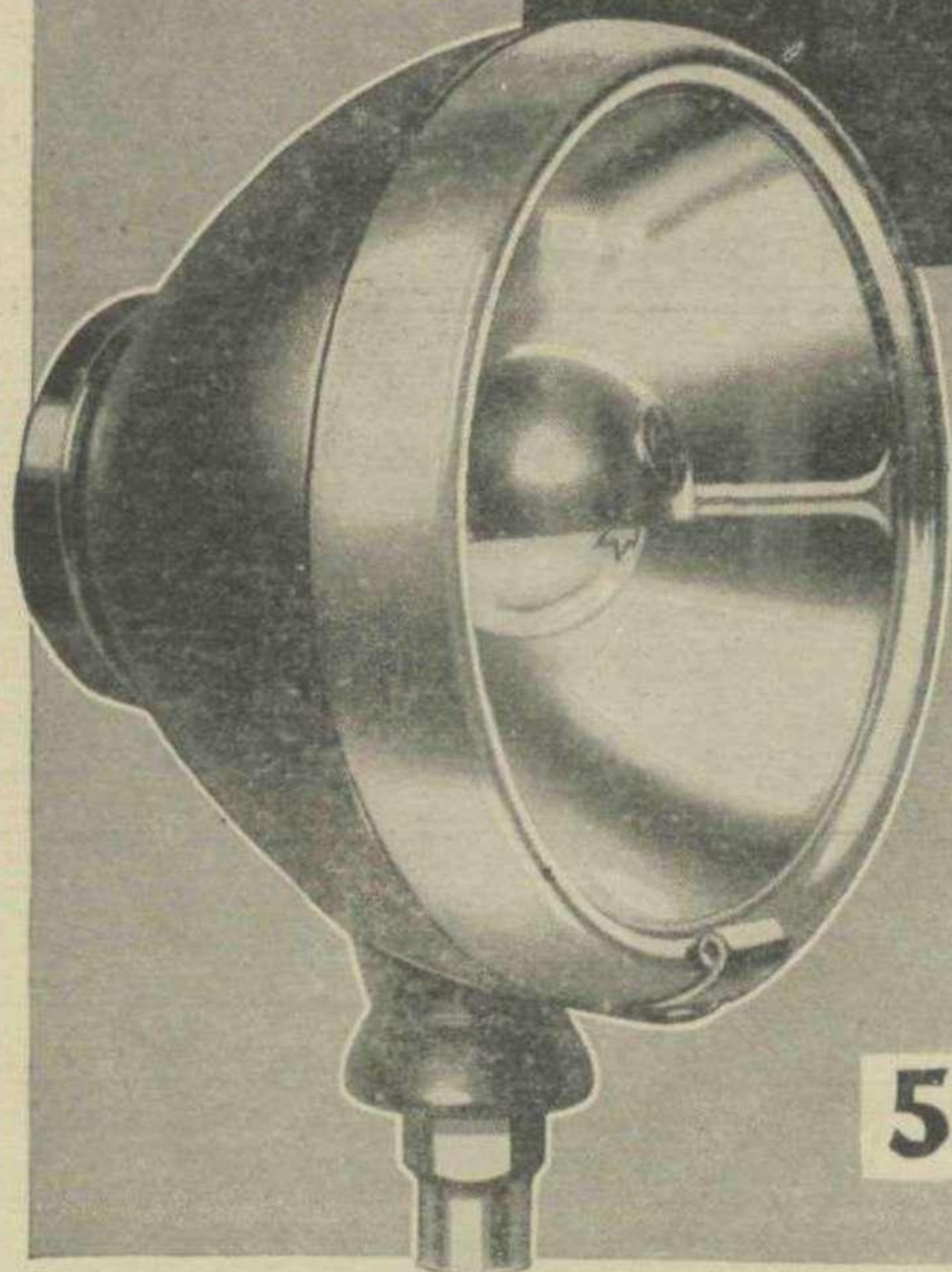


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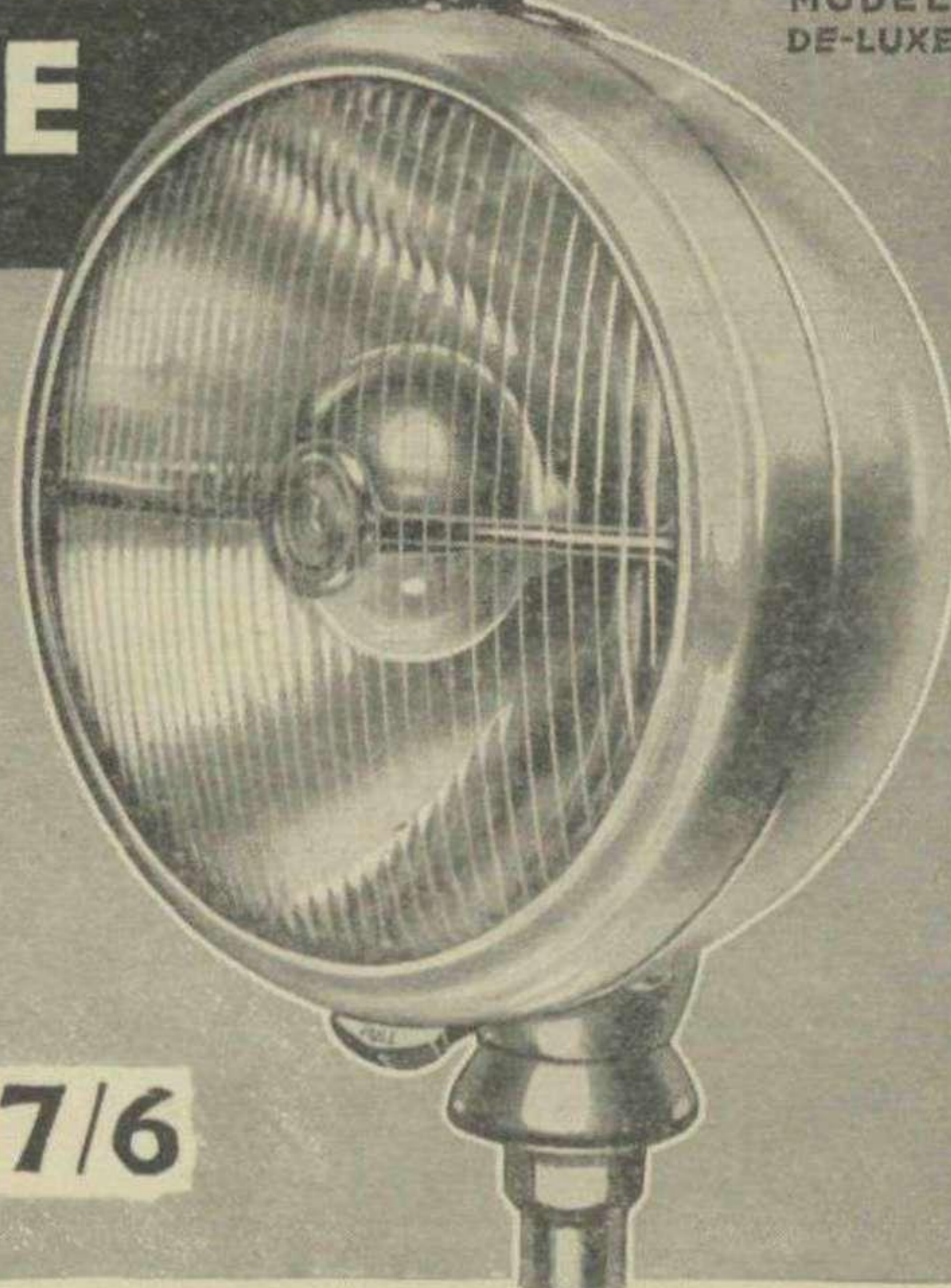
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CLASHES ON THE CALENDAR—continued

Speed Trials, incidentally, will now be found on Whit Saturday, instead of at the end of the season.

The Light Car Club, having abandoned the Relay Race, are to hold a new meeting at Brooklands on May 21st, of which much is expected. This date unfortunately clashes with one of the Crystal Palace meetings. On May 28th, those who wish to watch or take part in the first of the Shelsley Walsh hill-climbs or the popular N.W.L.M.C. Lawrence Cup Trial will be in a quandary, as both are on the same date.

The week-end nearest to mid-summer, or the longest day, is always a popular date. On June 18th the Stanley Cup meeting at Donington is to be held, by the Frazer-Nash C.C. This is the same

day as the start of the Le Mans race, and though this is not a serious clash, nor is the International race in Ulster likely to interfere, it is a great pity that the Brighton-Ber Trial should start the same night. This will necessitate much hurried journeying from Derby towards Salisbury Plain.

At the following week-end the M.C.C. have a new speed event, which at present is wrapt in mystery. As in the case of the L.C.C. event, a clash occurs with another of the Crystal Palace meetings.

A clash between the M.C.C. Rally, on July 15th and 16th, and the Welsh Rally has been averted by placing the latter event on July 20th-23rd., but on July 23rd the Midland Centre of the J.C.C. is to run a Donington meeting.

The Poole Speed Trials are on the same date as one of the Lewes meetings on August 20th, and the Bristol club's Backwell Hill-Climb is on the same day as the T.T. (September 3rd). The venue of the T.T. is still uncertain, but no doubt many who wish to compete at Backwell would have liked to see the T.T. The same state of affairs occurs at the following week-end, September 10th, when both Shelsley Walsh and the M.C.C. Brooklands meeting are to take place.

Trials without number clash with one another, and every week-end the sporting enthusiast can take his choice. There are only fifty-two week-ends in the year, and only about two-thirds of these are in the greatest demand. But what a demand!

BRITISH FIXTURES FOR 1938

International events in large type.

*Open events.

†Closed Invitation events.

JANUARY

7th-8th	Motor Cycling Club, Ltd.	Exeter Trial.
8th	Falkirk & D.M.C.	†Trial.
	Club of Nomad Motorists	Trial.
9th	Southsea M.C.	Trial—Petersfield.
16th	Margate & D.C.C.	Broadley Cup Trial.
	Ringwood M.C. & L.C.C.	†Jubilee Cup Trial—Hants, Dorset and Wilts.
23rd	Hagley & D.L.C.C.	Trial—West Midlands.
	M.G. Car Club, Ltd.	Chiltern Trial.
	Sunbeam M.C.C.	†Sunbeam Car Trial—Bagshot.
	Vintage Sports C.C.	Trial—Derby district.
29th-30th	Chiltern C.C.	Trial—Bucks, Berks & Oxon.
30th	Great West M.C.	Haward Tankard Trial—Surrey and Hants.

FEBRUARY

5th	Invicta Car Club	†Rally—Wales.
6th	Kentish Border C.C.	Stafford Clark Trial—Hants.
	Maldstone and Mid-Kent M.C.	†Trial—Kent.
	R.P.M. Motor Club	Trial—Durham.
	United Hospitals & U.L.M.C.	†Trial—Cotswolds.
12th	Bristol M.C. & L.C.C.	Full Moon Cup Car Trial—Bristol.
	N.W. London M.C.	Coventry Cup Trial—Kent.
13th	M.G. Car Club, Midland Centre	†Trial.
19th	M.G. Car Club (Scottish Centre)	Trial.
	Riley M.C. (London Centre)	Winter Trial.
20th	Harrow Car Club	Trial—Hants.
	Leicestershire Car Club	Bacon Trial.
	Margate & D.C.C.	†Wye Cup Trial.
	M.G. Car Club (N.E. Centre)	Trial—Harrogate.
26th	Scottish Sporting Car Club	Trial.
	S.S. Car Club	Speed Trials—S.S. Works, Coventry.
27th	Sutton Coldfield & N.B.A.C.	†Colmore Trophy Trial—Cotswolds
	Berkhamsted M.C. & C.C.	†Trial—Chilterns.
	Club of Nomad Motorists	†Trial.
	Southsea M.C.	†President's Trophy Trial—Portsmouth and Petersfield.
	Yorkshire Sports C.C.	†Team Trial.

MARCH

5th	Caledonian M.C.	†Trial.
6th	Birmingham University M.C.	†Spring Trial—S. Cotswolds.
	Hartlepool M.C.	Trial.
	West Hants and Dorset C.C.	Hartwell Cup Trial.
12th	Brooklands Automobile R.C.	*Opening Meeting.
13th	Hagley & D.L.C.C.	Trial—West Midlands.
	Margate & D.C.C.	Clifford Cup Trial.
	M.G. Car Club (S.W. Centre)	Skurray's Scramble.
	Vintage Sports C.C.	Trial—Chilterns.
19th	Cambridge University A.C.	†Inter-Varsity Speed Trials.
	West of England M.C.	†West of England Car Final.
20th	Great West M.C.	†London-Bournemouth Trial.
	Leicestershire C.C.	R.A. Webb Trial.
	M.G. Car Club (N.W. Centre)	"Follow the Leader" Trial.
	Southampton C.C.	Wadham Cup Trial—Southampton.
26th	Junior Car Club	Brooklands Rally.
	M.G. Car Club (Scottish Centre)	Trial.
27th	Brighton & Hove M.C.	Spring Cup Trial—Sussex.
	Middlesex County A.C.	Trial Middlesex & Herts.
	Newcastle & D.M.C.	Travers Sporting Car Trial.
	Yorkshire Sports C.C.	†Trial.

APRIL

2nd	THE ROAD RACING CLUB	CORONATION TROPHY RACE.
	Bristol M.C. & L.C.C.	Scampton Cup Car Trial.
	Derby & D.M.C.	Spring Handicaps—Donington.
	Invicta C.C.	Trial.
	S.S. Car Club	Buxton Trial.
	Women's Automobile & S.A.	Chilterns Trial.

3rd	Harrow Car Club	Trial—Cotswolds.
	Lancashire & Cheshire C.C.	†Derbyshire Sporting Trial.
	R.P.M. Motor Club	Trial.
9th	BRITISH RACING DRIVERS' CLUB	BRITISH EMPIRE TROPHY RACE—DONINGTON.
	Caledonian M.C.	Rally.
	Middlesex County A.C.	Efficiency Run.
	Veteran Car Club	Rally and Hill Climb.
	Westminster Sports C.C.	Speed Trial.
10th	Bugatti Owners' Club	Opening Rally.
	Liverpool M.C.	†Jeans Gold Cup Trial—Derbys.
	Margate & D.C.C.	Wing Cup Trial.
15th-16th	Motor Cycling Club, Ltd.	Land's End Trial.
16th-18th	Scottish Sporting C.C.	†Two Days Trial.
16th-19th	Ulster Automobile Club	*Circuit of Ireland Trial.
18th	BROOKLANDS AUTOMOBILE R.C.	EASTER MONDAY MEETING.
	Middlesbrough & D.M.C.	†Hill Climb—Swainby.
	N.W. London M.C.	†Inter Club Team Trial—Exmoor and N. Devon.
23rd	Chiltern C.C.	Trial—Bucks, Berks and Oxon.
	Junior Car Club (S.W. Centre)	Trial—Sussex, Hants, Surrey.
	M.G. Car Club (Scottish Centre)	†Speed Event.
	Middlesex County A.C.	British Car Competition—Herts and Middlesex.
	Club of Nomad Motorists	Trial.
	Sutton Coldfield & N.B.A.C.	†Inter-Club Team Trial—Midlands.
	Vintage Sports C.C.	†Speed Trials—Lewes.
24th	Berwick & D.M.C.	Trial.
	Brighton & Hove M.C.	Hill Climb.
	M.G. Car Club (N.E. Centre)	Trial.
	Standard Car Owners' Club	Southern Counties Trial—Chilterns.
	West of England M.C.	Novices' Trial.
	Yorkshire Sports C.C.	Rally to Grasshill Common.
26th-30th	Royal Automobile Club	*Rally—Blackpool.
30th	Southsea M.C.	†Speed Trials.
	Vintage S.C.C. & Mid-Surrey A.C.	†Grand Cup Trial—Hindhead, Petersfield area.
30th-1st	Leicestershire C.C.	Batbo Trial.

MAY

1st	Kentish Border C.C.	"Summer Trial"—Kent.
	Wye Valley A.C.	†County Cup Trial.
7th	JUNIOR CAR CLUB	INTERNATIONAL TROPHY RACE—Brooklands.
	Kent & Sussex L.C.C.	†Lewes Speed Trials.
	Middlesex County A.C.	Speed Judging Competition—W. Middlesex.
	Southport M.R.C. Ltd.	Sand Race Meeting.
	S.S. Car Club	Donington Handicap Races.
8th	Berkhamsted M.C. & C.C.	Speed Hill Climb—Dancers End.
	Civil Service M.C. (Manchester)	Trial.
	Southsea M.C.	Cannon Cup Trial—Petersfield.
	Yorkshire Sports C.C.	†Speed Trials—Wetherby.
14th	Derby and D.M.C.	Coronation Trophy Races—Donington.
	M.G. Car Club	†Abingdon Trial.
	Scottish Sporting C.C.	*Speed Event.
14th-15th	Junior Car Club	Rally & Trial—Malvern.
15th	Bugatti Owners' Club	†Prescott Hill Climb.
	Margate & D.C.C.	Jackson Cup Trial.
	M.G. Car Club (N.W. Centre)	Half Day Trial.
	Southampton C.C.	Safety First & Reliability Trial—Southampton.
	West of England M.C.	"One Day" Trial—Tiverton.
21st	THE ROAD RACING CLUB	SYDENHAM TROPHY RACE.
	Chiltern C.C.	Trial—Bucks, Oxon, Glos.
	M.G. Car Club (Scottish Centre)	Rally.
	Middlesex County A.C.	†North Devon Trial.
21st	Vintage S.C.C. and United Hospitals & U.L.M.C.	†Speed Trials—Donington.

BRITISH FIXTURES FOR 1938—continued

22nd Harrow Car Club... Driving Tests.
West Hants and Dorset C.C. ... Banfield Cup Trial.
27th-28th Riley Motor Club ... 24-Hours Trial—Southport.
28th MIDLAND AUTOMOBILE CLUB SHELSLEY WALSH HILL CLIMB.

JUNE

3rd-4th Motor Cycling Club, Ltd. ... Edinburgh Trial.
4th Southport M.R.C., Ltd. ... *Track Race Meeting.
5th Lancashire & Cheshire C.C. ... †Speed Trial.
6th BROOKLANDS AUTOMOBILE R.C. WHIT MONDAY MEETING.
Middlesbrough & D.M.C. ... †Hill Climb—Swainby.
6th-10th ROYAL SCOTTISH AUTOMOBILE CLUB EMPIRE EXHIBITION SCOT-TISH RALLY.
11th DERBY AND DISTRICT M.C. NUFFIELD TROPHY or 12-HOUR SPORTS-CAR RACE—Doning-ton.

JULY

2nd Brighton & Hove M.C. ... *Brighton Speed Trials.
Junior Car Club ... Members' Day—Brooklands.
Lancashire Automobile Club ... †Davis Trophy Trial—N. Lanes.
Southport M.R.C., Ltd. ... †Track Race Meeting.
Sutton Coldfield & N.B.A.C. ... Members' Half Day—Birmingham.
Vintage Sports C.C. ... †Race Meeting—Donington.
3rd Bugatti Owners' Club ... †Prescott Hill Climb.
Lancashire & Cheshire C.C. ... †Stott Trophy Trial.
R.P.M. Motor Club ... Trial.
West of England M.C. ... †Two Bridges Rally.
West Middlesex A.M.C.C. ... †Speed Trial.
9th DERBY AND DISTRICT M.C. 12-HOURS SPORTS-CAR RACE or NUFFIELD TROPHY—Doning-ton.
10th Oxtou M.C. ... †Trial.
Yorkshire Sports C.C. ... *Speed Trial—Wetherby.
15th-16th Motor Cycling Club, Ltd. ... Rally.
16th Cambridge University A.C. ... †Speed Trial.
Light Car Club ... Brooklands Meeting.
Middlesex County A.C. ... Hill Climb.
Midland Automobile Club ... *Madresfield Speed Trials.
Sporting Owner Drivers' C. ... Night Trial.
Women's A. and S.A. ... †Team Trial—Wales.
20th-23rd South Wales A.C. ... *Welsh Rally.
22nd-23rd Veteran Car Club ... Rally to Ramsgate.
23rd Junior C.C. (Midland Centre) ... Donington Speed Meeting.
Middlesbrough & D.M.C. ... †Saltburn Speed Trials.
29th Yorkshire Sports C.C. ... "Test Trial."
30th Mid-Surrey A.C. ... †Barnstaple Trial—Exmoor and N. Devon.
Southampton C.C. ... Hill Climb—Southampton.
Southport M.R.C., Ltd. ... *Track Race Meeting.

AUGUST

1st BROOKLANDS AUTOMOBILE AUGUST BANK HOLIDAY R.C. MEETING.
Hartlepool M.C. ... †Speed Trial.
6th M.G. Car Club (S.W. Centre) ... Driving Tests.
West Hants & Dorset C.C. ... *Poole Speed Trials.
13th THE ROAD RACING CLUB CRYSTAL PALACE CUP RACE.
Veteran Car Club ... Rally.

20th Kent & Sussex L.C.C. ... †Lewes Speed Trials.
Scottish Sporting C.C. ... †Speed Event.
Singer M.C. (Midland Centre) ... †Motor Competition—Birmingham and Cheltenham.
21st Middlesex County A.C. ... Lady Drivers' Competition.
Yorkshire Sports C.C. ... Trial—Scarborough.
27th JUNIOR CAR CLUB ... 200 MILES RACE—BROOK-LANDS.
Ulster Automobile Club ... *Craigantlet Hill Climb.
Vintage Sports C.C. ... Hill Climb—Prescott.

SEPTEMBER

3rd ROYAL AUTOMOBILE CLUB ... TOURIST TROPHY RACE.
Bristol M.C. & L.C.C. ... *Backwell Hill Climb.
Invicta C.C. ... †Speed Trial.
Middlesex County A.C. ... 100 Miles Trial—N. Wales.
Southport M.R.C., Ltd. ... Sand Race Meeting.
3rd-4th Leicestershire A.C. ... Night Trial.
4th Berkhamsted M.C. & C.C. Hill Climb—Dancers End.
Kentish Border C.C. ... K.B. "50" Trial—Hants.
Leicestershire C.C. ... Alan Clover Trial.
West of England M.C. ... Hill Climb or Trial.
10th MIDLAND AUTOMOBILE CLUB SHELSLEY WALSH HILL CLIMB.
Motor Cycling Club, Ltd. ... Brooklands Meeting.
North of Ireland M.C., Ltd. ... Portrush Flying Kilometre.
Yorkshire Sports C.C. ... Speed Trials—Wetherby.
14th Herts County A. & Aero C. ... †Speed Trial—Hemel Hempstead.
Sutton Coldfield & N.B.A.C. ... Evening Trial—Birmingham.
17th BRITISH RACING DRIVERS CLUB "500" RACE.
Middlesex County A.C. ... "Oakes Cup" Trial.
Club of Nomad Motorists ... Trial.
Veteran Car Club ... Rally and Trial.
M.G. Car Club (N.W. Centre) ... †Cockshoot Trial.
Southampton C.C. ... Dobbs Trophy Trial—N. Devon.
West Hants & Dorset C.C. ... †Knott Cup Trial.
Leicestershire A.C. ... Presidents' Cup Trial.
22nd BROOKLANDS AUTOMOBILE THE DUNLOP JUBILEE MEETING.
R.C. Chiltern Hills Trial—Bucks, Berks & Oxon.
Chiltern C.C. ... Annual Trial.
Junior C.C. (S.W. Centre) ... Trial.
M.G. Car Club (Scottish Centre) ... †Trial.
S.S. Car Club ... Southern Rally.
Standard Car Owners' Club ... Midland Trial—Cotswolds or Wales.
25th Bugatti Owners' Club ... *Prescott Hill Climb.
Civil Service M.C. (Manchester) ... Trial.
Lancashire & Cheshire C.C. ... Lakeland Trial.
Leicestershire C.C. ... Sturgess Trial.
Yorkshire Sports C.C. ... Test Trial—Doncaster.

OCTOBER

1st DERBY AND DISTRICT M.C. ... DONINGTON GRAND PRIX.
2nd Maidstone & Mid-Kent M.C. ... Trial—Kent.
M.G. Car Club (N.E. Centre) ... †Trial.
8th THE ROAD RACING CLUB IMPERIAL TROPHY RACE.
United Hospitals & U.L.M.C. ... Race Meeting—Donington.
Women's Automobile & S.A. ... London-Exeter Trial.
9th Ilkley & D.M.C. ... †Sporting-Car Trial.
Light Car Trial ... Buxton-Buxton Trial.
Southsea M.C. ... Hunt Trophy Trial—Petersfield.
Wye Valley A.C. ... †Hereford City Trophy Trial.
15th BROOKLANDS AUTOMOBILE AUTUMN MEETING.
R.C. Scottish Sporting C.C. ... Trial.
Harrow Car Club ... Trial—Chilterns.
16th Liverpool M.C. ... "Autumn" Trial—N. Wales.
Margate & D.C.C. ... Follow my Leader Trial.
R.P.M. Motor Club ... Charity Appeal Trial.
Motor Cycling Club, Ltd. ... Sporting Trial.
22nd Berkhamsted M.C. & C.C. ... †Trial.
Bugatti Owners' Club ... Welsh Trial.
Newcastle & D.M.C. ... †Sporting Car Trial.
29th Mid-Surrey A.C. ... †Experts' Trial.
30th Berwick & D.M.C. ... †Trial.
Chiltern C.C. ... Trial—Bucks, Berks, Oxon.
Leicestershire C.C. ... Browett Trial.
Yorkshire Sports C.C. ... Trial.

NOVEMBER

2nd Invicta C.C. ... Night Trial.
5th Club of Nomad Motorists ... Trial.
Scottish Sporting C.C. ... Anniversary Run.
6th Sutton Coldfield & N.B.A.C. ... Vesey Cup Trial—Midlands.
12th Bristol M.C. & L.C.C. ... †Roy Fedden Trophy Trial.
S.S. Car Club ... Bournemouth Trial.
Brighton & Hove M.C. ... Nov. Half Day Trial.
Great West M.C. ... Thatcher Trophy Trial—Chil-terns.
19th Margate & D.C.C. ... Ladies' Cup Trial.
Cambridge University A.C. ... †Inter-Varsity Trial.
Torbay & Totnes M.C. ... †English Riviera Trial.
19th-20th Bugatti Owners' Club ... Night Trial.
20th Hagley & D.L.C.C. ... †Trial—W. Midlands.
Harrow Car Club ... †Cottingham Trial.
Royal Automobile Club ... Veteran Car Run.
26th Sporting Owner Drivers' C. ... †Davis Trophy Trial.
27th Kentish Border C.C. ... †Nov. Sporting Trial—Kent.
Leicestershire C.C. ... †John Bull Trial.
Vintage Sports C.C. ... †Trial—Gloucestershire.

A VERY SUCCESSFUL CHRISTMAS TRIAL

THE FORD ENTHUSIASTS' FIRST TRIAL

The Ford Enthusiasts' Club Boxing Day Trial in the Petersfield area was a great success. Thirty-two entered and twenty-nine started, the non-starters being P. Pentony (M.G.), A. D. C. Gordon (Ford V8) and D. F. Scutts (L.M.B. Ford V8 taxi). The invited clubs supported the event as follows: N.W. London M.C., nine; Kentish Border C.C., six; Southsea M.C., five; United Hospitals, one; West Hants and Dorset, nil. The four hills were divided into sections with varying marks for climbing each section, a very popular arrangement. Most competitors failed at the foot of the Warren, but H. G. Symmons (L.M.B. Ford V8) and L. G. Johnson (Type 55 Frazer-Nash-B.M.W.) obtained 40 out of 50 marks and A. L. S. Denyer (Lea-Francis), C. E. Crump (Riley Nine) and G. M. Crozier (Ford V8) did very well. Lythe Farm, left hand road, proved fairly easy, the failures being L. Phillipson (Ford Ten), D. Bicknell (Standard saloon) and G. Burroughs (Ford V8) all using standard tyres to acquire 50 bonus marks apiece, and Haylock's Morris, McGillwray's blue Ford Eight saloon, Dyke Acland's ex-Musketeer unblown M.G. Magnette and Shackman's Rapier. The H.R.G.s were excellent and the "Jabberwock" Ford team most inspiring, after Koppenhagen had coaxed his engine into life.

Aduxus failed most people at the foot or in the first section, but H. G. Symmons with his new L.M.B. Ford V8 (built largely under J. Hodgins at the Kingswood Service Station, Watford) took 50 out of a possible 60 marks and C. S. Dewey (Riley Nine), M. S. Soames (Ford V8), G. E. Rose (Ford V8) and Denyer (Lea-Francis) were awarded 40 marks each, Denyer's passenger clinging to triple rear tyres and doing great work, in vigorous bouncing. L. M. Ballamy (L.M.B. Nine) was pushed down with signs of engine seizure.

Came Streatham Hill in two main sections, sub-divided. The low reaches proved fairly possible, but Bicknell decided not to attempt it on ordinary covers in an ordinary Standard family coach, and Ballamy blew the gasket of his L.M.B. and was towed away. Others getting no marks here were G. E. Rose (Ford V8), G. Burroughs (Ford V8), W. S. Bennett (M.G.), Dyke Acland (M.G.) and Shackman (Rapier). The first section of the second part of Streatham was also an acceleration test to decide ties, and here Crozier (Ford V8) had wretched luck, as his throttle control came adrift and he failed. H. G. Symmons (L.M.B. Ford) climbed steadily, his passenger half on the tail, Soames (Ford V8) got up with his passenger's aid, Dewey's Riley made it with axles dancing madly, and P. A. Meyrat, driving a Ford saloon bored out to 1,064 c.c., made an astonishing recovery and climbed clean after an extremely fine drive. Farley's H.R.G. just ploughed through, but Peter Clark's H.R.G. failed with success in sight. Loader's yellow drop-head '33 Ford V8 made a truly spirited ascent, but Koppenhagen was more cautious and Norton came to rest. Johnson was excellent with the B.M.W. and Dargue's sister car picked its way easily. McGillwray made a stout effort with his Ford Eight saloon, failing high up. Crozier's Ford V8, recovered from its trouble, came up with axles and wings aflap, but no marks, alas. Kirkman's ancient 12/50 Alvis, sans engine-room hatch, thundered up, its driver waving merrily in between tending the tiller. Rose (Ford V8) made a nice job of it, but H. B. Shaw (Ford V8) had nasty moments. Biggs (Frazer-Nash-B.M.W.), Denyer (Lea-Francis) and Crump (Riley Nine) were others who got full marks. Phillipson and Burroughs made a good showing on ordinary covers. In the timed section Symmons and Soames tied in 14½ secs., and Johnson took 15½ secs. The rules allowed marks to stand even

if competitors retired and Symmons, heading the list, thus won the Team Prize in conjunction with Ballamy. Tea was taken in good time at the Royal Huts Hotel at Hindhead and the results announced. The trial was organised by the well known trials drivers, Allard and Hutchison, aided by the F.E.C. committee composed of Messrs. Fry, Canham, and Boddy.

RESULTS

Premiers:

Classes A & B (merged): L. E. Phillipson (Ford Ten).
 Class C: M. S. Soames (Ford V8).
 Class D: A. L. S. Denyer (Lea-Francis).
 Class E: H. G. Symmons (L.M.B. Ford).
First-Class Awards: D. Loader (Ford V8), C. S. Dewey (Riley Nine), L. G. Johnson (Frazer-Nash-B.M.W.).
Second-Class Awards: V. S. A. Biggs (Frazer-Nash-B.M.W.), D. P. Kirkman (Alvis), and C. E. Crump (Riley).
Team Award: Specials Team:—Symmons and Ballamy (L.M.B.s).
Runners-up: Stutzarshwagen team:—Dewey and Dyer (Rileys).

FINAL PLACINGS

	Marks
H. G. Symmons (L.M.B. Ford V8).....	160
A. L. S. Denyer (Lea-Francis).....	140
C. S. Dewey (Riley).....	130
L. G. Johnson (B.M.W.).....	120
M. S. Soames (Ford V8).....	110
V. S. A. Biggs (B.M.W.).....	110
D. P. Kirkman (Alvis).....	110
C. E. Crump (Riley).....	110
E. K. Farley (H.R.G.).....	90
D. Loader (Ford V8).....	90
G. E. Rose (Ford V8).....	90
*L. E. Phillipson (Ford Ten).....	90
G. M. Crozier (Ford V8).....	90
H. B. Shaw (Ford V8).....	80
J. W. Dyer (Riley).....	80
P. Meyrat (Ford Nine).....	80
F. W. Dargue (B.M.W.).....	70
H. C. N. Norton (Ford V8).....	70
H. Koppenhagen (Ford V8).....	70
P. C. Clark (H.R.G.).....	70
L. M. Ballamy (L.M.B. Nine).....	70
*D. Bicknell (Standard) and *G. Burroughs (Ford V8) tie.....	60
E. G. Cook (M.G.).....	50
W. S. Bennett (M.G.).....	50
E. Haylock (Morris Eight).....	40
J. McGillwray (Ford Eight).....	30
D. Acland (M.G.).....	20
L. Shackman (Rapier).....	0

*Ran on standard tyres.
 (Order decided on times in acceleration test.)

LUCAS EQUIPMENT



LUCAS SPORTS COIL

Lucas electrical equipment has undergone many improvements for 1938.

Illustrated is the "Sports" coil, which is specially constructed to suit sports-car engines, regular sparking being ensured up to 10,000 r.p.m., as against 5,500 and 7,000 r.p.m. respectively for six and four-cylinder engines using standard pattern coils. The coil case is absolutely waterproof, being filled under pressure with bituminous material and sealed. For those who prefer magneto ignition the Lucas camshaft magneto is of great interest. Of vertical type, it runs at camshaft speed and will spark regularly down to 30 r.p.m. It is standardised on the 15/98 h.p. Aston-Martin. An attractive folder of Lucas equipment is available to readers, on mention of MOTOR SPORT, and therein will be found information relating to useful and practical equipment for your year's motoring. It is available from Messrs. Joseph Lucas, Ltd., Dept. 46, Birmingham.

J.C.C. 1938 RACING PLANS

The Junior Car Club announce that both of their races—The International

Trophy and the 200-Mile Race—are to be organised at Brooklands this year.

In the International Trophy, the popular new features of last year's event are to be repeated. First, the layout of the course is being used again, and it may be remembered that this particular circuit, which combines portions of the Campbell Road Circuit and the outer Track, gives spectators in the public enclosures the best possible views of all aspects of long distance racing. Then again, the brilliant spectacle of a rolling mass start will be a feature of the 1938 race.

The ingenious handicapping system is the special attraction of the International Trophy. An arrangement of "handicap" corners enables cars of differing engine sizes to race side by side and on equal terms over the same distance. Although a true handicap is provided, the race has all the advantages of a scratch event.

The International 200-Mile Race will be run on August 27th and it is probable that the "Campbell" circuit will be used.

KIMBER TROPHY TRIAL

STIFF BOXING DAY EVENT

When an enthusiastic club is supported by an entry of enthusiasts, the success of a trial is assured. Such was the case when the South Western centre of the M.G. Car Club held their annual Boxing Day fixture for the Kimber Trophy.

The day was dull but clear of the fog of the previous two days and the new course was certainly an exciting one, for at the last hill, Puddlebrook, no one gained the summit with a clean sheet.

Competition was hot for the Team Prize, there being an Austin Team, The Musketeers, and teams comprising such famous names as the Haesendonck Brothers, W. J. Green and Flower, J. E. S. Jones and Imhof (all M.G.s).

Owing to the clashing of dates with the Ford Enthusiasts Club Trial, the entry suffered somewhat, particularly as the North West London had received invitations to both events. However, some thirty starters left the Weston Hotel, Bath, for the first hill—Gipsy Lane—which was considered of insufficient note to warrant observation, but Uplands, the following hill, took heavy toll. A well known motor-cycle hill, it starts with a deep gully, and as the gradient increases, one is confronted with a steep left-hand bend. The stones and thick clay surface caused the first driver, F. D. Gilson (Allard Special) many anxious moments, but after some wild slides he reached the top unaided.

Interposed with the twenty-three failures were well judged climbs by W. J. Green, J. E. S. Jones and members of the Austin and Musketeer teams. The Austins jumping through the gully was a most exhilarating spectacle. N. Terry (B.M.W.) was unfortunate in failing within a car's length of the "Section Ends."

Timsbury Hill, a continuation of the old Roman Fosseway, followed by Douglas Hill both accounted for few failures, and as Castle Hill was unobserved competitors had comparative breathing space before the Special Test at Doynton Lane.

The experienced E. H. Goodenough was in charge of this test, devised to handicap those with locked axles, and in this and

the brake test which followed at Christmas Harry E. J. Haesendonck showed his superiority. Had he not failed on Uplands he would undoubtedly have gained the premier award. Imhof, at this stage, had the misfortune to retire with a rear axle complaint.

Then came that freak of nature consisting of about one hundred twisting

managed to use about ten yards of the second section, but were still far from the top. They were assisted the rest of the way by tractor, with the exception of Langley who was more or less lifted to firmer ground.

And so, very much travel-stained, the competitors arrived at The White Hart, Ford, where the results were announced



J. A. Bastock at the Doynton Lane Special Test.

yards of narrow, steep and very muddy lane, called Puddlebrook. This ascent had previously been used in classic motor-cycle events, but never before by cars, and for this event was divided into two sections. The first man to make an attempt, N. Miller (Singer), proceeded just beyond the "Observed Section Begins" card. Many almost reached the end of the first section but were by that time axle high in mud. These were backed down the hill to take a by-pass. Then at intervals came E. J. Haesendonck, Gilson, Macdermid, Buckley (Austin), and A. B. Langley (Austin), who all

during tea, and there followed an impromptu "down-stage" party, forming a fitting close to such a day of toil.

RESULTS

Kimber Trophy (best performance): J. E. S. Jones (M.G.).

Spencer Trophy: A. B. Langley (Austin).

Vice-President's Challenge Trophy: F. D. Gilson (Allard).

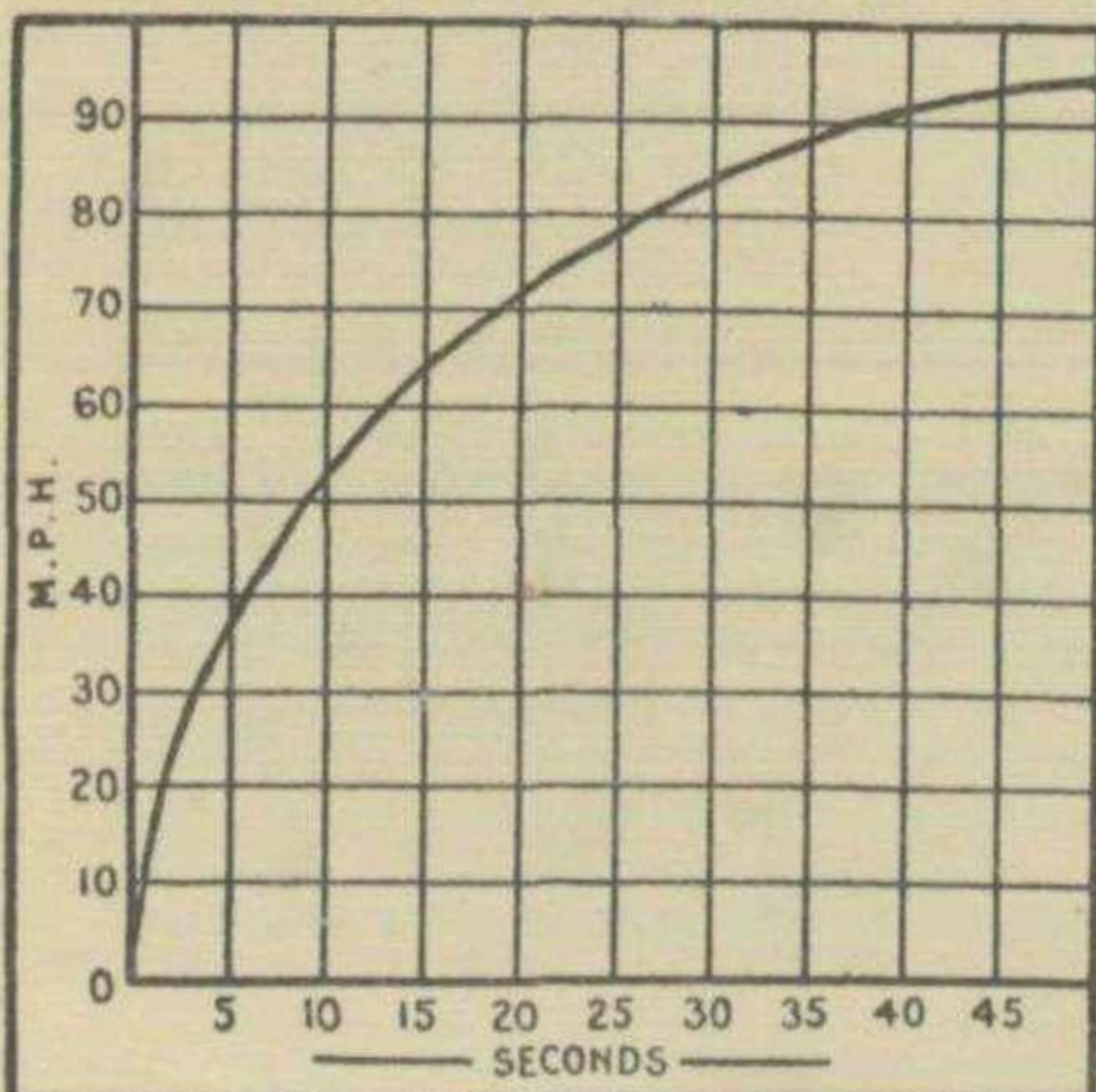
Triangle Cup: P. S. Flower (M.G.).

Welch Trophy (team prize): The Three Musketeers (Macdermid, Bastock, A. H. Langley, M.G.s.).

First Class Awards: Buckley, Macdermid, Green, E. J. Haesendonck, Bastock, A. B. Langley.

Second Class Awards: N. Grove (M.G.), J. S. Guest (M.G.), E. C. Haesendonck (M.G.), A. E. Frost (B.M.W.).

THE 3½-LITRE DELAHAYE



This speed chart was omitted last month.

LE MANS 24-HOUR RACE

An important number of entries for the Le Mans 24-Hour Race, to be held at Le Mans, June 18th-19th, has already been received.

I. For the Final of the XIIIth Bi-Annual Cup 1937-1938

1. Roger Labric (car unspecified).
2. Darl'mat (Peugeot 1,500 to 2,000 cm.).
3. Darl'mat (Peugeot 1,500 to 2,000 cm.).
4. Darl'mat (Peugeot 1,500 to 2,000 cm.).
5. Automobiles Adler (Adler 1,500 to 2,000 cm.).
6. Automobiles Adler (Adler 1,500 to 2,000 cm.).
7. A. C. Scott (H.R.G. 1,500 cm.).
8. R. P. Hichens (Aston-Martin 1,960 cm.).
9. J. E. Vernet (Simca 1,100 cm.).
10. Miss Stanley-Turner (M.G. 936 cm.).
11. A. Gordini (Simca 1,100 cm.).

II. Eliminary of the XIVth Bi-Annual Cup 1938-1939

1. Roger Labric (car unspecified).
2. M. Horvilleur (car unspecified).
3. Darl'mat (Peugeot 1,500 to 2,000 cm.).
4. Darl'mat (Peugeot 1,500 to 2,000 cm.).
5. Darl'mat (Peugeot 1,500 to 2,000 cm.).

6. Automobiles Adler (Adler 1,500 to 2,000 cm.).
7. Automobiles Adler (Adler 1,500 to 2,000 cm.).
8. A. C. Scott (H.R.G. 1,500 cm.).
9. R. P. Hichens (Aston-Martin 1,960 cm.).
10. J. E. Vernet (Simca 1,100 cm.).
11. Miss Stanley-Turner (M.G. 936 cm.).
12. Louis Villeneuve (car unspecified).
13. Brussels (car unspecified).
14. Clark (H.R.G. 1,500 cm.).
15. Thomas H. Wisdom (car unspecified).
16. Sir John Hoyale (car unspecified).
17. A. W. Fox (car unspecified).
18. Pierre Ferry (Riley 1,500 cm.).
19. Lerraud (car unspecified).
20. F. Stanley-Barnes (car unspecified).
21. Pierre Pichard (car unspecified).
22. Norbert-Jean Mahe (Talbot over 2,000 cm.).
23. Jacques Savoye (Singer 1,100 cm.).
24. Victor Camerano (Simca 1,100 cm.).
25. Elliott (Triumph 1,500 cm.).
26. Amedee Gordini (Simca 1,100 cm.).
27. Amedee Gordini (Simca 1,100 cm.).
28. Amedee Gordini (Simca 1,100 cm.).
29. Amedee Gordini (Simca 570 cm.).
30. Kenny-Livic (car unspecified).

ON A VISIT TO TWO OF LONDON'S SPORTS-CAR FACTORIES

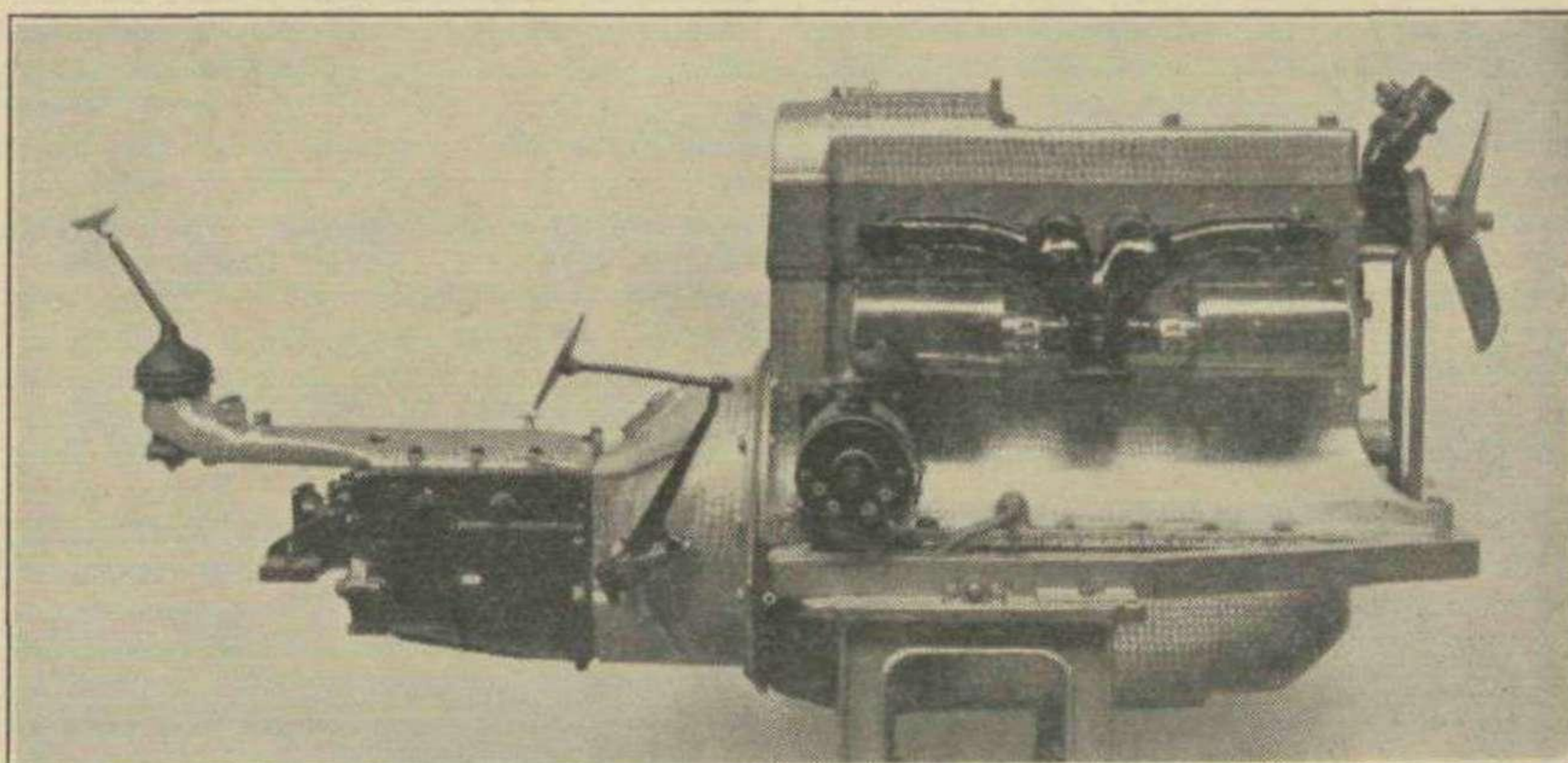
MANUFACTURERS of mass-produced cars are grouped round the big industrial centres of the Midlands, such as Coventry and Birmingham, while one very highly esteemed British sports-car is built at Derby. But around the outskirts of London are to be found quite a number of firms producing some of our best sports-cars. Recently I visited some of these factories to get some idea of how British sports-car production is going, in an age when the manufacturer of war-materials looms large in engineering production. I have in each instance come away with a very good opinion of our sports motor cars and cheered by the fact that quality productions are still available from British factories. I hope my briefly recorded impressions of what I saw on what had to be flying visits to some of London's sports-car factories will show people that we can lead the world when it comes to quality motor-car construction, a matter which I hope will get home not only to our English readers, but to those exiled about our great Empire, those over on the Continent and to enthusiasts in the U.S.A.; indeed to people in all those countries where MOTOR SPORT has a substantial, regular circulation.

I went first of all to the works of British Salmson Aero Engines, Ltd., which, as all Londoners must know, is situated off the Merton spur of the notorious Kingston By-Pass road. This concern commenced to manufacture a British version of the famous French Salmson in 1933. The present range of cars comprises the 12 h.p. and 14 h.p. four-cylinders and the 2½-litre 20 h.p. six-cylinder sports model. The four-cylinder engines are in big-quantity production in France, and the designs were unmodified when production was commenced in this country, but the Six, although based to a large extent on the original engine, is the work of the British designs staff. The British-Salmson engineers aim to provide really high-class cars of exceptional performance. The engines are all twin o.h. camshaft units, as was that of the famous 1,100 c.c. Salmson beloved of true enthusiasts a dozen or so years ago. The camshafts operate the inclined valves via piston-tappets, and the drive is by vertical shaft and beautifully machined skew gears. The camshafts are of case-hardened nickel steel, running in phosphor-bronze bearings, and each one has a four-load central balancing cam to ensure smooth functioning. Other high-lights of British-Salmson specification that are appreciated when examining the cars in course of construction include the grouped chassis lubricators; the two-piece aluminium crankcase with heavily-ribbed main bearings, of 45 ton steel, white-metal lined; the statically and dynamically balanced crankshaft; the very accessible ignition distributor, which can be replaced by a magneto, if so desired; the crankshaft-driven dynamo; the battery-master switch; alloy scuttle and separate instrument-panel; four-wheel jacking and "real" radiator, etc. The high finish of engine and components

cannot fail to be appreciated in this era of tin-pressings.

I was shown round the works. They lie back from the road, approached by tidy gravel-drives and are a series of single-storey buildings. At the front the offices, waiting-rooms, etc., run the full length of the building and behind, at a lower level, open out the machine-shop foundries, stores, test-room, service department and so forth. All machining is done on the premises. The main machine-shop has the milling, drilling and other machine tools well spaced, with drive by individual overhead belts, so that operatives can get at their jobs easily and inspectors and transporters move about freely. I was impressed at the quietness of this big

operation. The 14 h.p. model is the chief line, and although introduced less than two years ago, some thirty-five to forty are now in owners' hands. The "six" is built to special order. Production varies from about three to six cars a week. Every facility is extended to owners and prospective owners to go round the works and during my visit I saw about half-a-dozen complete four-cylinder and two six-cylinder chassis. In inspecting them one particularly notes the sturdy box-section frame construction, the use of enclosed propeller-shafts, independent suspension by transverse leaf spring on the 14 h.p. and 20 h.p. cars, and the employment of substantial gaitered quarter-elliptic rear springs,



The 6-cylinder engine of the 16/80 h.p. A.C. Ace.

shop, in which some fifty tools must have been in operation. It was possible to converse without shouting. And let me say here and now that the British-Salmson works are spotlessly clean, airy and noticeably free from fumes. The different departments are divided by sliding doors and the car-engine assembly room is naturally lit by windows in the roof. Originally much of the work comprised the production of British-Salmson radial aero-engines, for installation in the popular B.A. "Swallow" low-wing monoplane (née Klemm), amongst others.

Today there is less demand for small aero-motors, and the factory is kept at full capacity producing parts for various aircraft companies. Parts for aero engines and aeroplanes are turned out in quantity to extremely rigid and exacting specifications. The interesting thing is that the cars are built in batches so far as the major components are concerned, the "fours" in batches of fifty and the "sixes" in batches of twelve at a time. Consequently, when a given batch is completed, the workers are transferred to aero-motor and aeroplane work, which cannot fail to reflect on the car chassis in point of skill and pride of workmanship, apart from providing a welcome change of routine. I saw car-engine cylinder-heads, crankcases, flywheels, and valve-gear components in store, but production is so arranged that assembly is practically a continuous

even for the "six." A single carburetter is found satisfactory on the fours, with twin instruments on the "six." Cylinder blocks are not specially hardened, but a minimum mileage of 40,000 is claimed before re-boring is necessary, with very low oil consumption. The 12 and 14 h.p. cars do 70 m.p.h. comfortably in closed form and the sports "six" exceeds 90 m.p.h. Engines are motored round electrically for six hours after assembly and then run at varying speeds on the brake for six to eight hours. The completed chassis does some 300 miles on the road before going to Putney for its bodywork, after which a further 150 miles or so is done on test. Every six-cylinder power-unit is put on the bench, and test readings are observed, before it leaves the works. I was told that they found very little demand for open bodywork and now concentrate on drop-head coupes and saloons on the smaller chassis. A saloon body was introduced for the "six" two years ago. Remembering the trials-type two-seater body on this chassis to have been replaced at the last show by a smart two-seater with spare wheel enclosed in the tail, I enquired if the former type were obsolete. I was told that as the 2½-litre is built to special order it is still possible to specify the body with slab-fuel tank and provision for carrying two comp.-shod spare wheels, if desired. The "six" was not designed as an ultra-fast car, but rather as a really sturdy quality sports

ON A VISIT TO TWO OF LONDON'S SPORTS-CAR FACTORIES—*continued*

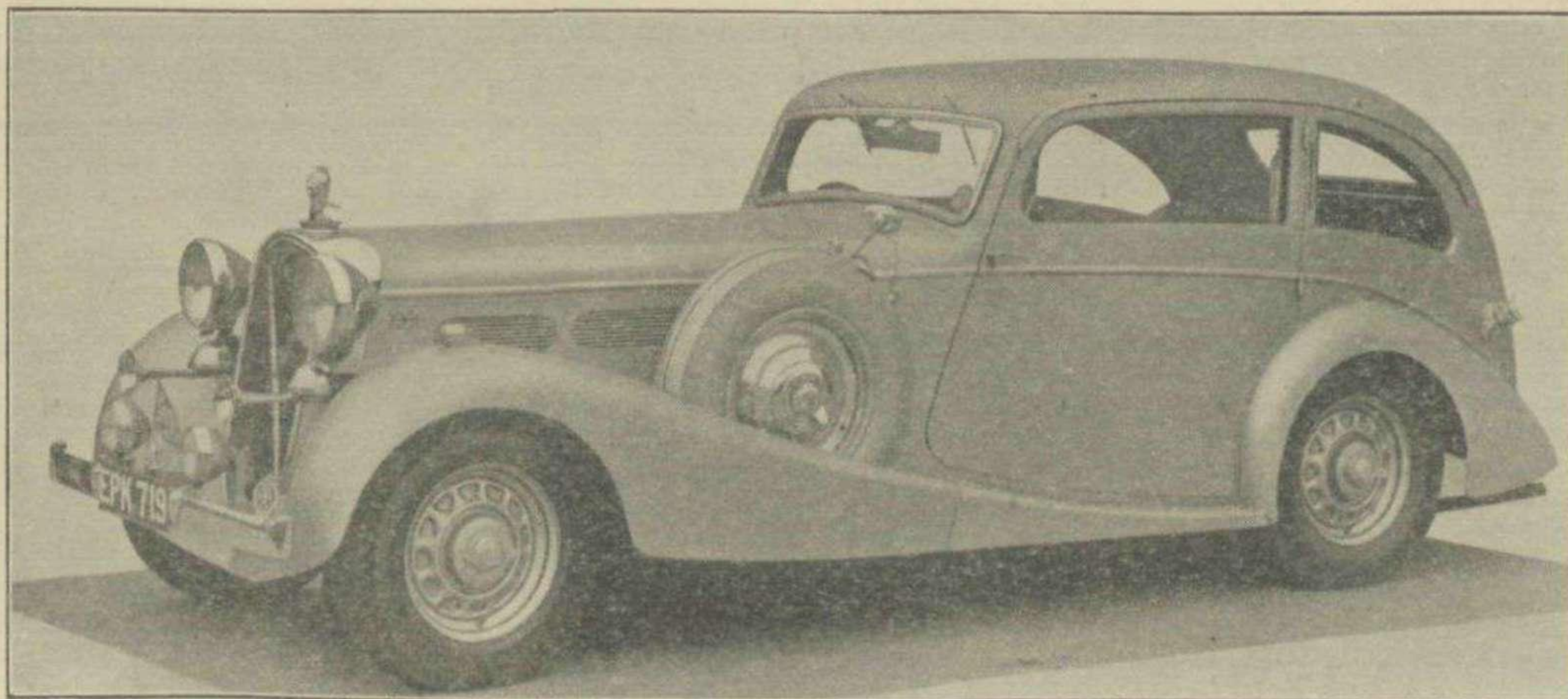
car able to exceed 90 m.p.h. and with an efficient engine providing excellent acceleration in spite of the solidity of construction. The yellow two-seater with which W. C. N. Norton gained many competition successes is now used as a demonstrator. I was informed that the twin-camshaft head is expensive to produce, but not complicated as to assembly, and they consider it justifies itself in point of power-output. Amongst the well-established components and materials used at the British-Salmson works are Solex carburettors, Rudge wire wheels, Lucas lighting and starting equipment, Plymax fireproof facias, Luvax shock-absorbers, Jordan artillery wheels, Smith's "Jackall" jacks, Ashby steering wheels, Lockheed brakes, Triplex safety-glass, S.U. carburettors on the 2½-litre, and Dunlop tyres. Tackled about really small aero-motors, I was informed that even a 3-litre, properly designed and built, would involve some £40,000 before production commenced and that there were insufficient suitable baby aeroplanes to justify it, while his company was not interested in complete aeroplane construction. I left with the happy impression that, as we once before observed in MOTOR SPORT, British-Salmson cars are assembled with precise accuracy by men accustomed to the unhurried construction of aeroplane engines—which probably explains the maker's ability to offer a two years' guarantee . . .

The A.C. works, which I visited just before Christmas, are situated at Thames Ditton, in Surrey, facing a cluster of shops in a narrow village street. They look much more imposing than formerly, because a very modern showroom has been constructed recently beside the offices, and its windows front onto the street. Six immaculate A.C.s stood on the polished wood floor when I paid my visit, each one displayed to perfection by diffused lighting from eighteen round-globed lamps hanging from the ceiling. Thus prospective purchasers of an A.C. are enabled to inspect the range of models in leisure and comfort, while combining study of the finished product with a tour of the works in which the cars are produced. I had the good fortune to

be conducted round by Mr. D. F. Scutts, whom I have previously associated with in M.C.C. trials. The A.C. works consist of a single building with the different departments grouped round three sides of a square, and one has the impression that doubling the output would in no manner of means result in congestion or cramping of space. The workers, numbering about one hundred, engaged in car construction, reflect pride in good workmanship, such as is associated with a limited quantity production like the A.C. The A.C. Company originated in 1909 and established itself by selling the curious little A.C. Sociable tricar, of which many readers will have heard and some even encountered on the road. At Thames Ditton they proudly preserve one of these cyclecars, and at times even take it out for an airing. Driver and passenger sit together in a sort of coal-scuttle in the front, steering is by cross-tiller, and a single-cylinder air-cooled engine drives the single rear wheel through a change-speed hub, like that on those tradesmen's runabouts still used by the Dunlop Rubber Co. Ltd., for London deliveries, these being supplied by the A.C. Company. After the War S. F. Edge took the Company in hand and thereafter it has prospered exceedingly, though that pioneer sportsman and great business man has long relinquished the helm. Those early post-war days were historic ones for A.C., much record-breaking being indulged in, including the first 100 miles in the hour by a 1,500 c.c. car. They even listed a racing single-seater in 1924, priced at £1,000, as we described in the first volume of "The Brooklands Gazette." In the engine department I was introduced to "Jock" Watts, who has been with the Company since the beginning. He told me that the existing 2-litre six-cylinder engine was evolved towards the close of the War and put into production in 1921, having a skew-gear-driven o.h. camshaft and single carburettor. In those times it gave about 45 b.h.p.; to-day it is made in three types giving 60, 70 and 80 b.h.p., respectively. The original alloy construction with wet cylinder liners is retained, but a new crankshaft is used,

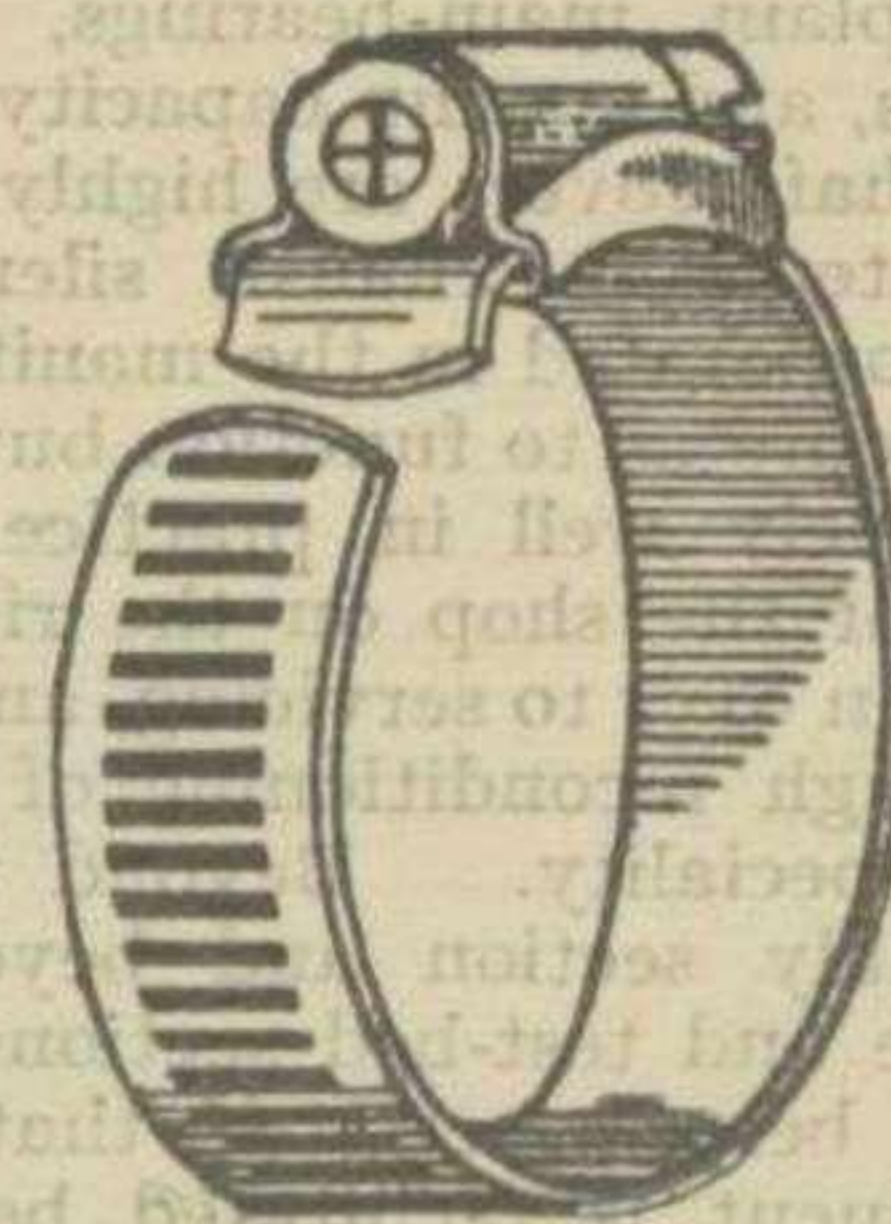
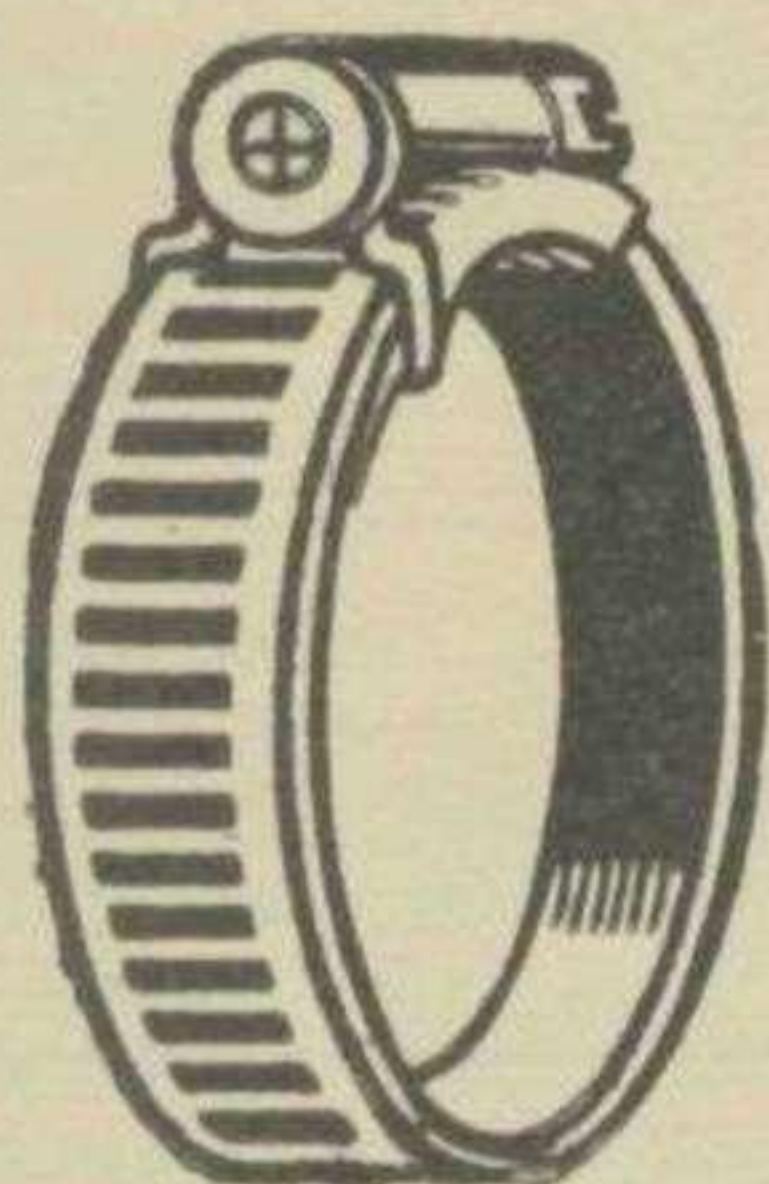
the camshaft is driven by duplex chain, the liners are now a shrunk-fit with modified base-sealings and the compression ratio has gone up from 4 to 1 to as much as 7.5 to 1 on the 16-80 unit. Actually, ratios of 6, 6.5 and 7 were used on the three types, until recently, but another half-ratio is now permissible all round, without spoiling an A.C.'s inherent silkiness. The sports unit also has a special head with different valves, but uses the same camshaft; a special camshaft is available but results in less smooth running low down. Triple S.U. carburettors are used on the modern engine and when I jokingly said to Mr. Scutts that Robert Brewer had long ago proved a single instrument adequate, he silenced me by saying that they obtain just the same fuel consumption as with a single carburettor, and that old cars in for servicing display no synchronisation troubles, but that snap acceleration from 20 to 30 m.p.h. or so and ease of starting is vastly improved by using triple instruments. Actually, a single Stromberg can be fitted if preferred. An Arnott vane-type compressor is now listed as an extra and fitted at the works, and with it much improved performance is possible with a fuel consumption of 19 m.p.g., and no alterations of importance are involved. Indeed, a demonstration assembly was fitted in the course of a Saturday morning's work.

Every A.C. engine goes on the test-bench and is run in under power from the start. First it is run at 1,000 r.p.m., then at 2,000 r.p.m. and is then gradually stepped up to its maximum, full readings being taken before it goes into a chassis. This testing period occupies twelve hours and is equivalent to 500 miles running-in. The completed chassis then does forty miles or so on the road before receiving its body and Mr. Scutts finally drives a similar distance during a final check-over. Two Heenan and Froude dynamometers are used, set side by side in an open shop, a tribute to the silence of A.C. engines. Inspection of chassis in course of construction reveals that the A.C. has those features one has come to expect of high-quality hand-built cars. Ordinary channel side members are



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ON A VISIT TO TWO OF LONDON'S SPORTS-CAR FACTORIES—continued

used, tied by a very rigid cross-bracing and underslung at the rear, and equipment includes built-in jacks, telecontrol shock-absorbers all round, and automatic chassis lubrication. The engines are very carefully assembled and have five plain main-bearings, inclined o.h. valves, and a sump capacity of 1½ gallons. Camshaft covers are highly polished and a patented exhaust silencing system is incorporated in the manifolding, which is obscure as to function but which works extremely well in practice. The first part of the shop on the right-hand side is given over to servicing, and particularly thorough reconditioning of elderly A.C.s is a speciality. Beyond is the chassis assembly section and beyond that the engine and test-bed sections, no dividing walls being used, so that freedom of movement is facilitated between operatives in different departments. The works are notably clean and orderly, but, I thought, rather dimly lighted. Against the farther wall, as it were, is the body-building shop, and I was interested to learn that all body building is completed on the premises, except for the panel-beating, which is done by outside specialists. The bodies are hand-built of seasoned ash framing with screwed joints, which is panelled in 18 gauge aluminium. I was most interested to learn that a speciality is made of building to clients' individual designs or incorporating any desired detail modifications, so that very few A.C.s are exactly the same, in spite of which delivery is completed within three to four weeks and steady flow production is maintained. As proof of this I was shown a fixed-head coupé with an 18/80 engine, and an 18/80 sports two-seater with a non-standard screen. And I was told that a Sedanca de Ville body had quite recently left the works to the order of a lady client. The 16/80 sports two-seater, unlike the car we tested last July, now has a chassis level fuel tank and a smart tail, with ample space for side-screen storage and for luggage, covered by a metal cover, which is so much more practical than a fabric covering. After my recent attack on the slime-storming influence this bodywork change

cheered me not a little! The A.C. people find a definite demand for open cars but, like other makers of exclusive quality cars, they claim to meet it thoroughly satisfactorily by offering good drop-head coupé bodies. I was told that about 55 per cent. of their total output consists of Foursome dropheads, about 15 per cent. Twosome dropheads, and that the remaining 30 per cent. is spread over fixed head coupés, saloons, four-seaters, and the 80 to 90 m.p.h. 16/80 competition two-seater. These bodies can be finished in any combination of colours and some clients, I was assured, crave curious blends. American readers will be interested to know that open-bodied A.C. models are in demand for export to the U.S.A.

Continuing round the shop one comes to the machine-shop—or section, as it is unenclosed. Here considerable work is now devoted to the manufacture of aircraft parts, such as bomb-racks, etc., for the Bristol and Fairey concerns. But in direct contrast to British-Salmson's method, those employees so engaged do no car work. Outside the range of machine tools are stored partly completed cars. Then comes the paintshop, which naturally is a shop, and can accommodate three or four cars at a time. Bodies are spray-painted, likewise wings and chassis parts, but they are not stove-dried. The head painter told me a lot of interesting things about the grooming of assembled A.C.s. Something over a dozen different coats are applied, the number of final coats depending on the particular colour, and I can quite believe that the resultant finish is equivalent to that of specialist coachbuilders who make the coachwork that graces Rolls-Royce and other aristocratic chassis. It takes four days to paint an A.C. and the job is done again if it does not pass Mr. Scutt's strict scrutiny. Beyond the paintshop is the final adjusting and checking shop, entered through sliding doors. Here I saw a fixed-head coupé, a sports 18/80 two-seater and a saloon in the final stages of completion. One engine had Scintilla Vertex magneto ignition, which the purchaser had specified

in place of the standard coil system.

In thus examining cars in course of construction one notices all manner of points which escape attention at other times. For instance, the wire-mesh anti-splash stone-guards under the wings, and the ingenious hammock-seat on the fixed head coupé, which normally rolls up beneath the opening rear window, but can be let down to accommodate two persons, making the coupé a six-seater, or accommodating four occupants under cover. So we arrived back at the offices, where tea was brought to me from the canteen which A.C.s maintain for the convenience of their employees. It was interesting to reflect that although the present A.C. engine dates back in its fundamentals to 1918, the chassis has entirely changed since the days when every A.C. had quarter-elliptic suspension and the gearbox as part of the rear axle—cause of prolific letters from S. F. Edge to the motoring papers. To-day half-elliptic springing is used and the gearbox, with synchro-mesh on second, third and top and remote control, is in unit with the engine and optional ratios are available. Amongst the well known components and materials used by the A.C. Company as standard equipment or approved extras are S.U. carburettors and fuel pumps, Andre shock-absorbers, Hardy-Spicer propeller-shafts, D.W.S. jacks, Lucas electrical equipment, Dunlop and Goodyear tyres, Phillips radio, Lucas and Notex fog-lamps, Cornercroft wheel discs, Wilson pre-selector gearboxes, and Arnott superchargers. Although the marque has a handsome list of competition successes to its credit the works themselves do not enter cars, leaving the field clear to private owners, many of whom make use of the A.C. service department in preparing their cars. Prospective purchasers are always made welcome at the works. A.C. have several clever slogans in their existing catalogue, but, examining my immediate reactions to the visit to this old-established British sports-car factory, I felt the most appropriate one to be: "Tailor-made at the Savile Row of Motordom—A.C. Cars, Thames Ditton . . ."

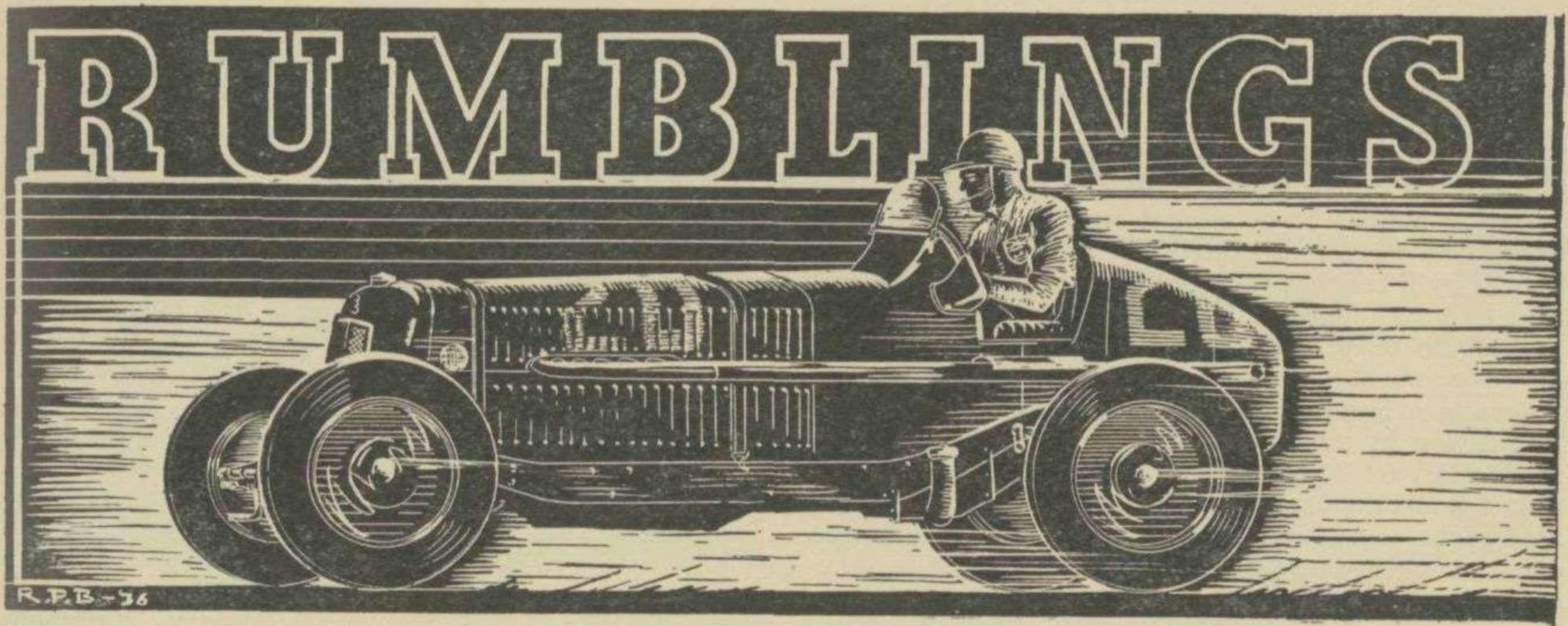
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For the Coming Season

A VISIT to the Bellevue Garage racing shop is always of interest and Wilkinson never fails to imbibe one with fresh and stimulated enthusiasm. I called there last month and found the place well stocked with racing-cars, a sight enough to make one forget the icy, windswept London streets without. Fleming's ex-Horton M.G. Midget, sister car to Major Gardner's record-breaking Magnette, stood beside the famous Magic Magnette single-seater. John Dugdale's unblown racing M.G. Magnette stood beside J. H. T. Smith's very fast Zoller-blown Magnette. Billy Cotton's M.G. Magnette, which has been well wrought upon by Wilky to good effect, kept company with Cotton's ex-Seaman E.R.A., to which minor alterations have been made for next season's racing. I was shown the engine of Boyle's Alta, all ready for action, having maintained 6,200 r.p.m. on the bench for considerable periods without disaster and giving power-readings after rebuilding that pleased Wilky very much indeed. The chassis is being converted by Bellevue to independent suspension at the front, on the Alta vertical-guide coil-spring system, but with modified springs to give a stiffer action.

R. Esplen's white R-type M.G. Midget has been given pressure in place of electric fuel feed, new crankshaft, bronze head, and a new streamline under-shield, and it will probably figure in important long-distance races, future South African events possibly included. Kenneth Evans's monoposto 3-litre Alfa-Romeo, of German G.P. fame, is at present in hibernation, but the engine will shortly be put on the bench to get it in trim for Formula contests. An additional fuel-tank will be installed, to reduce pit-stops. Denis Evans's well known sprint M.G. Midget has had yet a little more avoirdupois clipped from it. At Brighton last year this car proved a serious rival to Hadley's Austin, in spite of weighing almost twice as much. Other interesting cars were the 100 m.p.h. six-carburettor off-set M.G. Magnette, for sale at £285, an R-type M.G. with McEvoy-Pomeroy twin-cam head, recently overhauled, considered by Wilky to be the best of the twin-cam examples, at £225, an L-Magna

M.G. sports job with which Eyston once took long distance records at Montlhéry, for under £100, and a Hupmobile saloon used for tests in the Alps by a carburettor inventor. Kenneth Evans is looking forward to the 1938 season, and keeping in trim by daily driving his sports Alfa-Romeo. As before, his pit will be managed by his father, whose personal car is a very fine Siddeley-Special saloon. Many owners of sports M.G.s and other makes get their extra horses at Bellevue, where the estimates are far more moderate than the elaborately laid-out premises suggest. Two T-model M.G.s, one with special streamline wings incorporating in-built lamps and Dunlop 16" x 6.5" tyres, and a P-Midget to which they have fitted a blower, were there during my visit. Bellevue are proud of the fact that every year their staff is given a week's holiday with full pay and that no one is put off during the winter season. Indeed they will soon be taking on more mechanics.

A Straight-Eight 1½-litre

Wilkinson is very busy, when not looking after his clients, in preparing an extremely interesting car which he hopes to drive personally in the leading 1½-litre events this coming season, if pressure of business permits. This is a straight-eight 1,100 c.c. twin-cam Maserati, of which two came to these shores about eight years ago. Wilky's car was driven in the 1931 Double-Twelve by Widengren and Oats, finishing 19th at 64.14 m.p.h. and third behind two Rileys in the 1,100 c.c. class. Wilkinson created something of a record, as he had a portable welding plant in the pit and welded up a broken exhaust pipe to the scrutineer's astonishment. Mrs. Wilkinson also created a record, for she watched the race throughout the twenty-four hours. The Maser. lapped at around 76 m.p.h. I believe the same car, with racing body, ran in the 1931 Irish G.P., but suffered water-leakage. Wilkinson was with it when it crashed sensationally into a sandbank in the T.T. The engine is a beautiful piece of work. It is of elektron throughout. Originally there were wet cylinder liners, but dry liners are now used, bringing the capacity up to 1½-litres, on

RUMBLINGS—continued

which the shallow cylinder head was skilfully shrunk. There are water passages between each cylinder. The crankshaft runs on double ball-races, and new H-section rods will replace the existing tubular rods, the cost of these alone coming out at £70. New Hepolite pistons have been designed. The fully inclined valves are operated by twin o.h. camshafts driven by a train of beautifully-made gears, each running on a ball-race, at the front of the unit. The inlet valves are tulip, the exhausts domed, and the plugs are set vertically, in the centre of the heads, fired by magneto, a layout of which Wilky approves. Sump lubrication by single pump is used. A new German-made Derbuel Roots-type blower will be fitted, running up to 10,000 r.p.m. This blower is of extremely high-grade construction, with steel rotors and gear-drive at both ends. The ribbed casing is reminiscent of the now defunct Berk. Very fine clearances are a feature of the Derbuel blower. Wilky holds out great hopes for this rejuvenated Maser. and aims at some 200 b.h.p. at 7,500-8,000 r.p.m. At present he has not decided on a chassis, but it may be an M.G.

Motoring Art

Those who cannot achieve their life's desire and race find other outlets for their motoring enthusiasm, by wielding Watermans, or Leicas, or keeping scrap-albums and so on. But how about collecting specimens of motoring art? Originals of drawings by Crosby, de Grineau, Ham, Montant, Reuters and Peter Helck should be quite unique. Then there are those famous motor-racing series of watercolours, depicting scenes from motoring history. Odd examples are to be seen in certain Great Portland Street showrooms and some extremely fine ones hang in the Millbrooke Dining Club, headquarters of the Ford Enthusiasts' Club. There were also miniature editions, but I believe these are very rare. I confess I am hazy as to who was the artist and of what the complete series consists—can anyone supply this information? If it comes to mere photographs, there is that classic view of the start of the first J.C.C. 200-Mile Race that hangs in Humphreys' office in Warren Street, and some other shots of early "200's" at the Englebert showrooms in Great Portland Street. Of the present era,

George Monkhouse's photographic work will undoubtedly live.

The London Road Circuit

Apparently the Crystal Palace will open shop to motor-racing customers again this year, in spite of rumoured lack of capital. No changes are to be made to the 2-mile circuit, but a new entrance has been constructed near South Tower, giving access to the new car park on the Upper Terrace. The International dates for 1938 are:—April 2nd, Coronation Trophy; May 21st, Composite Meeting; June 25th, London Grand Prix; August 13th, Composite Meeting; October 8th, Imperial Trophy. The short heats preceding a final will be a feature of all meetings and if adequate prize-money attracts crack drivers with real motor-cars, excellent crowds should be attracted. Edwards has made the extraordinary statement that the slippery film on the road surface has been gradually worn off by the passage of the racing cars and is now non-existent. We hope he has thanked St. Christopher that no serious accidents happened in the first season and we recommend all drivers to carefully inspect the course before entering. Eason-Scott's views would doubtless be of interest.

The Formula

An unfortunate error occurred in the list of minimum weights published in an article on the new Grand Prix Formula in our issue of last November. We were not alone in making the error, and fortunately it does not affect the sense of the text of that article, though some people have still more weight to play with. The amended table reads as follows:—

Engine Size	SUPERCHARGED CARS:		
	kilogs.	cwts.	lb. (approx.)
666 c.c.	... 400	7.8	880
1,500 c.c.	... 560	11.0	1,232
2,000 c.c.	... 657	12.9	1,457
2,500 c.c.	... 753	14.7	1,650
3,000 c.c.	... 850	16.69	1,870



As mentioned in last month's issue of "Motor Sport," here is a view of the grounds of Prescott, which is now the property of the Bugatti Owners' Club, and on which it is proposed to run a number of hill climbs. They have already fixed three hill climbs for this year, on Sundays, May 15th, July 3rd and September 25th. Prescott is about 90 miles from London.

*Gad, Mr. Mercury,
you did give me a
start!*



On mornings when you hope it didn't matter that you forgot to drain the radiator, you'll learn that Benzole makes good petrol better. For 'National'—a

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good petrol better*

NATIONAL

BENZOLE MIXTURE

The spirit of 'STARTABILITY'

RUMBLINGS—continued

UNSUPERCHARGED CARS :				
1,000 c.c.	...	400	7.8	880
1,500 c.c.	...	464	9.11	992
2,000 c.c.	...	528	10.37	1,160
3,000 c.c.	...	657	12.9	1,457
4,000 c.c.	...	785	15.4	1,720
4,500 c.c.	...	850	16.69	1,870

[The kg. reading is to the nearest whole kg.]

News is now to hand that the German Grand Prix will, after all, be a Formula race, as will the Comminges Grand Prix over the St. Gaudens circuit, where Chiron holds the lap record for Alfa-Romeo to the very merry tune of 108.95 m.p.h., set up in 1935. There will not be many races left for the *Formula Libre* cars, which perhaps explains the continued presence of Rosemeyer's Auto-Union in the showrooms in Great Portland Street. Hasten, if you haven't seen it!

A V12 Trials Car

A few advance details of K. N. Hutchison's new competition motor. It will be an Allard-Special with V12 4,378 c.c. Lincoln Zephyr engine and gearbox and an Allard-modified Ford chassis with a front track of 4 ft. 8 in., a rear track of 4 ft. 2 in. and a wheel-base of 8 ft. 3 in. The body will be a quite close-coupled two-seater! The tail will accommodate a 30 gallon fuel reservoir to aid wheel adhesion and the top gear ratio will be 3.5 to 1. No differential lock will be used. Marles high-g geared steering and a divided front axle will be used, as on other Allard-Specials, and the weight is expected to come out at about 22 cwt. In the dimmer ages "H.K.N." had a Frazer-Nash and a considerably modified Type 37 G.P. Bugatti, and afterwards he owned the Anzani-Nash "Spook" for a while. Then he turned to Fords, including a racing V8 run at County Down.

Odd Spots

Complete results of the 1937 T.T. have been issued in brochure form by the R.A.C. at 5/- each.

* * *

A similar publication covering the Donington Grand Prix has been issued by the Derby and District M.C.

* * *

The sports E.R.A. is expected to appear about next March. The list price will be in the neighbourhood of £700.

* * *

Dick Seaman, Reggie Tongue, Mr. and Mrs. Charles Martin and John Wakefield have been wintering at Davos.

* * *

Next year's Ford trials teams will comprise McEvoy, Whalley and Harrison with Tens, and Denton, Cleland and Lord Chetwynd with 22 h.p. V8s.

Forthcoming attacks on the world's short distance records are rumoured by Stuck, Ab Jenkins and, definitely, by John Cobb with a Railton-designed Napier-engined car. Capt. Eyston, the holder, will have a return shot.

* * *

The world's motor-cycle speed record has been recaptured by Germany. Henne covered the course at a mean speed of 173.67 m.p.h., inside a fully streamlined B.M.W. Eric Fernihough will return to the field this year with a non-enclosed Brough-Superior.

* * *

P. D. Walker won the Campbell Trophy for the Brooklands Campbell Circuit Lap Record, his E.R.A. lapping at 73.26 m.p.h. For this year the Pemberton Trophy stands for the future holder of this record.

* * *

On December 2nd 312 fixtures were proposed for the 1938 season at the R.A.C. meeting. In 1936 335 permits were issued, sixty-one for speed events.

* * *

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Club News

BUGATTI O.C.

Prescott seems very much destined to become a very big development. A club meeting has been scheduled for May 15th, with open dates on Sunday, July 3rd, and Sunday September 25th.

Another issue of "Bugantics" is due this month and will contain a report of the Night Trial, and an article on 100 m.p.h. cars, genuine and otherwise, by W. Boddy.

The Night Trial saw J. K. W. Baines, T. B. C. Davis, Col. Giles, A. F. Walsham and E. C. W. Stapleton gain Premier Awards and K. W. Bear a Second-Class Award. We wish the club would specify marques as well as manipulators. There were six other competitors. 1938 should be a very important year for the club, with the advent of Prescott. Hon. Sec.: E. L. Giles, 2, Queen Street, Mayfair, London, W.1.

INVICTA C.C.

The Special Christmas Number of "The Gauntlet" contained a very nice letter from Messrs. Joseph Lucas, Ltd., commenting on Reed's lighting layout, some notes on Mouro's lighting preferences, a list of members, a list of Invictas for sale, an account of Monro's run in the Bugatti O.C. Night Trial with his new ex-diesel 4½-litre, and Eric Giles's story of driving up Prescott in an Invicta. The club now has fifty-two members. A Welsh Rally is being arranged this month. Hon. Sec.: D. Monro, "Wind-brow," Winnington Road, N.2.

VINTAGE S.C.C.

This classical and unique body is flourishing exceedingly. Although this is the close season for increased membership, new members come in at about ten per month on the average, recent newcomers numbering amongst their motors two 3-litre Bentleys, a racing Graham-Paige, an 18/80 M.G., a 1912 Alphonso Hispano, an Arab, a Hillman, a Riley, a Lambda Lancia, a Talbot 90, a Mathis, a Salmson, a 1924 Frazer-Nash, an 1897 Hurlu, a Morris-Cowley and a 12/50 Alvis. There are four new associate members. The New Year's membership list should make most imposing reading and those who are not yet "Vintagents" are reminded that the annual subscription is 12/6, with an entry fee of 5/-. Associates 7/6. The beautifully-produced December Bulletin contains a report of the Gloucester Trial won by Denyer's Lea-Francis, Veteran Notes, Northern Notes, and a description (illustrated) of Heal's Tipo S61 Fiat. The Northern Section is ministered to by a Northern Sub-Committee, but remains essentially under the Club's control. This Sub-Committee

includes Ned Lewis, Peter (Mephistopheles) Wike and Porky Lees. Forrest Lycett has given another cup, for the best performance annually in events held in the Frozen North. For an annual subscription of 1/- affiliation is secured to the Northern section and scandal-sheets are distributed, while for 1/6 extra photographs of members' cars will be issued with each broadsheet. Otherwise Northern "Vintagents" should send their subscriptions to the existing secretary.

For 1938 four trials will be held, in the North, and in Surrey, Hants, and Gloucestershire, also two speed trials and one or more race-meetings at Donington. There will be a hill-climb at Prescott by sanction of the Bugatti Owners' Club on August 27th. The annual general meeting takes place at Chiltern Court on January 12th at 7 p.m. Full details from: Tim Carson, Phoenix Hotel, Hartley Row, Hants. (Hartley Wintney 84).

FORD ENTHUSIASTS' CLUB

The initial event, in the form of the Xmas Trial on Boxing Day, attracted thirty-one entries. Social events are being planned for owners of family Fords in the near future and further ambitious trials are in prospect. The subscription is 10/- social membership and £1 full membership: entry fee 2/6. This includes membership of the Millbrooke Dining Club.

Hon. Sec.: S. H. Allard, 15, Millbrooke Court, Putney, S.W.

THE MOTOR SPORTS CLUB

This London club for sporting motorists is in growing demand. Lunch is served every day, Sundays excepted, for members and guests, at 1/6 per head. A comprehensive selection of the world's motor Press is kept in the club room, and regulations of forthcoming events are posted on the notice-board. Members of the Vintage S.C.C. are now granted free membership on Wednesday evenings. The annual subscription is 10/-, or 5/- for those living over fifty miles from Charing Cross. Details from: The Motor Sports Club, Grand Buildings, Trafalgar Square, W.C.2.

L.C.C.

The Light Car Club is carrying on under the guidance of A. E. S. Curtis. On January 20th a very ambitious private film show will be held in Mr. Curtis's own cinema. The classic Buxton Trial is scheduled for October 9th, and the club has booked Brooklands Track for July 16th, when a new event will be put on to replace the Relay Race, which has

definitely followed the Dodo. We believe this new fare may consist of a long-duration high-speed trial for production-style sports-cars. Hon. Sec.: A. E. S. Curtis, Levallon, Longdown Lane South, Ewell, Surrey.

ULSTER A.C.

This Club continues to issue its "Ulster Motoring Review," which is not only a valuable guide to Irish happenings, but is so well written that perusal of it is truly enjoyable—which cannot be said of many Club publications. There is apparently a strong social side to Club-life in Ulster, largely kept alive, we suspect, by the writings of the "Review's" woman correspondent. Very suitable premises are available as Club headquarters if members are agreeable. The Circuit of Ireland Trial will be held again this year. The "A" class trial on November 20th was won by R. A. Gallagher (Riley) with W. B. Michael (Wolseley), runner-up. The "B" class competition on November 24th, which took competitors' singing capabilities into consideration (!) was won by H. L. S. Jefferson (Riley) with C. E. Robb (Lagonda) second. Capt. Phillips of the R.A.C. attended the Dinner-Dance. Ulster A.C., 65, Chichester Street, Belfast.

WEST HANTS AND DORSET C.C.

The recent Simon Trophy Trial was contested over a course commencing at Bournemouth. There were twelve starters, and two failed on Stony Lane, two on The Jessy, four on Bond Street, and one on Chorley. Four failed on Aitken's Alley. Snowy conditions were encountered. There were three special tests, in which P. S. Flower's J.2 M.G. made best time in two, with J. E. S. Jones (T-type M.G.) outstanding in a go-stop-go test on Vauxhall. The Simon Trophy went to P. S. Flower (M.G.) with Jones (M.G.) runner-up. C. S. Dewey (Riley), G. Rose (Ford V8) and E. L. Fry (Riley) gained first-class awards. L. K. Holdaway (Austin Seven) gained a second-class award and D. P. Kirkman (12/50 Alvis) a third-class award.

SUBSCRIPTIONS DUE

At this time of the year the subscriptions become due to many clubs and on behalf of club secretaries we would ask members to make prompt payment. Club funds are diminished needlessly by having to issue repeated demands, and club prestige is seriously lowered by a fluctuating bank-balance and uncertainty as to who is and who is not continuing membership. So please dispatch those cheques. Thank you

CLUB NEWS—continued

THE LEINSTER MOTOR CLUB

The Leinster M.C. will hold another run for pre-1915 cars on June 25th, using a route from Dublin to Kingstown or Dun Laoghaire, via Stillorgan, Stepside, Enniskerry, Bray, Cabinteely and Dean's Grange. The prizes will be distributed at a supper-dance at the finish. A circular has been issued asking for information about pre-1915 carriages—Veteran C.C. and Vintage S.C.C. please note—and owners of a 1903 De Dion, 1902 Mercédès and 1901 M.C.C. have already been approached. Scotland also seeks to attract veterans this year, and we hope someone will drive up from the South on the car he intends using for the run.

* * *

TRIALS

Forthcoming trials dates, of interest to competitors, marshals, on-lookers and photographers include:—

Jan. 16: Ringwood M.C. & I.C. Jubilee Cup. Hants, Dorset and Wilts. area.

Jan. 23rd: Sunbeam M.C.C. Car Trial. Bagshot area.

Feb. 6th: Maidstone & Mid-Kent M.C. Trial. Kent.

Feb. 12th: N.W.L.M.C. Coventry Cup Trial.

Feb. 26th: S.U.N.B.A.C. Colmore Trophy Trial.

* * *

GENERAL NOTES

The "Gloucester" was a truly grim affair, with an all-night run down as passenger in an abnormally draughty Riley "Gamecock," though there was joy in emerging from the Victoria Grill well fortified by the E.R.A. Club's Dinner, to rush home and change into trials garb by lamp-light, all illumination in the house having fused at the first touch of a switch. This year we mixed with the competitors at Chipping Norton, where last year we had breakfasted alone while the Brough's clutch pedal was being reconnected in the garage yonder. That dinner must have been high in vitamin content, for we missed both breakfast and lunch and had only a small tea at a farmhouse in the Cotswolds before facing ice, snow, fog and rain back into London town. One has to admit that one's starting time on a Kentish trial next day suffered more than somewhat, and that the Riley driver, now my passenger, seemed to appreciate the closed bodywork of the little D.K.W. as much as I did, and no wise objected to a fairly lazy day's driving over Kent's lesser known motorways.

Later on, a trials route-card had, perforce, to be checked and there was joy in motoring 170 miles in a hard-used Austin Seven, first in teeming rain and gloom, then in sleet and snow, and, finally, really dense fog, in which, nevertheless, we contrived to average a good 20 m.p.h. on side lamps alone, with the screen open, visits to the footpath via the Kingston By-Pass kerb being only proclaimed by immense wheelspin on the frozen grass verge—an unintentional advertisement for Austin suspension.

That day's motoring, grim as it was, nevertheless was well worth doing, though perhaps, the aftermath of Christmas being what it is, it was just as well that it was warm and dry for the trial itself, when the Austin, shamelessly carrying a sprig of mistletoe and filled with laboriously hand-painted notices, set out on Boxing Day on marshalling duties. Drop-head bodies are the writer's pet fancy at the moment.

* * *

In connection with my article "On the Influence of Slime-Storming" which caused rather a stir in trials circles last month, I feel that perhaps a few words should be written about running a slimeless trial. I think it could be done, as a bold experiment. Two or three hills of considerable gradient would be needed, having a rough, as distinct from muddy, surface. Most competitors would doubtless romp up them, even were "comps" and faked differentials barred, but they would probably produce a few failures to conserve awards for the organising club. As they would not be of sufficient interest to involve long road-sections between, they should be closely grouped, and I think you would find them around Salisbury. But where such hills could, in my opinion, be rendered interesting is by staging on them severe restart and acceleration tests against the watch. I would have one straightforward restart and one double restart, the latter involving a fair length of acceleration test, both on really steep loose surfaced gradients where engine power and torque-resisting rear-suspension would be at a premium. Then I would have a test similar to the latter, but on a fairly level tarmac surface with a longish acceleration section preceding the braking area. It will be argued that such tests would favour certain types of car quite unduly, as, even in existing mud-mountaineering, special tests usually favour big-engined or blown cars, with the saving factor that distances are very short, which levels things up, and that often these results only apply in the case of ties. Even then too many trials are won on such figures by super-performance cars. My answer is that in our Slimeless Trial, where timed-tests would form the primary hazards, some form of levelling-up system of marking could fairly easily be introduced, or a variety of classes instituted. If the former, one could choose between percentages above and below standard time, the same scheme with a fixed time limit and marks awarded or deducted within limits, or a fixed time limit per class and each test either a success or a failure as is a hill climbed or not climbed in existing trials. In any case it should not be impossible to level things up, class by class, and to make a failure in any one special test equivalent to failing on one hill. I do consider it would be a step towards better trials to breed better road-cars, and welcome your comments. But don't let us run away with the idea that here is an amusing novelty to be run by one of the smaller clubs in lieu of a treasure hunt. Let a well known club try it out, inviting clubs catering for "touring-car" owners (who

should be most interested to compare comparative times), and clubs whose members are confirmed slime-stormers (who would probably deem it all very silly beforehand, but, having put away their "comps" and unclogged their axles, would, perhaps, find it more attractive and less easy than it sounds). Owners of fast motors and healthy vintage jobs, who do not favour putting their cars up slime-lanes, should also be interested, so there is prospect of an excellent mixed entry. Call it the Mudless Trial, and make it quite clear that this is to be Something Different, on an important scale. Cut out all gymkhana driving-tests. And if the West Country seems too far away, start from Loudon, but have the first time-check where the fun begins and sanction the highest average down that the R.A.C. will allow. That should attract London competitors and yet give them quite a plain straightforward couple of hours drive down. One final suggestion. One often comes upon long private drives that seem ideal for a speed-trial but which, on investigation, prove useless on account of lack of parking space, the noise problem, or the cost of erecting safety-fences, etc. But why not use such a venue for a sprint-section as part of our Mudless Trial? Cars would arrive as at a hill, be dispatched against the watch, and rejoin the course immediately afterwards. No spectators would be admitted so no safety fences would be needed. Loud-speakers would likewise be unnecessary and car-parks would not be needed. The noise question would hardly arise with non-racing type cars making single runs. Again, a marking or fixed time-limit system would level things up between different types of cars and would ensure that failures would count for no more than failure in any one of the other tests or on one of the hills. Sports-car drivers would enjoy the "blind," especially if bends were met with, and even family saloons would reach something in the sixties, comparative times being of great interest to owners who had never previously extended their cars against the watch. The distance could be 440 yards upwards, and getaway, acceleration, speed and road-holding would be adequately tested. Not many marshals would be required, as each car, even if driven slowly over the course first as a safety-measure, would be cleared much sooner than on a trials hill, while there would be no "failures" to cause delays. Sports-car drivers already supporting speed-trials would no doubt find the fresh conditions of interest, i.e. no time to change plugs and strip the car and no second run to improve on the first effort. And owners of slow motors would, I think, enjoy such a test, whereas a whole afternoon spent at a venue like Lewes hardly justifies the entry-fee, in view of the tame aspect of a run in a slow car. A little experimentation by the organisers, using cars ranging from, say, a Ford Eight to a really hot sports job, should ensure that the levelling-up rulings are not a complete fiasco.

So much for the outcome of a little revolutionary thinking on the question of cleaning up modern road trials. Club secretaries, to your writing rooms . . .

1937 RECORDS—continued

Record	Speed m.p.h.	Car and Drivers	Track
50 kms. (s.) ...	165.21	Auto-Union (H. Stuck) ...	Darnstadt
100 " (s.) ...	163.40	" " " " ...	"
200 " (s.) ...	151.46	Duesenberg Special (D. A. Jenkins) ...	"
500 " (s.) ...	151.32	" " " " ...	"
1,000 " (s.) ...	137.16	" " " " ...	"
2,000 " (s.) ...	138.03	Duesenberg Special (Jenkins and Gulotta) ...	"
3,000 " (s.) ...	138.68	" " " " ...	"
4,000 " (s.) ...	133.90	" " " " ...	"
5,000 " (s.) ...	135.08	" " " " ...	"
10,000 " (s.) ...	68.83	Studebaker (Gulotta & Others)	Atlantic City
15,000 " (s.) ...	68.77	" " " " ...	"
20,000 " (s.) ...	68.60	Studebaker (Stewart and Others) ...	"
25,000 " (s.) ...	68.61	" " " " ...	"
30,000 " (s.) ...	68.59	" " " " ...	"
35,000 " (s.) ...	68.50	" " " " ...	"
40,000 " (s.) ...	68.46	" " " " ...	"
45,000 " (s.) ...	68.28	" " " " ...	"
50 miles (s.) ...	167.32	Auto-Union (H. Stuck) ...	Frankfurt
100 " (s.) ...	166.04	" " " " ...	"
200 " (s.) ...	151.72	Duesenberg Special ...	Salt Beds
500 " (s.) ...	141.19	" " " " ...	"
1,000 " (s.) ...	137.87	Duesenberg Special (Jenkins and Gulotta) ...	"
2,000 " (s.) ...	138.54	" " " " ...	"
3,000 " (s.) ...	134.78	" " " " ...	"
4,000 " (s.) ...	68.70	Studebaker (Gulotta and Others) ...	Atlantic City
5,000 " (s.) ...	68.80	" " " " ...	"
10,000 " (s.) ...	68.81	" " " " ...	"
15,000 " (s.) ...	68.59	Studebaker (Stewart and Others) ...	"
20,000 " (s.) ...	68.54	" " " " ...	"
25,000 " (s.) ...	68.47	" " " " ...	"
30,000 " (s.) ...	68.36	Studebaker (Gulotta and Others) ...	"
1 hr. (s.) 152 256	152.15	Duesenberg Special (D. A. Jenkins) ...	Salt Beds
3 hrs. (s.) 423 102	141.02	" " " " ...	"
6 hrs. (s.) 823 292	137.20	Duesenberg Special (Jenkins and Gulotta) ...	"
12 hrs. (s.) 1,660 414	138.35	" " " " ...	"
24 hrs. (s.) 3,251 764	135.48	" " " " ...	"

INTERNATIONAL CLASS C.—3,001-5,000 c.c.

1 km. (s.) ...	105.5	Auto-Union (B. Rosemeyer) ...	Autobahn
1 " (f.) ...	218.7	" " " " ...	Frankfurt
1 mile (s.) ...	125.3	" " " " ...	Darnstadt
1 " (f.) ...	219.5	" " " " ...	"
5 kms. (f.) ...	215.1	" " " " ...	"
5 miles (f.) ...	214.4	" " " " ...	"
10 kms. (f.) ...	212.3	" " " " ...	"
10 miles (f.) ...	211.8	" " " " ...	"
50 kms. (s.) ...	136.52	Union 76 Special (Frame) ...	Murock
100 " (s.) ...	134.53	Bugatti (Benoist) ...	Montlhery
200 " (s.) ...	135.38	Bugatti (R. Benoist) ...	"
500 " (s.) ...	125.50	Bugatti (Benoist and Veyron)	"
1,000 " (s.) ...	126.41	" " " " ...	"
2,000 " (s.) ...	122.21	Bugatti (Wimille, Veyron and Williams) ...	"
3,000 " (s.) ...	123.74	" " " " ...	"
4,000 " (s.) ...	124.58	" " " " ...	"
5,000 " (s.) ...	110.81	Delahaye (Perrot, Dhome and Girod) ...	"
10,000 " (s.) ...	104.72	" " " " ...	"
15,000 " (s.) ...	89.33	Matford Yacco (Mdme. Descollas and Others) ...	"
20,000 " (s.) ...	88.29	" " " " ...	"
25,000 " (s.) ...	87.86	" " " " ...	"
30,000 " (s.) ...	87.54	" " " " ...	"
35,000 " (s.) ...	83.86	Austin Special Yacco (Marchand and Others) ...	"
40,000 " (s.) ...	84.13	" " " " ...	"
50 miles (s.) ...	139.61	Union 76 Special (Frame) ...	Murock
100 " (s.) ...	135.17	Bugatti (Benoist) ...	Montlhery
200 " (s.) ...	127.73	Bugatti (Benoist and Veyron)	"
500 " (s.) ...	127.00	" " " " ...	"
1,000 " (s.) ...	123.81	Bugatti (Williams, Veyron and Williams) ...	"
2,000 " (s.) ...	123.86	" " " " ...	"
3,000 " (s.) ...	110.86	Delahaye (Perrot, Dhome and Girod) ...	"
4,000 " (s.) ...	110.40	" " " " ...	"
5,000 " (s.) ...	109.89	" " " " ...	"
10,000 " (s.) ...	87.98	Matford Yacco (Mdme. Descollas and Others) ...	"
15,000 " (s.) ...	87.91	" " " " ...	"
20,000 " (s.) ...	87.10	" " " " ...	"
1 hr. (s.) 135 743	135.42	Bugatti (Benoist) ...	"
3 hrs. (s.) 377 1,715	125.99	Bugatti (Veyron and Benoist)	"
6 hrs. (s.) 761 756	126.90	" " " " ...	"
12 hrs. (s.) 1,479 73	123.27	Bugatti (Wimille, Veyron and Williams) ...	"
24 hrs. (s.) 2,974 528	123.93	" " " " ...	"
2 days (s.) ...	109.54	Delahaye (Perrot, Dhome and Girod) ...	"
3 " (s.) ...	89.33	Matford Yacco (Mdme. Descollas and Others) ...	"
4 " (s.) ...	89.53	" " " " ...	"

Record	Speed m.p.h.	Car and Drivers	Track
5 days (s.) ...	88.07	Matford Yacco (Mdme. Descollas and Others) ...	Montlhery
6 " (s.) ...	88.33	" " " " ...	"
7 " (s.) ...	87.91	" " " " ...	"
8 " (s.) ...	87.79	" " " " ...	"
9 " (s.) ...	87.50	" " " " ...	"
10 " (s.) ...	86.99	" " " " ...	"
11 " (s.) ...	83.90	Austin Special Yacco (Mar- chand and Others) ...	"
12 " (s.) ...	84.07	" " " " ...	"
13 " (s.) ...	66.43	Hotchkiss (Tchernousky Vasselle, etc.) ...	"
14 " (s.) ...	66.14	" " " " ...	"
15 " (s.) ...	66.24	" " " " ...	"
16 " (s.) ...	65.90	" " " " ...	"

INTERNATIONAL CLASS D.—2,001-3,000 c.c.

1 km. (s.) ...	93.73	Maserati (G. Furmanik) ...	Route Firenz
1 " (f.) ...	155.13	" " " " ...	Monc
1 mile (s.) ...	102.86	" " " " ...	"
1 " (f.) ...	154.44	" " " " ...	"
5 kms. (f.) ...	131.08	Bugatti (Divo) ...	Montlhery
5 miles (f.) ...	126.85	Sunbeam (Dunfee) ...	"
10 kms. (f.) ...	138.77	Alfa-Romeo (Brilli-Peri) ...	Cremona
10 miles (f.) ...	126.48	Sunbeam (Dunfee) ...	Montlhery
50 kms. (s.) ...	130.50	Maserati (Zehender) ...	"
100 " (s.) ...	131.78	" " " " ...	"
200 " (s.) ...	124.67	Bugatti (Divo) ...	"
500 " (s.) ...	119.98	" (Divo and Chiron) ...	"
1,000 " (s.) ...	114.28	Alfa-Romeo Raph and Others)	"
2,000 " (s.) ...	112.10	" " " " ...	"
3,000 " (s.) ...	98.61	Citroen Special Yacco (Marchand and Others) ...	"
4,000 " (s.) ...	97.61	" " " " ...	"
5,000 " (s.) ...	96.69	" " " " ...	"
10,000 " (s.) ...	90.48	Citroen (Marchand and Others)	"
15,000 " (s.) ...	89.93	" " " " ...	"
20,000 " (s.) ...	87.77	" " " " ...	"
25,000 " (s.) ...	78.24	" " " " ...	"
30,000 " (s.) ...	77.87	" " " " ...	"
35,000 " (s.) ...	77.42	" " " " ...	"
40,000 " (s.) ...	77.65	" " " " ...	"
45,000 " (s.) ...	77.64	" " " " ...	"
50,000 " (s.) ...	77.56	" " " " ...	"
60,000 " (s.) ...	75.82	" " " " ...	"
70,000 " (s.) ...	74.92	" " " " ...	"
80,000 " (s.) ...	74.11	" " " " ...	"
90,000 " (s.) ...	65.37	" " " " ...	"
100,000 " (s.) ...	64.83	" " " " ...	"
110,000 " (s.) ...	64.76	" " " " ...	"
120,000 " (s.) ...	64.79	" " " " ...	"
130,000 " (s.) ...	64.84	" " " " ...	"
50 miles (s.) ...	131.47	Maserati (Zehender) ...	"
100 " (s.) ...	132.43	" " " " ...	"
200 " (s.) ...	118.00	Bugatti (Divo and Chiron)	"
500 " (s.) ...	119.24	" " " " ...	"
1,000 " (s.) ...	112.95	Alfa-Romeo (Raph and Others)	"
2,000 " (s.) ...	98.60	Citroen Special Yacco (Marchand and Others) ...	"
3,000 " (s.) ...	96.88	" " " " ...	"
4,000 " (s.) ...	96.16	" " " " ...	"
5,000 " (s.) ...	90.63	Citroen (Marchand and Others)	"
10,000 " (s.) ...	89.71	" " " " ...	"
15,000 " (s.) ...	78.14	" " " " ...	"
20,000 " (s.) ...	77.77	" " " " ...	"
25,000 " (s.) ...	77.66	" " " " ...	"
30,000 " (s.) ...	77.63	" " " " ...	"
40,000 " (s.) ...	75.27	" " " " ...	"
50,000 " (s.) ...	65.78	" " " " ...	"
60,000 " (s.) ...	65.04	" " " " ...	"
70,000 " (s.) ...	64.78	" " " " ...	"
80,000 " (s.) ...	64.84	" " " " ...	"
1 hr. (s.) 124 1,196	124.68	Bugatti (Divo) ...	"
3 hrs. (s.) 361 1,614	120.64	" (Divo and Chiron) ...	"
6 hrs. (s.) 683 1,108	113.94	Alfa-Romeo (Raph and Others)	"
12 hrs. (s.) 1,349 1,066	112.47	" " " " ...	"
24 hrs. (s.) 2,355 1,672	98.16	Citroen Special Yacco (Marchand and Others) ...	"
2 days (s.) ...	90.58	Citroen (Marchand and Others)	"
3 " (s.) ...	90.43	" " " " ...	"
4 " (s.) ...	89.97	" " " " ...	"
5 " (s.) ...	89.69	" " " " ...	"
6 " (s.) ...	87.83	" " " " ...	"
7 " (s.) ...	86.49	" " " " ...	"
8 " (s.) ...	78.14	" " " " ...	"
9 " (s.) ...	78.48	" " " " ...	"
10 " (s.) ...	77.88	" " " " ...	"
11 " (s.) ...	77.83	" " " " ...	"
12 " (s.) ...	77.50	" " " " ...	"
14 " (s.) ...	77.65	" " " " ...	"
21 " (s.) ...	75.71	" " " " ...	"
28 " (s.) ...	74.04	" " " " ...	"
35 " (s.) ...	65.45	" " " " ...	"
42 " (s.) ...	64.69	" " " " ...	"
49 " (s.) ...	64.82	" " " " ...	"
54 " (s.) ...	64.65	" " " " ...	"

INTERNATIONAL CLASS E.—1,501-2,000 c.c.

1 km. (s.) ...	89.73	E. R. A. (Mays) ...	Brooklands
1 " (f.) ...	147.79	Derby Special (Mrs. Stewart) ...	Montlhery
1 mile (s.) ...	94.01	Bugatti (Prince Liechtenstein)	Tat

1937 RECORDS—continued

Record	Speed m.p.h.	Car and Drivers	Track
1 mile (f.) ...	147.79	Derby Special (Mrs. Stewart) ...	Montlhery
5 kms. (f.) ...	140.35	" " " " ...	"
5 miles (f.) ...	140.17	" " " " ...	"
10 " (f.) ...	138.34	" " " " ...	"
10 kms. (f.) ...	140.07	" " " " ...	"
50 " (s.) ...	126.83	" " " " ...	"
100 " (s.) ...	128.16	" " " " ...	"
200 " (s.) ...	121.75	" " " " ...	"
500 " (s.) ...	112.27	Hotchkiss (Eyston and Denly)	"
1,000 " (s.) ...	112.26	" " " " ...	"
2,000 " (s.) ...	99.33	Adler Triumph (Lohr and Others) ...	Reichsautobahn Frankfurt (M) Virnheim
3,000 " (s.) ...	100.27	" " " " ...	"
4,000 " (s.) ...	99.65	" " " " ...	"
5,000 " (s.) ...	96.66	Hotchkiss (Eyston and Denly)	Montlhery
10,000 " (s.) ...	77.39	A.C. (Mr. and Mrs. Bruce)	"
15,000 " (s.) ...	75.73	" " " " ...	"
20,000 " (s.) ...	68.06	Yacco Special (C. Marchand and Others) ...	"
50 miles (s.) ...	127.97	Derby Miller (Mrs. Stewart) ...	"
100 " (s.) ...	121.64	" Special	"
200 " (s.) ...	117.67	Sunbeam (Dunfee and Bamber)	"
500 " (s.) ...	112.25	Hotchkiss (Eyston and Denly)	"
1,000 " (s.) ...	109.50	" " " " ...	"
2,000 " (s.) ...	100.39	Adler-Triumph (Lohr and Others) ...	Reichsautobahn Frankfurt (M) Virnheim
3,000 " (s.) ...	96.60	Hotchkiss (Eyston and Denly)	Montlhery
4,000 " (s.) ...	95.76	" " " " ...	"
5,000 " (s.) ...	94.73	" " " " ...	"
10,000 " (s.) ...	69.10	Citroen Special Yacco (Marchand and Others) ...	"
15,000 " (s.) ...	68.01	A.C. (Mr. and Mrs. Bruce and Joyce) ...	"
m/s. yds.			
1 hr. (s.) 121 1,324	121.75	Derby Special (Mrs. Stewart) ...	"
3 hrs. (s.) 337 465	112.42	Hotchkiss (Eyston and Denly)	"
6 hrs. (s.) 665 831	110.91	" " " " ...	"
12 hrs. (s.) 1,189 326	99.10	Adler-Triumph (Lohr and Others) ...	Reichsautobahn Frankfurt (M) Virnheim
24 hrs. (s.) 2,394 1,726	99.79	" " " " ...	"
2 days (s.) ...	95.36	Hotchkiss (Eyston and Denly)	Montlhery
3 " (s.) ...	70.02	Yacco Special (C. Marchand and Others) ...	"
4 " (s.) ...	70.04	" " " " ...	"
5 " (s.) ...	69.78	" " " " ...	"
6 " (s.) ...	69.09	" " " " ...	"
7 " (s.) ...	67.85	" " " " ...	"
8 " (s.) ...	68.18	" " " " ...	"

INTERNATIONAL CLASS F.—1,101-1,500 c.c.

Record	Speed m.p.h.	Car and Drivers	Track
1 km. (s.) ...	89.7	Maserati (G. Furmanik) ...	Autostrade Firenze-Monc
1 " (f.) ...	148.2	" " " " ...	"
1 mile (s.) ...	104.9	" " " " ...	"
1 " (f.) ...	164.01	Miller (Lockhart) ...	Murock
5 kms. (f.) ...	139.54	Packard Cable Special (Duray)	Montlhery
5 miles (f.) ...	139.22	" " " " ...	"
10 kms. (f.) ...	138.92	" " " " ...	"
10 miles (f.) ...	135.33	" " " " ...	"
50 kms. (s.) ...	120.06	Miller (Eldridge) ...	"
100 " (s.) ...	122.46	" " " " ...	"
200 " (s.) ...	118.88	Bugatti (Veyron) ...	"
500 " (s.) ...	115.14	" " " " ...	"
1,000 " (s.) ...	113.34	" " " " ...	"
2,000 " (s.) ...	101.04	Riley (Eyston and Maclure)	"
3,000 " (s.) ...	92.68	Bugatti (Veyron and Others) ...	"
4,000 " (s.) ...	79.81	Adler (Heckel and Others) ...	Avus
5,000 " (s.) ...	79.59	" " " " ...	"
10,000 " (s.) ...	78.51	" " " " ...	"
15,000 " (s.) ...	58.95	Peugeot (Marchand and Others)	Montlhery
20,000 " (s.) ...	58.44	" " " " ...	"
25,000 " (s.) ...	58.47	" " " " ...	"
30,000 " (s.) ...	58.36	" " " " ...	"
35,000 " (s.) ...	58.16	" " " " ...	"
40,000 " (s.) ...	58.31	" " " " ...	"
45,000 " (s.) ...	58.46	" " " " ...	"
50,000 " (s.) ...	58.55	" " " " ...	"
60-300,000 " (s.) ...	58.40- 58.08	" " " " ...	"
50 miles (s.) ...	121.88	Miller (Eldridge) ...	"
100 " (s.) ...	119.01	Bugatti (Veyron) ...	"
200 " (s.) ...	116.51	" " " " ...	"
500 " (s.) ...	114.29	" " " " ...	"
1,000 " (s.) ...	102.35	Riley (Eyston and Maclure)	"
2,000 " (s.) ...	91.65	Bugatti (Veyron and Others) ...	"
3,000 " (s.) ...	79.73	Adler (Heckel and Others) ...	Avus
4,000 " (s.) ...	79.90	" " " " ...	"
5,000 " (s.) ...	79.37	" " " " ...	"
10,000 " (s.) ...	58.21	Citroen (Marchand and Others)	Montlhery
15,000 " (s.) ...	58.43	" " " " ...	"
20,000 " (s.) ...	58.43	" " " " ...	"
25,000 " (s.) ...	58.32	" " " " ...	"
30,000 " (s.) ...	58.52	" " " " ...	"
40,000 " (s.) ...	58.42	" " " " ...	"
50,000 " (s.) ...	58.41	" " " " ...	"
60-180,000 " (s.) ...	58.39- 57.97	" " " " ...	"
m/s. yds.			
1 hr. (s.) 119 26	119.01	Bugatti (Veyron) ...	"
3 hrs. (s.) 343 996	114.52	" " " " ...	"
6 hrs. (s.) 677 1,526	112.98	" " " " ...	"

Record	Speed m.p.h.	Car and Drivers	Track
12 hrs. (s.) 1,213 313	101.10	Riley (Eyston and Maclure) ...	Montlhery
24 hrs. (s.) 2,206 783	91.94	Bugatti (Veyron and Others)	"
2 days (s.) ...	79.85	Adler (Heckel and Others) ...	Avus
3 " (s.) ...	79.79	" " " " ...	"
4 " (s.) ...	76.86	" " " " ...	"
5 " (s.) ...	61.88	Citroen (Marchand and Others)	Montlhery
6 " (s.) ...	58.96	" " " " ...	"
7 " (s.) ...	58.18	" " " " ...	"
8 " (s.) ...	58.35	" " " " ...	"
9 " (s.) ...	58.48	" " " " ...	"
10 " (s.) ...	58.34	" " " " ...	"
14-133 " (s.) ...	58.41- 58.07	" " " " ...	"

INTERNATIONAL CLASS G.—751-1,100 c.c.

Record	Speed m.p.h.	Car and Drivers	Track
1 km. (s.) ...	82.1	Appleton-Riley (R. W. J. Appleton) ...	Brooklands
1 " (f.) ...	148.8	M.G. (Major Gardner) ...	Autobahn Frankfurt
1 " (f.) ...	148.7	" " " " ...	Darnstadt
1 " (s.) ...	91.3	Appleton-Riley (R. W. J. Appleton) ...	Brooklands
5 kms. (f.) ...	143.6	M.G. (Major Gardner) ...	Autobahn Frankfurt
5 miles (f.) ...	144.6	" " " " ...	Darnstadt
10 kms. (f.) ...	129.8	M.G. (Major Gardner) ...	Frankfurt
10 miles (f.) ...	129.4	" " " " ...	"
50 kms. (s.) ...	123.22	" " " " ...	"
100 " (s.) ...	121.65	M.G. (Capt. Eyston) ...	Montlhery
200 " (s.) ...	120.82	" " " " ...	"
500 " (s.) ...	108.89	M.G. Magnette (Hertsberger)	"
1,000 " (s.) ...	99.26	Riley (Eyston and Denly)	"
2,000 " (s.) ...	85.43	Amilcar (Duray and de Gavardie) ...	"
3,000 " (s.) ...	84.95	" " " " ...	"
4,000 " (s.) ...	68.39	Adlerwerke (Schweder and Others) ...	Avus
5,000 " (s.) ...	68.37	" " " " ...	"
10,000 " (s.) ...	66.63	" " " " ...	"
15,000 " (s.) ...	65.99	" " " " ...	"
50 miles (s.) ...	120.72	M.G. (Eyston) ...	Montlhery
100 " (s.) ...	121.13	" " " " ...	"
200 " (s.) ...	109.74	M.G. Magnette (Hertsberger)	"
500 " (s.) ...	98.18	Riley (Eyston and Denly)	"
1,000 " (s.) ...	85.33	Amilcar (Duray and de Gavardie) ...	"
2,000 " (s.) ...	85.00	" " " " ...	"
3,000 " (s.) ...	68.35	Adlerwerke (Schweder and Others) ...	Avus
4,000 " (s.) ...	68.23	" " " " ...	"
5,000 " (s.) ...	67.57	" " " " ...	"
10,000 " (s.) ...	66.09	" " " " ...	"
m/s. yds.			
1 hr. (s.) 120 1,554	120.78	M.G. (Eyston) ...	Montlhery
3 hrs. (s.) 325 820	108.49	M.G. Magnette (Hertsberger) ...	"
6 hrs. (s.) 504 692	99.07	Riley (Eyston and Eldridge)	"
12 hrs. (s.) 1,025 525	85.44	Amilcar (Duray and de Gavardie) ...	"
24 hrs. (s.) 2,041 1,056	85.07	" " " " ...	"
2 days (s.) ...	68.40	Adlerwerke (Schweder and Others) ...	Avus
3 " (s.) ...	67.56	" " " " ...	"
4 " (s.) ...	66.64	" " " " ...	"
5 " (s.) ...	65.95	" " " " ...	"
6 " (s.) ...	66.02	" " " " ...	"

INTERNATIONAL CLASS H.—501-750 c.c.

Record	Speed m.p.h.	Car and Drivers	Track
1 km. (f.) ...	140.5	M.G. Midget (B. Kohlrausch)	Gyon
1 mile (f.) ...	140.7	" " " " ...	"
1 km. (s.) ...	83.6	Austin (Dodson) ...	Brooklands
1 mile (s.) ...	93.42	M.G. Midget (B. Kohlrausch)	Gyon
5 kms. (f.) ...	128.50	M.G. (A. Denly) ...	Montlhery
5 miles (f.) ...	128.08	" " " " ...	"
10 kms. (f.) ...	127.45	" " " " ...	"
10 miles (f.) ...	125.56	" " " " ...	"
50 kms. (s.) ...	118.15	Austin (Dodson) ...	Brooklands
100 " (s.) ...	116.38	" " " " ...	"
200 " (s.) ...	111.04	M.G. (Horton) ...	"
500 " (s.) ...	91.77	" (Eyston and Denly) ...	Montlhery
1,000 " (s.) ...	91.77	" " " " ...	"
2,000 " (s.) ...	77.18	" (Maillard-Brune and Druck) ...	"
3,000 " (s.) ...	64.36	Simca (Gordini and Others) ...	"
4,000 " (s.) ...	64.26	" " " " ...	"
5,000 " (s.) ...	64.11	" " " " ...	"
50 miles (s.) ...	116.65	Austin (Dodson) ...	Brooklands
100 " (s.) ...	115.06	" " " " ...	"
200 " (s.) ...	95.02	M.G. (Eyston and Denly)	Montlhery
500 " (s.) ...	92.50	" " " " ...	"
1,000 " (s.) ...	88.36	" " " " ...	"
2,000 miles (s.) ...	64.35	Simca (Gordini and Others)	"
3,000 " (s.) ...	64.16	" " " " ...	"
m/s. yds.			
1 hr. (s.) 113 1,741	113.99	Austin (Dodson) ...	Brooklands
3 hrs. (s.) 283 1,344	94.59	M.G. (Eyston and Denly)	Montlhery
6 hrs. (s.) 556 1,341	92.79	" " " " ...	"
12 hrs. (s.) 1,040 131	86.67	" " " " ...	"
24 hrs. (s.) 1,831 —	76.30	" (Maillard-Brune and Druck) ...	"
48 hrs. (s.)	64.10	Simca (Gordini and Others)	"

1937 RECORDS—continued

INTERNATIONAL CLASS I—351-500 c.c.

Record	Speed m.p.h.	Car and Drivers	Track
1 km. (s.) ...	65.32	D.K.W. (J. Moritz) ...	Gyon
1 " (f.) ...	100.76	Nibbio (Count C. Lurani) ...	Florence
1 mile (f.) ...	100.52	" " " " ...	"
1 " (s.) ...	76.09	" " " " ...	"
5 kms. (f.) ...	88.2	de Coucy (Clement) ...	Montlhery
5 miles (f.) ...	88.1	" " " " ...	"
10 kms. (f.) ...	88.0	" " " " ...	"
10 miles (f.) ...	87.9	" " " " ...	"
50 kms. (s.) ...	79.88	Standard (von Fuchsenfeld and Meyer) ...	"
100 " (s.) ...	78.82	" " " " ...	"
200 " (s.) ...	68.63	D.K.W. (von Fuchsenfeld and Meyer) ...	"
500 " (s.) ...	68.30	Standard (von Fuchsenfeld and Meyer) ...	"
1,000 " (s.) ...	63.95	D.K.W. (von Fuchsenfeld and Meyer) ...	"
2,000 " (s.) ...	61.08	" " " " ...	"
50 miles (s.) ...	80.27	Standard (von Fuchsenfeld and Meyer) ...	"
100 " (s.) ...	68.56	D.K.W. (von Fuchsenfeld and Meyer) ...	"
200 " (s.) ...	66.84	" " " " ...	"
500 " (s.) ...	64.57	" " " " ...	"
1,000 " (s.) ...	62.56	" " " " ...	"
1 hr. (s.) ...	74 700	De Rovin (De Rovin) ...	"
3 hrs. (s.) ...	200 923	D.K.W. (von Fuchsenfeld and Meyer) ...	"
6 hrs. (s.) ...	406 339	Standard (von Fuchsenfeld and Meyer) ...	"
12 hrs. (s.) ...	764 1,429	D.K.W. (von Fuchsenfeld and Meyer) ...	"
24 hrs. (s.) ...	1,364 1,065	" " " " ...	"

INTERNATIONAL CLASS J.—Up to 350 c.c.

Record	Speed m.p.h.	Car and Drivers	Track
1 km. (s.) ...	52.92	Jappic (Walters) ...	Brooklands
1 " (f.) ...	77.52	Vitesse (Gush) ...	"
1 mile (s.) ...	58.12	Jappic (Walters) ...	"
1 " (f.) ...	77.52	Vitesse (Gush) ...	"
5 kms. (f.) ...	77.48	" " " " ...	"
5 miles (f.) ...	77.42	" " " " ...	"
10 kms. (f.) ...	77.36	" " " " ...	"
10 miles (f.) ...	77.23	" " " " ...	"
50 kms. (s.) ...	73.44	" " " " ...	"
100 " (s.) ...	73.13	" " " " ...	"
200 " (s.) ...	62.93	Voran (von Koenig-Fuchsenfeld) ...	Montlhery

Record	Speed m.p.h.	Car and Drivers	Track
500 kms. (s.) ...	51.66	Vitesse (Richards, Selby and le Croisette) ...	Brooklands
50 miles (s.) ...	73.32	Vitesse (Gush) ...	"
100 " (s.) ...	70.95	H.S. (Mrs. Stewart) ...	Montlhery
200 " (s.) ...	51.37	Vitesse (Gush and Greenhough) ...	Brooklands
500 " (s.) ...	48.26	" (Richards, Selby and le Croisette) ...	"
1 hr. (s.) ...	73 67	" (Gush) ...	"
3 hrs. (s.) ...	155 546	" (Richards and Selby) ...	"
6 hrs. (s.) ...	309 1,542	" (Richards, Selby and le Croisette) ...	"
12 hrs. (s.) ...	514 1,124	" " " " ...	"
24 hrs. (s.) ...	514 1,124	" " " " ...	"

COMPRESSION-IGNITION CLASS RECORDS
(Irrespective of size of engine)

Record	Speed m.p.h.	Car and Drivers	Track
1 km. (f.) ...	159.10	The Flying Spray (G. E. Eyston)	Montlhery
1 mile (f.) ...	158.87	" " " " ...	"
50 miles (s.) ...	105.34	A.E.C. (G. E. T. Eyston) ...	"
100 kms. (s.) ...	105.61	" " " " ...	"
100 miles (s.) ...	105.60	" " " " ...	"
1,000 kms. (s.) ...	98.38	" (Eyston and Denly) ...	"
1,000 miles (s.) ...	99.70	" " " " ...	"
2,000 kms. (s.) ...	99.07	" " " " ...	"
2,000 miles (s.) ...	97.82	" " " " ...	"
3,000 kms. (s.) ...	98.24	" " " " ...	"
3,000 miles (s.) ...	69.98	Yacco Special (C. Marchand and Others) ...	"
4,000 kms. (s.) ...	70.04	" " " " ...	"
4,000 miles (s.) ...	70.03	" " " " ...	"
5,000 kms. (s.) ...	70.02	" " " " ...	"
5,000 miles (s.) ...	70.00	" " " " ...	"
10,000 kms. (s.) ...	70.03	" " " " ...	"
10,000 miles (s.) ...	68.53	" " " " ...	"
15,000 kms. (s.) ...	68.40	" " " " ...	"
20,000 kms. (s.) ...	68.06	" " " " ...	"
1 hr. (s.) ...	105.60	A.E.C. (G. E. T. Eyston) ...	"
12 hrs. (s.) ...	99.03	" (Eyston and Denly) ...	"
24 hrs. (s.) ...	97.05	" " " " ...	"
2 days (s.) ...	70.07	Yacco Special (C. Marchand and Others) ...	"
3 " (s.) ...	70.02	" " " " ...	"
4 " (s.) ...	70.04	" " " " ...	"
5 " (s.) ...	68.15	" " " " ...	"
6 " (s.) ...	68.51	" " " " ...	"
7 " (s.) ...	67.85	" " " " ...	"
8 " (s.) ...	68.18	" " " " ...	"

BROOKLANDS RECORDS

Main Outer Circuit Lap Record			m.p.h.
Napier-Railton (Cobb) ...	...	...	143.44
Mountain Circuit Lap Record			m.p.h.
E.R.A. (S.) (R. Mays) ...	...	...	84.13
CLASS RECORDS			
Main Outer Circuit			
Class A. Napier-Railton (Cobb) ...	...	...	143.44
" B. Barnato-Hassan (Bertram) ...	...	...	142.60
" C. Duesenberg (Straight) ...	...	...	138.15
" D. Bugatti (Earl Howe) ...	...	...	129.70

Class F. Derby (S.) (Mrs. Stewart) ...			m.p.h.
" F. Delage (Earl Howe) ...	...	...	135.95
" G. M.G. (Major Gardner) ...	...	...	127.05
" H. M.G. (G. H. P. Noble) ...	...	...	124.40
" " " " ...	...	...	122.4
Mountain Circuit			
Class B. Alfa-Romeo (Austin Dobson) ...	...	...	77.84
" C. Sunbeam (Sir M. Campbell) ...	...	...	76.31
" D. Alfa-Romeo (Shuttleworth) ...	...	...	82.06
" E. E.R.A. (Mays) ...	...	...	81.28
" F. E.R.A. (S.) (R. Mays) ...	...	...	84.31
" G. Appleton-Riley (Appleton) ...	...	...	76.1
" H. Austin (Dodson) ...	...	...	77.02

ON THE BENCH AT THE BELLEVUE GARAGE

It is fairly generally known that at the extremely up-to-date Bellevue racing shop there is a Heenan and Froude test-bench, installed in a sound-proof fire-proof room, equipped with sound-absorbing roof, water-cooling from the mains and twin Burgess silencers under the floor. The last engine I saw on it was an M.G. unit used for testing the German-made Derbuel blower, which, by the way, is a very compact instrument which would easily smuggle alongside the cylinder block of such an engine. There is no doubt at all that anyone who tunes modern racing-engines without a test-bed is working very much in the dark. Such equipment vastly simplifies fuel problems and enables the very best to be obtained from any engine. Wilkinson finds M.G. engines, for instance, very sensitive to ignition timing and varies the distributor setting by hand with the engine full bore on the bench, locking it when maximum output

is registered. He tells me that temperature makes a considerable difference to output and that if cold water is suddenly allowed to flow through an engine the full-bore output will fall by as much as 5 b.h.p. I believe the charge made for putting a client's engine on the bench and adjusting to maximum efficiency within the limits of existing components is £5, and that that includes horse-power readings before and after attention. Quite apart from racing, those drivers who seek trials honours should find such attention invaluable. Long runs on the test-bed show up weaknesses in racing-units without involving the blow-up that would occur if the engine was run on the track, where it is functioning unobserved beneath a bonnet. Incidentally, the Heenan and Froude equipment at the Bellevue stable has functioned faultlessly and it is ingeniously self-correcting for accuracy.



A. A. Baring's Ford V8 at the difficult restart on White End Park.

AN ENJOYABLE DAY'S
SPORT IN THE CITY
AND GUILDS
CHRISTMAS TRIAL

BEST PERFORMANCE BY
G. MONTANARO
DRIVING M.G. MAGNA

WINTER IN THE CHILTERN

FAVOURED by a brilliant, frosty winter's day in the middle of a spell of bad weather, the Christmas Trial of the City and Guilds Motor Club on December 18th, provided good sport in the Chilterns for a score of enthusiastic competitors. Most of the entrants were provided by two of the invited clubs, the Berkhamsted and D.M.C., and the Cambridge University A.C., for the Guilds men were mostly engaged as officials and marshals.

Best performance was made by G. Montanaro, of the Cambridge U.A.C., driving an M.G. Magna. Special awards were offered for best performance by a member of a club sending six or more entries, and H. W. Inderwick with his Batten Special won the Berkhamsted tankard, while, after Montanaro, K. N. Smith with his Frazer-Nash-B.M.W. was best of the Cambridge entries.

It had been intended to run the event on the double-circuit plan, but since the numbers both of marshals and competitors were smaller than anticipated, the route was used in a straightforward manner, and all competitors were scheduled to take one circuit in the morning, and another in the afternoon, returning to the Mill Stream, Amersham, for lunch and finish.

One competitor, however, somehow missed receiving the alteration to the printed instructions, and set off on the afternoon circuit in the morning. This was H. W. Inderwick, who, as he proceeded, found it strange that no other competitors appeared. He was confirmed in his course, however, by the fact that on one of the early hills the marshals were actually there, having fallen into the same error!

When Inderwick got back to the lunch stop, with the impression that it was a very strange trial, a pretty problem was presented for the stewards. Eventually it was decided to send a special observer with Inderwick in the Batten Special round the other circuit, already traversed by the rest of the field, but that the errant competitor should first take the timed section which he had missed. Inderwick's lone effort was very success-

ful, for he was one of the only three competitors to retain a clean sheet.

The course, with competition tyres and locked axles barred, had been rendered comparatively easy by the hard frost, but a difficult restart at White End Park took its toll. Only Montanaro and J. P. Boileau, both with M.G.s, got away in the morning (followed later by Inderwick), and retained full marks.

It was possible to gain a certain number of marks by getting up the hills by "other means," such as bouncing, or taking a rush at the starting line, and A. D. Phillips, his girl passengers bouncing vigorously up and down, earned much credit by getting his old Bentley up White End Park in this manner. Miss K. Taylor with her Lancia, and G. D. Claridge with his Frazer-Nash, also retained some marks here.

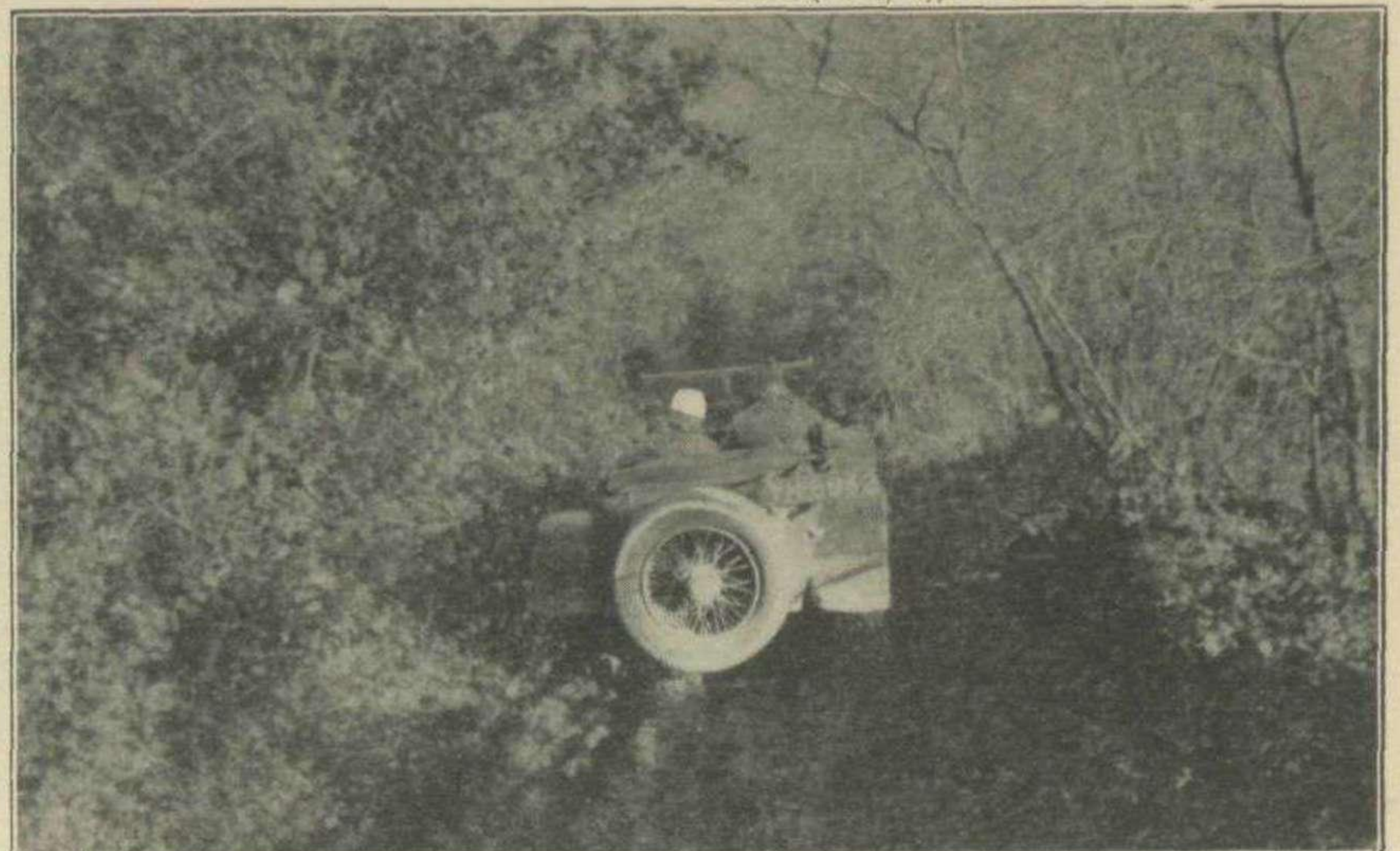
L. C. Snowden, after several attempts with his Ford V8, solved the problem by a remarkable climb with the engine just ticking over. If others had adopted these tactics, there would have been more successes.

Rutty Lane, which last year caused a lot of difficulty, was so hard that no one scored a complete failure, and the rough surface of Pudds Cross only stopped one car, a few losing marks through bouncing. Even D. Baddeley's very old twin-cylinder B.S.A. scored a success. Baddeley's was an heroic effort, and he was loudly cheered on arriving at the lunch stop, his ancient vehicle clattering on a rim!

Montanaro achieved his premier position by recording 12.8 secs. in the acceleration test. Inderwick took 13.5 secs., and Smith with the B.M.W. 13.8 secs. In the brake test Smith was best with 11.1 secs., and G. F. Foxlee with his Alvis did well to record 11.5 secs.

RESULTS

- Best Performance Cup : G. Montanaro (M.G.).
- Berkhamsted Tankard : H. W. Inderwick (Batten-Special).
- Cambridge Tankard : K. N. Smith (Frazer-Nash-B.M.W.).
- City and Guilds Tankard : J. P. Boileau (M.G., S.).
- Second Class Award : G. D. Claridge (Frazer-Nash).
- Third Class Awards : G. F. Foxlee (Alvis), F. G. H. Minter (M.G., S.), H. Merriman (M.G.).



Miss K. Taylor brings her Lancia successfully through Glug Lane.

THE RETURN OF THE LEA-FRANCIS

THE marque of Lea-Francis will soon be in active production again. The original Lea-Francis Company was formed in 1896, for the manufacture of bicycles. In 1900 they began making cars, one early model having a 3-cylinder 4" x 6" horizontal engine—so far the Veteran C.C. has not unearthed an example. In 1911 the famous V-twin motor-cycle was introduced, with two-wheel braking and fully-enclosed chain-drive. In 1922 the 12 h.p. Lea-Francis light car made its bow, and Tatlow gained a Gold Medal on one in the 1924 R.A.C. Six-Day Trial. Subsequently the famous 1½-litre sports job was offered to the public, with a Cozette supercharger available as standard. Seal was set to its fame when Kaye Don won the 1928 T.T. at 64.06 m.p.h. Another big success of the "Hyper" model was the Saorstat Cup Race of 1929, when S. C. H. Davis and W. H. Green finished second and third behind Ivanovski's Alfa, Davis averaging 74.62 m.p.h. for the 277 miles. Lea-Francis also built 6-cylinder models, including the twin o.h. camshaft "14-40" of 1927 and the "Ace of Spades" of 1930. There are five old-school Lea-Francis amongst cars owned by members of the Vintage S.C.C. The original company ceased production some time ago, but a new Lea-Francis is to make its appearance, designed by George Leek and R. H. Rose.

The new Lea-Francis will be offered in two sizes, a 1½-litre 69x100 mm. 11.9 h.p., and a 1.6-litre 72x100 mm. 13 h.p., both 4-cylinder. The engine design is essentially modern, but conventional. The o.h. valves are inclined in hemi-

spherical chambers, and are operated by high-level chain-driven camshafts on each side of the cylinder block. These camshafts are so located that the cylinder head is detachable without disturbing them. Such a feature has long figured amongst commercial vehicle designs, in some instances of which the head actually hinges over for decarbonisation. Lagonda introduced this idea to the car world in their famous twin camshaft 2-litre, but used rockers to actuate the valves. The Lea-Francis uses tappets sliding in the block and 2½" push-rods operating via ball-ended rockers mounted on a rocker shaft on the head. Thus the advantages of o.h.c. operation are secured without servicing complications, which has long been a feature of all Riley power-units, of the Autovia and of certain early Dorman power-units. The valves are set at 90° in machined hemispherical heads. Some persons can see no advantage in this head arrangement unless startlingly high compression ratios are used, but they overlook good port shapes, and efficient combustion, and the latent possibilities awaiting engine-tuners.

The Lea-Francis has 14 mm. plugs set centrally, slightly off-centre and straight, machined ports. The crankshaft runs in three bearings and is counter-weighted and of large proportions. There is water-spacing between each cylinder in the monobloc block and the stiff crankcase has a ribbed aluminium sump. A submerged gear-type oil-pump is used and the oil-drain valve can be opened without crawling beneath the car. The valve ports are on opposite sides of the block and the single carburetter is hot-spotted

on the hot-air principle to a spot on the induction manifold. The ignition distributor is set vertically, driven by skew-gearing. Cooling is by belt-driven centrifugal pump in tandem with the fan. Ignition timing is by suction in addition to governor control. This is a most promising unit. The 1½-litre example is claimed to develop 50 b.h.p. at 4,700 r.p.m. and it should be capable of considerable development. The drive passes via a 9" clutch to a four-speed gearbox with synchromesh for the three upper speeds and ratios of 20.45, 11.39, 7.85 and 5.375 to 1. The central lever is of remote control type and of neat construction. Transmission is by a divided open shaft having a central bearing on the frame. The chassis has five cross-members and a diamond central bracing and the flat half-elliptic rear springs are set outside the side-members with the axle above the frame. Front suspension is by half-elliptic springs. A Wilson self-changing gearbox will be available at extra cost. An 11 gallon rear fuel tank is used and the specification includes automatic chassis lubrication and telescopic steering column. The track is 4' 4" and the wheelbase 9' 3". The new Lea-Francis appears to be a very well-designed high-performance car.

The Six Light four-door saloon will cost £395, the Four Light four-door saloon £395 and the drop-head coupé £410 on either chassis. In view of the returning popularity of open bodywork and the tradition of the marque, we suggest that an open model is added. The makers are Lea-Francis Engineering (1937) Ltd, Coventry.

A New Year Present for 1938?

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Letters from Readers

MEMORIES OF THE PAST

Sir,

I have enclosed two photographs of two grand old cars which I think are worthy of reproduction in your journal. One is the 2-litre Miller which the late Count Zbrowski and S. C. H. Davis raced in the 1924 G.P. and the other is my own 1922 2-litre G.P. Sunbeam.

Both photographs were taken at a hill-climb here a few weeks ago. Allow me to say that MOTOR SPORT is undoubtedly the finest journal published and the notes on veteran cars and sporting cars of other days as the 30/98 and Bentley are greatly appreciated. Wishing you the best of luck for 1938.

I am, Yours etc.,

Adelaide, M. A. MOULDEN.
South Australia.

* * *

ON THE INFLUENCE OF SLIME-STORMING

Sir,

The writer of the above article in last month's MOTOR SPORT must I am sure be the owner of a Bugatti or some such similar car. The springing, looks and performance of which follow his ideal, that is, racing-car practice. Actually this type of car feels like one with solid tyres, looks and sounds like a racing-car but a Ford V8 saloon is usually a lot quicker.

A very successful trials car, the type the writer deplors, is the Special I have just sold to Guy Warburton. This has a Bugatti racing body and tank, high-g geared steering, 10 to 1 first gear, 3.5 to 1 top, 0.50 8 seconds 0 to 60 under 11 seconds, 90 to 95 m.p.h. in trials trim and 105 m.p.h. stripped. Recently I covered the J.C.C. Ilfracombe trials course and Knott Trophy trial, both in the Minehead district, a total distance of about

450 miles at an average petrol consumption of 19.6 m.p.g.; would the writer call this a good sports-car? A very successful racing-car, the B.M.W., is also a very successful trials car. It has the features all sports-cars should have but are usually lacking, high power to weight ratio, high gears and high-g geared steering.

The writer states that M.G. and Austin use special cars for trials, but I contend that everything that is done to these cars to improve them for this job also makes them a better sports-car. The fact that a trials car cannot be driven, say, at Donington without some adjustments is no different from a standard sports-car trying to race. Trial cars are usually fitted with special large tyres which effect the road holding at speed but this is easily remedied. Incidentally both Austins and M.G. ran cars at Donington in the 12-Hour Race, that are similar, if not the same as the trials motors.

There are a few special points that I do not agree with:—

General Equipment. Small wings are put on to prevent the touring wings being damaged, in the same way as the writer would take off his wings for racing when possible. The fold flat screen did not come from trials. I have found that a trials motor car can blank off its radiator but overheat when taken on Brooklands. Re exhaust pipes, the owners usually do any alterations themselves but the so-called sensible outside pipes are chiefly an ornament on which to burn yourself.

Low Gear Ratio. Everybody appears to have the idea that low gear ratios are necessary for trials. This is quite a fallacy as nearly all the small trials cars use second gear, first gear being too low. Whilst larger cars have a low gear ratio that gives 40 to 45 m.p.h. In every car I have used for trials I have geared up the steering; I think most other people

find it necessary. The present-day racing-cars have a very low geared steering, e.g. the Mercedes and Auto-Union. Gone is the day of the 1½ Bugatti that the writer apparently finds ideal.

The writer mentions such things as locked axles, etc., but no sports-car can ever compete at Donington or elsewhere without similar alterations, if he wishes to compete successfully.

The writer's plea that "To-day's racing-car is to-morrow's touring car" usually means that we get a sports-car weighing 12 cwt. with a 750 c.c. engine. All small sports-cars that I have driven that are supposed to be a copy of the racing job have been nothing more than a buzz box. If instead a detuned 1½-litre engine was installed (after trials practice) the car would be more reliable, probably have a faster touring speed and I am sure a better petrol consumption. The writer of course would deplore having a 1½-litre car only as fast as a 750 c.c. job because it would not compete satisfactorily at Donington, but then how many different people compete at Donington or elsewhere annually?

I am, Yours etc.,

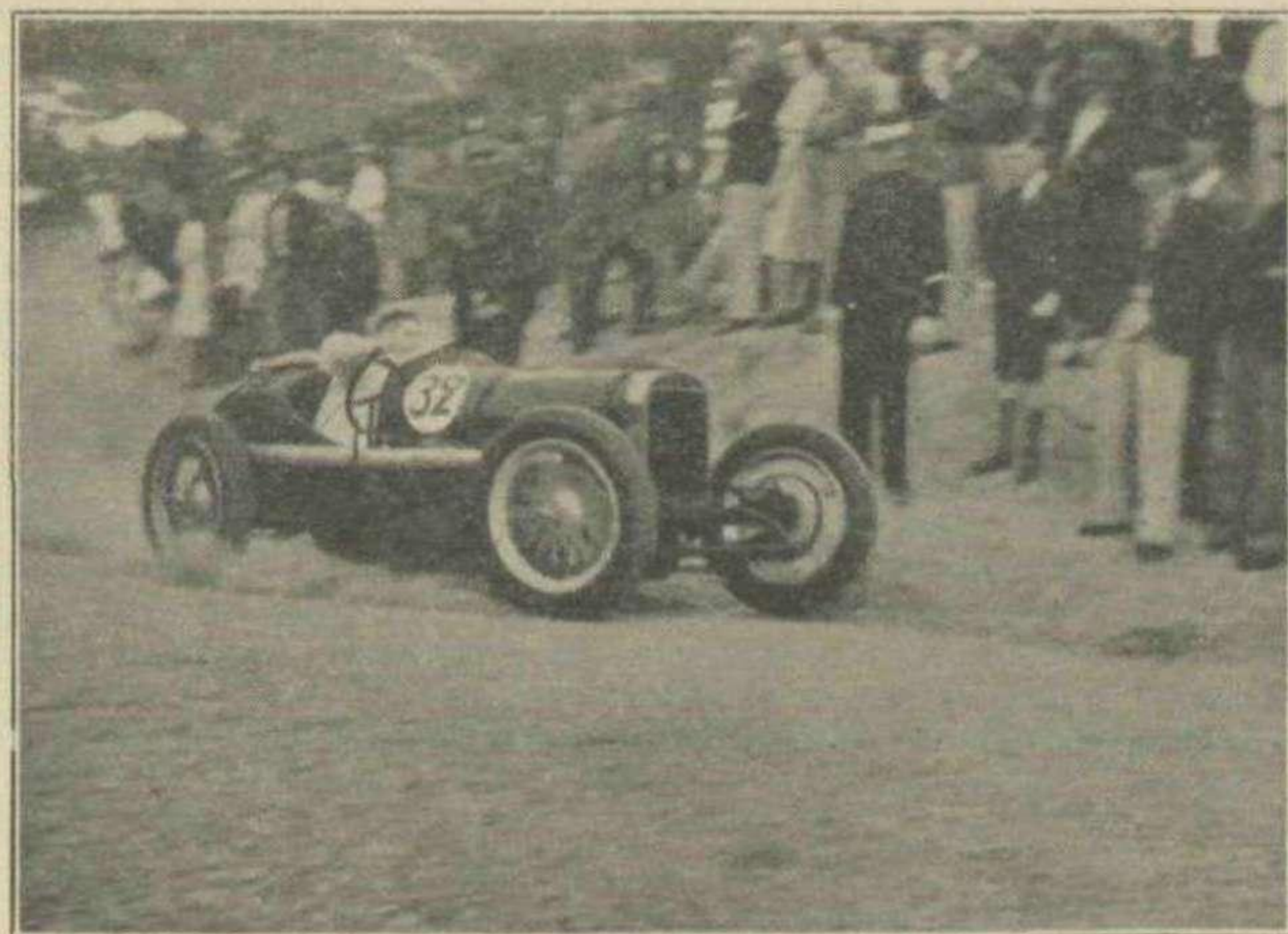
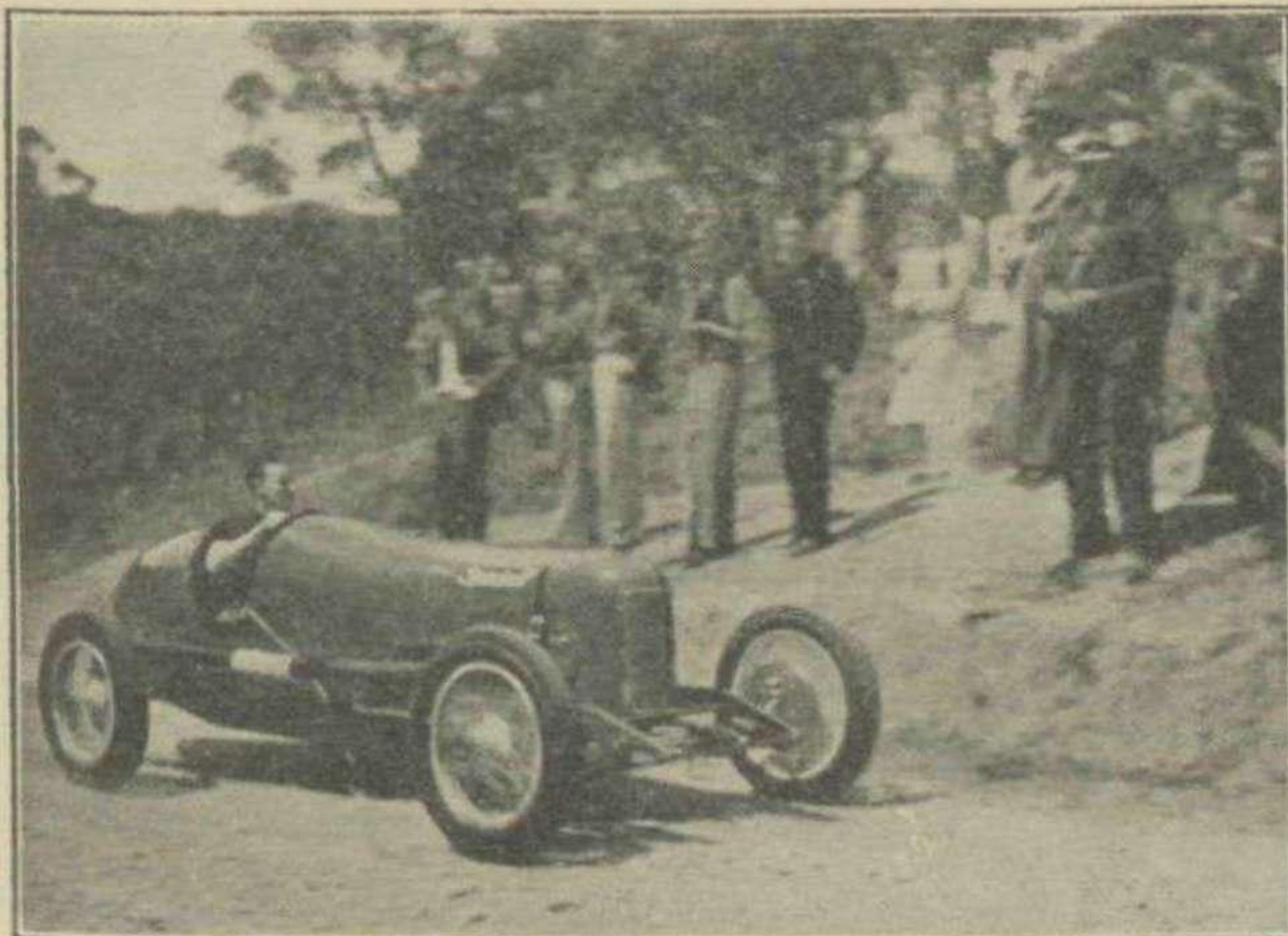
Putney,
S.W.

S. H. ALLARD.

* * *

Sir,

As regards slime-storming, is there no hope of a return to comparative sanity by means of a permanent ban on competition tyres, locked differentials and freak weight distribution, all of which are detrimental to good handling on normal roads? Things have come to a pretty pass when a sport that was once open to everyone with any sort of a car is now only feasible for the wealthier and more crack-brained. Admittedly, mere gradient will not stop any decent modern



The 2-litre Miller and the 1922 2-litre Grand Prix Sunbeam as mentioned by our reader in Adelaide.

LETTERS FROM READERS—continued

car, but surely we don't want trials in which the competing lunatics look like hairy specimens from Heaven knows where!

You lament the dearth of small sports-cars in the £200-£300 class. I agree with you, but surely there is more need of cheap sporting two-seaters based on popular chassis at below £200? It seems to me that people either want the pukka job at something well over £350 up to as much as they can afford, or else want a cheap motor in the low-price field. The sort of thing I visualise is rather as follows:—Morris Eight or Ford Eight chassis practically as standard except for fitting of a four-speed plain box, and either tuned or mildly supercharged, better headlamps, more instruments, and a very light two-seater body rather after the style of the original M-type Midget; equipment to include Rudge wheels, cycle-type mudguards, spring wheel, fly-off handbrake, etc.; the whole to be capable of about 70 to 75 m.p.h., 30 to 35 m.p.g. (with a 10 gallon tank), and selling at about £195 all on. Quite a good cheap sports-car could be based on Standard Flying Nine and Singer Bantam chassis. Many of your readers may sneer at such cars, but, for people who can't afford cars in the Frazer-Nash class, I feel sure they would fill the bill. By the way, could you give us a road-test of a super-sports Morgan sometime? I wonder why more people don't devote time to hotting up these instead of the eternal Austin Seven? Perhaps it's the road-holding that worries them. I should be very glad if someone could tell me how they behave in this respect, as I have always been rather chary about buying one for this very reason.

I am told there are difficulties about insuring them, too.

I am, Yours etc.,

ARTHUR HARDMAN.

Southport,
Lancs.

RECORDS ANALYSIS

Citroen holds far and away more records than any other marque, namely 169 world's honours, eighty-eight class D, three class E and 182 class F records. The runner-up is the Mormon-Meteor, with twenty-one world's and twenty-two class A records. The Yacco-Special holds sixteen C.I. records and also five class E records, the first diesel-engined car to capture records in the petrol classes. Record speeds in International divisions range from 21.44 m.p.h. for the class J 24-hour record by the 350 c.c. Vitesse-Special, to 312.00 m.p.h. for Capt. Eyston's flying kilometre in the 73,390 Rolls-Royce motored Thunderbolt. The only International record established at Brooklands in 1937 was Forrest Lycett's Class B standing kilometre with an 8-litre Bentley, afterwards broken by Auto-Union. But thirty-one International figures established at Brooklands still stand.

The oldest records on the lists are H. W. Walters's standing start mile and kilometre in Class J, at 52 and 58 m.p.h., with the Jappic. In the British list the oldest is S. F. Edge's 24-hour figure of

A MEETING OF THE CLUBS

Sir,

With reference to the recent controversy regarding the congestion of trials in various areas, as you know, at the meeting of Club Representatives held at The Motor Sports Club on November 30th last, a Committee was appointed to go into this matter.

This Committee held their first meeting on Thursday, December 16th at which the following resolution was passed:—

"That this Committee should formulate a scheme to put before a further meeting for the formation of a voluntary group of Clubs in the London area, with the object of establishing better control of the sport through the R.A.C. by means, if necessary, of voluntary restriction."

A further Committee Meeting will be held on January 20th next, to formulate this scheme definitely, when it will be put to the Clubs in question and a further general meeting called.

As Secretary of the Committee as at present constituted, I should be glad if you would publish the above in your next issue, as the matter is of some importance.

I am, Yours etc.,

Notting Hill Gate, A. J. G. BOCHATON.
W.11.

* * *

THE BOND CAR

Sir,

Whilst going through my scrap-book I came across a description of the Bond car which was mentioned in one of the motoring papers just a decade ago—almost to the day.

To me it is most entertaining to re-read such articles as this on the sports-car of what I cannot help thinking was one of the "Vintage Years."

One can recall so many marques of those years—some, but all too few, are still with us, such as the Frazer-Nash, but I mourn the others!

* * *

THE T.T. OUTLOOK

Ulster continues to mourn the loss of the T.T.—therein may be contained a lesson for other Irish county councils. Capt. A. W. Phillips, of the R.A.C.,

However, to return to the "Bond." It seems to me in a great number of ways the 1927 counterpart of the "H.R.G.," and even the price is not very different! You will see that an 80 m.p.h. maximum was claimed for the "Bond" as against, I believe, 85 to 90 m.p.h. for the "H.R.G." The gear-ratios seem comparable, the engine is a Meadows in both cases (correct me if I am wrong on this point), front springs quarter-elliptic, and so on. Of course, there is no question of the "H.R.G." not being infinitely more refined and thoroughly up-to-date, yet having all the qualities which were so valued in 1927.

The comparison is interesting, isn't it?

I don't think many cars were produced by Bond; I did actually see one model, actually only about five years ago—in very bad condition.

I should like to finish by expressing my whole-hearted agreement with your recent article questioning the value of trials to sports-car design.

I don't know anything about trials, never having driven in one. I can appreciate that an enormous amount of fun is derived therefrom by competitors, but how any man with any feelings for the mechanism of (in many cars) beautiful and expensive pieces of engineering can crash them up and down muddy lanes and boulder bestrewn tracks passes my understanding! However, I expect I shall be howled down!

With all good wishes for the continued success of your fine journal.

I am, Yours etc.,

Stoke-on-Trent.

N. A. SMITH.

We welcome letters for publication in these columns. Letters intended for publication must be written on one side of the paper only and they may be signed with a nom-de-plume, but the name and address of the writer must be enclosed.

landed at Belfast on December 3rd last. With F. W. Grigor, the Co. Antrim Surveyor, H. A. Bryson, C. G. Neill and Capt. Thompson, he examined a number of circuits near Belfast. Local authorities are said to be prepared to construct a by-pass at Newtownards to make further use of the Ards circuit possible, and the Race Committee of the Ulster A.C. is sounding local opinion as to whether the money is available. Comber, too, would seem to need by-passing. The I.O.M. looks like being out of the question, as the Tynwald Committee reports that the R.A.C. International Light Car Races cost the Government £1,400 a year and estimates that the T.T. would involve £2,500 to £3,000. Neither the Government nor the R.A.C. will put up such a sum. In the meantime we picture Fred Craner emulating Brer Rabbit. Capt. Phillips has provisionally approved a circuit for the 1938 Ulster Trophy Race, the former Ballyclare circuit having been pronounced too narrow and winding between Lindsay's Corner and Ballyclare. Oh, that we had circuits for Capt. Phillips to sanction in our Merry England!

VETERAN TYPES

A 90 H.P. FIAT

By

"BALADEUR"

LOOKING back at various articles which have appeared in the "Veteran Types" series I am struck by a journalistic convention, not to say subterfuge, which characterises them. An obscure and ancient motor is introduced to the reader, and the writer, describing its origin and characteristics, adopts the attitude that he has merely had to draw on his omniscience to produce all the details about the car as soon as he heard of its whereabouts. On this occasion, however, he intends to discard this polite fiction on the grounds that the description of the true manner in which some information was gathered about a very remarkable motor-car may not be unamusing to some of his readers.

Some months ago, A. S. Heal, whose performances on a 30/98 Vauxhall may not be unknown, inspired by the speed events for pre-War cars organised by the Vintage Sports Car Club, was smitten by a desire to acquire a motor suitable for participation in them. By chance he came to hear of a truly noble machine in the shape of a gigantic red F.I.A.T. and shortly afterwards he applied to the present writer for information with regard to its origin and history. "It is," he wrote "a F.I.A.T. 4-cyl. 130 bore 190 stroke (about 10-litres): four valves per cylinder: o.h. camshaft: four-speed gearbox: final drive by chain. Alleged to have been one of three built for a race in 1912. The car in question was raced by R. Warde and John Cobb in 1926 and 1927. There is a brass plate on the engine which bears the inscription: 'Tipo S 61. No. 42.'"

From this information I set to work to discover something about the car. I genuinely did remember it well enough in its post-War Brooklands days, but as to its origin I was completely in the dark.

One thing was fairly easy to establish, namely that from 1910 or 1911 until 1914 the F.I.A.T. company listed the Type S 61, with four cylinders of 130 x 190 m.m. bore and stroke, as its standard 90 h.p. model. Moreover the factory weighed in with the information that the Tipo S 61 was made in 1910. It would therefore have been fairly easy to reach the conclusion that this car was No. 42 of a standard series and to leave it at that.

It did not, however, seem very satisfactory to leave it at that. In the first place there was a sneaking reluctance to admit that the machine was not a genuine racing-car; and moreover, even in the spacious days of before the War, it was rather unusual to design a 10-litre standard model without any particular excuse. So research continued.

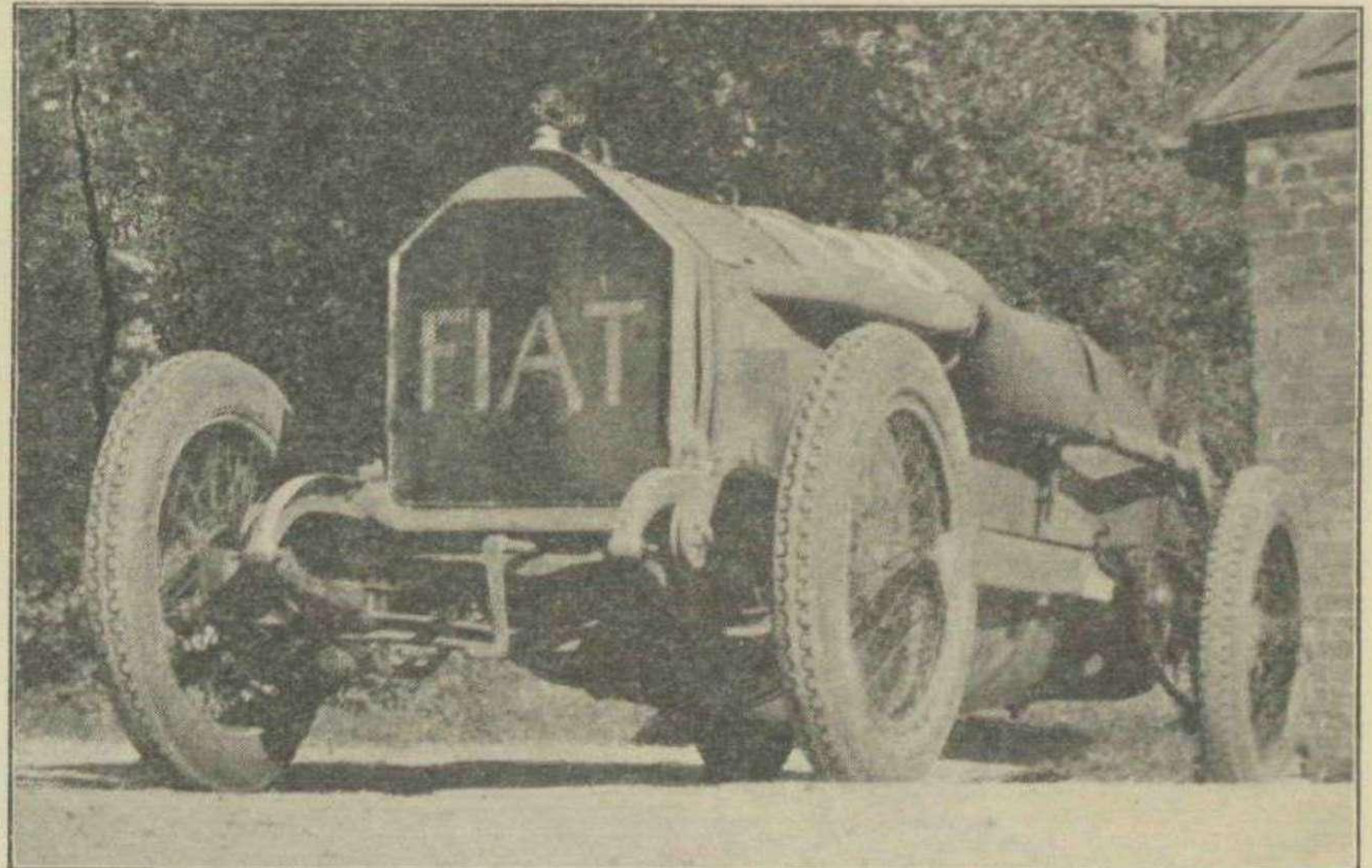
It strayed to the annals of the first Grand Prize of America, which was run as a road race in 1911, and in which a F.I.A.T. finished third. Investigation proved that this machine, according to a contemporary report, had a bore and

stroke of 5 x 7 1/2 inches, which, converted at 25.4 m.m.=1 inch, gives an equivalent of 127 x 191 m.m., as near as may be. There was no engine size regulations for the race, and the dimensions therefore were probably given to the nearest quarter inch. On this assumption it was fairly obvious that we were dealing with our old friend the 130 x 190 m.m. engine.

But this did not really help matters much. If the engine was standardised in 1910 it obviously could not have been designed for a race in 1911. Moreover it would have been very surprising in those days if a European manufacturer

The big increase in the stroke-bore ratio between 1908 and 1912 suggested that in the meantime the factory had had experience of long-stroke engines, but that probably this experience had been forced on its designers by the limited bore rule. One must obviously seek for a race with such regulations to find the origin of the design.

At this point a red herring was drawn across the path. A High Authority volunteered the information that "the car is probably the 90 h.p. Taunus model." What did this mean? The only significance this had for me was that the Kaiserpreis race of 1907 was run over the Taunus Circuit. But the dimensions of the F.I.A.T.s which ran in this race were



The 90 h.p. Fiat which has been brought out of retirement by A. S. Heal.

had gone to the trouble of designing a car for an American race, which they usually won with a racer several years old. I began to search for an earlier European race.

The last French Grand Prix, in 1908, had produced F.I.A.T.s with much bigger bores—155 m.m. was the limit for the race and the Italian firm built up to it. The next French Grand Prix, in 1912, was a free-for-all race, and the F.I.A.T.s which ran in it had a relatively long stroke, but not such a big stroke-bore ratio as our problem car. For my own edification I produced a little table, as follows:—

given as 140 x 130 m.m., and besides the rules limited the capacity to 8-litres. The discovery of a standard model F.I.A.T. for 1909 called the 90 h.p. Taunus type with a bore and stroke of 140 x 129 m.m. stopped further progress along this false trail.

After this I cast back to the Targa Florio, and found, not without some excitement, that the regulations for the 1908 race stipulated a maximum bore of 130 m.m. But in a year in which F.I.A.T. for a Grand Prix, run to a bore limit of 155 m.m., only dared use a stroke of 160 m.m., one was unlikely to find any such exaggerated dimensions as 130 x

GRAND PRIX F.I.A.T.s			
	Regulations	Bore & Stroke	Stroke-Bore Ratio
1906	Weight limit	180 x 160 m.m.	0.9 : 1
1907	Fuel consumption limit ...	180 x 160 m.m.	0.9 : 1
1908	Bore limited to 155 m.m.	155 x 160 m.m.	1.03 : 1
1912	Free-for-all	150 x 200 m.m.	1.33 : 1
?	?	130 x 190 m.m.	1.46 : 1

A 90 H.P. FIAT—continued

190: and in fact the 1908 Targa Florio F.I.A.T.s had a stroke of only 140 m.m.

So far the search had centred exclusively on cars which ran in races. What about racing-cars which never ran? Here I am convinced was found at last the answer to the riddle. No French Grand Prix was run in 1909, but the regulations for the race were prepared, and they stipulated a maximum bore of 130 m.m. Surely here is to be found the origin of the F.I.A.T. A jump in the stroke from 140 m.m. to 190 m.m. in one year, with the bore remaining at 130 m.m., seems a big one. But serious consideration of the limited bore rule must have led to observation of the Voiturettes, where Peugeot in 1909 was using a stroke-bore ratio of 2.5:1. I am therefore fairly convinced that this F.I.A.T. design was made for the 1909 Grand Prix which never took place, and then used *faute de mieux* as a standard model in 1910, eventually becoming a racing design again on the occasion of the American Grand Prize in 1911.

Having reached this point I was still keen to prove that the particular car in question was a real racing-car built for the 1909 Grand Prix. I was not much worried by the date, because when the race was called off, they might well not have troubled to finish the cars before 1910. But I was worried by "No. 42." I even tried out a theory that all F.I.A.T. racing-cars were in a series S 61, and I counted thirteen pre-1909 types as follows:—1900 "Padua" type; 1901 "Piombino-Grossetto"; 1902 "Mont Cenis"; 1903 Paris-Madrid; 1904 Gordon-Bennett; 1905 Gordon-Bennett; 1906 Targa Florio; 1906 Grand Prix; 1907 Targa Florio; 1907 Kaiserpreis; 1907 Grand Prix; 1908 Targa Florio and 1908 Grand Prix. Allowing three cars of each type this would make thirty-nine cars, and the third of the 1909 Grand Prix type would be No. 42! But this ingenuity failed to convince even myself.

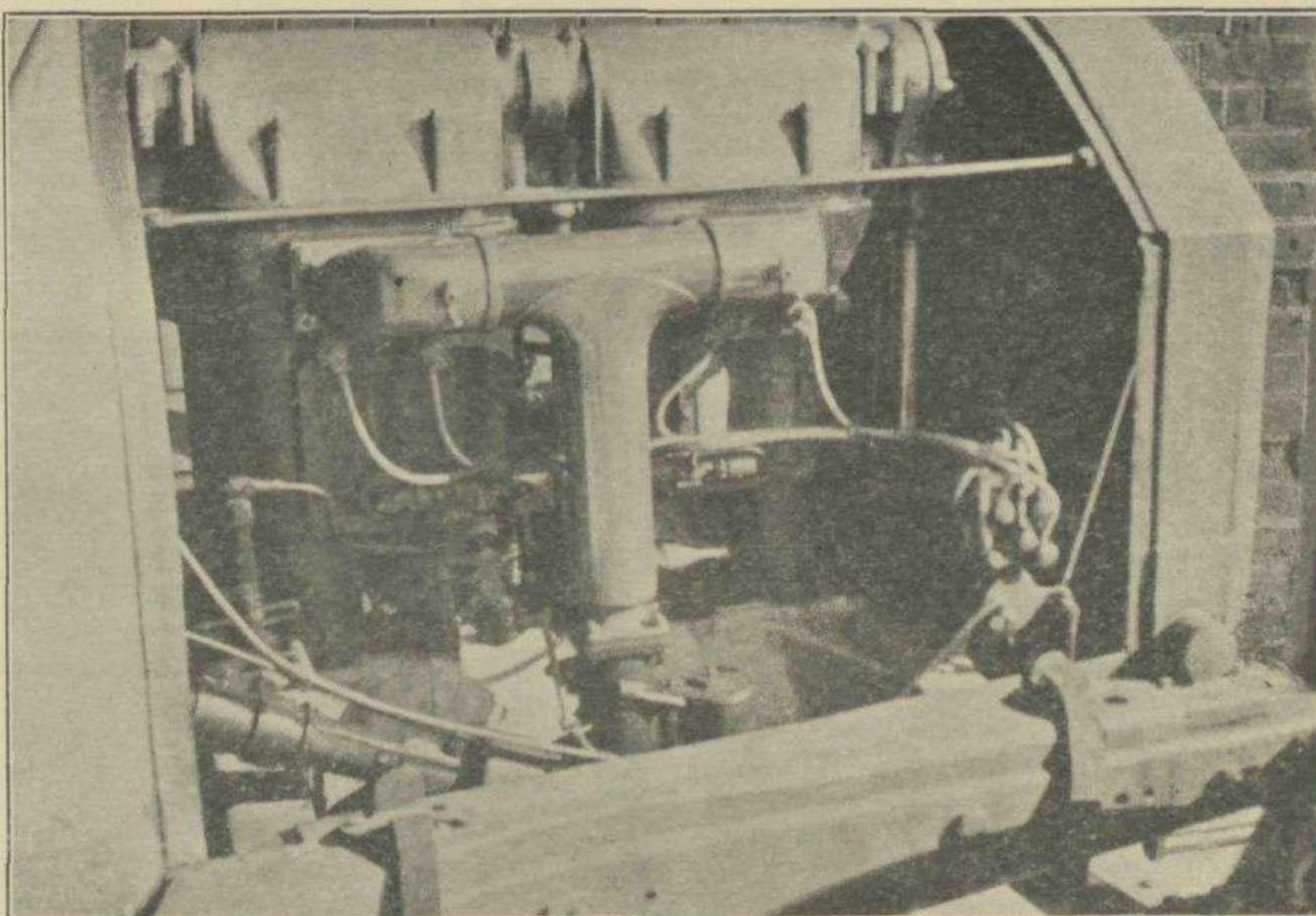
At this point came a momentary thrill in the shape of information from a former owner that engine No. 42 (of date 1911) was not that originally belonging to the chassis, although it was of the same type. But the consequent elation was short-lived as he added that the original engine was No. 25 (of date 1910). I think therefore that this particular machine cannot have started life as a racing-car, but must have belonged to the standard series.

At least, however, it has been a racing-car for a respectable length of time. I believe that Duff was the first to race it at Brooklands in 1920. By 1922, however, it had passed into the hands of P. Rampon and at the 1923 Easter Meeting it won the Brooklands Founder's Gold Cup at 96 m.p.h., driven by E. A. D. Eldridge. Rampon himself raced it for the rest of that season and throughout 1924, finally winning the Brooklands Gold Vase with it at the Whitsun Meeting in 1925 at 97 m.p.h. I think that it must have been immediately after this that the car was acquired by R. Warde, who raced it at the Summer Meeting. He shared the driving with J. R. Cobb, who won a race with it at both the August and Autumn

meetings of 1925. Cobb concluded a successful year by winning a "Long Handicap" at the Essex Club's meeting at 107.34 m.p.h.

At the Easter Meeting of 1926 it was running again, but whilst Warde was practising before the Whitsun meeting for the first "Gold Star" Race, Engine No. 25 blew up in a most complete and spectacular fashion. A long gap in the car's appearances at the Track then occurred. During the General Strike of the same year, however, Warde encountered Tipo S 61 No. 42, a four-seater owned by Lord Cunliffe, which was at that time engaged in delivering newspapers. Warde then set about fitting this engine to the old racer. The change was highly successful and at the Whitsun Meeting of 1927 Cobb once more scored a win with the seventeen-year-old chassis

the handsome square honeycomb radiator thus revealed. The chassis, when one comes to look at it, is fairly long; longer probably than it would have been if it had been built as a racing-car. The wheelbase is 10 ft. 3 in. Under the bonnet the engine is nothing if not impressive, with its long stroke and overhead camshaft on top of that. The two inlet valves of each cylinder are held in detachable cages. The valve gear is unusual—covering each valve spring is a bell shaped cover which moves vertically like a piston in a guide. An adjusting screw in the top of the "diving bell" bears on the top of the valve stem. Each pair is connected by a horizontal link. The cams bear direct on small rollers in the centre of each link thus opening both valves simultaneously. The camshaft, which runs in ball bearings, is driven by



The impressive "works" of the 90 h.p. Fiat.

and sixteen-year-old engine at 103.1 m.p.h.

The glamorous days of the post-war decade at Brooklands, however, were drawing to a close. One by one the pre-war monsters, which were our delight in the twenties, were disappearing from the scene. The F.I.A.T. was, I believe, one of the last of the chain-driven racing-cars to compete on the track. The powers that be, however, were beginning to frown on the monsters of the past—and Brooklands has never been quite the same thing since. With the others the F.I.A.T. disappeared into obscurity, but not before it had engraved its name on the Record List by taking Class A, 5 km. flying start record at 104.1 m.p.h. in March 1929.

The car was rescued from retirement some months ago by A. S. Heal, and I gladly accepted his invitation to go and see it. It was certainly an impressive enough sight, even by the rather inadequate light of the garage in which work was being carried out on it. The ugly cowl which, following an unfortunate fashion of the day, used to disfigure it at Brooklands, has been removed, and

a vertical shaft at the front of the engine. The magneto, oil pump and water pump are driven at right angles from this vertical shaft. The Bosch magneto has an unusual distributor with two rings of segments and two brushes. By this means the single magneto contrives to fire two plugs in each cylinder.

The cylinders are cast in pairs and mixture is fed to them through a handsome copper induction pipe some thirty inches long. A water jacket "hot spot" has been added later by a firm who announce themselves on a small brass plate as "Expert Automobile Coppersmiths." The large Zenith carburetter has a device in the float chamber not unlike a domestic ball cock.

A cast iron flywheel some 2 ft. in diameter has its spokes in the form of a fan in order to draw air through the radiator. The small multi-plate clutch looks very inadequate to transmit the power of the enormous engine. A massive four-speed gearbox forms a single unit with the differential and bevel gear. From the counter

Continued on page 31

LOOKING BACK ON THE CONTINENTAL SEASON

MERCEDES-BENZ SLIGHTLY AHEAD OF AUTO-UNION. E.R.A. THE JUNIOR CHAMPIONS.
WIMILLE'S IMPRESSIVE SPORTS-CAR VICTORIES.

WHAT were the outstanding features of the 1937 Continental racing season? First and foremost comes the overwhelming superiority of the Germans in the Grand Prix races of the year. Mercedes-Benz and Auto-Union have had the races all to themselves, with the Italian Alfa-Romeos nowhere. Not even the still potent genius of Tazio Nuvolari was sufficient to make up for a lack of speed and acceleration which has reduced the cars of the Scuderia Ferrari to an insignificant place in the history of the Grand Prix Formula which has now expired.

Of the big Grand Prix events Mercedes-Benz have won seven, as against Auto-Union's four. In addition, Auto-Unions got the better of their clash with Mercedes-Benz in the American Vanderbilt Cup Race. Taking into consideration every race in which the two teams met, then, the score is 7-5 in favour of Mercedes.

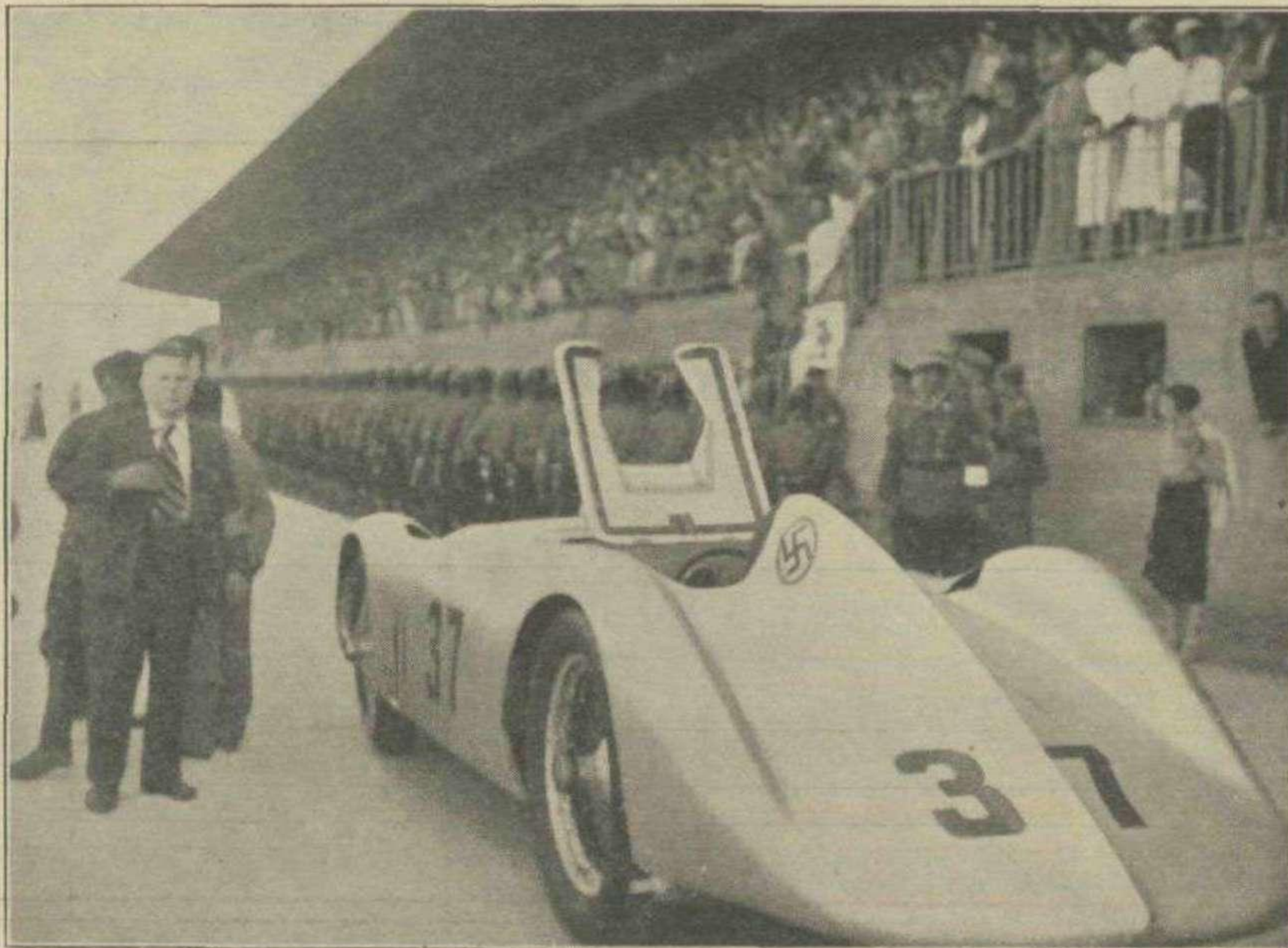
The first time the cars lined up was at Tripoli on May 9th, and immediately it was seen how their speeds had been increased by experimental work during the winter, for in practice Stuck made the fastest lap with his Auto-Union at the terrific speed of 142.97 m.p.h. As usual, tyre wear played an important part in this race, and the lead changed during the race in consequence. Rosemeyer's hair-raising driving of the Auto-Union resulted in his having to make two tyre changes, whereas Hermann Lang, the winner, managed to bring his Mercedes-Benz through with only one stop. Lang averaged 134.42 m.p.h., and was only 9.65 seconds ahead of Rosemeyer at the end—which gives some idea of the great effort made by the latter to make up for his extra pit-stop. The late Ernst Delius was third, and Dick Seaman, making his first appearance in the Mercedes-Benz team, finished fourth after lapping at 138 m.p.h. The Ferrari Alfa-Romeos were completely outclassed.

The second meeting took place on May 30th, and the setting was the re-modelled Avus track on the outskirts of Berlin. The North Turn, previously only slightly super-elevated, had been rebuilt with an almost vertical banking, which allowed the cars to swing round from one six-mile straight to another at about 120 m.p.h. Lap speeds were obviously going to be terrific, for the race was not confined to formula cars and this permitted the Germans to enter their super-streamlined record-breaking machines. The Scuderia Ferrari thought this over, and decided to stay away.

In order to eliminate the danger of tyre wear, the race was run in two heats and a final. Mercedes entered three streamlined cars and two road-racing models. Auto-Union had four cars, two of them being of the streamlined type. The first heat saw a tremendous struggle between Rosemeyer and Caracciola, victory going to the latter by the fraction of a second. Rosemeyer had the consolation of making the fastest lap (and of the day) at 171.6 m.p.h.

In the second heat, Fagioli's Auto-Union battled with Mercedes-Benz driven by Lang and Von Brauchitsch (this car being a new "twelve"). Lang and

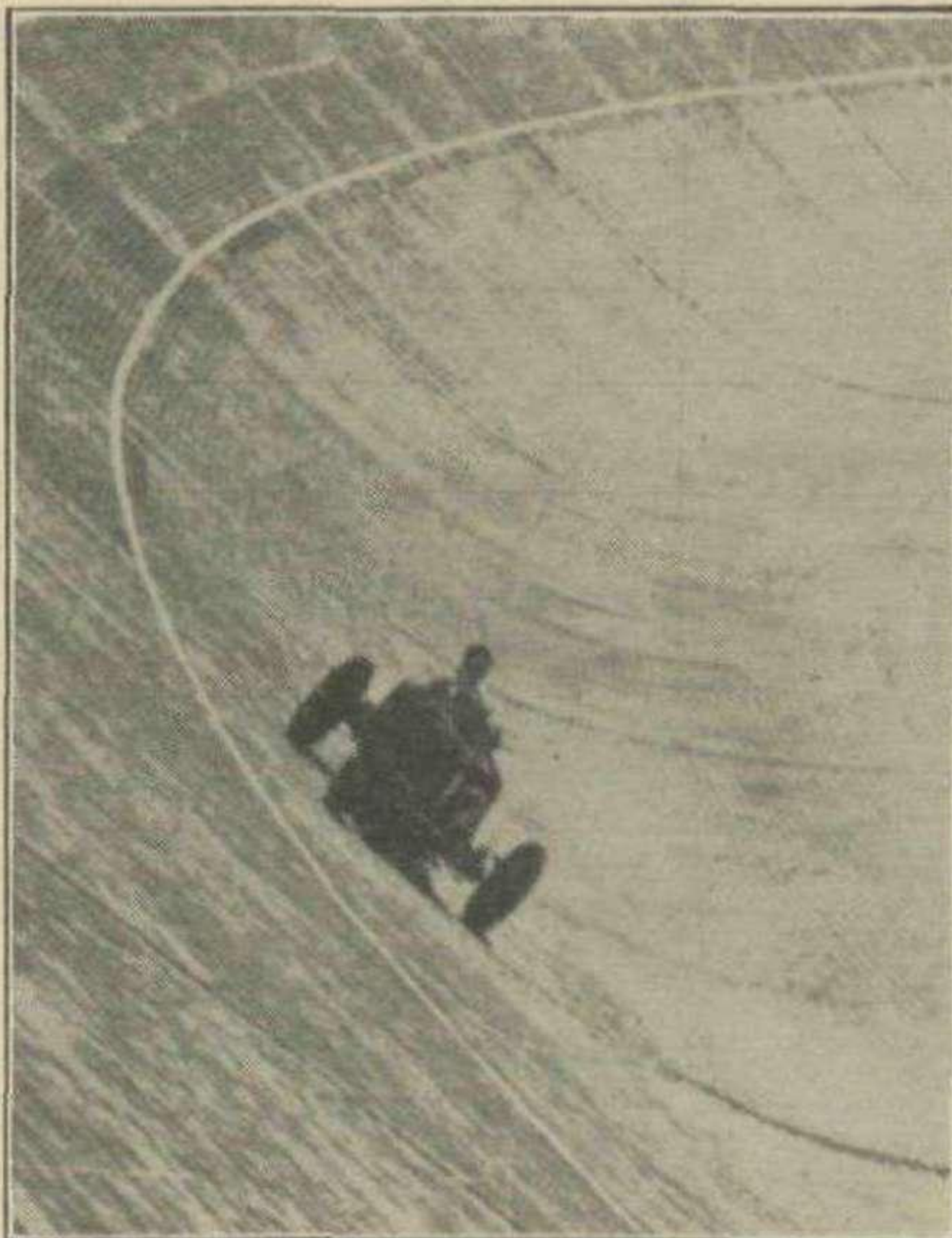
Mercedes-Benz two up, and Lang the winner both times! This didn't suit the Auto-Union book at all, so the cars were given an especially careful examination



Before the start of the Avusrennen. Note the State troopers in front of the grand stand.

Fagioli both had trouble, although the former restarted, and it was Von Brauchitsch's race at 160.3 m.p.h.

The final was rather a tale of trouble, Mercedes losing Caracciola and Von Brauchitsch with clutch-slip. Lang kept well in front of Rosemeyer, who stopped once at the pits, and pulled off the second big race of the year at an average speed of 162.5 m.p.h.



Charlie Martin easily won the 1,500 c.c. Avus race at 119.6 m.p.h.

and tuning before the Eifel race at the Nurburg Ring on June 13th. If the cars were all present and correct, the same could not be said for the drivers; Stuck being away in South America (where he was most unexpectedly beaten by Pintacuda's Alfa-Romeo), Fagioli being ill, and only Rosemeyer, Delius, Muller, and Hasse being available on the day of the race.

"Only Rosemeyer" was sufficient, however, for this young man is never happier than when he is flinging his Auto-Union round the winding and twisting Ring. Caracciola pressed him hard in the earlier stages, leading on several occasions, but the Auto-Union driver eventually built up a 50 seconds lead at the finish. The Alfas reappeared in this race, thinking to have more chance on a course where maximum speed does not count so much, but the best Nuvolari could do was to finish fifth.

Now there was a lull for a month, during which some of the leading drivers packed up and went off to America to clean up the Vanderbilt Cup Race. Rosemeyer continued his winning streak on the other side of the Atlantic and brought the score to two all. Seaman impressed everyone by finishing second. The next European race was the Belgian Grand Prix on the lovely Spa circuit, and it turned out to be rather an unexciting affair. Stuck was back from Brazil, and his opposite first-string in the Mercedes team was Lang, but neither of them managed to win. Instead, bespectacled Rudolf Hasse recorded his

LOOKING BACK ON THE CONTINENTAL SEASON—continued

first win for Auto-Union, at the same time putting his team one ahead in their private war with Mercedes-Benz.

The "boys" got back in time for the German Grand Prix on July 25th at the Nurburg Ring. This race is now the most important of the year, having deposed the sports-car French Grand Prix from its position as the Blue Riband of the motor-racing world. Apart from their desire to get on even terms with their rivals once more, Mercedes-Benz were particularly anxious to win this race, for they had not done so for six years. A technical point of interest was that the "Merces" were using a new type of carburetter which deprived the blower of its famous howl.

The race was run at a fantastic speed. Rosemeyer soon got in front, but he could not shake off Caracciola, Lang and Von Brauchitsch on Mercedes-Benz. In trying to do so he skidded into a bank and damaged a wheel, losing over two minutes at the pits afterwards. It was not to be an Auto-Union day, for Stuck retired and soon after a disaster removed another of the team from the fray. Delius passed Seaman, with whom he had been having a fierce dog-fight, on the long straight leading to the pits, and lost control of his car, which was rammed by Seaman's Mercedes. The Auto-Union crashed wildly into a field, rolling over and over, but Seaman managed to bring his car to a standstill in spite of a broken arm and cuts. Delius was so badly injured that he died later in Adenau Hospital.

Meanwhile Rosemeyer was doing his best to get back on even terms with the leading Mercedes drivers, in doing so finding himself involved in a scrap with Nuvolari's slower Alfa-Romeo. He caught Lang when the latter stopped at the pits, but his delay had been too long, and eventually Caracciola and Von Brauchitsch came in first and second for Mercedes. Rosemeyer was third, an amazing performance, for he had been off the road twice and had had extra pit-stops. Nuvolari was a very gallant fourth, and no record of the race would be complete without mentioning Kenneth Evans's grand drive to finish ninth on his 3-litre Alfa-Romeo. Score, three all!

This year the Monaco Grand Prix occupied an unusual place on the Calendar, being transferred from the spring to August 8th—an effort to popularise the Principality in a usually slack season. Well, the race turned out to be a real grand slam for Mercedes, their cars finishing first, second, third and fifth. Rosemeyer was soon out with seized steering, but he later took over Stuck's car and worked his way into fourth place at the finish. The race was remarkable for a terrific scrap between Caracciola and Von Brauchitsch, in complete defiance of the rigid team orders of Herr Neubauer. The two provided a superb display of masterly driving, and the duel ended when Caracciola had to come into the pits for a brief stop. Before this he had lowered the existing lap-record by no less than 12 seconds!

Lang was not driving in this race, nor was Seaman, who was still convalescent.

Nuvolari did not take part in the

Monaco Grand Prix, as he was busy getting the new 16-cylinder Alfa-Romeo into shape at Monza in readiness for the Coppa Acerbo a week later. Alas, for the hopes and hard work of the Scuderia Ferrari! The two cars driven by Nuvolari and Farina proved dismal failures on their first public appearance, and were withdrawn owing to road-holding difficulties. Once more it was Germany, Germany all the way, and this time Rosemeyer got one back on the Mercedes-Benz team to bring the score to four all. He lost a wheel early in the race, but fought back and eventually took the lead to win from Von Brauchitsch and Muller.

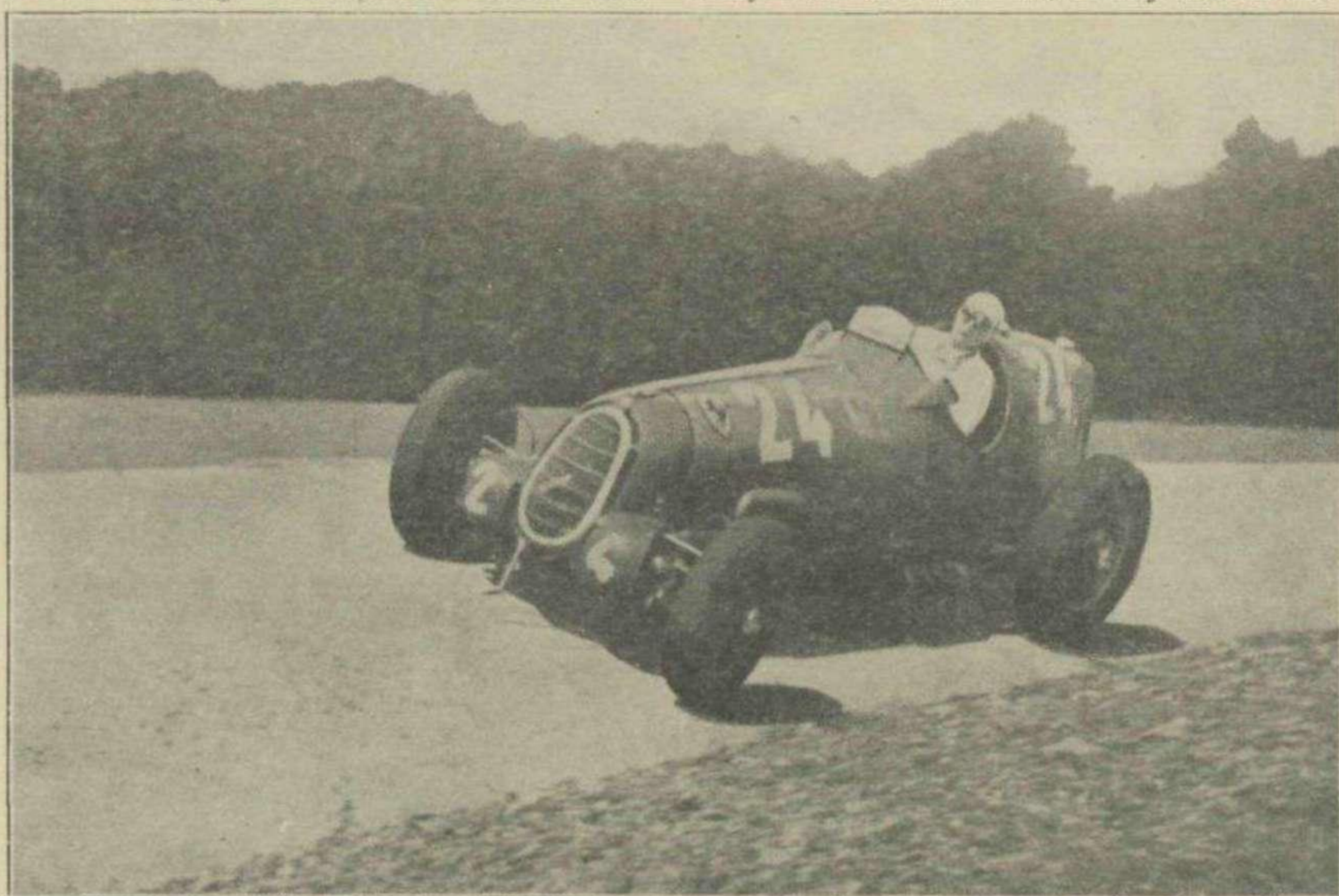
But Mercedes scored a clear-cut victory at Berne in the Swiss Grand Prix. Caracciola, Lang and Von Brauchitsch came home in a triumphant procession, the cars all going beautifully and the winner averaging a fraction under 100

The last-named was pressed hard by Seaman, who eventually finished in his usual fourth place.

Although not a Continental event, the tale of the Mercedes-Benz and Auto-Union rivalry would not be complete without the inclusion of the Donington Grand Prix, in which Rosemeyer pulled off his memorable victory for Auto-Union and brought the final score between the two teams to 7-5 in Mercedes favour. Of these twelve races, Caracciola and Rosemeyer each won four, Lang won two, and Von Brauchitsch and Hasse one each.

1,500 c.c. Racing

As in the Grand Prix division, the 1,500 c.c. races were dominated by two marques, in this case E.R.A. and Maserati. During the previous season the Maseratis had demonstrated, notably at the Nurburg Ring, a marked superiority over the E.R.A.s., chiefly on account



Giuseppa Farina (Alfa-Romeo) at Nurburg during the sixth Grand Prix of Germany.

m.p.h. Rosemeyer led off in great style, but went off the road and damaged his Auto-Union. Something of a sensation had been caused at the start by the appearance of Nuvolari at the wheel of an Auto-Union, and when Rosemeyer retired he took over the Italian maestro's mount and set off after the flying Mercedes-Benz. He caught up a few places, but his chance was gone, so he returned the car to Nuvolari, who by this time had become more accustomed to the unusual handling of the rear-engined "bolide" and managed to finish sixth.

Then came the Italian Grand Prix, in which the Scuderia Ferrari hoped to be able to turn the tables at last on their rivals. The venue was changed from Monza to Leghorn, but again the Alfas were outclassed. Caracciola notched another victory, with Lang second, Rosemeyer third and Seaman fourth. Score, Mercedes-Benz six, Auto-Union four.

The last Continental race was the Masaryk Grand Prix at Brno, in Czechoslovakia. Caracciola was in magnificent form and completed his hat-trick, finishing ahead of Von Brauchitsch and Rosemeyer.

of their independent front suspension. For 1937 the E.R.A.s from the factory also had this feature, and a greater power output enabled them to beat the Maseratis on the few occasions on which they met. With the older privately-owned E.R.A.s, however, it was anybody's race.

The season opened at Turin with a surprise E.R.A. victory, the Norwegian Bjornstadt beating Dreyfus on a factory Maserati. The Italians quickly equalised, however, for a week later Trossi beat "Bira" and Bjornstadt at Naples.

The junior race at Tripoli was an all-Maserati affair, and the same applied to the Targa Florio, now fallen from its high estate to the level of a 1,500 c.c. race. The next big event was the Avus race at Berlin, and this resulted in a convincing and most satisfactory win for Charles Martin on the E.R.A. previously raced by Tommy Wisdom and Norman Black. Martin was never challenged, and won easily at 119.6 m.p.h.

There followed an Italian national race, the Circuito Della Superba, and the much-boosted Florence race, which was monopolised by the works Maseratis. A week

LOOKING BACK ON THE CONTINENTAL SEASON—continued

later another national race took place at Milan, and this again was a one, two, three Maserati party.

The Grand Prix of Picardy was a different tale, and a works E.R.A. driven by Raymond Mays was a clear winner over the official Maserati driven by Dreyfus. E.R.A. supremacy was even more marked at Albi, when Mays and Cook shared the winning car, Martin was second, and Tongue third.

The next clash was at Berne, and this time the winning E.R.A. was handled by Arthur Dobson, who beat Mays and "Bira" in a close finish. The Coppa Acerbo was an all-Italian affair, and finally the Brno Grand Prix saw Villorosi's Maserati beating Martin's E.R.A. into second place, with Hartman's Maserati third.

In Continental races, then, E.R.A. scored five wins out of eight meetings, and can be said to be the junior champions of 1937.

Sports-Car Races

Sports-car racing found its chief home in France this year, eight of the eleven big races taking place on French territory.

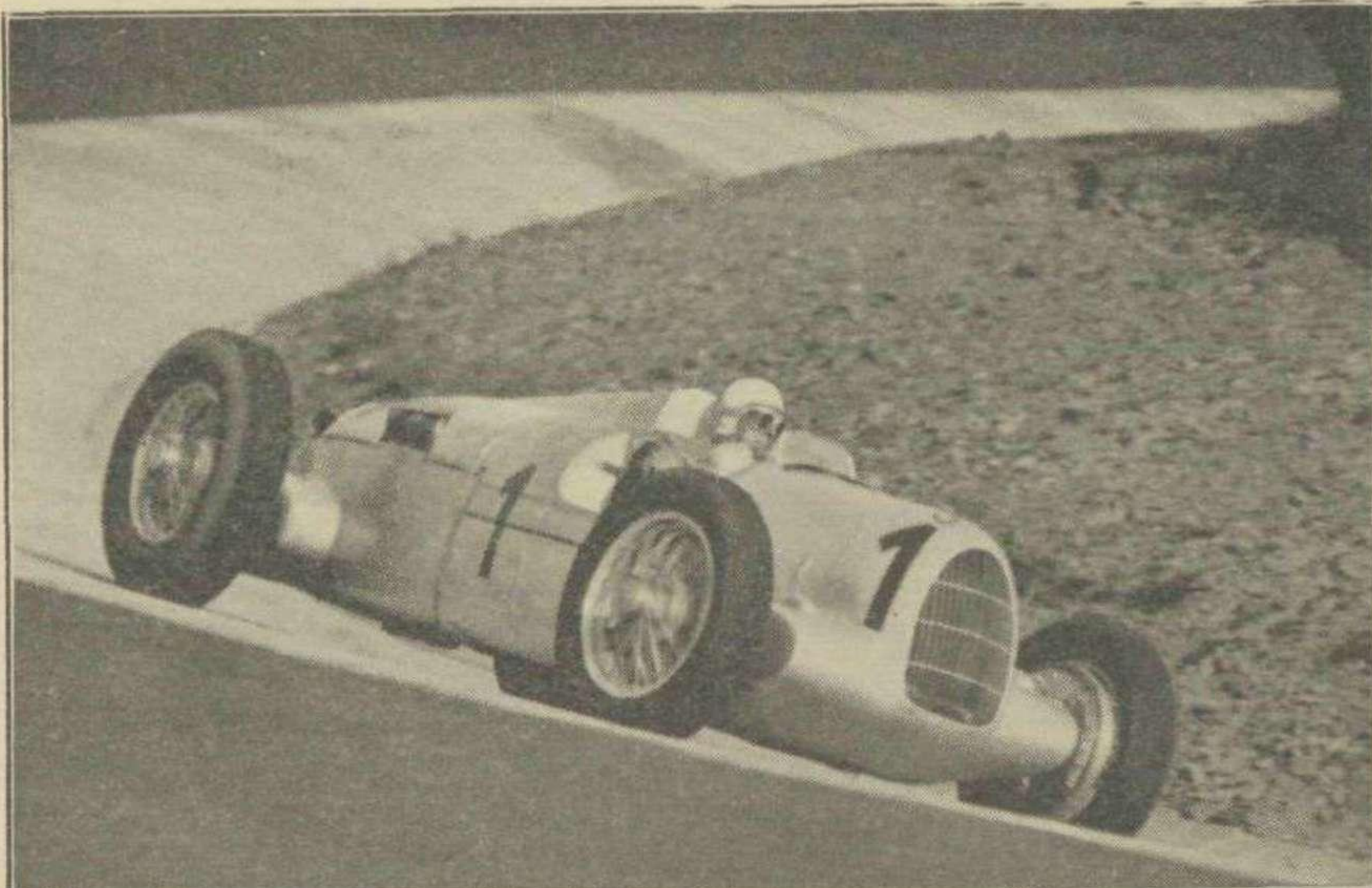
The season opened at Pau, and after a good race Wimille ran out a winner for Bugatti ahead of Sommer's Talbot and Dreyfus's Delahaye. The Mille Miglia was, as usual, dominated by Ferrari Alfa-Romeos, Pintacuda and Farina taking the first two places, with a Delahaye driven by Schell and Carriere a very good third.

Talbot scored their first success of the season at Tunis, Sommer beating two of the Ecurie Bleue Delahayes. A week later Wimille returned to form at the Grand Prix de Bona, also in North Africa, and again two Delahayes occupied second and third places. A fortnight later, at Miramas, three Talbots scored a sensational one, two, three victory at the extremely high average speed of 112 m.p.h., faster than Nuvolari's speed a few years ago on a monoposto Grand Prix Alfa-Romeo.

Then came Le Mans, and a real endurance test for the cars. There was no doubt about the Bugatti victory, and Wimille and Benoist brought their winning car home at the record speed of 85.3 m.p.h. Delahayes were again second and third.

which although not a Continental race, must be mentioned for a minor duel between three Talbots and a solitary Delahaye, victory going to the former.

The sports-car situation was considerably enlivened in France by the competition for two money prizes to be



B. Rosemeyer (Auto-Union) who tied with R. Caracciola with four wins each during the Grand Prix Season.

The French Grand Prix at Montlhéry was another grand-slam for Talbot, Louis Chiron making a fine come-back which greatly pleased his admirers, French and otherwise. But Wimille was out for revenge a fortnight later on the beautiful Rheims circuit at the Marne Grand Prix. He won handsomely from two Talbots, averaging 90.12 m.p.h.

In Italy the Targa Abruzzo was an Alfa-Romeo race, with the Ferrari driver Cortese in first place, and the final clash of the season was the T.T. at Donington,

awarded to the manufacturer whose car could lap the Montlhéry road-circuit at a certain speed for a certain distance. The first went to Wimille's Bugatti, but he found a strong rival for the second in Dreyfus on a new 4½-litre 12-cylinder Delahaye. The excitement reached fever-heat as the last day arrived, and both cars were out together in a last-minute endeavour to win the million-franc prize. Mechanical trouble overtook the Bugatti, and Dreyfus pulled off the prize by a few seconds.

VETERAN TYPES—A 90 H.P. FIAT—continued from page 28

shaft, outside chains take the drive to the rear wheels. The top gear ratio is 1.8 to 1. Large brakes, worked by the hand lever, are provided on the rear wheels. The pedal controls two external contracting brakes on the gearbox, one on an extension of the layshaft and the other on the countershaft. The rear axle beam is located by radius rods which are provided with adjustments for tensioning the chains. Hartford shock-absorbers were fitted during the Brooklands days and

as a result the car rides most steadily. The high-g geared steering is most delightful and unexpectedly light to handle. Rudge Whitworth wheels were also a later fitting; prior to that wooden artillery wheels were used which had to be soaked with buckets of water before the car was taken on the track.

By the end of last season the car had been got back into trim, and Heal entered it in September for the Brighton

Speed Trials, which included a class for pre-war cars. The course consisted of a standing half-mile, and this distance the F.I.A.T. succeeded in covering at an average of 57.03 m.p.h., to win its class from J. N. Norris's 22-litre Benz and Forrest Lycett's Alfonso Hispano-Suiza. Thus the old car has entered upon a new lease of life, and its admirers in the old days at Brooklands may look out for it once more in the Vintage Sports Car Club's events next season.

AN AMBITIOUS FILM SHOW

The Harrow C.C. will have a film show at the British Legion Hall, South Harrow, on February 17th. George Monkhouse will show the Mercedes film, that runs for over an hour, and provide a commentary. The B.R.D.C. film, a travel film, and supporting programme of comedies will also be released. Capt. Eyston, Oliver Bertram, and S. C. H. Davis will attend. Commence at 8.15 p.m. Tickets, price 1/- each, from R. Thurston, 303, Northolt Road, South Harrow. Car Parking 6d. Members only, we imagine.

THE NEW FORMULA—LATER STILL

News is to hand that the abolition of the body dimensions regulation of the 1938-40 Formula no longer holds good. Apparently the Bureau Permanent des Constructeurs d'Automobiles has had to re-introduce the original clause about bodywork because several American cars had already been completed for the Indianapolis Race, which is a Formula race this year. These American cars may also run in some of the European Formula Grands Prix. E.R.A. had skeletons of

the narrower bodies ready but will now revert to the older designs.

The German Grand Prix will, after all, be a Formula Race. If the Cork G.P. materialises it will be the first race under the new Formula and there will be fourteen 1938 Formula classics in all. Donington may stage a Formula Libre event to attract Germany by allowing her to use her old cars, but if such support is assured under Formula ruling we should like to see our premier race so run.

I.M.R.C. "IRISH MOTOR DERBY" CORK INTERNATIONAL CAR RACES MEETING, 1938

FORMULA GRAND PRIX—FORMULA FREE 1,500 C.C. RACE—NATIONAL HANDICAP PRIZE AND PROMOTING FUND PRESENTED BY MR. JOSEPH McGRATH, MANAGING DIRECTOR OF THE IRISH HOSPITALS TRUST

AS has already been announced, Saturday, April 23rd, 1938, has been inscribed on the International Sporting Calendar as the Irish Free State's motor-racing fixture. On this date, The Irish Motor Racing Club will, with the co-operation of the Cork and District Motor Club, promote the *Cork International Car Races Meeting*. Thanks to the public spirited and generous action of Mr. Joseph McGrath, Managing Director of the Irish Hospitals Trust, the event will be one of outstanding, and so far as these countries are concerned, unprecedented importance. Mr. McGrath will present the entire prize fund and give a most generous contribution to the cost of organisation, the balance of which is being locally subscribed in Cork.

The meeting will consist of three races: a 200 mile race under the new International Formula, to be known as the Cork Grand Prix; a formula free race of seventy-five miles or thereabouts for cars not exceeding 1½-litres, which will probably be called the Cork International Light Car Race—both of which will, of course, be scratch events; and a fifty mile handicap, confined to entries of racing and sports-cars from Great Britain and Ireland and to be known as the Cork National Motor Handicap. Prize money for these three events has been fixed as follows:—

	Cork Grand Prix	1,500 c.c. Race	National Handicap
1st	£1,000	£250	£100
2nd	£500	£150	£50
3rd	£200	£100	£35

A HOME-BUILT SPECIAL

A large number of readers are interested in home-constructed special cars and we learn that Laurence Allen has such a car in course of construction. It has a 1925-6 big-port 12-50 h.p. Alvis engine in a Riley "Redwing" chassis, the chassis having been built up of spare parts at a very moderate cost—bits of it date back to 1923. The final drive ratio is 4 to 1 and, as 4.75" x 19" tyres are being used, quite a "30/98" effect should be obtained. The engine now has two horizontal S.U. carburetters replacing the original single carburetter and a twenty thousandth solid copper gasket to obtain an increase of compression-ratio. A new exhaust system will be necessary. The engine has been very carefully re-assembled, big end and main bearings re-metalled and the crankshaft re-ground. The head was lapped to the block with extreme care—three weeks of spare time work. Mr. Allen, with the aid of his brother, has done all the work in the home workshop, so far only calling in outside assistance in turning out a flange in the flywheel, which would not fit their lathe. The car should be on the road by next March. It is temporarily called an Allen Special because the builders have been unable to think of any suitable name repeatable in polite society! Suggestions are invited.

4th	£100	£75	£15
5th	—	£50	—
6th	—	£25	—

and £50 for best performance by 1,100 c.c. car.

It is intended that there should be three practising sessions and since all three races could not be conveniently run on one day, it is proposed that the Handicap Race and final practising for the 1,500 c.c. and Grand Prix cars should take place on the afternoon of Friday, 22nd April, 1938. All arrangements for that afternoon will be on the same scale as for the following day's racing and there will probably be a charge for admission to the various stands and enclosures. In addition to the Handicap Race, the proceedings will be in the nature of a full dress rehearsal of the organisation for Saturday.

The Cork Grand Prix will be one of the first races to be held under the new racing formula. The Irish Motor Racing Club has already made tentative contacts with some of the Continental racing teams and has had assurances of their intention to compete in Cork. The promoters have every hope, not only that Germany will be represented by Mercedes and Auto-Union, but of the appearance of the new formula Darracqs and Delahayes representing France.

All three races will, of course, be run on the renowned Carrigrohane circuit, which is one of the fastest and most perfect road courses in Europe. The lap length is 6 miles 154 yards and the course is famous for its unique 2½ mile dead

level straight, the perfect non-skid surface of which was widened from 21 to 30 feet before last season's Cork Car Race. Some idea of the speeds which the Grand Prix cars may attain on this circuit may be gathered from the fact that the lap record stands at 92.08 m.p.h. (C. E. C. Martin—2,904 c.c. Alfa-Romeo). The course will be still further improved for the coming races. The Poulavone-Carrigrohane Castle section, which is the only portion of the course that has not yet received special attention, is about to be widened and re-surfaced.

Regulations for the meeting are in the course of preparation. They will follow the more or less standard rules of Grand Prix meetings. Pressure re-fuelling will, of course, be permitted. Practising will take place on Wednesday and Thursday as well as on Friday, but on the first two days probably in the early morning. Scrutiny, weighing in and examination of competitors' credentials are provisionally fixed for Tuesday afternoon. Negotiations are in progress with a view to arranging a special sailing from a convenient Continental port to Cork direct for Continental competitors and their cars as well as special steamship and railway schedules and excursion rates for spectators. General information and copies of the Regulations, when ready, may be had on application to the Secretary, The Irish Motor Racing Club, 1, Cavendish Row, Dublin, Telephone No. 44264 Dublin. Telegraphic Address: Moracing, Dublin.

AN INTERESTING VETERAN

News comes to hand that Marcus Chambers wishes to dispose of his pre-war Babé Peugeot and that another of these small cars has come to light on the South Coast. Peugeot made a Babé as early as 1904, but the cars in question are of the type in production from 1911 until after the War. Designed by M. Bugatti, they have 55 x 90 mm. 855 c.c. T-head engines with head, block and crankcase as one unit. The wheelbase is 6' 0", and the rear suspension by reversed quarter-elliptic springs. After the war Peugeot introduced the rather more modern "Quad" with longer wheelbase and worm final drive. Later still came the 7 h.p. Peugeot with very abbreviated track, still seen occasionally on our roads. Chambers's Babé is said to have been raced at Brooklands.

* * *

A VERY SOUND SUGGESTION

Cecil Clutton, who looks after the veteran side of the Vintage S.C.C., has suggested to Leslie Wilson, Secretary of the Midland A.C., that a separate veteran class be instituted at the next Shelsley-Walsh hill-climb. Clutton, who made a tremendous ascent last meeting on his 1908 Sixty Itala, has the promise of at least seven entries of over 7-litre cars, including R. G. J. Nash (Lorraine-

Dietrich), A. S. Heal (1912 10-litre Fiat), John Morris (22-litre Benz), Wike (Fiat or Daimler), Mills (1907 Renault) and the Itala.

This strikes us as a very sound suggestion. When a veteran makes a mere demonstration run the whole thing is regarded as a circus, and serious attention is lost. But pitting the old cars against themselves in a separate class with definite competition removes the "museum" aspect and allows people to appreciate these astonishing motors at their true worth. We hope Mr. Wilson will co-operate with Clutton. If not, no doubt the organisers of the Prescott hill-climbs will be interested.

* * *

PRAISE WHERE DUE

The Bugatti Owners' Club has made the extremely interesting move of fixing their three hill-climbs to be held at Prescott later this year, on Sundays—namely May 15th, July 3rd, and September 25th. This will enable competitors to practise on the Saturday preceding instead of on a week-day, and should result in greatly increased "gates." Admission charges are likely to be 2/6 with 5/- transfer to certain parts and 2/6 for car-parking. Prescott is about ninety miles from London.

NEWS FROM SOUTH AFRICA

South African Notes

Results of the annual hill climb organised by the Cape Peninsular Motor-Cycle and Car Club, held on Saturday, the 27th November, are as follows:—

"Fireworks" Pfeiffer driving a modified Ford V8 won the "Stock" car class, creating a new stock car record in 1 min. 13.7 secs. for the mile course. This also proved to be the fastest time of the day in the absence of Steve Chiappini and "Mario," who were busy preparing their cars for the Rand Grand Prix; much disappointment was felt by the large crowd who were anxious to see Chiappini's latest acquisition, the 2.5-litre Maserati, in action.

Thompson, a one-legged driver, who recently won the Kimberley 100-mile race, did well to gain second place in the 1,500 c.c. class with an unblown 750 c.c. Ulster Austin, against strong opposition, being beaten by Preim with a fast series "T" M.G., a Lancia Aprilia making a close third.

The course record therefore still stands to the credit of "Mario" with a 2.3-litre Bugatti, time 1 min. 9 secs., made in 1936.

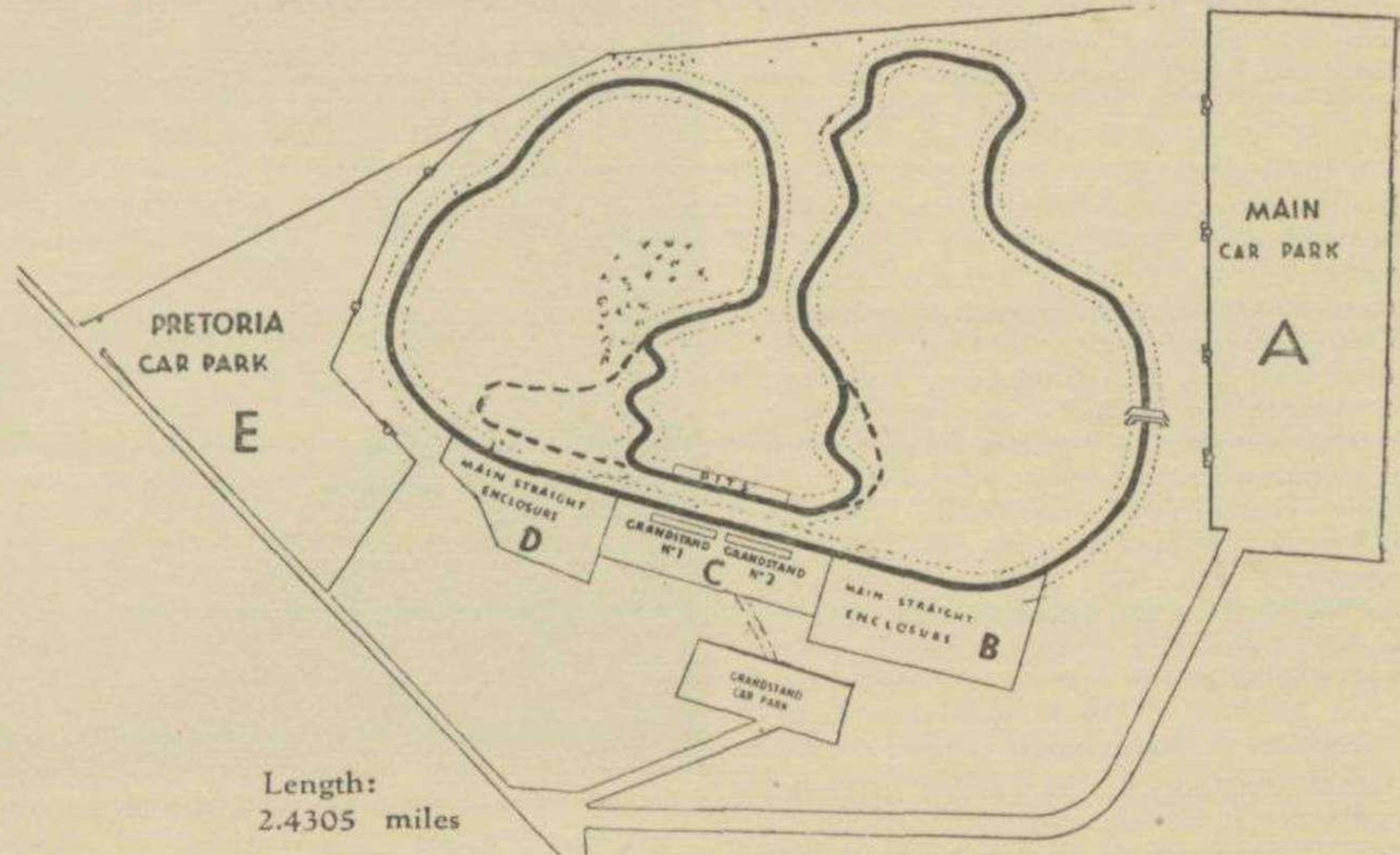
"Mario," the "nom de plume" of Dr. Massacuratti, will be remembered for winning the second South African Grand Prix from the late Pat Fairfield and Wimille, with the ex A. H. Eccles 2.3 Bugatti.

Notes on the Grand Prix

The 1,500 c.c. six-cylinder Maserati, which is to be driven by Bill Everitt,

machine for potential young African aces, though how this is to be arranged is not known at the moment.

Van Riet of Cape Town, who has done well in the past Grands Prix, has a much modified single-seater 750 c.c. Austin,



The Lord Howe circuit at Johannesburg.

There has been much activity at the Pollsmoor track in preparation for the forthcoming Grosvenor Grand Prix: "Mario" has been carefully "running in" his 3,700 c.c. Maserati which has been fitted, so it is rumoured, with a new engine.

with a very well streamlined body reminiscent of the 1931 Austin works team; the car is exceptionally fast and is of course "blown." Van Riet was second in the Kimberley Hundred of this year.

Result of the Second South African Grand Prix

The second South African Grand Prix was won by "Duggie" Van Riet, of Capetown, driving a monoposto 750 c.c. supercharged Austin, from Roy Hesketh with an "R-type" M.G. by 21½ secs., in a time of 1 hour 59 mins. 50 secs. for the 121.52 miles course, an average speed of 60.85 m.p.h.—1.32 m.p.h. better than his handicap speed.

Roy Hesketh, second place man, had a terrific duel with Van Riet, starting together as limit men. Van Riet made the better start and it was not until lap 27 that Hesketh passed the Austin on the straight. The M.G. had the superior speed but Hesketh lacked the experience and cornering skill of the Austin driver who hung on like a leech, and from the 27th to the 41st lap was never more than 2 secs. in arrears, until cutting off late for a corner on his 42nd lap he repassed the M.G., going on to win by 21½ secs. A close third being the popular Count "Johnny" Lurani, who started favourite and was considered a likely winner, until a few laps from the finish it was seen that he could not catch the fleet little Austin.

Fourth home was also a South African and limit man, V. C. Berrange, driving a 1,098 c.c. Brooklands Riley, with an average speed of 59.20 m.p.h.

The late Pat Fairfield's 1,100 c.c. E.R.A., now owned and driven by Norman Wilson, was fifth at 61.43 m.p.h. "Mario" (Dr. Massacuratti) was sixth at 64.48 m.p.h.



In practice—Taruffi and Villoressi are discussing the corners of the circuit.

was originally intended for poor Mrs. Petre. Her unfortunate crash and later her magnificent fight back to health have been closely followed by all South African enthusiasts who witnessed her fine driving in this country.

It is understood that the car will remain in South Africa as a training

Chiappini has also been busy trying out his new Maserati, and has decided to fit his alternative block, which raises the capacity from 2.5 to 2.9 litres; the offset Monoposto body looks formidable enough and the car appears well suited to the local conditions.

NEWS FROM SOUTH AFRICA—continued

Siena seventh with the 1,500 c.c. Maserati, Raymond Mays and Earl Howe eighth and ninth respectively at 63.36 and 62.74 m.p.h. There were no other finishers within the time limit.

A few laps after the start the corner "Howe's Choice" which Lord Howe opines as the worst corner on the course was made even more treacherous by sand blown over the tarmac surface.

Of the backmarkers Villorosi had many pit stops, eventually losing some 20 mins. in a prolonged inspection of the "blower." Everitt left the course for the wide open spaces at speed, but resumed after losing 15 mins. straightening things up. Govani, 2-litre Bugatti, and Roderick, Maserati, who comprised Group 3 starting 1 min. 40 secs. before the scratch men, retired with engine trouble.

The Hungarian, Hartmann, suffered consistent tyre trouble with his 1,500 c.c. Maserati. Du Toit, the South African who was driving Hartmann's other entry, the big 2.9-litre Maserati, crashed with great effect.

Aftermath

Great excitement was caused in Cape-town when it was learned that "Duggie" Van Riet had won the second South African Grand Prix.

This slight sandy-haired young man has captured popular imagination with his latest achievement. Van Riet and his mechanic, George Anderson, have over a period of years modified a standard Ulster Austin into a highly potent racing unit with independent suspension of his own design and an ex-works racing



E. Siena before the race for the S. African G.P.

monoposto body. The engine peaks at well over 6,500 r.p.m.

In an interview with the writer before the race, Raymond Mays expressed his hope of being able to achieve a place, thereby gaining the B.R.D.C. Road Racing Gold Star. Mays has fought hard to gain his points but has not had the best of luck of late—perhaps next year!

The handicapping was modified before the start, the limit men in Group 1 were brought back from 15 mins. start to 12½ mins., and Group 2 consisting of Lurani and Norman Wilson were re-handicapped a further 50 secs. on their previous handicap.

In the opinion of everyone concerned an enjoyable and exciting race. And now for East London.

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THE MATTER OF MINOR CONTROLS

NO longer do designers have to find a place for numerous knobs and levers in the vicinity of the steering-wheel, for automatic control of water temperature and carburation and automatically governed ignition timing has done away with manual operation in a large number of modern cars, even on quite high-performance examples, and in this age of mechanical perfection some makers have even dared to dispense with oil-gauge and ammeter.

Nevertheless, the fact remains that those who drive a wide variety of cars form quite decided opinions as to how they like the remaining minor controls arranged, and our own views and experiences may be of interest.

In the very first place, one has to regret the too universal use of poorly-functioning levers and switches. Not every maker can provide minor controls that operate with the ease, certainty and smooth precision of those that delight Rolls-Royce and Bentley owners, but switches that would disgrace a cheap wireless set should have no place in a modern car.

Commencing with lights, we have one grumble to air right away, namely that so often there is no indication of whether or not the side lamps are alight, which, coupled with an indecisive switch-action, is very unpleasant when changing from head to side lamps on entering well lit areas. A switch with considerable movement between off, dynamo, all-lamps and side-lamps positions assists, or a form of observation window with wording indicating what lights are on, as on old-school Bentleys and modern Austins, but the only satisfactory solution is a good, decisive switch, with ruby glasses in the back of the side lamps, where these are separate from the head lamps and visible to the driver. Sometimes a switch works in a more positive manner at the end of its travel than in intermediate positions, so that the head-lamp and side-lamp contacts can with advantage be at the ends of the travel, with dynamo and "off" settings intermediate. There is no objection to carrying the main lighting-switch on the facia, as change from head to side lamps is never an emergency movement, and we prefer this location to that of the wheel centre, when movement of the arm can accidentally switch off the lamps. The dimming arrangement however must be within instant reach. One meets excellent foot-operated arrangements, but they are apt to work stiffly, and are subject to rough usage. Moreover, with cars cruising at 60 m.p.h. behind modern lamp-beams, dimming should be possible instantaneously if unlit cyclists are to be preserved, and on-coming cars are just as likely to be met when one's left foot is operating the clutch for gear-changing as otherwise. So we prefer a hand-switch, either in the wheel centre or on an extension arm protruding from the steering column. The objection that when first switching on the head lamps one may be uncertain whether or not the lights are dimmed is a minor one to an alert driver, but a light, snap action is essential; the Lucas switch on the Morris Eight comes to

mind as excellent. We have little use for dynamo-charging lights and insist on an ammeter, which tells so many useful tales. Similarly, spring-buttons and green lights to show that oil is circulating, leave us cold; the age-old pressure gauge is the only way of ensuring real peace of mind to a fast driver. Instrument lighting is so often inadequate, yet it should be a common-sense matter. We recall one car which illuminated the whole front compartment when the panel was lit, another which shone an illuminated clock-dial inset in the mirror into a driver's eyes every time he wished to see the oil-pressure or check his rate of travel, another in which a 30 m.p.h. lamp dazzled one at anything over 25 m.p.h. After which the rheostat control of the panel lighting on the Frazer-Nash-B.M.W. was greatly appreciated.

There seems no objection to incorporating the ignition-key with the main lighting switch, although the writer recently stalled at a very busy road-junction solely through inadvertently turning off the ignition when operating the light switch with gloved hand to warn an approaching driver that his lights were on in daylight—embarrassing as the car could not, in this instance, be driven to the side of the road on the starter! But if a screwdriver of a K.I.G. terminal-clip is a substitute for the key, why make that key detachable? All ignition-keys should be of Yale pattern, and if the horn and electrical equipment can be rendered inoperative, as on the Bianchi, so much the better. The door lock should always be on the driver's door. Direction indicators are now essential on all but open cars and even open cars require one on the near side, and the press of fast traffic in open town squares makes positive signalling a boon, against which the indicator control is the easiest thing of all to overlook, so if the arms are of non-cancelling pattern an indicator lamp is useful. Curiously, we have found a control on the extreme near side of the facia as easy to reach as others set much closer to the driver and, indeed, preferable to many. But the ideal position is on the wheel centre, unless an ignition lever is fitted, when dimmer, ignition and indicator controls, grouped, will make for confusion. The correct place for the horn button is obviously the wheel centre—a good, big knob—and if dual-tone horns are fitted the *soft* note should be so controlled, with the open-road, clear-the-way note, which is not needed urgently to move pedestrians and wobbling cyclists, etc., elsewhere.

We dislike pull-out starter knobs, convenient as they may be to operate remote-control switches, nor do we like floor-starters. A neat button is the ideal. Extra switches, for fog-lights, etc., should take the form of small push-pull buttons like the H.R.G. ignition switch. The positioning of the instruments is a matter of individual taste, given separate dials, clear readings and an unobstructed view of speedometer, rev.-counter and oil-gauge.

The older type of screen wiper is usually tiresome to "park" satisfactorily. Window winders should be clear of

occupants' elbows and not describe too big an arc.

On the vexed question of petrol gauges we can only say that on most of the cars we test the gauges are reasonably accurate and the same applies to a friend's Morris Eight with nearly 45,000 miles to its credit. A reliable gauge is most useful preferably of the dial variety. But a reserve supply is a useful safeguard against a faulty gauge or careless reading and it should hold at least a gallon and should not re-operate the gauge when in action. It is pleasant to have a facia control so that one can go onto reserve without leaving the car and often without stopping the engine, as on M.G. and B.M.W., while on the Baby Fiat and early Austin Sevens the tap on the tank operates in the same way. We have still not forgiven the car which made us spend a night on the road because its reserve-tap was hidden in the luggage locker.

Hand throttles are still useful for warming up, competition work, or making adjustments while the engine is running, and a screw-control on the facia suffices. Hand-brakes, we feel, should be hand-brakes. There can be no such things as a true "parking-brake," because there is always the need to hold a car on a gradient in traffic, although modern hand-brakes are not used to effect a pull-up or to check speed. The modern trigger-lever certainly leaves the floor clear but we prefer a lever set horizontally between the front seats—which incidentally allows one politely to refuse to carry two passengers in the front compartment. A modernised version of the older trigger ratchet-release usually works better than a press-button, or a maker's individual gadget-device. Of course the ideal hand-brake is that of the M.G., with fly-off action and a button ratchet-lock. H.R.G. attempted to combine the racing and non-racing types on earlier models, but there is really no advantage, for the M.G. lever does not fly off fiercely, it locks perfectly, and as it has to be pulled back to release, there is always greater braking action prior to release than when locked, so the ratchet action can be forgotten.

As for gear-levers, there is a weakness amongst the staff for big, girder-like right-hand levers working "crash" boxes in visible gates, so suffice it to say that we expect modern levers to be rigid, even if lily-like, and that remote control is practically always acceptable and, if properly designed, can add greatly to the pleasure of driving any car, though one no longer sees the fine workmanship displayed on the earlier controls, as, for instance, that of the "Brooklands" Riley Nine.

This article having strayed beyond the bounds of its title, we will close on the observation that the more foolproof cars become the more fastidious we get, and that the greater the care paid to details of control the further and faster can we drive in safety and comfort.

Constructors of home-built cars are in the fortunate position of being their own masters in this matter of minor-control arrangement and layout.

TRIALS OUT OF JOINT

BIG TASK BEFORE CLUB REPRESENTATIVES IN PREPARING SUGGESTIONS FOR A REMEDY

FOR a number of years the list of trials held every week-end has been steadily increasing. More and more clubs are formed, some entirely new, some as off-shoots of some other body. When approached on the subject, the R.A.C. has always made it clear that its policy is to foster the sport, not to restrict it. Even the greatest enthusiasts feel, however, that the time has come when a little pruning would be for the good of the sport.

As noted in the last issue of MOTOR SPORT, a meeting was held recently in London of representatives of clubs running events in the Home Counties—that is to say, the Chilterns, Kent, and the Surrey hills. At this meeting, Capt. Phillips, representing the R.A.C., said that the governing body would welcome any suggestions from the clubs themselves, but that it was loath to take a tyrannical attitude unless deliberately invited to do so.

The way is thus cleared for clubs to attempt to remedy matters. One of the suggestions before the meeting was that a London Motor League should be formed, but from a great deal of talk the fact emerged that those present, representing some twenty-three clubs, were not anxious that any further body should be interposed between the clubs and the R.A.C.

Eventually a small committee was formed to prepare suggestions, to be referred to the clubs and eventually to the R.A.C. This committee will have its work cut out, not so much in preparing suggestions, but in getting the many diverse interests of the various clubs to agree upon them.

The basic problem is to reduce the number of events where similar courses are used week-end after week-end, to the possible, if not probable, annoyance of local residents. An immediate suggestion is to combine events together. Instead of several small events on different days—on a recent week-end there were no fewer than three car trials in the Chilterns on a single Saturday and Sunday—one would have one big event.

Objections immediately arise. Is such an event to be on Saturday or Sunday, and is it to be a whole-day event or a half-day? Saturday advocates say that nothing annoys local people so much as noisy cars rushing about the lanes on a Sunday, interfering not only with church but with post-prandial strolls. Sunday advocates say that even for a half-day trial on Saturday in the winter months the start has to be so late that the event finishes in the dark, while a whole-day event on Saturday is not possible for a great many would-be competitors owing to business claims. In other words, Sunday is the only day.

The former group appears to be the more altruistic, as there is no doubt that a great many people do object to Sunday trials. A possible solution would be to lay down that Sunday trials should only be held on private land, but unfortunately there is not much suitable land available. At all events, organisers of Sunday trials should avoid the vicinity of all churches,

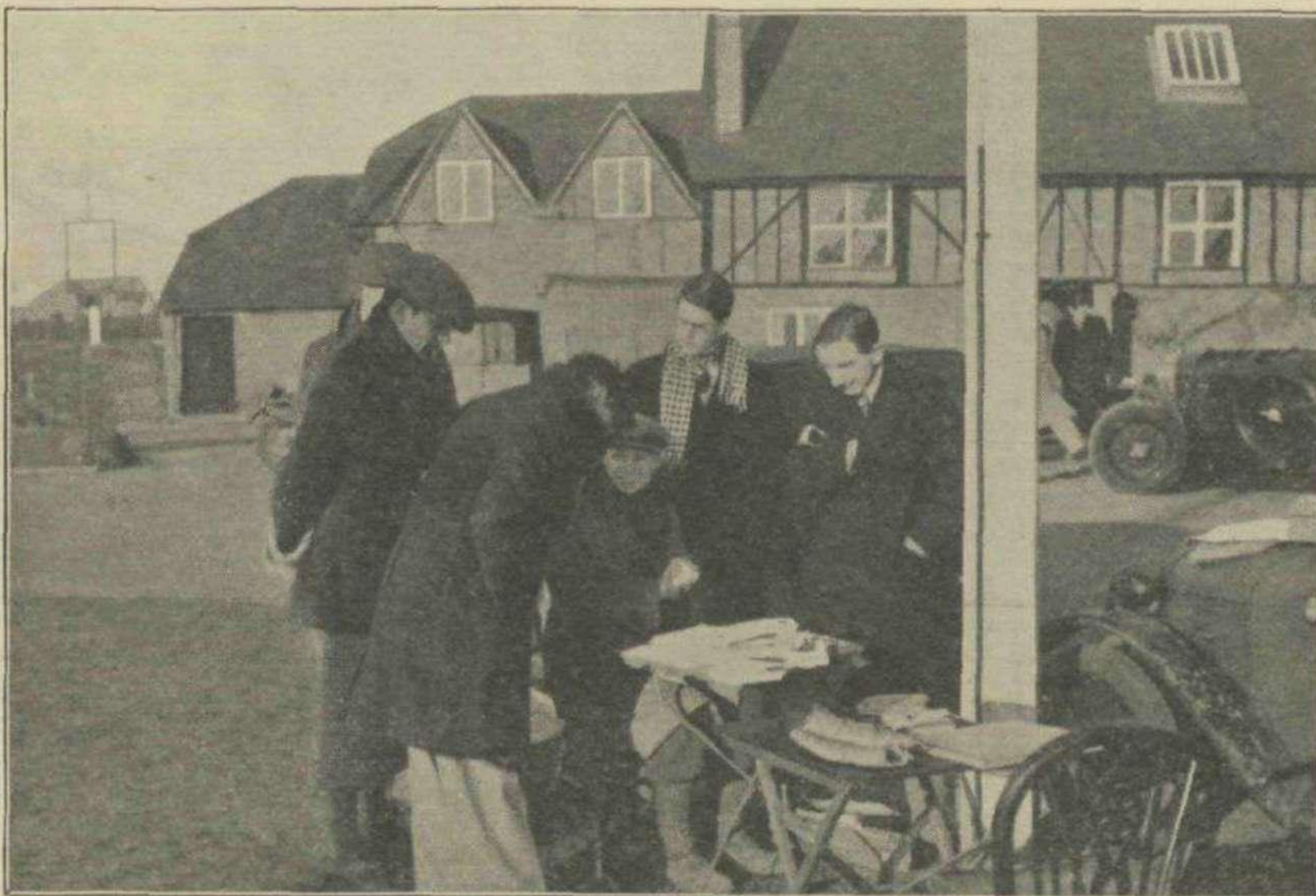
and choose their routes accordingly, to minimise annoyance.

Then if one of the clubs in the combined event is bigger than the others, and has had an event on that day for some years, it may feel that precedence demands that its competitors should run first. The other clubs may want to start in the morning. Drawing lots is nevertheless the only solution, failing an agreement.

The combined event is likely in time to militate against the smaller clubs. If a lesser known event is held on the same day as one of some established prestige, there will be a tendency for competitors to neglect the small event. The objection

secretaries, deal with "restricted to centre" events, group events (by a group of clubs in the centre), and closed events. If a trial is run in some other centre's area, the consent of the other centre secretary has to be obtained.

Thus there is a firm cohesion about the whole business, and since the A.C.U. system started in 1924, when clubs and events were much fewer, it has been possible to keep pace with the increase in the sport. Since about 1930, car events have grown enormously, and with no check imposed by a central authority, there is little doubt that many are superfluous.



Is the charm of small events to be lost? A committee of friends arranging matters on the spot.

to the whole scheme is that the charm of small events, which, even if they are haphazard, need not be badly run, would be lost. Possibly this is a necessity. Time marches on!

There is some divergence of opinion about another suggestion, which is to stop all "closed invitation" events. It is argued that if a club cannot run events by the support of its own members, it has no right to exist as a separate body. The small clubs see the red light at once. The active members of some clubs are so few that, if they are public-spirited, they all have to act as marshals. Alternatively, there are no marshals, and all competitors!

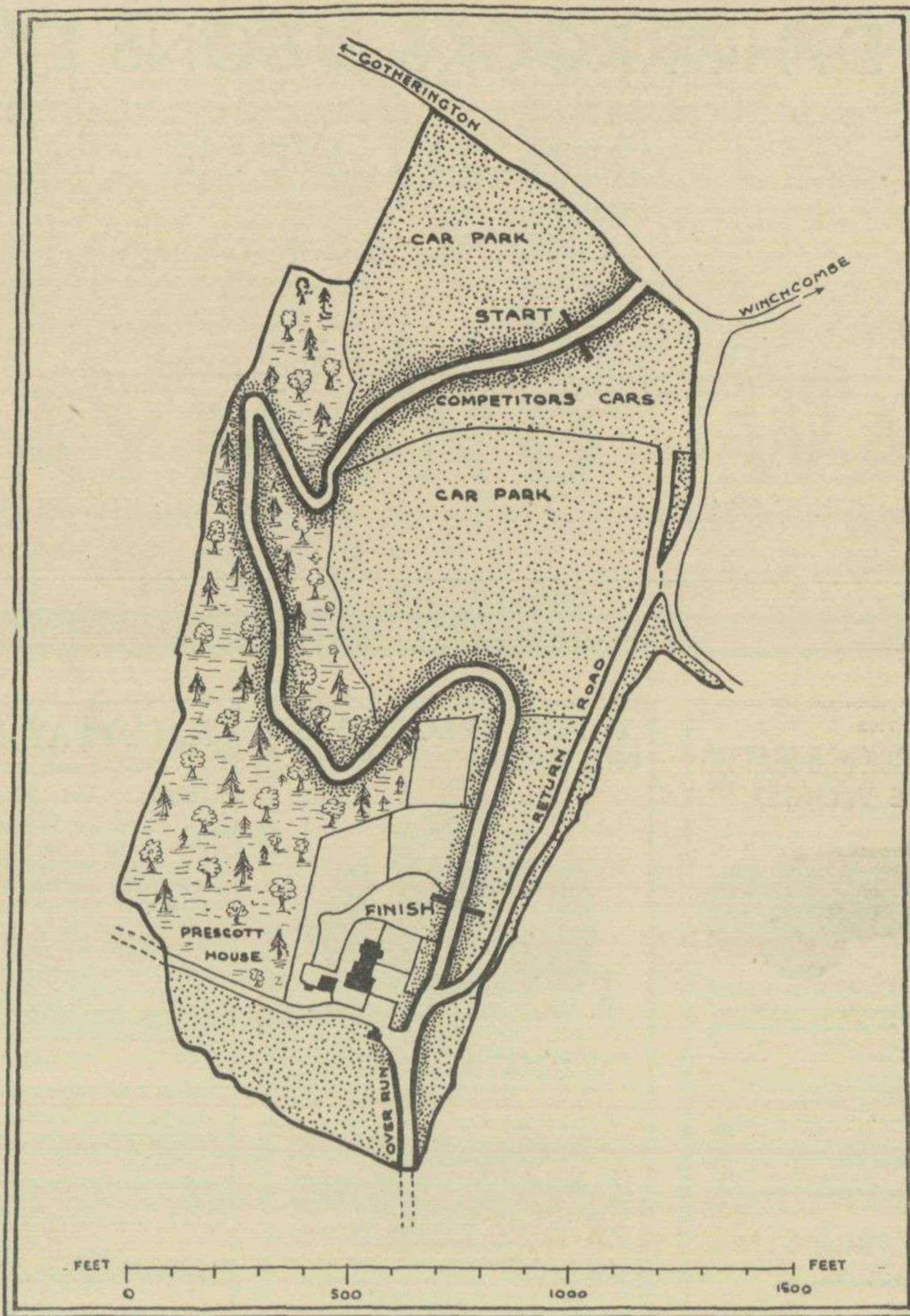
Many are in favour of a recommendation that the sport be organised by the R.A.C. in centres, perhaps something on the lines of the A.C.U. The main difference is that all motor-cycle clubs are affiliated to the A.C.U., whereas the R.A.C. does not insist upon affiliation. The A.C.U. control is de-centralised, except for a small number of "open" trials—there are now no "open" car trials—and the centres, with their own centre

One step which should certainly be recommended is that the R.A.C. and A.C.U. lists of fixtures should be considered together. It is a strange thing that at present the right hand of motor sport does not know what the left hand is doing. In other words, it is quite possible for a car and a motor-cycle club to arrange a fixture on the same day over the same course but that the respective organisers should know nothing about one another's events till their entrants meet on a hill! This has actually happened on occasions, and has caused great confusion.

Much might be done, also, by the appointment of stewards by the R.A.C., or by centres, if such were formed. Such independent observers could report on the local reception of the course, and the general conduct of the event, in a way that one of the club's own officers could not be expected to do.

Whether the more informal clubs would welcome such stern criticisms is another matter. But there has been a call for action, and whatever action is taken, it is certain not to please everybody.

The Bugatti Owners' Club Hill Climb Venture at Prescott



The plan of the 1,000 yds. course at Prescott. The hairpin bend and the two other acute bends are on an average gradient of 1 in 20.

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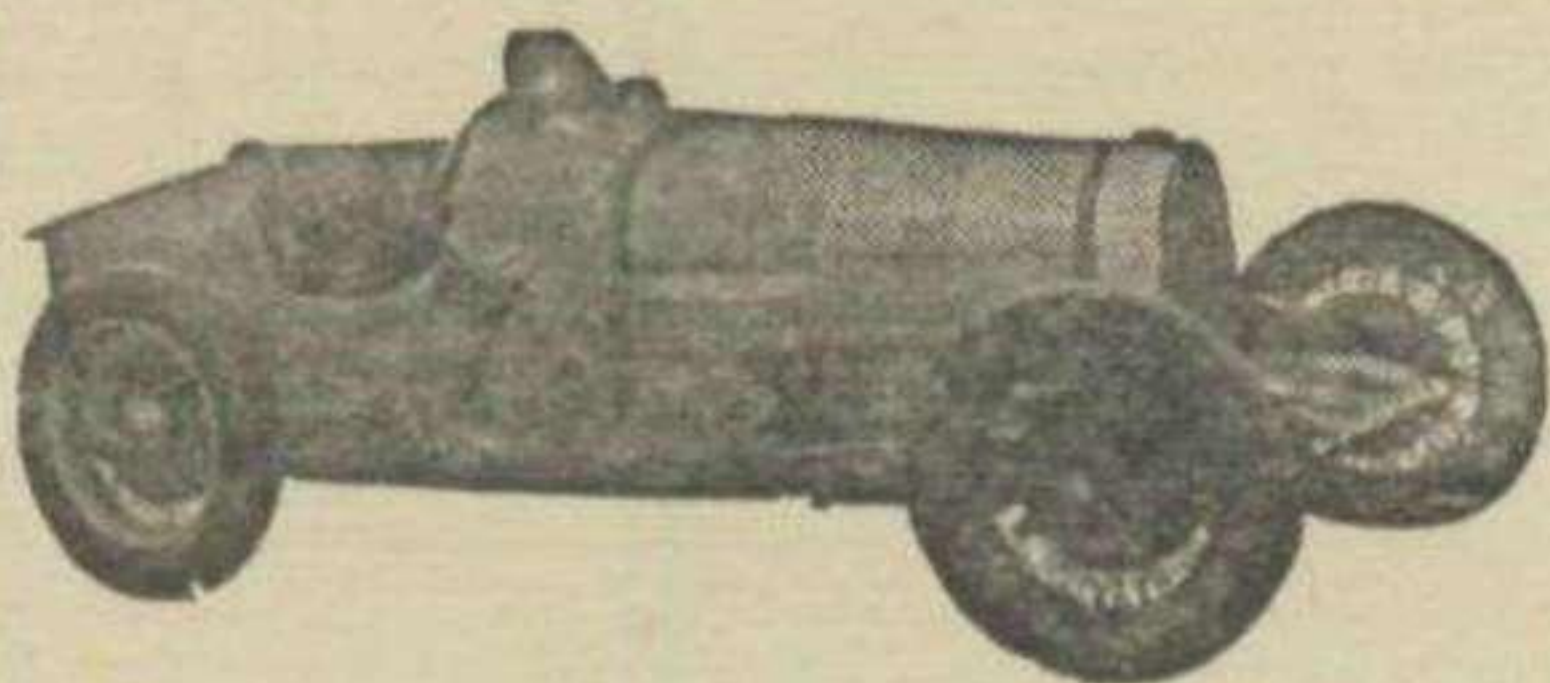
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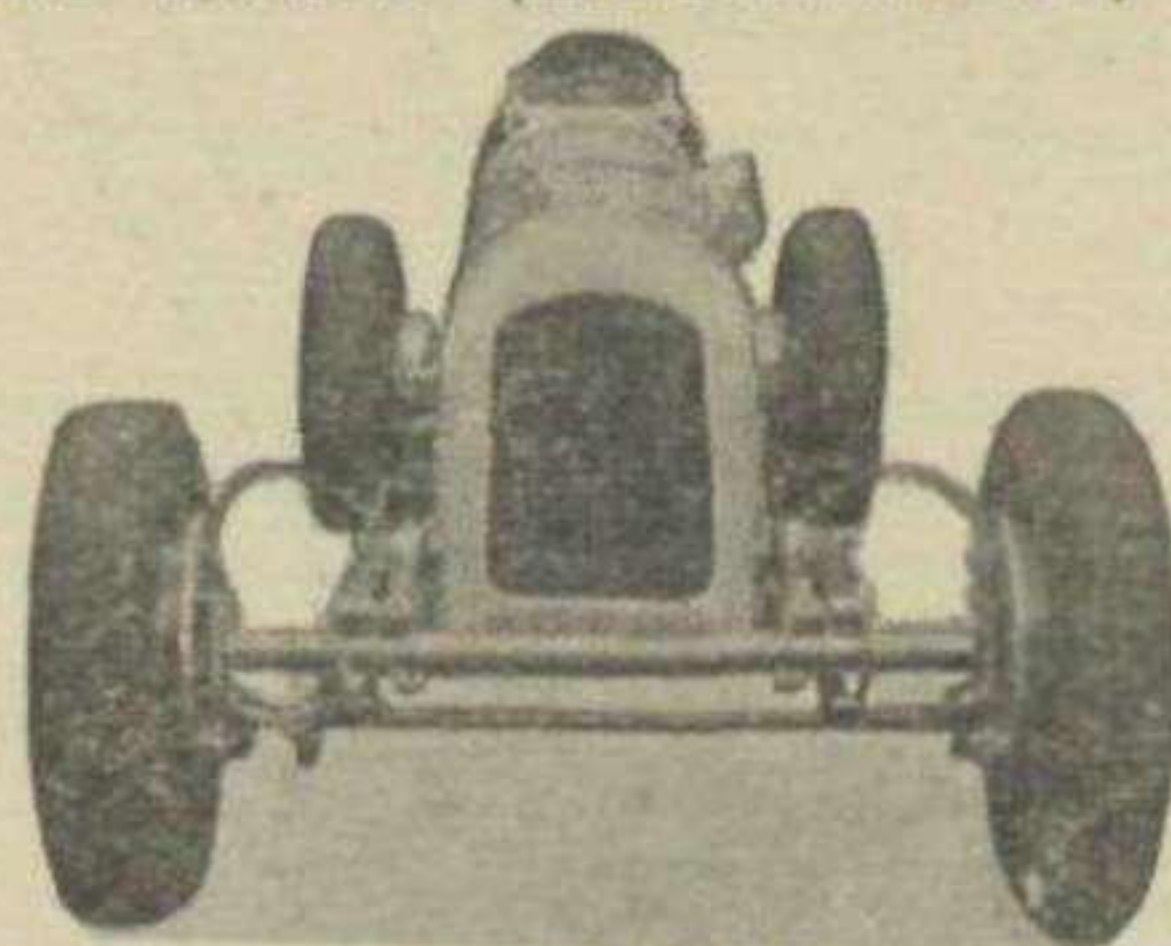
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Make of Car	Issue	Make of Car	Issue	Make of Car	Issue
A.B.C. 11 h.p. 2-cyl., 2-seater.....	Feb. 1926	CROSSLEY 20/70 h.p., 4-cyl., s.v., 4-seater	Nov. 1925	M.G. Six Mark I, saloon.....	Aug. 1930
A.C. 2-litre, short-chassis, 15.7 h.p. 2-seater	July 1936	Crossley Ten, 1½-litre "Regis" saloon.....	Jan. 1936	M.G. Midget Double-Twelve racing 2-seater.....	June 1930 & Aug. 1930
A.C. 2-litre, 16.40 h.p., 3-seater.....	Oct. 1927	Crossley Ten, 1,122 c.c. 4-seater.....	April 1932	M.G. Midget "J1" 850 c.c. 2-str....	Sept. 1932
A.C. 2-litre, 16.66 h.p., 2-seater.....	March 1926	Crouch Anzani 12.30 h.p., 2-seater..	Aug. 1924	M.G. Magnette "N" 4-seater.....	Feb. 1935
A.C. 2-litre, 16.66 h.p., 4-seater.....	June 1934	FIAT 20.70 h.p., 6-cyl., 2-4-seater..	April 1933	M.G. Midget "PB" 2-seater.....	April 1936
Alfa-Romeo 22.90 h.p. 6-cyl. (push-rod) super sports test chassis ...	April 1927	Fiat "Bailla" saloon.....	May 1934	M.G. 14/40 4-cyl., 3-speed, 4-seater	Oct. 1925
Alfa-Romeo 1½-litre supercharged 6-cyl. Charles 2-seater (1929).....	March 1934	Fiat "Ardita" 17 h.p., 4-cyl., saloon	Feb. 1934	M.G. Midget "T" 2-seater.....	Jan. 1937
Alfa-Romeo 1½-litre supercharged 8-cyl. "Zagato" 2-seater (1932)	July 1934	Fiat "Balilla" 10 h.p., 2-seater....	Jan. 1935	M.G. 14/40 h.p., 4-cyl., super-sports, 2-seater	May 1927
Alfa-Romeo 2.3-litre supercharged 8-cyl. "Zagato" 2-seater (1933)	Aug. 1936	Fiat 6 h.p. Type 500, Coupe.....	March 1937	O.M. 6-cyl., 2-litre, 4-seater.....	Oct.-Nov. 1928
Alfa-Romeo 2.3-litre supercharged 8-cyl., 4-seater (1931).....	Aug. 1932	Ford V8 30 h.p. saloon.....	April 1936	RILEY NINE "Gamecock" 2-seater	March 1932
Alvis 11.9 h.p., 4-cyl., "Firefly" saloon	Feb. 1933	Ford V8 30 h.p. "Greyhound" 4-seater	Jan. 1933	Riley Nine "Monaco-Special," two-carb. saloon	March 1931
Alvis 4-cyl., 12.60 h.p., 2-seater.....	July 1931	Ford L.M.B. Epoch 10 h.p., 4-seater, supercharged.....	Sept. 1936	Riley Nine, 4-seater.....	June 1931
Alvis 6-cyl., "Silver Eagle" 4-seater coupe (1929)	Aug. 1931	Frazer-Nash-B.M.W., 2-litre, Type 45, saloon	Feb. 1937	Riley Nine "Monaco-Special" saloon.....	July 1930
Alvis 6-cyl., "Silver Eagle" 4-seater	June 1930	Frazer-Nash-B.M.W., 2-litre Type 55, 2-seater	Nov. 1935	Riley Nine "Brooklands" racing 2-seater	July 1930
Alvis 3½-litre saloon.....	Feb. 1936	Frazer-Nash Anzani s.v. super-sports, 4-seater.....	Feb. 1927	SALMSON 1,100 c.c. o.h.c., Grand Sports 2-seater	Jan. 1926 & Dec. 1926
Alvis Speed Twenty Vanden Plas saloon.....	Feb. 1935	Frazer-Nash 6-cyl., 1½-litre (Blackburn) 2-seater	July 1933	Salmson 4-cyl., twin o.h.c. Grand Sports 2-seater (1928).....	April 1931
Alvis Speed Twenty Charlesworth saloon.....	Feb. 1934	Frazer-Nash 4-cyl., 1½-litre push-rod o.h.v. "Interceptor" 3-4-seater	Jan. 1931	Singer 1½-litre, 6-cyl., Le Mans 2-str.	March 1935
Alvis Speed Twenty 4-seater.....	June 1932	Frazer-Nash 4-cyl., 1½-litre T.T. Replica push-rod o.h.v. 2-3-seater	Nov. 1931	Singer Nine, 4-seater.....	March 1933
Amilcar 4-cyl. 1,100 c.c. "Grand Sports" 2-seater July 1927 & May	1926 & Jan. 1925	INVICTA 12/90 h.p. 1½-litre super-charged 4-seater	Oct. 1932	Squire 1½-litre, 4-cyl., 2-seater.....	Aug. 1935
Ansaldo 2-litre, 4-cyl. o.h.c., 4-str....	Sept. 1924	Invicta 4½-litre low-chassis, 4-seater	March 1931	TALBOT "90" Brooklands-bodied 2-4-seater	April 1931
Armstrong-Siddeley 20 h.p., 6-cyl., 4-seater	July 1933	Invicta 4½-litre Weymann saloon..	June 1929	Talbot "105" sports saloon.....	April 1934
Aston-Martin Mark II, 11.9 h.p., 2-4-seater	Jan. 1935	Invicta 4½-litre saloon.....	Dec. 1929	Talbot 3½-litre saloon.....	March 1936
Aston-Martin Ulster 11.9 h.p., T.T., 2-seater	Oct. 1935	LANCIA AUGUSTA 11.9 h.p., saloon	Sept. 1934	Talbot Ten "Rally" 4-str.	Oct.-Nov. 1936
Aston-Martin Le Mans 11.9 h.p., 2-4-seater	June 1935	Lancia Astura, 25 h.p., 8-cyl., James Young saloon.....	Nov. 1932	Talbot "105" Vanden Plas 4-str....	Nov. 1932
Aston-Martin International 11.9 h.p., 4-seater	Aug. 1932	Lancia Dilambda 31 h.p., 8-cyl., saloon.....	Dec. 1930	Talbot "90" 4-seater.....	Nov. 1930
Aston-Martin T.T., 11.9 h.p. racing 2-seater	Dec. 1931	Lea-Francis 1½-litre supercharged T.T. 2-seater (1929).....	June 1934	Tatra 4-cyl., 1,154 c.c., coupe.....	Dec. 1932
Aston-Martin 11.9 h.p. 2-seater.....	Jan. 1930	Lea-Francis 1½-litre supercharged special T.T. 2-seater.....	Sept. 1933	Terraplane, 8-cyl., 29 h.p., 4-str....	July 1935
Auburn 30 h.p., 8-cyl. supercharged 2-seater	June 1935	Lea-Francis 1½-litre supercharged "Hyper" 4-seater.....	Aug. 1930	Triumph 2-litre "Vitesse Six" saloon.....	April 1935
Austin Seven Boyd Carpenter 2-str.	Sept. 1930	Lea-Francis 2-litre 6-cyl., "Ace-of-Spades" saloon.....	Nov. 1930	Triumph 10 h.p. 'Gloria Southern Cross' 2-seater.....	June 1935
Austin Seven "65" 2-seater.....	Jan. 1934	MERCEDES-BENZ Type 540K, 5.4-litre, 8-cyl., supercharged 2-str....	April 1937	Triumph 10 h.p. "Gloria" saloon	Jan. 1934
Austin Seven sports 2-seater.....	July 1930	Mercedes-Benz Type 500, 5-litre, 8-cyl. supercharged, 2-seater.....	Nov. 1934	Triumph Nine "Southern Cross" 4-seater	June 1932
BENTLEY 3-litre, 4-cyl., 4-seater (1927).....	Jan. 1932	Mercedes-Benz 12.40 h.p., supercharged 2-seater.....	June 1925	Triumph Eight "Gnat" 2-seater...	Aug. 1931
Bentley 3½-litre, 6-cyl., Vanden Plas, 4-seater	Nov. 1933	Mercedes-Benz 36.220 h.p. supercharged, 2-4-seater.....	April 1928	Triumph Eight, supercharged 2-str.	Dec. 1929
Bentley 4½-litre, 6-cyl., Park Ward saloon	June 1936	Mercedes-Benz 38.250 h.p., supercharged, 2-4-seater.....	Nov. 1929	VALE-SPECIAL 832 c.c. 2-seater...	Aug. 1933
Bentley 4½-litre, 4-cyl., supercharged 4-seater	Jan. 1931	Mercedes-Benz 33.180 h.p., supercharged, 4-seater.....	Aug. 1927	Vauxhall 30/98 O.E. 4-seater.....	Sept. 1925
Bentley 6½-litre, 6-cyl., long-chassis saloon (1928).....	Dec. 1936	M.G., 6-cyl., Mark I, 4-seater.....	May 1931	Vauxhall 30/98 O.E. 4-seater (1925)	Jan. 1936
Bugatti 11.9 h.p., Modified Brescia 4-seater	Aug. 1925	M.G. Magna, 12 h.p. Abbey 4-seater	Feb. 1932	Vauxhall 30/98 O.E. 4-seater (1924)	Dec. 1930
Bugatti 1½-litre, 4-cyl., Type 37 G.P. 2-seater	Sept. 1926	M.G. Magna "L" 2-seater.....	Nov. 1933	Vauxhall 20/60 h.p. "Velox" saloon	May 1929
Bugatti 3.3-litre 8-cyl., Type 57 saloon	May 1934	M.G. Midget "P" 2-seater.....	Aug. 1934	Vauxhall 20/60 h.p. "Hurlingham" 2-seater	Feb. 1930
Bugatti 2.3-litre 8-cyl., Type 55, supercharged, 2-seater.....	July 1932	M.G. Midget "J3" supercharged, 2-seater	May 1933	Vauxhall 17 h.p., 6-cyl., "Cadet" saloon.....	Sept. 1931
Bugatti 2.3-litre, 8-cyl., Type 43, supercharged 4-seater (1930).....	Dec. 1932	M.G. Midget 750 c.c. Monthery supercharged 2-seater (1931).....	May 1932	Vauxhall 14 h.p. "Stratford" 4-str.	Sept. 1933
Bugatti 2.3-litre 8-cyl., Type 43, supercharged 4-seater.....	May 1930	WINDSOK 4-cyl., 11 h.p. "Special" 2-3-seater	Nov. 1926	Vernon-Derby 1,100 c.c. (Ruby) 2-seater	March 1928
Bugatti 3-litre 8-cyl., Type 44, saloon	July 1928	Wolseley Hornet Swallow 2-seater (1933)	April 1934	WOLSELEY Hornet Abbey AS.3 2-4-seater	Jan. 1932
		Wolseley Hornet E.W. "Daytona-Special" 4-seater.....	May 1932	Wolseley Hornet Boyd-Carpenter 2-seater	Jan. 1931
		Wolseley Hornet (12.08 h.p.) saloon	Sept. 1930		

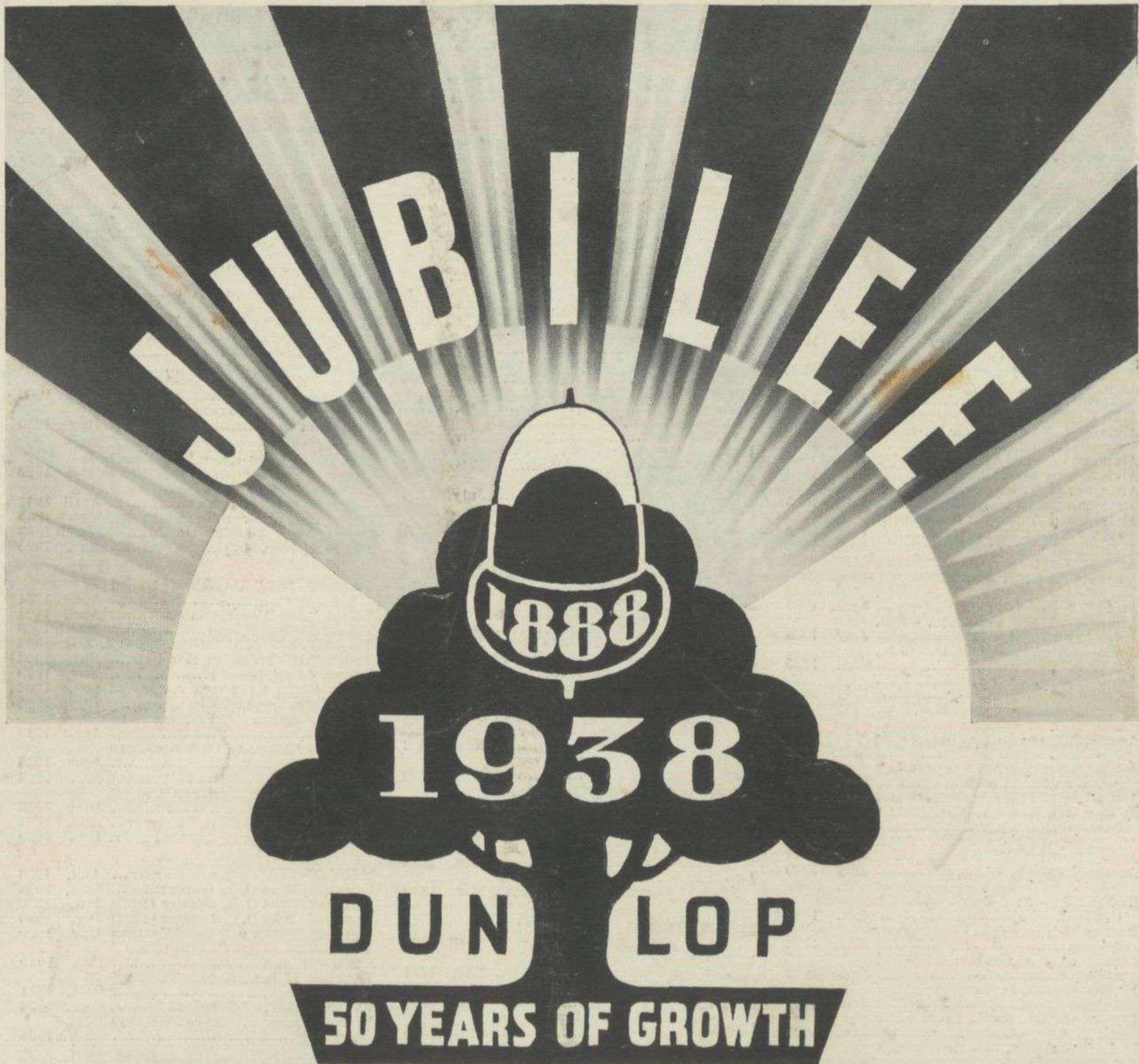
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