Vol. XV. No. 1 The 1938 Records January, 1939

MOTOR SPORT

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SIXPENCE MONTHLY



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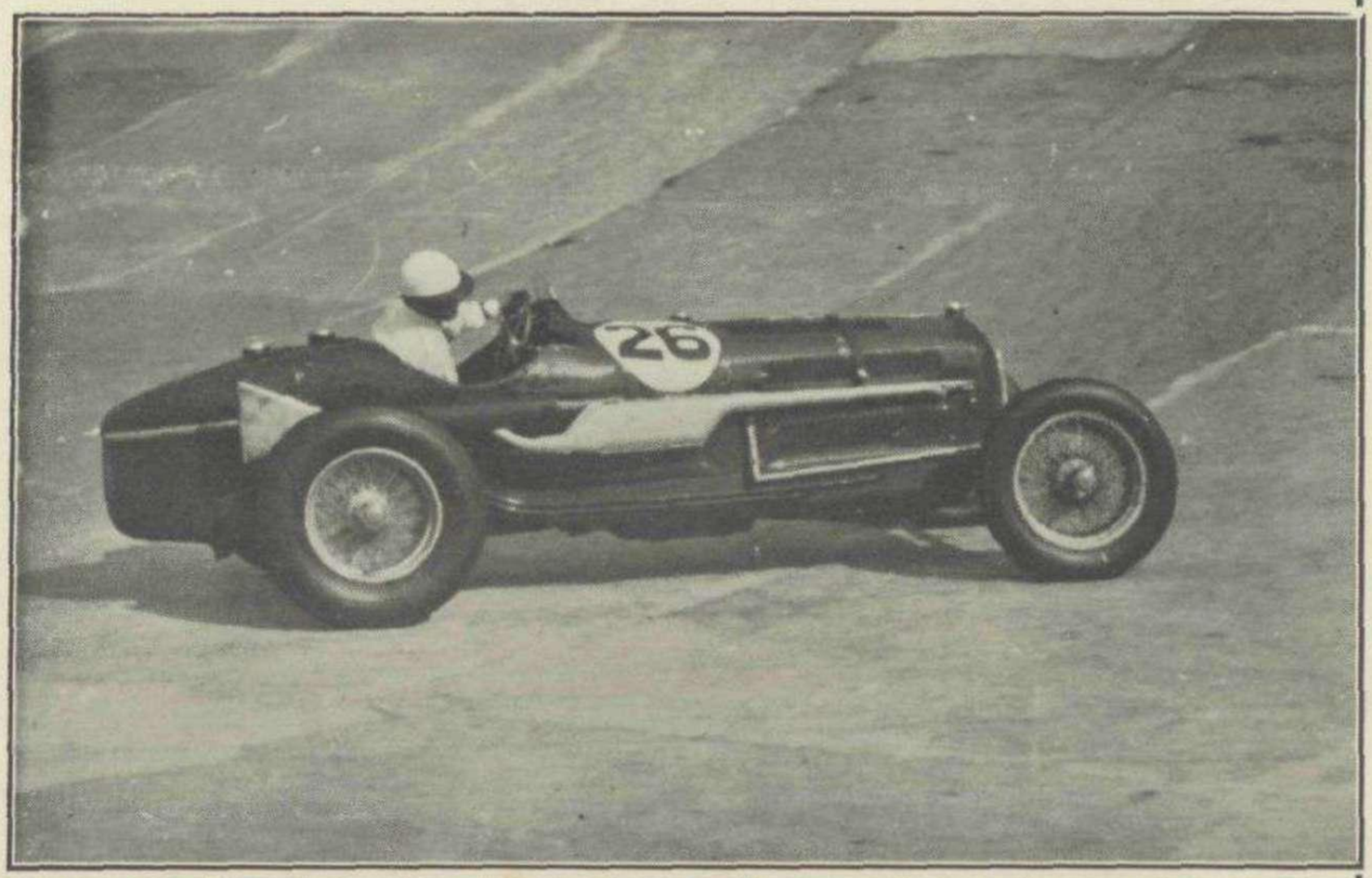
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THE B.R.D.C. BROOKLANDS MEETING, 1938

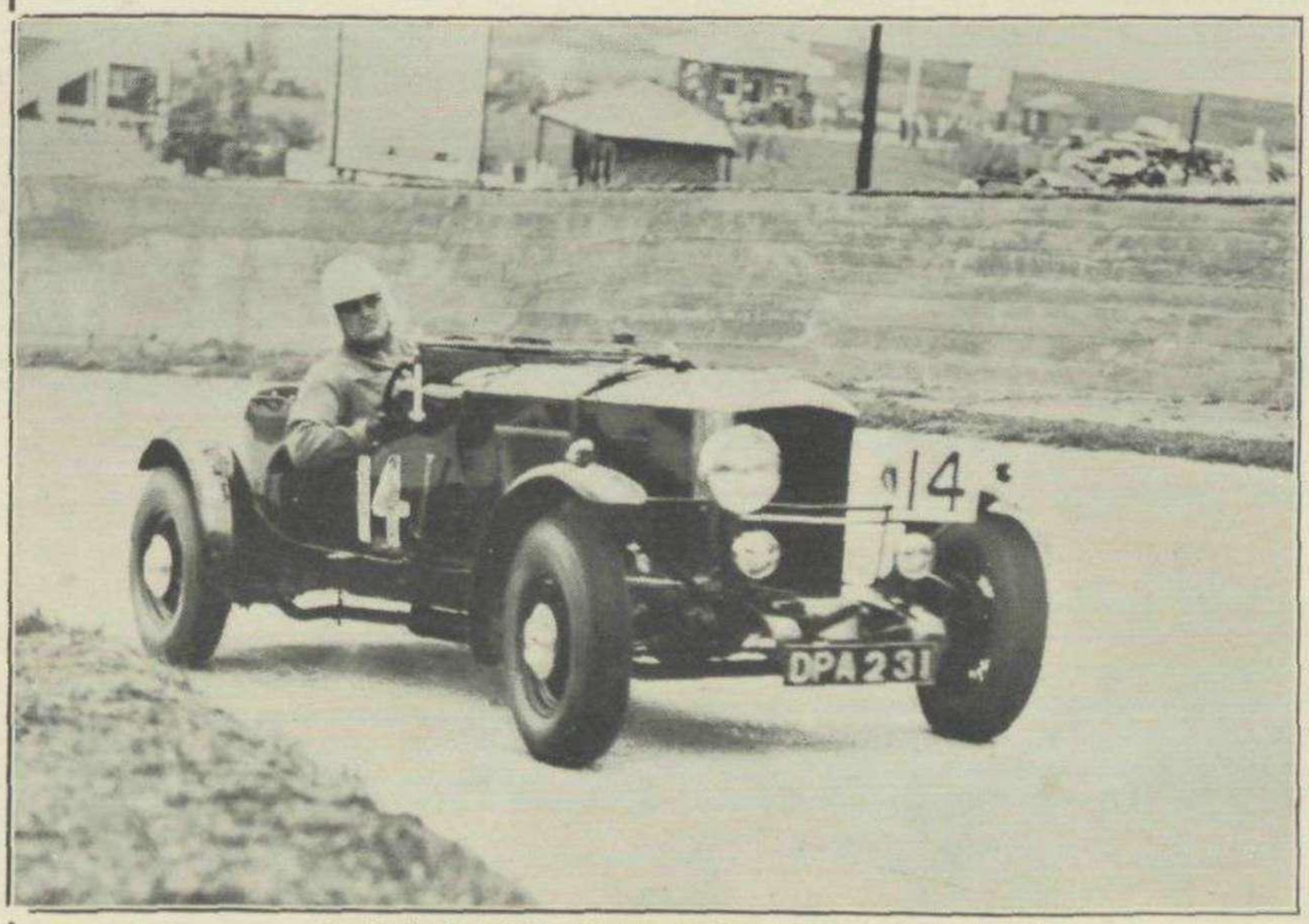
★

WE HAVE MANY PHOTOGRAPHS TAKEN LAST YEAR AT BROOKLANDS, CRYSTAL PALACE, SHELSLEY WALSH, LEWES, ETC., WHICH HAVE NOT APPEARED IN "MOTOR SPORT." WRITE TO SEE IF WE HAVE A PHOTOGRAPH OF YOU.



K. D. Evans (Alfa-Romeo) on the Members' Banking after leaving the Road Course.

THE THREE-HOUR SPORTS CAR RACE, 1938



C. Follett's Light Sports Railton at the Motor Bridge.

★

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FOR SALE

Austin Seven, Zenith vertical carburetter, cylinder head gasket, new swivel pin bushes, 2 pair anti-roll springs.....

,, cylinder head, intake manifold, with Zenith carburetter, wheels and tyres and 1928 normal Austin 7 gearbox...

,, wheels, two. Complete with 400×19 Dunlop sports tyres and inner tubes. Run 300 miles only.....

,, wheel drawer.....

,, 60 m.p.h. speedo, petrol tank, bucket seat, cycle type mudguards, three pairs, doors, off sports model, 12v. electric hooter .....

Austin Complete Chummy, two-piece windscreens, new safety glass.....

,, Chummy side curtains, set.....

A.C. Six cylinder head (approx. 1924) camshaft and crankshaft .....

Axle, front, cycle type guards, new wheels, large aluminium brake drums, new swivel pins and races.....

Bluemel telescopic steering wheel (unused). Several clockwise Bosch dynamos with distributor (4-cyl.) unused. Back axle (complete with shafts, brakes, and drums).....

Batteries, 3 6-volt car .....

Bosch headlamps, one pair, 12-volt .....

Camshafts and boxes, from Brescia Bugatti.....

Carburetter, Zenith triple diffused horizontal, 36 mm. bore .....

,, Model 36 H.K. Horizontal Flange. 2 3/8" between centre of bolt holes. Right-hand float chamber.....

,, (Two) Zenith N type Horizontal 36 mm. top feed float chambers.....

,, R.A.G. suit Riley Nine.....

,, R.A.G. .....

,, Zenith .....

,, S.U. complete (three).....

,, Solex .....

,, (New) racing 36 mm. Amal, with large assortment of spare jets and chokes

,, set of Four Racing S.U.s with top feed and all fittings for 1,000 c.c. Riley 9

Cylinder Head 2 port, complete with rockers, etc., for 12 h.p. Meadows.....

,, for blown Lea-Francis, without valves and rocker gear.....

Dissolved acetylene cylinder (6 cu. ft.) with gauge, by Allen Liversidge.....

Engine, 26 or 27 E.W. twin Douglas, complete with clutch .....

,, Ford V8 complete with Scintilla magneto and welded branched exhaust manifold

,, (two) Blown type, Ulster Austin 7 (one less crankshaft) both at present dismantled

,, 1936 Austin "Speedy" (pressure fed crankshaft) complete, less camshaft .....

,, Austin 7, 1929, coil ignition, complete with gearbox .....

Ford wheels, two, with new tyres 18×6.00, retread,

Ford 1936/37 10 h.p. 2 only, 600×16 Dunlop Comp. tyres and tubes used once only.....

,, 2 only 600×16 Firestone covers, used once only .....

,, 2 only 600×16 Silver enamelled wheels.....

,, 1 only, standard size Firestone cover and tube

,, 1 only, standard size, silver enamelled wheel

,, 1 rear seat swab, red leather, never used.....

Ford V8 two 600×16 wheels complete with 6.50×16 Dunlop sports covers and tubes and one 600×16 wheel complete with Goodyear G3 tyre and tube. With spare metal wheel cover of 1935 V8 coupe.....

Frazer-Nash-B.M.W. standard pattern steering wheel, good condition.....

Gearbox, M.G. Midget, 3-speed, with Derrington remote control .....

,, 4 speed, complete with remote control, from 1½-litre Singer.....

,, Wilson pre-selector, complete.....

,, 4 speed, Austin.....

Headlamps one pair "Autoroche" chromium-plated, Modified to take British type bulbs...

Lagonda 3-litre, all spares .....

Lancia Lambda 14 h.p. Nine wheels, 765×105, two good tyres. Bonnet, two good rear wings, spare drop arm and draglink and steering arm, petrol tank and gauge fitted with extension for outside filler cap.....

,, Two cutouts (Marrelli) key and switch box (Marrelli), two 8 in. headlamps (Bosch), both mirrors silver plated giving parallel beam approx. 400 yards.....

,, Four 5 in. lamps, rear lamp, two wing lamps (Duco), two way dip switch, 3 switch arrangement for reverse light and horn.....

,, Hood and upholstery. Hood structure altered for lowseating position and lowered steering wheels—steering wheel with special bearing attachment—two steering boxes, dash board to fit altered steering and radiator distance. Hood needs recovering. Seat supports to fit Dunloppillo "Cinema" seats. Triplex glass windscreen (one panel cracked but rest O.K.) opens in halves—folds flat and adjustable to any angle. Scuttle extension for lowered steering and hood, four doors (one needs new hinges) seat squabs, spare set of brand new Ferodo M.R. brake linings .....

Lucas 12 v. Altette horn.....

,, ST 38a chromium stop tail lamp.....

M.G. J.2 brakes and cables, the set.....

,, 1933 radiator.....

,, Marles steering gear complete, spring wheel, needs two hemispheres.....

,, Set bottom timing wheels.....

,, Set (four) front hub bearings, new.....

M.G. Midget, 1933 J.2. Set of 4 pistons with rings and gudgeons, cylinder head oil drain housing, clutch centre floating plate, and 3 clutch fingers.....

Motorcycle speedometer, front wheel drive.....

Petrol Tank, 5 gallon from M.G. Midget.....

Plugs, 2 brass priming, to fit 18 mm. sparking plug holes .....

Radiator, with chromium cowl for blown Ulster Austin (has had new centre fitted, only been used 3 months) complete with snap down quick filler cap.....

Squabs, 2 single seat.....

Steering Wheel, from 1936 Morris Eight.....

,, from 1931 Austin.....

Salmson 9.5. h.p. 1928 G.P. One 19×4.50 wheel (well base), one propeller shaft with complete axle-end assembly including pinion, one second gear mainshaft pinion, one second gear layshaft pinion

Screens, one pair detachable "Brooklands," with adaptors to suit Morris Eight. Unused...

Seat covers and cushions.....

Six volt starter with Bendix pinion, for 1½-litre engine .....

Screen, two panel, safety glass, with frame. Supercharger, Powerplus No. 7 with horizontal carburetter .....

Speedometer, Smith's A type .....

Springs, special flattened rear, for Austin.....

Standard Big 9 1929 engine, clutch and gearbox absolutely complete, but sump is damaged .....

Starter, Austin 7, complete. 6v. heavy starter, complete.....

Sunbeam 3-litre crankshaft, cylinder-block, pistons con-rods, camshafts, carburetter, magneto and starter.....

Centric Supercharger and Fittings, suitable for C-type J.2 or J.4 M.Gs, driven from nose of crankshaft, 12 lb. pressure.....

Marshall Roots type Supercharger complete with all fittings for Morris 8.....

Supercharger, Powerplus No. 7, with horizontal carburetter.....

Sunbeam, 14/40 complete power unit.....

Stoneguard radiator, suitable M.G.....

Supercharger, Cozette Austin 7, dismantled.....

Stoneguard (Green) for Austin 7.....

Zoller compressor for Series Morris 8.....

Talbot 8 h.p. 1923. 6 v. coil, 6 v. Benjamin electric horn, connecting rod. Zenith carburetter to take ⅝ in. pipe, torque tube, silencer and extension tube, petrol gauge, 5 hub caps, 8 day clock, one piece 2-seater seat squab, celluloid side screens .....

Tyres one pair competition, 19×4.75.....

Tyres and Tubes 17×6.00 Dunlop "90" in good condition .....

5 Wheels, 4.75 x 18 with good Dunlop covers and tubes, same R.W. hubs and suitable for Riley, 1½ litre M.G., Frazer-Nash, Aston Martin, etc.....

Tank oil, separate facia-board, with drip feed attachment for filling crankcase whilst in motion, with snap-down cap.....

30/98 Vauxhall, o.h.v. model, parts available.....

Wheels, racing, one set, 42 mm.....

,, 2 from M type M.G. 29-32 .....

,, set of five, 8.20×120, complete with tyres and tubes .....

,, Disc. 710×90 covers suit A.C. hubs.....

Wheel three spoked spring steering, fit M.G. model after 1932. Needs welding.....

,, 47 mm. with knock-on hub, suitable for Singer, Wolseley, etc.....

Wheels, enamelled red, and free from rust. Hubs will fit any Bentley model.....

Windscreen with triplex for M.G. Midget M. type.....

WANTED

Austin Seven Chummy body.....

Body complete two-seater sports for Wolseley Hornet, swallow body preferred, condition immaterial .....

,, two-seater T.T. Replica for Frazer-Nash.....

"Ulster" Austin Seven body .....

,, rear springs (flattened).....

,, radiator and bonnet.....

,, Austin Seven 1930, unblown camshaft...

SECONDHAND SPARE PARTS—continued

Aluminium cylinder head for Austin 7.....
Alfa Romeo, taper tail 2 seater body shell.....
Alfa Radiator with shell suitable for Mille Miglia 34
Body shell for G.P. Bugatti, suitable for fairly large chassis.....
Brooklands silencer, large plated.....
Camshaft, block and pistons for 14/40 Sunbeam. Good condition .....
Crankshaft (counter-balanced) for 1932 J.2 M.G....
Crankshaft, one large, for 1929 Austin Seven.....
Cycle Wings, pair, suitable for N type M.G.....
Cylinder head, high compression.....
Cylinder Barrel (nearside) piston and connecting rod for a 1933 912 c.c. o.h.v. w.c. J.A.P. engine from a 1933 super sports Morgan three-wheeler.....
Chassis, late model Frazer-Nash, complete.....
,, light racing, complete, not over 9ft.....
Carburetters, two semi-downdraught, standard, or 1933, J4, Midget.....
,, Set of twin S.U. (racing), complete with manifold. Top feed 30 mm., suitable for Brooklands Riley 9 h. 1,100 c.c.
Carburetters, pair, suitable for 1½ litre Riley, 4 cylinder .....
Engine, Lagonda, 2-litre supercharged.....
,, F.N. 1½-litre o.h.v. (O.h.c. or pushrod).....
Four-speed engine unit, complete, for Austin Seven...
Frazer-Nash 1929, starting handle flywheel (good teeth), Ricado head, outside exhaust system, pair front wings, reverse pinion and shaft, handbrake and ratchet, fold flat screen, rev. counter and drive, racing camshaft.....
Gearbox, light, for special chassis.....
High Axle ratio bevel and pinion (13/51 or lower to 4.4 to 1) for M type or Montlhery Midget
Louvred Aluminium bonnet, 2′ 3″, rear 2′ 3″, front 18″ wide .....
Lagonda 21″ wheels (4).....
Valve Cover for J.2 type Midget.....
O.H.V. O.M. engine, or conversion block etc., from s.v. to o.h.v.....
Morgan, 4-wheeler, Morgan conversion; complete car or conversion parts.....
M.G. J.2. type car hood.....
M.G. set of brakes.....
M.G. Midget, C type cylinder head complete with camshaft and vertical drive.....
Pre-War Car, 8-10 h.p., cheap.....
Fold Flat windscreen for M.G. and Frazer-Nash.....
M.G. J.2 oil and radiator thermometer (dash-board type) and Tapley motor.....
Seats, bucket type.....
M.G. J.2. brake handle with ratchet complete.....
Set M.G. mudguards, similar to J2 but for "P" type. Outside exhaust and system or manifold for "P" M.G.....
Spring wheels.....
Gearbox, 4-speed, for a 1930 O.H.C. Morris Minor.....
Generator and battery charger of German make in aluminium .....
Boyd-Carpenter body, any condition.....
Brooklands Riley Engine .....
,, Series ,, with high lift cams and two carburetters .....
Remote control, complete, for 1933 M.G. type J.2 gearbox .....
Seats, two bucket, in good condition to fit M.G. type N .....
Spare Wheel for a 4.50×19 tyre, Frazer-Nash.....
Four con-rods steel, suitable for Meadows engine, Crown wheel and pinion. 10×47.....
Rev.-counter, for Type "C" M.G. Midget and drive
,, and water thermometer (dash board type) for an M.G. Type "N" Magnette .....
,, 3 in.
1,100 c.c. O.h.v., W.C., J.A.P. engine, suitable for 3 speed and reverse super-sports Morgan.
5 Wheels, 16″ to take R.L.P. tyres (or similar mm. size) R.W. hubs 42 mm. long pattern, with or without tyres and tubes.....
Pair of Lagonda cycle type wings and brackets for 21″ wheels .....
Two S.U. carburetters, 36 mm. .....

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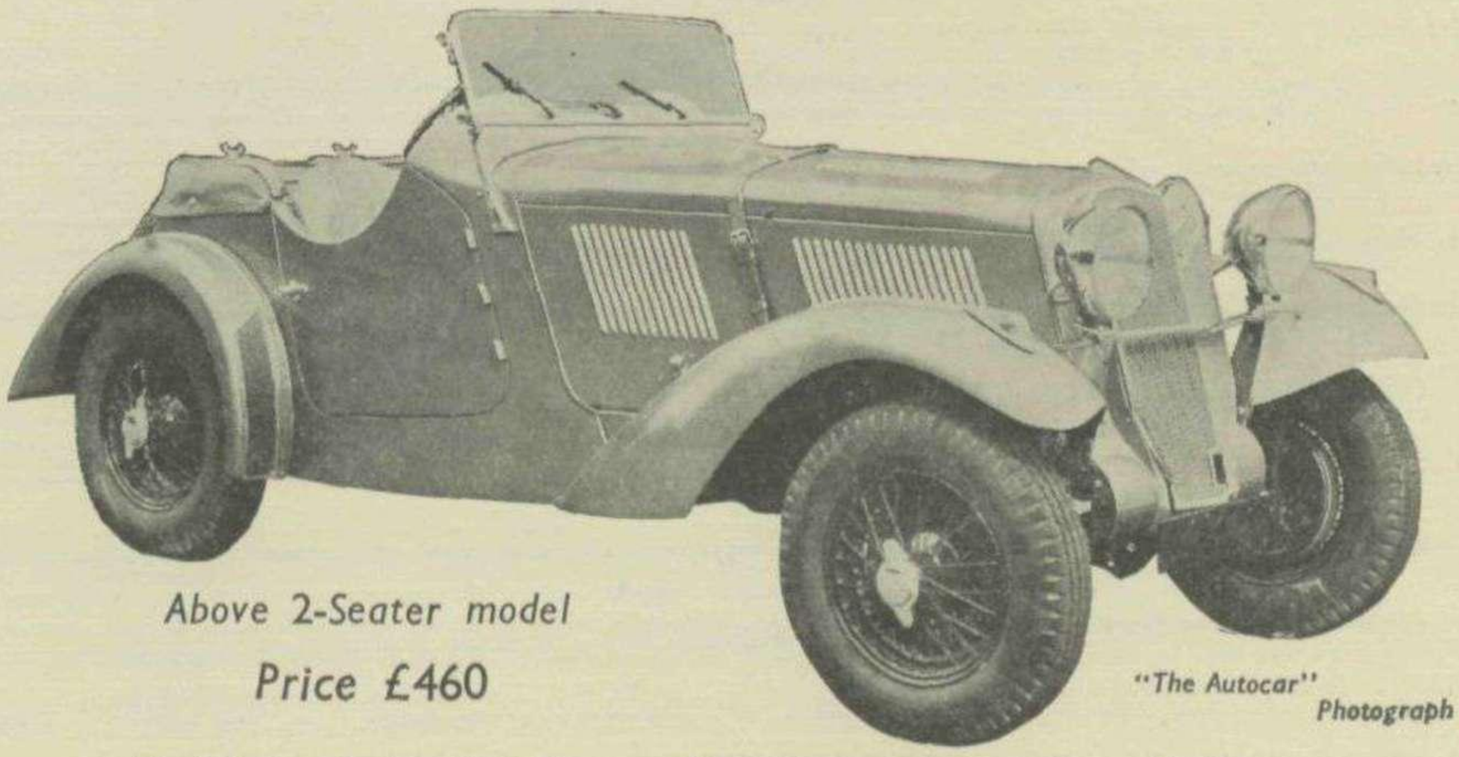
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THE FORD ENTHUSIASTS' CLUB'S XMAS TRIAL

BEST PERFORMANCE BY R. J. CANHAM (V12 ALLARD-SPECIAL) BUT NOT ELIGIBLE FOR PREMIER AWARD, BEING MEMBER OF ALLARD WORKS. CONSOLATION PRIZE AWARDED

THE Ford Enthusiasts' Club held a novel trial on W.D. land at Camberley, on December 27th to wind up a Christmas of distinctly trials conditions. Snow and mud abounded. The ten hills were divided into sections, the entry was divided into different classes, the capacity classes were handicapped into standard and competition tyre divisions (some who could have run with standard tyres elected to use up their comps. and run in the more sternly contested division) and competitors timed themselves in the special test used merely to decide ties. Thirty-five entries came in, or two less than in 1937. The saloon class attracted three V8 Fords, and two Ford Tens, on normal boots. The classes for 8 h.p., 10 h.p. and V8 Fords were combined, and contested amongst the same five Fords. The capacity classes for cars using standard tyres were all combined and brought together Harman's 750 c.c. M.G., Pearson's H.S.P. Morris Special, Clarke's Riley, Needle's 12/50 Alvis, Mason's Ford Ten, Mrs. Allard's Ford saloon, Hutchison's new Ford Prefect saloon, Tett's Ford V8 and Alan May's Ford V8. The class for super sports-cars up to 1,100 c.c. was composed of Hadley's "Grasshopper" Austin Seven, Dyer's Riley Special and Dewey's Riley Special. The super sports-cars up to 1½-litres lumped together Jones (Singer), Denyer (Lea-Francis), Gordon (M.G.), Laudet (Wolseley-Hornet-Special), Adams (M.G.), Richards (Rover), Henning (blown L.M.B. Ford Ten) and Lawson's H.R.G. The unlimited super sports-cars were Dargue, Johnson and Biggs with B.M.W.s., Price's Ford V8 coupé, Sumner's special ex-Rose Ford V8, Ripley's Ripford-Special Ford V8, Loader and Walter Norton with the "Jabberwock" Fords, Peter Clark's 3-litre Bentley, sporting yet another cwt. of lead ballast in its boot, Burroughs's special Ford V8, now with shortened chassis, and minus the Bugatti tail, Canham with the V12 Allard-Special, Martin Soames with Sydney Allard's new V8 Allard-Special, and Ken Hutchison with his new Allard-Special, now with Lincoln V12 motor installed. Instead of premier and class awards, each class was judged on placings, speed trial fashion, and, in addition, eleven competitors had paid the extra fee of 5/- to compete for special awards, irrespective of category, also judged on a place basis. Then there were the teams—two club teams, the "Wobbleyous" B.M.W.s, and the "Tailwagger" Allards. Not unnaturally, in view of the weather, there were a number of non-starters. Mason's Ford Ten had run a big-end and Boddy, who reported receiving telephone calls all over Xmas as to whether the event could be run, arrived late at the start in the Ford Mrs. Allard hoped to drive, having been up all night in a snowdrift. Large numbers of spectators turned up, armed with maps thoughtfully provided by the club.

In the special figure-eight test Denyer and Richards recorded 25.4 secs. and Canham 25.8 secs. Water Tower, the first gradient, was lenient with seventeen sports entries, but, of the saloons, only Silcock's Ford V8 got up. None of the saloons managed Kilimanjaro, but fifteen comp.-shod cars got up. At Kilimanjaro II Silcock climbed three sections on standard tyres and sixteen others attained the fourth section. Hadley, Denyer and Dyer were very formidable. The next two hills were voted impossible, but the sixth was easy. All those wearing comps. got up clean with the exception of Price's Ford V8. Three more hills followed, the last the famous Red Roads. Hadley, Dyer and Adams almost got up, but only Denyer, Lawson, Johnson, Loader, Burroughs, Soames, Canham, and Hutchison (who had Warburton as ballast) got up clean, the Allards very fast indeed. Best performance of all was made by Canham's V12 non-competition Allard-Special two-seater and the runners-up, irrespective of class, were V. S. A. Biggs (blown B.M.W.), M. S. Soames (V8 Allard) and K. N. Hutchison (Allard). A Singer got bogged well and truly and Johnson's B.M.W. was running with a broken engine bearer. Allard, Boddy and Brymer had the provisional results out the same evening at the Sunningdale Hotel, where competitors were well provided for in a room reserved by the Club. It is possible that this system of dividing a trials entry into classes and of awarding place prizes in each category will be used in future F.E.C. events. It certainly seems desirable to giving first and second-class awards on a basis whereby drivers compete against the club, or partially amongst themselves and partially against the club, and where all sizes and types of cars run together. Several new members were elected as a result of this interesting trial.

RESULTS

Saloon Class: 1st, D. G. Silcock (Ford V8).
Ford Class: 1st, D. G. Silcock (Ford V8).
Touring and Sports Class: 1st, S. G. E. Tett (Ford V8). 2nd, H. S. Pearson, (H.S.P. Special).
Super Sports Cars up to 1,100 c.c.: 1st, H. L. Hadley (Austin 7).
Super Sports Cars 1,101-1,500 c.c.: 1st, M. H. Lawson (Meadows H.R.G.). 2nd, R. M. Henning (s/c. L.M.B. Ford Ten).
Super Sports Cars over 1,500 c.c.: 1st, V. S. A. Biggs (Frazer-Nash B.M.W.). 2nd, M. S. Soames (V8 Allard Special). 3rd, K. Hutchison (V8 Allard Special).
Best Performance Category: 1st, V. S. A. Biggs (s/c B.M.W.) 2nd, M. S. Soames (V8 Allard Special).
Team Prize: "Tailwaggers Team," Canham, Soames and Hutchison (Allards).

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MUSICAL CHAIRS

Well known cars are looking for new owners. The Jabberwock Fords are up for sale, likewise Macdermid's model-T blown "Musketeer" M.G. Midget. I. H. Nichols is disposing of his 750 c.c. single-seater M.G., the price being £325, Maclure has bought Mrs. Petre's Riley Six and Tongue's E.R.A. engine, while Beadle's 2-litre Alta is to have a new tubular frame. Connell may sell his E.R.A. Lady Mary Grosvenor is to race an Alta this year.

THANK YOU!

At this time of the year the next year's subscription becomes due to many motor-clubs. Secretaryship involves a lot of hard work. Will you please pay up promptly and help your secretary?

Continental Notes and News

By AUSLANDER

More Alterations

Following my remarks about the alterations being made to the Rheims circuit, comes the news that the Nurburg Ring is to be considerably modified during the intervening months before the 1939 season starts.

The German authorities are of the opinion that some of the corners and curves as they stand at present are not suited to the speeds attained by modern cars and motor-bikes. These corners will accordingly be eased in radius, enlarged in width, and have their super-elevation made even more super-elevated. All this should tend to make race speeds and lap records soar.

The Ring is to be improved from the spectators' point of view as well. The grandstand—enormous as it is to-day—is to be enlarged and its capacity generally increased. Nurburg has easily the best catering arrangements of any circuit in Europe, and I understand that these will be expanded to deal with the bigger grandstand crowds.

However much one may dislike certain aspects of the Nazi regime, one has to admit that in all that appertains to motoring and motor-racing Germany is the most progressive country in the world.

National Effort

The Nazi plan to make Germany one-hundred per cent. efficient in every respect of its national life has now been extended to the motor industry. Marshal Goering has recently appointed General von Schell to superintend the reorganisation of the industry in such matters as increased production, factory management and a reduction in the number of car types. This latter function will no doubt cause some heart-burnings in certain quarters, but that will not stop General von Schell from carrying out his task. On the face of it I should say that it will be the sports models that will suffer most, only a restricted range being left to suit people with different incomes.

Incidentally, General von Schell's appointment has given rise to the belief in some countries that he has superseded Korpsfuhrer Huhnlein. This is not so, of course, as the latter's job is that of organising motor sport, as distinct from motor production.

German Reaction to Gardner

Major Gardner's 186 m.p.h. with a 1,100 c.c. M.G. still continues to be a stock subject of conversation in German motor-racing circles. The greatest possible credit is given to all concerned, and especially to the technicians responsible for the design and tuning of the engine. People who should know say that Gardner has every reason to be confident that he will exceed 200 m.p.h. on his next attempt, which will take place in the spring on the 90 ft. record-road at Dessau. The car was plainly under-geared at Frankfort.

A point which does not seem to have received any mention in the British Press is that the M.G. did not have the independent springing that has come to be regarded as essential for light cars travelling at nearly 200 m.p.h. In spite of this the car was absolutely rock-steady throughout the runs.

The credit for this must go not only to the M.G. designers for the perfect weight distribution of the chassis, but also to the builders of the *Reichsautobahn*, which those who have used it will agree is as level as the proverbial billiard table.

Indeed, at the risk of bringing down a storm on my head from English readers, I must say that the German road-makers are far ahead of the British in the art of making really smooth concrete roads. Visitors to England who travel along such roads as Western Avenue, for example, are amazed at the roughness of the surface even on the recently opened stretches. In their present state, quite apart from their short length, they would be useless for record-breaking cars. It is not that they are actually bumpy, but they consist of a series of waves which would make high speeds very difficult, if not impossible.

In the speed at which the German roads are made, too, there are signs that the German road contractors have a far superior technique to their British counterparts.

Reverting for a moment to German admiration for the efficiency of the M.G., it is believed that any future teams of German 1,500 c.c. cars (no names, no pack drill) will have benefited from a study of the M.G. engines which have been used by certain German sportsmen for some time. This, of course, is in addition to any tips picked up from that other high-efficiency British design, the E.R.A., a specimen of which, as I wrote last month, was purchased by a German driver a year ago.

To conclude my notes about Germany, the Auto-Union people are still not satisfied with the composition of their team. According to present plans, Nuvolari will stay with them for another season, with Muller and Hasse as second and third strings. That leaves no one in reserve, or for a fourth car in those races where that number is permitted. There is also some doubt as to whether Kautz will be available next season, and in any case the young Swiss did not have the best of luck last year. Bigalke, the reserve, has not had the chance to show his paces yet, and with a view to finding fresh blood trials have been taking place recently of well known motor-cyclists. Auto-Unions believe that this is their best field, because the men do not have to "unlearn" the technique of handling an ordinary car before mastering the feel of the rear-engined Auto-Union.

There has been some talk of Nuvolari returning to Alfa-Romeo, but I think that this is extremely doubtful. On the other hand it is common knowledge that the little Italian has set his heart on winning Indianapolis before he retires. The present state of animosity between Germany and America would prevent him from taking an Auto-Union, so there is just a chance that he might go over with an Alfa, particularly if the sixteen-cylinder car really gets cracking this year. The trip, if it came off, would not interfere with Auto-Union plans, for there is no big race in Europe between the Monaco Grand Prix on April 16th and the French Grand Prix on July 9th. There is the Belgian Grand Prix on June 25th, but the German teams are not in the habit of sending their first-string drivers to this event. If necessary, however, Nuvolari could be back in time for this, as Indianapolis is booked for May 30th.

It would be grand if he could win the American race, which has not been won by a European for donkeys' years.

Millers for Europe?

Talking of America, Continental folk are wondering whether the rumoured 3-litre Millers will really come over to Europe this year. The design mentioned is a supercharged 3-litre, rear-engined, with four-wheel drive. Sounds a promising vehicle. Needless to say they would be welcomed in the big Grand Prix races, which are badly in need of bigger fields and a more international element. If they came and gave us all a sound beating it would be so much the better for the sport.

Millers, of course, have been over here before, and have taken part in the Tripoli and Italian Grand Prix, as well as racing at Avus. So far they have never been successful.

Darracq Progress

A less problematical—indeed a certain—addition to Grand Prix fields next season is the French Talbot team, which has benefited considerably by a wad of money from the French Government. The sixteen-cylinder 3-litre blown model has made favourable progress during the winter months, and its first trials are expected early in the New Year. A 4½-litre unblown type of modified design is also coming along, and this will presumably be used for Le Mans. Events have proved pretty conclusively that unblown cars stand no chance in Grand Prix races.

The 3-litre engine has been installed in a chassis closely resembling the sports type used last year in unblown form, and how this will cope with the higher speeds obtainable remains to be seen.

The trials will be carried out by Louis Chiron, and on the performance of the car will depend his decision whether or not to join the team. He not unnaturally wants to make sure that the car will stand a sporting chance against the Germans before he commits himself too far. If all goes well, there is a possibility of the second driver being Wimille, who has not yet renewed his contract with Alfa-Corse, but nothing has been definitely settled.

According to present plans, M. Lago is going to run a full team of three cars in all the big Grand Prix races. Here's wishing him the very best of good luck.

CONTINENTAL NOTES AND NEWS—continued

Chez Schell

The French colours will also be upheld during 1939 by the Ecurie Lucy O'Reilly Schell, as the Ecurie Bleue is to be called in future. The cars will be the V12 Delahayes, four single-seaters and four two-seaters. With the assistance of an Austrian engineer named Lacken and a squad of eight mechanics, it is hoped to extract a good deal more b.h.p. and general performance from the cars, which will be entered for all the important races during the year. René Dreyfus will once more lead the team, backed up by Raph and two others as yet unnominated. Incidentally, with vacancies in both the Darracq and Delahaye teams, there seems to be a definite shortage of up-and-coming drivers in France.

The Ecurie is moving its headquarters from Brunoy, near Paris, to Monte Carlo, where the Schells live. As a natural consequence, Miramas track near Marseilles will be used for testing purposes in the future instead of Montlhèry, which thus loses one of its few remaining customers.

While Laury Schell has been recovering from his accident, most of the organising work has fallen on the immature but capable shoulders of Hanki, his twenty-year-old nephew. Hanki used to be the team's timekeeper, and a very good one, too, but recently he has experienced the weight of responsibility of a *chef d'equipe*. He has acquitted himself well, and is now busily engaged in attending to the hundred and one details to be settled in preparation for a full season's racing. Hanki speaks very good English, likes England, and has paid it several visits. Two journeys he remembers vividly were an all-night dash from Dover to Fishguard to catch the boat to Cork, and a midnight trip from Weybridge to Dover after the Dunlop Jubilee Meeting at Brooklands when the news of the French mobilisation for The Crisis came through. The only thing he doesn't like about England is English hotels, for which no sensible Englishman will blame him.

As for the Schell family, an evil eye of the most virulent sort seems to have cast a spell on their fortunes. First of all there was Laury's accident, which was so nearly attended with fatal consequences, and Madame Lucy's ultimate breakdown with worry. Then, when Laury left hospital to finish his convalescence, his progress was suddenly retarded, and he has since been far from well. A few days before Christmas the specialists decided that he would have to have another operation, and almost simultaneously Mme. Lucy was rushed to hospital for an appendix removal. As if the family were not considered by fate to be truly down and out for the full count, Hanny, their eighteen-year-old son, broke his leg while playing football!

If anyone deserves the best possible wishes for the New Year it is M. and Mme. Schell and family.

French Etcetera

Other news from France is that the French Grand Prix has been reduced in length from 500 kilometres to 400 kilometres, which, being interpreted, is 250 miles. Four cars of each make may be entered, and only works teams will be eligible. As usual, the A.C.F. want all entries to be in incredibly early. In fact, they have given manufacturers up to January 15th to file their scraps of paper, which must be accompanied by no less a sum than 15,000 francs, which will be forfeited if the cars don't start. No one seems particularly pleased at having to make up their minds so soon, and much less to part with hard cash, but no doubt they will fall into line. The French Grand Prix still carries with it immense prestige.

As for that other great French race, Le Mans, the regulations have now been published by the Automobile Club de l'Oeust, and show that the minimum distances and average speeds have all been increased somewhat, in accordance with increased "sports" car performance. Here are the speeds for 1939 (distances given on application): 500 c.c., 41.2 m.p.h.; 750 c.c., 48.8 m.p.h.; 1,000 c.c., 53.8 m.p.h.; 1,100 c.c., 55.4 m.p.h.; 1,500 c.c., 59.95 m.p.h.; 2,000 c.c., 63.5 m.p.h.; 3,000 c.c., 67.58 m.p.h.; 4,000 c.c., 69.8 m.p.h.; 5,000 c.c., 71.23 m.p.h.

These, of course, are minimum speeds. To get some idea as to how much you have to exceed them in order to stand a chance of winning, bear in mind that the winning 3½-litre Delahaye last year averaged 82.36 m.p.h.

French sportsmen, incidentally, are mightily interested in the prospect of one or more 4½-litre V12 Lagondas being entered. "W.O." is regarded as almost a legendary figure at Le Mans, where his cars used to put up such wonderful performances ten years ago (is it as much as that?). In any case it would be extremely interesting to see how the Lagonda fared against machines like Delahayes and Talbots to say nothing of Bugattis and Alfas. Somehow, I think it will do exceedingly well, especially if Dick Seaman is the driver, as is rumoured.

It is rather disappointing that the Prince Rainier Cup Race at Monaco will not be for 1,500 c.c. racing-cars, after all. The present idea is to use it once again for the sports-cars in the Paris-Nice trial, which is growing in popularity. Here is another event in which the Lagonda should do well, provided it is in good hands.

In Paris, too, there has been lively discussion about Louis Gérard's adventures en route to the Cape in company with M. Gleisner. Their idea was to break (or rather establish) a record from London to the Cape by road in fifteen days; Gleisner having done the reverse journey in nineteen days. Their car was a 25 h.p. Dodge, which did not appear to be specially prepared in any way.

After a false start, the pair got away, crossed the Channel by boat, and then tore across France to Marseilles. Near the latter city they skidded on a patch of ice and crashed into a tree, damaging the car. After several days' delay they got away once more, although all hope of breaking the record had gone. The next that was heard of them was that they were discovered in a forest eighty miles north of Nairobi, after having been missing for several days. They were reported to be continuing after replacing damaged parts of the car. Gérard is due to take part in the South African motor-races, his Delage having gone by boat.

Since then another attempt on the same "record" has started, this time the drivers being Symons and Browning on a very carefully prepared Wolseley. They, too, reported a hectic journey across France on icy roads, and it is just these hectic dashes across France which are likely to bring the whole idea of the record into disrepute.

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CONTINUED NOTES AND NEWS—continued

I remember some years ago that enterprising publicity man, Dudley Noble, who now takes care of Humber-Hillman-Sunbeam-Talbot-Commer interests in this respect, conceived the idea of beating the time of the Blue Train Express to the Riviera in a 2-litre Rover. As an individual run the idea was excellent, but his fast time encouraged others to see whether they could improve on it, with the result that travellers on "N.7" would meet cars coming towards them like projectiles. The A.C.F. soon put a stop to that, pointing out that if such things weren't allowed on British roads, why should things be different in France? They took a similar stand in pre-War days when there used to be a London-Monte Carlo record. Among those who broke that record were Charles Jarrott on a Crossley and the late Charles Rolls (twice) on Rolls-Royces.

It will be interesting to see whether the A.C.F. will take a similar objection to the French section of these London-Cape record attempts, of which there are bound to be many more.

Talking of the A.C F. reminds me of an item of news that will interest all British readers of MOTOR SPORT. It is that H.M. King George the Sixth has graciously honoured the Club by accepting the title of High Protector, or Patron. This no doubt is a sequel to the visit of His Majesty to Paris last summer, an event which had a far greater effect on the minds of all French people than the British Press reports conveyed.

Holland and Motor Racing

From Holland comes the news that the Royal Dutch Automobile Club has made Mrs. Kay Petre, the British woman driver, "Protectress" of the Club.

From Holland, too, comes a report that a national motor-race is going to be held on June 3rd on the Zanoveert circuit, which measures 2.3 kilometres per lap. Dutch motorists have always been keen on motor-racing and sports-cars, and this interest has been encouraged by Prince Bernhard's liking for fast cars.

The present idea is to use the 1939 race as a means of perfecting the organisation for an International Grand Prix in 1940.

Change of Venue

The Swiss Automobile Club have decided to hold the Grand Prix of Switzerland at Zurich this year, where it will coincide with a big Exhibition. Originally two dates had been booked, one for a race at Berne on August 20th and the other for a race at Zurich on October 8th. The latter date has now been cancelled, and the Swiss Grand Prix transferred to Zurich on the earlier date. I hope to give you full particulars of the circuit to be used in the near future.

Antwerp

The Antwerp Grand Prix, held successfully for the first time last year, is to be repeated in a slightly different form on May 21st. Instead of one long race, there will be three heats of 62 miles each, and the cars will be confined to 2-litres-and-over machines.

Preliminary negotiations for entries are already promising, and I understand that there is a good chance of the Delahaye and Talbot teams competing.

The Rest of the News

In Italy they have now published a full list of champions. As I wrote last month, Farina is the Grand Prix champion, and he is now joined by Luigi Villoresi as the 1,500 c.c. hero and Franco Cortese as the sports-car champion. Among the makes, Alfa-Romeo claim the Grand Prix and sports-car classes, and Maserati the 1,500 c.c. division. Nuvolari, Farina, Varzi and Trossi are now ranked as "experts," and are accordingly barred from certain small races in order to give rising drivers a chance of success.

Farina, incidentally, is doing his best to organise a ski-ing race among motor-racing drivers, at Sestrieres. Chiron, of course, is good on two pieces of wood, and so is Stuck. Caracciola used to be very hot before his crash at Monaco left him with a limp. Varzi and Nuvolari are both expert bobbers.

Actually speaking, such a race would in all probability be fought out by two English drivers, Cholmondely-Tapper and Wakefield, for both these men have raced for England, whereas I don't think any of the others have represented their countries.

Both Alfa-Corse and Maserati have now settled their teams for 1939. Alfa will draw on the services of Farina, Biondetti, Pintacuda, Severi, Emilio Villoresi and Aldrighetti. Maserati will have Trossi, Luigi Villoresi, Cortese and Rocco at their disposal.

The sport is looking up in Italy, with forty-five events on the calendar. Three of these are to be held under the Formula (Coppa Acerbo, Coppa Ciano and Italian Grand Prix), nine will be for 1,500 c.c. cars, ten for national sports-cars, and one for standard cars. One of the sports-car races is to be our old friend the 24-hour Targa Abruzzi. This race will take place, as it used to do, at Pescara.

PS.

Good news for newspaper men of all nationalities. Karl Kudorfer, erstwhile Press liaison officer of Mercédès-Benz, has joined Auto-Union in a similar capacity. So we shall see his genial smile at Grand Prix races next season after all, and he will continue to help Press visitors to Germany—and other countries—in getting their necessary "dope."

TRIALS OF 1938

Trials have a very big following and it is of interest to look back and refresh one's memory of the more important 1938 events. To simplify the issue, only the winner of the Premier Prize is quoted, where this indicates best performance irrespective of capacity or club. Where two divisions both represent best performance the joint winners are given. From the following list it is possible to derive some idea of who would have taken the B.T.D.A. Trials Star in 1938, had there been one :—

Ringwood M.C. & L.C.C. Jubilee Cup Trial S. H. Allard (Allard-Special).

M.G. C.C. Chilterns Trial : D. E. Harris (M.G.).

Hagley & D. L.C.C. Winter Trial : T. N. Clare (Frazer-Nash).

Margate & D. M. C. Broadley Cup Trial: W. M. Broadley (Singer).

Great West M.C. Haward Tankard Trial : M. S. Soames (Ford).

Maidstone & Mid-Kent M.C. Bossom Trophy Trial : A. W. Turnill (M.G.).

N.W. London M.C. Coventry Cup Trial : S. H. Allard (Allard).

M.G. C.C. Bryant Cup Trial : A. H. Langley (Austin)

Margate & D. C.C. Wye Cup Trial : K. N. Hutchison (Allard).

Harrow C.C. Hampshire Trial : L. W. Adams (A.T.S. Special).

M.G. C.C. Grant Trophy Trial : G. Simpson (Ford V8).

Sunbac Colmore Trophy Trial : G. Warburton (Allard).

Southsea M.C. President's Trophy Trial : K. N. Hutchison (Allard).

Berkamsted M.C. Winwood Cup Trial : L. G. Johnson (B.M.W.).

Hagley & D. M.C. Spring Trial : A. R. Kendrick (M.G.).

West of England M.C. Spring Trial : R. A. Macdermid (M.G.).

Great West M.C. Bournemouth Trial : M. S. Soames (Ford) and L. G. Johnson (B.M.W.).

Southampton M.C. Wadham Cup Trial : D. P. Kirkman (Alvis).

Liverpool M.C. Jeans Cup Trial : K. N. Hutchison (Allard) and J. Mackay (M.G.).

Sunbac Inter-Team Trial : Buckley, Langley and Scriven (Austins).

J.C.C. Half-Day Trial : J. A. Lines (L.N. Special).

Hagley & D. L.C.C. April Trial : K. C. Delingpole (M.G.).

Mid-Surrey A.C. & Vintage S.C.C. Trial : L. M. Ballamy (L.M.B.).

M.G. C.C. Abingdon Trial : K. C. Rawlings (M.G.) and R. A. Macdermid (M.G.).

Bristol M.C. & L.C.C. Allen Trophy Trial : R. D. Price (S.S.).

Margate & D. C.C. Jackson Cup Trial : C. O. Jackson (M.G.).

N.W. London M.C. Lawrence Cup Trial : L. G. Johnson (B.M.W.).

J.C.C. Evening Trial : N. E. Bracey (M.G.).

W.A.S.A. Welsh Trial : R. F. Hield (M.G.) and Mrs. K. Hague (Riley.

Mid-Surrey A.C. Barnstaple Trial : W. J. Green (M.G.).

Chiltern C.C. Chiltern Hills Trial : E. C. Good-enough (M.G.).

L.C.C. Buxton Trial : A. G. Imhof (M.G.).

Southsea M.C. Hunt Trophy Trial : J. H. Evans (Riley).

Harrow C.C. Chiltern Trial : D. E. Harris (M.G.).

Berkhamsted & D. M.C. & C.C. Bossingham Trial : G. Penthony (M.G.).

Mid-Surrey A.C. Experts' Trial : A. H. Langley (Austin).

Sunbac Vesey Cup Trial : A. H. Langley (Austin).

Bristol M.C. & L.C.C. Roy Fedden Trophy Trial : G. Warburton (Allard).

Great West M.C. Thatcher Trophy Trial : J. W. Dyer (Riley).

Harrow C.C. Cottingham Trophy Trial : L. G. Johnson (B.M.W.) and J. A. Bastock (M.G.).

C.U.A.C. Inter-Varsity Trial : R. E. Tongue (Allard).

Hagley & D. L.C.C. Invitation Trial : K. Hutchison (Allard) and T. N. Clare (Riley).

Kentish Border C.C. Sporting Trial : S. H. Allard (Allard).

Maidstone & Mid-Kent M.C. Brian Lewis Trial : J. N. Goodwin (M.G.).

Chiltern C.C. Daw Cup Trial : E. N. Bunting (M.G.).

N.W.L.M.C. London-Gloucester Trial : G. Warburton (Allard).

ON SOME FACTORS AFFECTING THE FUTURE

MOTOR-RACING is not exactly in a bad way, but the future is not without its precarious tinge. Formula Grand Prix racing may well go down at any time, like a pricked blister, on account of political or other situations, while our own racing is, even now, not attracting as good attendances as it is desirable it should.

The Junior Car Club, in spite of its title, is one of our most important clubs, particularly on the race-organising side. Consequently, the Editorials that appear in the "J.C.C. Gazette" assume rather more importance than proverbial straws in the wind. If you read the editorial in the October issue of the "Gazette" you will agree that we should, right here and now, devote some serious thought to the future. For the J.C.C. says that on account of the poor "gates" for the Imperial Trophy and 200 Miles Races, it is likely to be faced with a big deficit at the end of the year. Furthermore, it states that, while there is as yet no possibility of the Club having to contemplate dropping its big fixtures in the future, it does feel that, unless the British Calendar contains considerably fewer races from now on, the time may well dawn when Clubs organising races for the sake of the sport alone will be unable to compete with track proprietors and those concerns which promote races with the payment of dividends as their object. In this connection the demise in the number of prize donors is another factor against the normal race-promoting club.

As we see it, whether races are reduced in number or not, it is vitally necessary to endeavour to increase public interest in motor-racing. Not only is a good "gate" essential if the heavy costs of race promotion are to be met, as the J.C.C. has clearly emphasised, but the building of new racing-cars is largely dependent upon the interest shown in racing contests by Mr., Mrs., Miss and Master J. Citizen, who are the normal users of British utility motor-cars. We can well believe that other British manufacturers besides Alta, Austin, Riley and M.G. would support racing, if crowds the size of those which watch motor-cycle speedway finals or cup-tie matches or which await the landing of trans-Continental girl-pilots, and so on, were assured at every classic motor race.

Unhappily, whatever may be the state of affairs at Nurburg, Monza and Le Mans, this is not the position in this country. Brooklands does not nowadays command the black-packed mass of humanity that once crowded the Hill and jostled in the Paddock. Harry Edwards has, we believe, not fully realised his dream of attracting all sporting London to his Crystal Palace meetings. At practice periods the mere handful of onlookers present at this road-circuit situated within ten miles of the greatest city in the world is really pathetic. Donington alone reaped a substantial profit, on the occasion of the great Grand Prix last year, but not before Fred Craner had gambled with a considerable sum as starting money for the German teams.

I do not know whether a first-class motor-race costs more, or less, to stage than a big football or speedway match, taking all expenditure into consideration, but I do know that before a first-class motor-race can be run a considerable sum has to be spent in prize and starting money and I know there is never any hope of attracting a crowd half the size of that which flocks, jostles and stampedes to repay the promotion of other sporting contests. Fully aware that motor-racing requires a fairly high degree of intelligence and some engineering knowledge for its full appreciation and that, in consequence, "gates" thereat will never assume the proportions of those at "popular" sports—or so it is in this country—race promoters and organisers are tempted to charge big admission prices. That is probably a vital mistake. It costs 10/- to get yourself and a car into Brooklands. It costs 5/6 to take self and motor into the Crystal Palace. And it absorbed 7/6 to see the recent Donington G.P. With fuel or fare charges tacked on, this is a lot of money to a lot of us. Moreover, extra charges are made at all three courses for admission to special points of vantage and/or protection. Lesson No. 1 in increasing race-popularity must surely be an all round reduction of admission charges. Even then, what chance has the ordinary working-class man or office fellow of getting to a race which starts at Donington at 1 p.m. on a Saturday, or in comfort to an event starting at 2 p.m. on Saturday at Weybridge? The Palace scores here, and already the different quality of the crowd is noticeable. And it is quite an intelligent crowd, too, which has made Percy Maclure its hero (the youth on the fifth-hand motor-bike doesn't contemplate fitting a blower) and which has been known to clap Arthur Dobson even when he was not in the lead. But for other venues the solution seems to be to follow in the footsteps of the wise men of Wetherby and Prescott and to hold events on Sundays. Had the Donington G.P. been contested on October 23rd instead of October 22nd we should have been able to gauge very effectively the present peak race attendance of the Great British Public.

So far as amenities go, there is not much to grumble about, details apart. The new all-concrete Grandstand on the Campbell circuit commands a fine view of all of Brooklands (though it costs 5/- extra to use it). The public enclosure at the Palace is quite a reasonable place from which to see quite a lot of the racing. And Donington has admirably placed enclosures; also, you can hike right round the circuit.

As to what kind of racing will best attract the public, here we are on explosive ground. Motor-racing should be staged first and foremost to improve the breed of cars, and not purely as a public spectacle. Races must continue to be governed by an International Formula and individual rules to the attainment of this end, not decided in advance by drawing names from the promoter's hat. Some years ago, when I used to say that I did not care if not a single spectator arrived at a motor-race, so long as the racing was of value to technical progress and good sport for the drivers, I was severely taken to task by those who sought to bring really big "gates" to our races. Now that I am ready to admit that better gates are desperately needed to ensure the future health of our racing, by providing the capital to meet prize, starting-money and organising expenses, I am similarly taken to task by those folk who fear that increased public support may reduce International contests to the level of a staged spectacle on a par with a cinder-track scuffle. So I must make it quite clear that I wish racing to go on as it is, and only crave greater "gates" because such revenue is very necessary to the continued health of racing in a country in which the ordinary man and woman at present shows no interest whatsoever in the sport.

Naturally, certain forms of racing must appeal more than others to a public which cannot be expected to at once appreciate the finer points of technical engineering, pit-work, handicapping and driving skill. Grand Prix racing obviously appeals on account of prodigious speed, sound and sliding. But it is virtually monopolised by two teams of identical nationality, so that 1½-litre racing might draw larger crowds, especially as the British E.R.A. is recognised to lead the world in this sphere, and if, as is rumoured, Mercédès-Benz and Auto-Union are joining E.R.A., Alta, Alfa-Romeo and Maserati in this field. Short races, attended by book-makers, are probably more fun for the non-technical race-goer, but if racing is to continue to improve the breed and to provide a legitimate contest between racing-car constructors, full-duration races over courses abounding in long straights and difficult bends are essential. In this connection, a very interesting article by John Glassey appeared in the October number of "Hearsay," organ of the E.R.A. Club, in which the author argued that mixing politics with sport is another of those fashions that have drifted in from the Continent and that Government subsidy of national teams has made racing something of a farce, by obliterating normal competition under a financial barrage. Glassey considers, in fact, that a British Government subsidy would make modern motor-racing more of an International political arena than ever, and stifle the sporting side. He seeks a return to individual competition between drivers. Unfortunately, individual competition doesn't do very much to encourage new designs and general improvement of the breed. What so many people seem to miss in this respect is that if the British Government ever could be induced to subsidise motor-racing the subsidy need not take the form of a direct grant to a firm to build a G.P. team. If the Government put up some big prize money and paid generous starting money to entrants of British cars, you would find all the independents rolling up and would, in addition, have some hope of inducing those fine old British firms which have raced in the past to design racing-cars

ON SOME FACTORS AFFECTING THE FUTURE—continued

once again. A £10,000 prize would stir lots of people up a whole lot. You cannot expect Lord Nuffield, Lord Austin, or Capt. Black to give away thousands of pounds to make a picnic for small production firms to whom racing would constitute excellent advertisement. I suppose you cannot expect our Government to set as much store on the acquisition of national prestige by a G.P. victory at Nurburg, Montlhèry or Monza as do the Dictator States—though it did subsidise the construction of Schneider Trophy racing seaplanes for a time. But you might expect the Government to put up money which would induce a lot of concerns to experiment with racing-car design and construction and to meet in inter-make contests, as Bentley, Vauxhall and Sunbeam, along with scores of other marques, used to meet, before G.P. racing again became a contest between nations.

The E.R.A. Club has suggested that the S.M.M.T. should make a grant to E.R.A. Ltd., in return for which the E.R.A. technicians would assist the Industry with its problems. Apart from the fact that the introduction of the marketable Raymond Mays sports-car complicates the issue, I would far rather see the S.M.M.T. give some substantial prize money to British race organisers—on the grounds that it is not sense to subsidise a firm to build racing-cars with which to test lessons for the Industry if there is an imminent danger of there being no races for which these cars can be entered. All of which is taking us rather away from the subject of gate-growth, albeit if manufacturers started competing freely against one another in racing, racing would at once become more enthralling to the ordinary spectator than it is when one nation is supreme against teams of other nations, or when the same independents compete against one another week-end after week-end. And if more spectators were induced to watch racing, more manufacturers would seek to race cars for them to watch, discuss and buy. Which is such a pleasant thought. Do not imagine that I am belittling the grant paid to Bourne by those enthusiasts of the E.R.A. Club—I believe about £125, to date. That is not a lot of money, but it can assist in transporting the equipe to a Continental race or in entering an extra car for a race. In that way the grant helps British racing prestige abroad and would do so much more if every man and woman who pretends to be an enthusiast would join this Club—a reduced annual subscription, by the way, operates until the end of the year. But assistance for one concern of British racing-car constructors is not going to solve the problem of increasing race attendances—which is the way to ensure a really healthy future for the sport.

In this connection the younger generation must not be overlooked. The J.C.C. deserves praise for inviting, through Sir Malcolm Campbell, schoolboys and schoolgirls to the 200 Mile Race free of charge—though the response was disappointing. The B.R.D.C. deserves credit with doing rather better with their scheme for inviting scout troops free to see their September Brooklands meeting. They are now instituting a great Soapbox Derby, which may interest some youngsters in racing permanently, though I should enthuse more if the soapboxes had to be power-driven. But there is lots to be said for endeavouring to make the members of the younger generation race-minded at the correctly receptive age—for in the boys we have future race-drivers, car constructors, engineers, promoters and spectators who will pay good money for the admission of themselves and their women-folk, while the girls will decorate the pits, drive in isolated instances and sometimes assist a presumably good-looking young man to a racing wheel he would not otherwise attain. So I am glad the Amalgamated Press and Temple Press Ltd. had really good children's books on racing for sale at Xmas. ("Modern Boy's Book of Racing Cars," and "Power and Speed.") Of course, such education doesn't take root every time. I suppose we were all keen on toy trains as youngsters, yet how many of us know anything about railways now, or care? Albeit many great racing men have been crazy over model railways and my good friend Jim Brymer takes a keen interest in both the model and full-size variety. The Society papers are showing more interest in racing—only this year "Illustrated Sporting and Dramatic" had an excellent photographic section devoted to the technical side of the game—but daily-paper motoring correspondents could do more for us. If I have tacked Society and daily papers onto children's papers it is because many members of the upper and lower classes have an outlook similar to that of children. It is, incidentally, stupid to argue that the Society papers circulate amongst moneyed people who need no educating in this matter—thousands of folk who go ridin', huntin', shootin' and fishin' have never once gone to a motor race. I feel sure that if George Monkhouse would give his inimitable commentary on his greatest of great motor-racing films at some of our public schools during this present winter, nothing but good could result. Motor-racing might well be taught in the lecture halls of Eton, and when a youngster wants to go places, remember he usually drags a parent along with him, to pay a way in.

There seems no good reason why the *present* generation should not get the requisite kick out of racing provided their education is completed—at present we are told so often that fast motoring is nothing like so strenuous as tennis, football or boxing. When that argument crops up, we wonder how the amateur sportsman would feel after driving three hours in an open, screenless sports-car, or after driving the mileage in a day that lots of us do, often in comic cars, as a matter of course, although we are "so unfit because we never exercise." If the public could be made to realise what a man-size job drivers like Seaman, Caracciola, Brauchitsch and the rest do in completing a G.P. race, and if they could see such contests for a small admission charge at a course they could reach in less than half-a-day at something far below present fares, "gates" would experience an abnormal, yet healthy, growth. Problems would naturally arise. The Superintendent of Brooklands has told me that after a Sunday push-bicycle meeting at the Track more fencing is found smashed down in the enclosures than after the best-attended car or motor-cycle meetings. Certain genuine enthusiasts would probably moan because of the difference in admission charges at various vantage points. But over and above everything, big gates would do racing in this country a world of good and would give drivers whose chief interest in the game is driving the expanded hero-worship which actors, film-stars and politicians receive, and which they, as participants in a useful as well as an essentially modern undertaking, equally deserve. I can see only one way to attract the man-in-the-street, given lower admission charges, good entries and scratch races, and that is by newspaper support. Just imagine a big daily paper giving Percy Bradley or Harry Edwards or Capt. Phillips or Fred Craner £10,000 or so to spend, as *The Daily Mail*, for instance, has given to air-race organisers in the past. You should get entries from every big Continental team, because starting money and award money would be unstinted. The admission charges could be quarter normal rates, because the Track proprietors could afford to take a chance. And, in return for the bonus, the newspaper concerned would want publicity, and would very effectively write up all aspects of the race in a manner which Mr. J. Citizen and Mrs. Citizen and offspring would appreciate. The resultant gates should be astonishing. After that lots of those who had thus come to attend their first motor-race would want another dose, and so track proprietors could retain the low admission charges and go on offering a certain amount of starting money. And the bigger the crowds, the better write-up would racing get in the daily Press. And the greater the number of persons reading of racing the more incentive Lord Nuffield, Lord Austin, Mr. Singer, Mr. Talbot, Mr. Standard, Mr. Triumph and Mr. Rover and the rest of our Mr. Manufacturers would have to figure in this motor-racing game. Drivers would rank in the public eye as every bit the equal of those who have become national and even world heroes by hitting balls, batting balls, kicking balls, teeing balls, acting before a camera, and speaking in the House. One big grant from a big newspaper would do all this. Need we take off these rose-coloured spectacles?

Have you a Used Car for Sale? Then why not Advertise it?
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GOOD OLD DAYS AT BROOKLANDS

SOME RAMBLING REMINISCENCES OF A REGULAR WEYBRIDGE HABITUÉ

THE other evening I had occasion to turn out the contents of an old trunk. Among them I found a photograph album which at one time was the pride of my life. The pictures in it were a mixed lot, judged by modern standards, but they brought back a rush of memories of a time which seems strangely far away.

They were taken at Brooklands in the years 1924 onwards by a schoolboy wielding a Box Brownie. He had no Press Pass, so he had to stand behind the spiked railings and manage as best he could—and his shutter speed was a twenty-fifth of a second, making speed pictures almost an impossibility. And so as motor-racing pictures the photographs in the old black album were nothing to get excited about. But it was the subjects, rather than the quality of the pictures, which kept me squatting on the floor of the attic for a full hour, re-living some memorable race-meetings at Brooklands.

My first visit to Brooklands was made on the pillion of a Sunbeam motor-cycle, and by pillion I mean a cushion tied on to the carrier with string. Many Surrey by-roads were made of ordinary flint in those days—it was Whit Monday, 1923—and we arrived with red-rimmed eyes and a layer of white dust on our clothes. Although I was an ardent motor-racing "fan," working myself into a fever of excitement about the French Grand Prix and the Isle of Man T.T., this was the first motor-race I had ever actually attended, and I was thrilled with every moment of it. Writing from memory, the star of the meeting was, I believe, Duff on the "Mephistopheles" F.I.A.T., which eventually blew up in one race and was towed in with pieces of engine lying all over the scuttle. There were also two Bentleys, a marque which was just about coming into production, driven by Clement and Barlow. The latter's car had a very pretty "skiff" body made of wood, with an aluminium bonnet. Clement's car, I think, was all aluminium. But my hero of that day—and for many days to come—was J. G. Parry Thomas on his wonderful Leyland, which at that time had an ordinary aluminium two-seater sports body. I think Count Zborowski was there, too, with a white Mercédès.

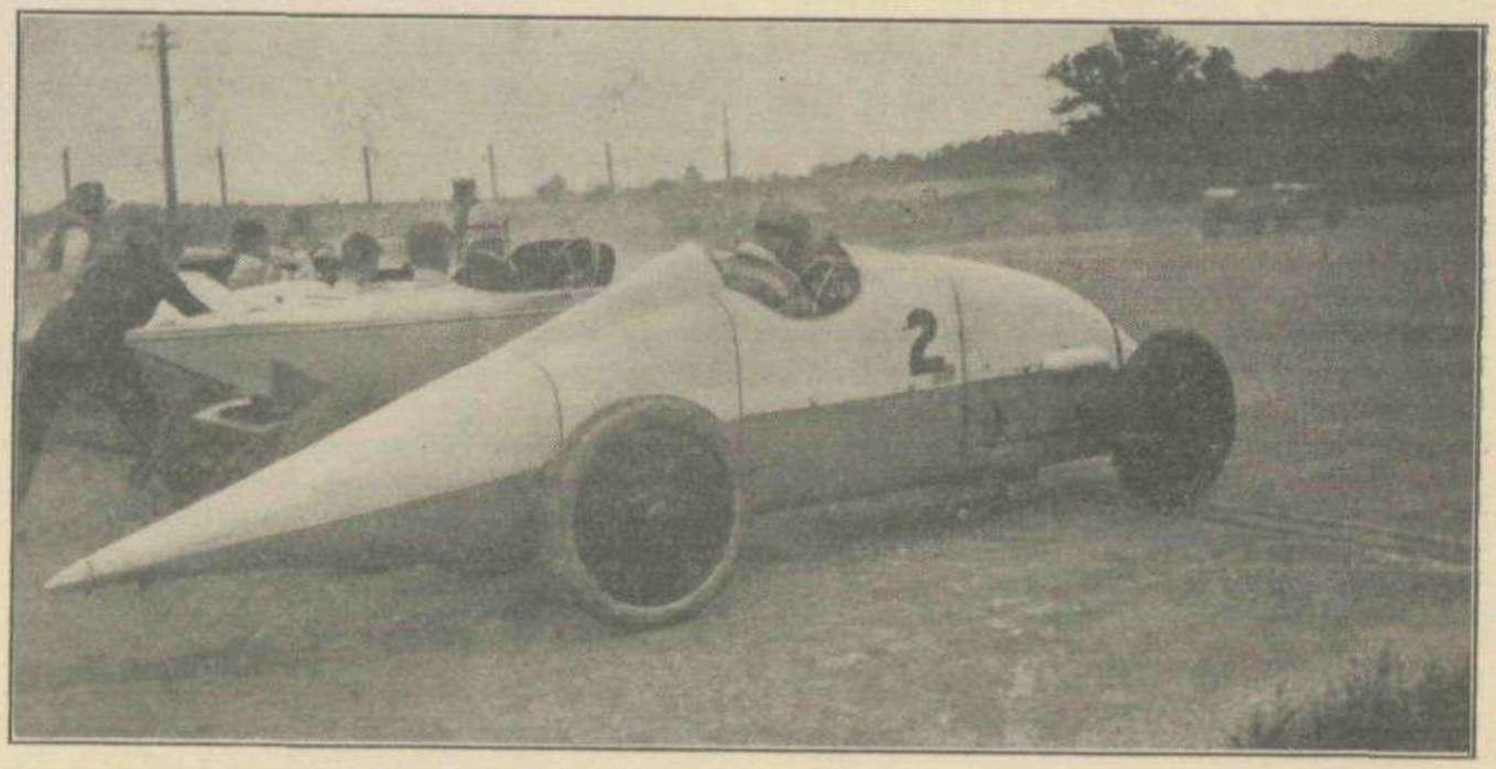
Coming away from that meeting we became involved in a "scrap" which I shall always remember vividly. Our opponent was a Bentley chassis, fitted with a rough test body which really consisted of a seat for the driver and passenger. I rather think it must have been one of the first experimental Bentleys. It carried a driver and two feminine passengers. On the switch-back road to Cobham we roared along with our front wheels level with their back wheels. But we could not gain an inch. I crouched behind the rider of the Sunbeam like a little jockey, and he, too, was lying flat on the tank. We approached the point where the road is joined by the main Portsmouth highway without slackening our pace—until we saw an aged motor-cycle combination trundle across our path on its way North. The Bentley driver reached for his handbrake (there were no four-wheel brakes on Bentleys at that time) and smoke came from his locked rear wheels. As for us, my rider managed to pull in behind the Bentley with a good deal of wobbling, and we both shot past the offending combination down the hill into Cobham, where the Bentley turned right for Epsom and we carried on towards Town.

Next time I went to Brooklands I took my camera with me, the occasion being the Easter meeting of 1924. Captain Malcolm Campbell was the attraction that day, driving a six-cylinder Sunbeam "Blue Bird" with a round "bolster" tank. His chief rival, I remember, was E. A. D. Eldridge with the enormous F.I.A.T. on which he later broke the Land Speed Record at Arpajon at something like 145 m.p.h. Captain J. E. P. Howey was also there with a two-seater Leyland similar to the one used by Parry Thomas the year before. My pictures of this meeting were not too successful, as they were all taken from the inside of the Track. At the Whit-Monday meeting, however, I found a vantage point which was to serve me well for several years to come. Before the start of each race I used to walk across the track at the Vickers Entrance, turn sharp left, and take up my stand beside the railings where the cars were lined up. In this way I got as near to them as if I had been actually standing on the track. Best of all, the cars were standing still. (Remember that I was confined to the Public Enclosure except after the Meeting was over.)

Looking back at some of the pictures I took in this way, my chief impression is that the cars seem incredibly old-fashioned. There was "Handy Andy," poor Tommy Hann's hybrid machine, with an inverted exhaust manifold which brought the pipes out on a higher level than the bonnet. Leon Cushman's pale-blue stripped Crossley sports model was a consistent performer, capable of lapping at over 100 m.p.h. There was a Bianchi road-racing car with four-wheel brakes and queer front shock-absorbers, driven I believe by Captain Miller. Miller also used to drive the famous Wolseley Viper, one of a number of chain-driven aero-engined monsters to which Le Champion's Isotta-Maybach also belonged.

Le Champion, by the way, used to amuse himself at Brooklands sometimes on non-race days by skidding his huge car round in circles, with the wheel locked over, until one or more of the tyres burst. An expensive hobby.

A famous car, which still exists at Brooklands, is to be seen in my album, the Lorraine-Dietrich "Vieux Charles III." In those days it used to be driven by a young man named Elison. Occasionally it would develop an acute attack of back-firing, careering round the banking with its huge engine chug-chugging away, and rending the air with terrific explosions from time to time. It never seemed to be more than ticking over, even when it was travelling at over 100 m.p.h.



J. G. Parry-Thomas with the smaller of his two 4-cylinder Thomas-Specials. This photograph was taken at the August Bank Holiday Meeting, 1925.

That summer of 1924 Parry Thomas used to race Rapson's 40 h.p. Lanchester, in addition to his Leyland. The Lanchester was an ugly car, with very angular lines, and although it was a bit slow off the mark it never broke down. George Duller sometimes drove it, when he was not handling his own neat little Bugatti—an eight-cylinder Indianapolis car which was very quick. Thomas was very busy that season, towards the end of which he brought out his four-cylinder Thomas-Special, which was an extremely good-looking little car, in contrast to the later four-cylinder Thomas-Special, which was rather too high and narrow to be easy on the eyes.

There was great rivalry in those days among 1,500 c.c. cars. The car I was taken to Brooklands in at that time was a Riley, and consequently I was distinctly prejudiced when it came to a race between cars of this make and Alvises, Aston-Martins and Horstmans. Victor Gillow, I think, was the first man to race a Riley "Redwinger" at Brooklands, and we used to watch his performances with

GOOD OLD DAYS AT BROOKLANDS—continued

intense interest, dreading that he might get beaten by an Alvis!

Of the Aston-Martins, Capt. J. C. Douglas's super-streamlined "Razor Blade" could lap at over 100 m.p.h., and I remember a very nice two-seater, with the body used on the French Grand Prix cars, driven by R. C. Morgan. Other small cars which used to perform regularly, and with success, were the Wolseley Moths and Whale's single-seater Calthorpe. At the very first B.A.R.C. Meetings I attended, there were also such well-nigh forgotten vehicles as Crouches, a Charron-Laycock and an 11.9 h.p. Lagonda.

Those were the days, too, when the 30/98 Vauxhall was in its prime. Major C. G. Coe used to race a very pretty "Wensum," which had a four-seater sports body shaped rather like a boat at the stern. Then he fitted this car with a streamlined two-seater racing body, and at the very first outing had a most appalling crash. I was in the Public Enclosure at the time (my pocket money would scarcely stand five bob, anyway); and all I saw of the accident was a silver object leaping high in the air and leaving behind it a huge cloud of dust. Coe had been engaged in a great duel with Philip Rampon's Fiat (now owned by Anthony Heal), and I remember that Le Champion's black-and-yellow Isotta-Maybach was somewhere in the neighbourhood. Coming under the Members' Bridge on the last lap Coe got into a terrific slide. He fought it for some distance, and then the car took charge, spinning round before turning over and then bouncing along the track for all the world as though it were made of india-rubber. It was lucky it did not leave the track, and it finished up on the near side, at the beginning of the Railway Straight. Coe and his passenger were both thrown out on to the concrete as the car turned over, but both of them miraculously managed to walk into the ambulance, which was soon on the scene. Coe himself was only very slightly hurt, but his passenger, I believe, spent several months in hospital. But Coe never raced at Brooklands again.

Another famous "30/98" at that time was Ropner's "Silver Arrow," a two-seater with a streamlined tail, and a radiator cowl, bearing a long silver arrow on its radiator cap. This car could lap at close on 100 m.p.h., and was a regular entrant in B.A.R.C. races. E. L. Meeson was another well known Vauxhall specialist at that time.

Vauxhalls of another kind also performed feats of valour at Brooklands in those days. These were the famous 3-litre Tourist Trophy cars, built in 1922. Humphrey Cook raced one with great success, but the most sensational performer was Jack Barclay. I well remember one memorable afternoon when he burst a tyre on the Byfleet Banking, which caused him to spin round in circles at about 110 m.p.h. By a miracle the car stayed on the track, finishing up at the bottom of the banking, and by an equal miracle it didn't hit anybody else. Jack Barclay earned everyone's admiration by returning to the Paddock, changing the wheel and going out in the next race, which he won. As fine a display of pluck as has ever been seen at the Track.

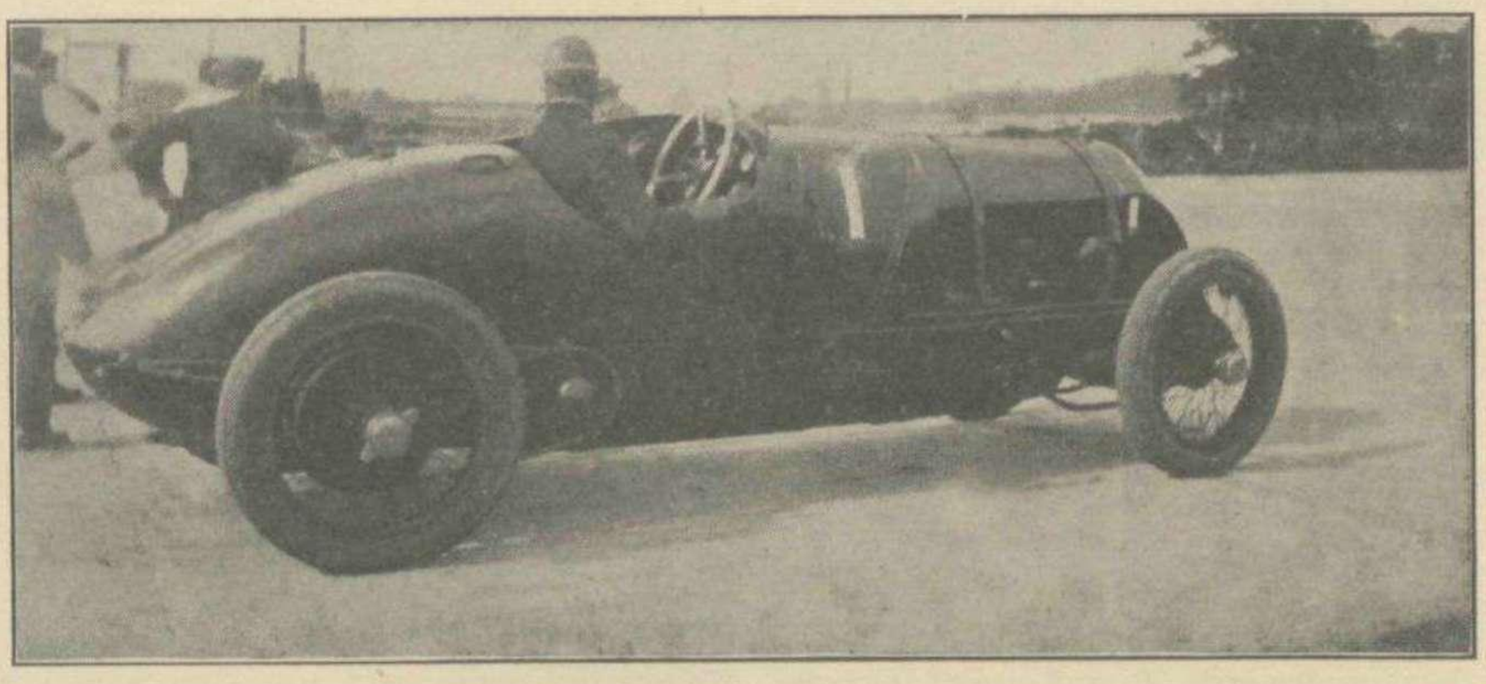
It was at this point, near the Byfleet Bridge, that occurred my first reminder that motor-racing is a dangerous game. The young man who used to drive me to Brooklands had backed Brockelbank's 1914 Grand Prix Peugeot, which was driven at the last minute by Toop, a driver who was making his first appearance at the Track since before the War. The Peugeot was a fast car, capable of lapping at about 115 m.p.h., and we watched the black car streaking past the rest of the field on the Byfleet Banking. Suddenly it swerved upwards and was gone, over the top into the trees. A moment later a huge column of black smoke told its tale. Cars dashed along the Aerodrome road, people swarmed up the steep banking like ants, and after what seemed like an interminable delay the news got round (there were no loudspeakers then) that Toop was killed and the meeting was abandoned. The cause was never definitely established, I believe, but it is probable that Toop got into the slipstream of a car in front, which had the effect of permitting the Peugeot to accelerate rapidly towards the tail of the other car, and in trying to avoid a collision Toop swerved up the banking, and so over the top.

I think it must have been one Sunday afternoon in 1925 that I cycled to Brooklands on the chance of seeing some practising, which was allowed in those days. I was standing on the Members' Bridge watching one or two private owners lapping on 3-litre Bentleys and Lambda-Lancias, when I espied a big red racing-car, towed by a sports-car, emerge from the tunnel, pass through the Paddock without stopping, and so out on the road to the Aerodrome.

By the time I had pedalled after it, the two men in the sports-car had their sleeves rolled up and were working on the engine of the racing-car in the lee of the hangars adjoining the track. I recognised the car as Philip Rampon's 10-litre Fiat, with a new coat of scarlet paint and wire, instead of artillery wheels. The new owner of the car was, of course, Ward, but he did not drive the car in races himself to begin with. This task was assigned to his companion, who made his first appearance in a motor-race at the wheel of the Fiat in a B.A.R.C. race-meeting the following week-end.

His name was John Cobb.

(To be continued)



Do you recognise this car? It is the 10-litre Fiat with which Anthony Heal made some rousing climbs at Shelsley last year. Its driver in this picture is J. Cobb, who made his first appearance on the Fiat a dozen years ago.

A FRENCH INVASION?

For some years after the War France built luxury cars possessed of sporting performances which were universally recognised as amongst the leading cars of the world. Of recent times she has fallen sadly from grace in this respect.

However, it now appears that French sports-cars are returning to former strength and British designers of cars in equivalent classes should not fail to heed this return to power of the better French sporting automobiles. The 3½-litre Delahaye, which MOTOR SPORT road-tested in December 1937, did 80 m.p.h. in third, 91 m.p.h. in top and pulled a top gear of 3.42 to 1. It had the Cotal electric transmission and cost £1,030. The 1939 Competition Model 3½-litre Delahaye saloon, with plain gearbox, costs £995. It does a genuine 100 m.p.h., 70 in third, accelerates from a standstill to 50 m.p.h in 9½ secs., and pulls a top gear ratio of 3.42 to 1. The 3½-litre Hotchkiss is priced at £675, can do nearly 98 m.p.h. on a top gear of 3.3 to 1, and reach 50 m.p.h. from a standstill in 9 or 10 secs. The D8 120 Delage straight-eight which this paper road-tested last May did 98 m.p.h. and got up to 50 m.p.h. in about 11 secs. It had Cotal electric gears, a top ratio of 3.91 to 1, and a handsome drophead foursome coupé body. The price was £1,370. The Type 57 Bugatti has sold remarkably well in this country for its type and the new 57S is now appearing on our roads. It is said to do 130 m.p.h. in coupé form, which, if correct, renders it easily the fastest production car ever marketed. The Darracq is now being represented properly in this country by Albemarle Motors Ltd., at prices from £870 upwards.

Letters from Readers

VETERAN CARS

Sir,

It is very heartening in these days of chromium plated "pansy wagons" to find any support for motors of that stark era when owners were expected and even encouraged to have some knowledge of cars.

Even so, interest seems to concentrate around the Austin Seven and the Bull-nose Morris on the one hand, and such Olympians as the Bentley and 30/98 on the other.

What about the upper middle class back bone of the car world? The Delage DI, Sunbeam 16.95, Vauxhall 14/40 and 23/60, Humber 12, etc.

Working for a firm of machinery merchants the need was felt for some reliable means of transporting men, tools, small machines, and it was decided to use old touring cars. During the last four years I have bought all the above models at various breakers' yards at prices between £5 and £10. No major repairs have been necessary, and although running costs are slightly above the average, this is offset by the low purchase price. Depreciation is of course only a matter of £2 or £3 per car.

I used all these cars in my spare time, and for holidays, and derived considerable pleasure therefrom. Although somewhat sluggish by sports standards, these old motors showed much more promise than the average £20 saloon, and were surprisingly rapid from A to B.

The last of the line, a 1924 Humber 12, will always have first place in my memory. She cost £2 including a month's taxation, and when I scrapped her I drew £4/10/0 for the bits. Incidentally I still have quite a few of the bits left. Although her appearance belied it she could roar along at nearly fifty, which was far more exhilarating than ninety in a modern saloon.

Owing to a change in employment I can no longer afford to run a car of my own, and my present mount is shared with a friend. This is a 1927 Alvis 12/50 with a heavy touring body. It was purchased with the idea of using it in the machinery business, and for taking four fellows and camping gear on holiday. She cost rather more than breaking up price but for an eleven-year-old car she is in splendid order. I had one run of 231 miles on seven gallons of petrol, and only used a quart of oil in 1,720 miles. As far as I am aware she has never been rebored.

However, the prize for mileage was taken by the 1923 Vauxhall 23/60. This had previously belonged to a Territorial Officer, and was painted War Office green. This gentleman did 95,000 miles in twelve years, and I added another 7,000, giving a total of 102,000 miles without rebore, and at the finish she still used no oil whatever.

Apart from my own cars I have been offered a Blue Label Bentley Tourer in splendid order for £9, a 1929 Lagonda 2-litre sports-job for £8, and a Red Label Bentley for £10. So why run a "buzz-box"?

I recently saw a pre-war 25 h.p. Talbot in the local breaker's yard, but discovered nothing of its history. The most interesting car I have seen for some time is a 1912 Hispano Suiza. This is a very stark looking motor with a neat round-backed tonneau and no doors. The gear lever is outside and there is no facia board, the instruments being on the dashboard right under scuttle. The speedometer has two dials, one recording speed and the other distance. The "T"-head engine is resplendent with brass and copper, and is fitted with eight plugs. It apparently had trembler coil ignition as well as a huge Bosch magneto. It is interesting to note in these days of forward engine mounting that the front end of the cylinder block is about level with the rear of the front wheels, and the dynamo is housed between the engine and radiator.

I would be very glad to hear from anyone who has had experience with this type of car, as if it is at all possible I may put the old Hispano into commission again. I should also be glad to see still more letters and articles about old cars in your splendid magazine.

Youngsters like myself know nothing about such mythical beings as the ninety Mercédès, 100 h.p. Spyker, Napier Ninety, Alpine Rolls, and Crossley, and the Prince Henry Vauxhall, and Austro-Daimler. Could one of your enthusiastic contributors oblige?

I am, Yours etc.,
E. S. MAIDEN.

Southport.

THE 8-LITRE BENTLEY

Sir,

From time to time the special short chassis 8-litre Bentley owned by Mr. Forrest Lycett is mentioned in your admirable paper. I have heard many tales of the phenomenal acceleration which this car possesses, and I am sure I am not the only "old school" Bentley enthusiast who would be greatly interested in the real, tested figures for acceleration, and the maximum speed of the car on each gear. I wonder if it would be possible for such figures to be printed in MOTOR SPORT in some future number, accompanied by a photograph of the said "bolide," as pictures of it seem to be few and far between?

Also would if ever be possible to carry out a road test of 1927 Red Label 3-litre Bentley? I feel sure a number of your readers must possess 3-litre Bentleys, as your paper has a special appeal to vintage sports-car enthusiasts, so such a test would probably have a wide appeal.

In conclusion, may I compliment you on the excellence of your paper? I invariably find myself looking forward to its publication each month.

I am, Yours etc.,
ANTHONY CONDON.

Clifton,
Bristol.

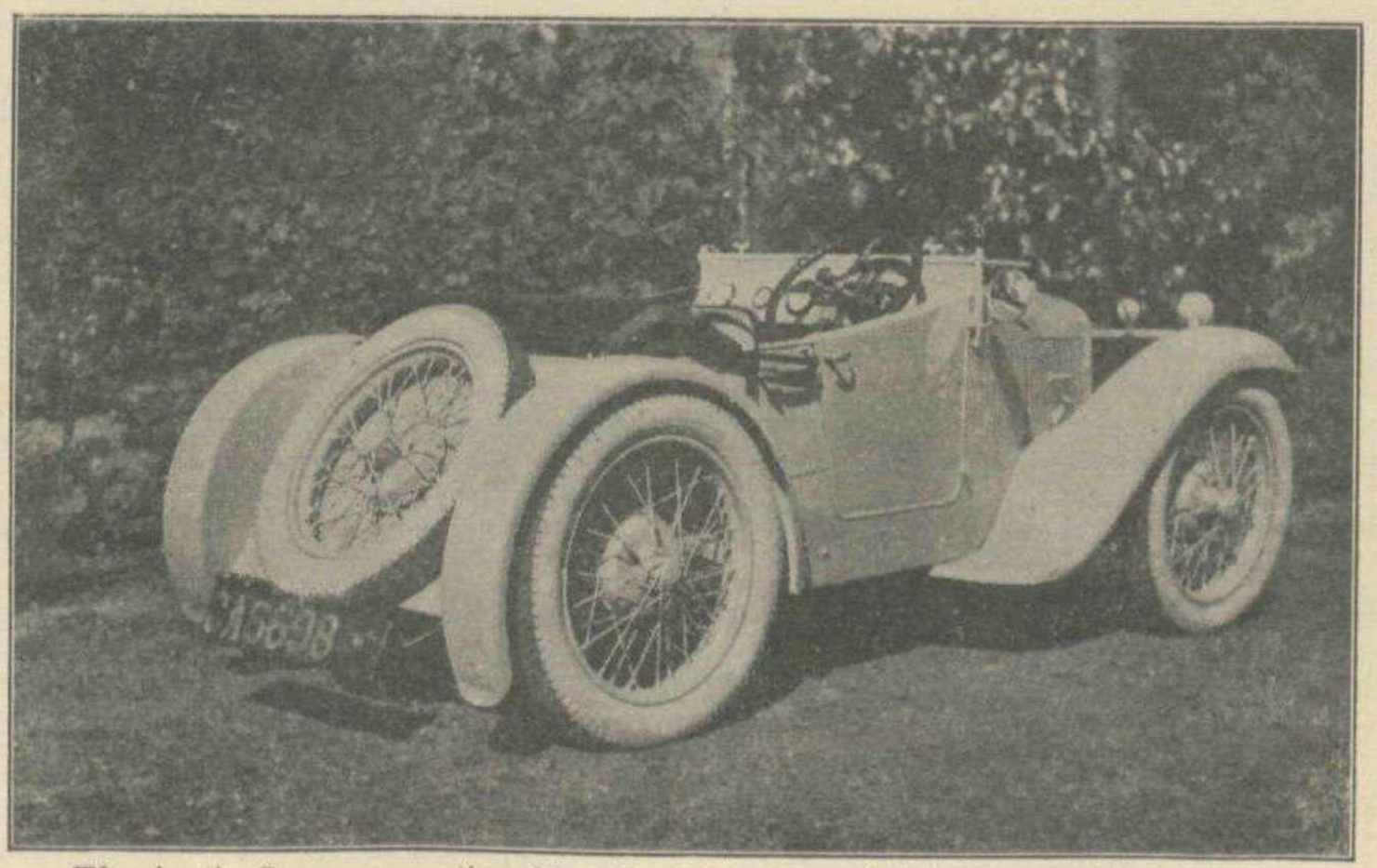
[These have already appeared in a previous issue of MOTOR SPORT.—Ed.]

* * *

THE VINTAGE SPORTS-CAR CLUB

Sir,

The interest aroused by the R.A.C.'s annual Horseless Carriage Drive to Brighton and the enthusiasm engendered by the Veteran Car Club's competitions



The Austin Seven as mentioned by Mr. H. L. Benn in his letter, published in the November issue of "Motor Sport."

LETTERS FROM READERS–continued

have been the means of bringing out of retirement and preserving many interesting motor cars and "light locomotives" which first saw the light of day before 1904. Many people have wondered what is happening to the cars which were produced during the following decade. Are they to be allowed to fade away uncared for?

The Vintage Sports-Car Club has already done much to preserve the larger and faster cars of the pre-war period and the inclusion of special classes for these exciting monsters in so many Speed Trials this year can be traced directly to the activity of the Club. It is now proposed to provide an organisation to foster the more sedate but none the less interesting Edwardian touring cars.

Many of these fine motors deserve to be saved from oblivion (or worse) and there is no doubt that they provide magnificent opportunities of re-capturing the real joys of motoring.

These cars can be (and many are) really practicable for everyday use on the roads and at the present time they can be acquired ridiculously cheaply.

Early next season the Vintage Sports-Car Club will launch a programme of suitable events. It has been suggested that portions of some of the famous early trials should be run again. Rallies offer an excellent means of bringing the cars and their owners together, and a formula will be used to allow cars of every size and age to compete on level terms.

In the meantime will all interested people communicate with me at No. 1, Norland Square, W.11. I shall be particularly pleased to hear from :—

(1) Those people who have cars manufactured between 1905-1914 (inclusive) and who would like to support the scheme;

(2) Those who are keen to acquire a suitable car but haven't got one;

(3) Those who have suitable cars for sale or who know where such cars are lying hidden and

(4) Any other interested bodies or persons.

All information and suggestions will be welcome.

I am, Yours etc.,
CECIL CLUTTON.

W.11.

On behalf of the Vintage Sports-Car Club.

* * *

THE TREND OF RACING-CAR DESIGN

Sir,

I read with interest "The Trend of Racing-Car Design" in the December issue. From it one can draw certain conclusions. On Altas we have potentially the greatest prospect of all racing-cars. The b.h.p. of Beadle's 2-litre Alta is 325, developed at the very low revs. of "5,800." Compare these figures with the 3-litre Grand Prix cars. Maserati are getting 350 b.h.p. at about 7,500 r.p.m. In addition the Alta weighs only 13 cwt. and has a most efficient streamlined body. As regards road holding this car may not excel but next year's model with tubular frame and new independent suspension should be improved in this respect. It seems a great pity that Altas should remain almost unknown owing to lack of detailed constructional work and petty troubles.

I am, Yours etc.,
P. THELLINSON.

S.W.1.

WANTED — A HOME!

Sir,

I am appealing on behalf of a comely tumbril of ancient vintage; to wit Lagonda No. 99. She is decrepit and in no state to maintain herself—her front springs have been removed.

Her radiator is round and consists of tubes reminiscent of curtain poles. Her front wheels are covered in sprockets, and the remains of tyres. Her entrails are rudely exposed to the coarse gaze of the multitude. Her push rods have lost one of their number, and her aged rocker arms vainly signal their distress. The shabby remains of her once smooth body drape themselves forlornly round her frame, which is supported on bricks. She is on a scrap heap, unwanted!

Though of good family and through no fault of her own she is in these straitened circumstances. If anyone wishes to provide for her remaining life, I would be glad to assist this noble deed as much as I am able, with the one condition that I be permitted to interview her on my return to England.

I am, Yours etc.,
"MURKOWNER."

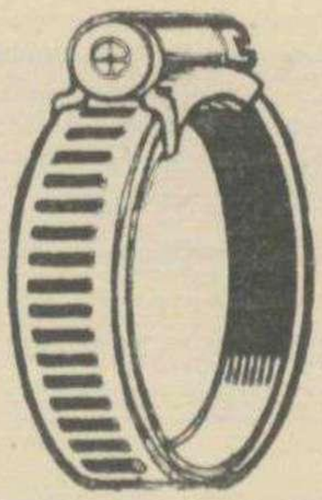
India.

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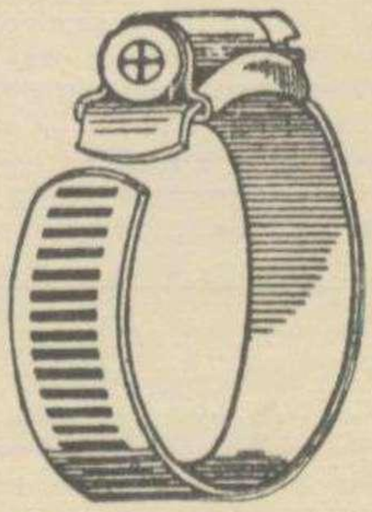
We welcome letters for publication in these columns. Letters intended for publication must be written on one side of the paper only and they may be signed with a nom-de-plume, but the name and address of the writer must be enclosed.

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FAREWELL "COMPS."

ORDINARY TYRES WILL PERMIT COURSES MORE SUITABLE FOR ORDINARY DRIVERS

WITH the coming of the New Year trials enter upon a new phase, as upon January 1st the latest regulations of the R.A.C. came into force. Amongst the several clauses, one of the most important, and one with far-reaching results, is the ban upon competition tyres.

To "comp." or not to "comp." has been a burning question among trials enthusiasts for many years—indeed, ever since the tyre manufacturers introduced "knobbly" covers for use on mud and slippery going, and thus dropped the cat among the pidgeons.

The rise and fall of the competition tyre has not occupied as long a period as some might suppose. The knobbly tread was first produced for motor cycles, and these tyres were not adapted for cars until about six years ago. Even then, some time elapsed before they were available in a representative range of sizes, to fit large cars as well as small. Indeed, one of the early objections to the use of "comp." tyres came from big car enthusiasts, who said that on most hills the small fry had an advantage in any case, and that the added advantage of the knobbly covers made the handicap too great.

If the shoe had been on the other foot, or rather the tyres on the bigger wheels, big car drivers would have had a much better chance in trials, and as the knobblies became available in the bigger sizes, while an independent firm began turning out "retreads," with a formidable Z-pattern, for large cars, some of the trials organisers of the old school restricted their use to cars over 1,500 c.c., or some similar limit.

Soon after the introduction of competition tyres, the Motor Cycling Club committee resolved to prohibit their use in the club events—an interesting decision in view of the recent action by the R.A.C. However, before any of the classic trials had actually been held under this ruling, a resolution was put on the agenda of the M.C.C. Annual General Meeting of that year that the committee's decision should be reversed, and that there should be no ban on "comp." tyres. An enormous gathering of members turned up at Pagani's, and the debate waxed hot and furious. At length a vote was taken, which resulted in a majority in favour of "comps." and from that time on their popularity was assured, so far as the big trials patronised by the "regulars" were concerned.

This meant that trials routes had to be stiffened up all round. The hills which formerly presented many difficulties, before the advent of "comps.," were now easy for the light, low-geared trials car, shod with tyres embellished by enormous projections. Sheer gradient had long ceased to have much significance, and now even a good surface rendered a gradient easy.

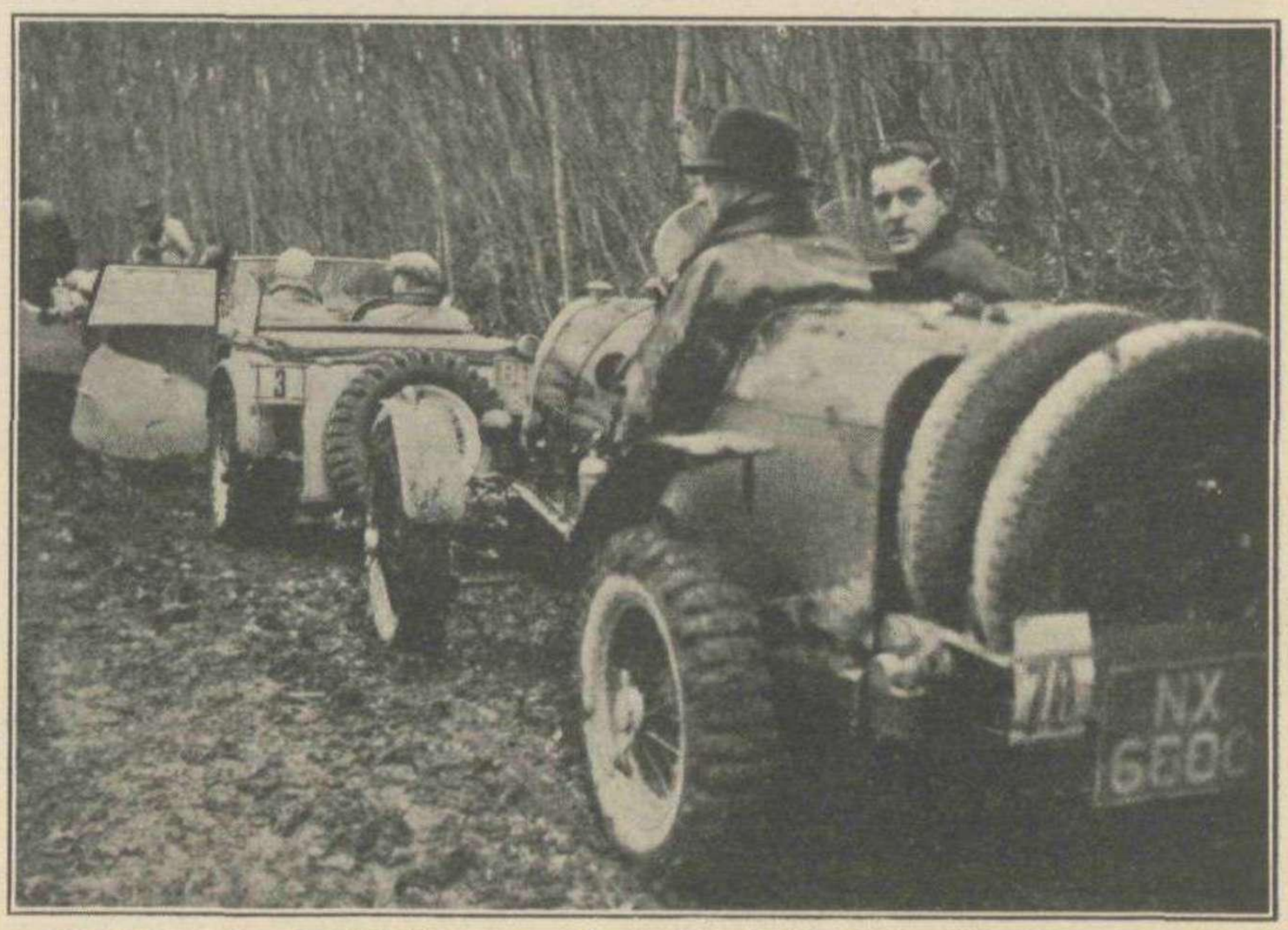
It is a generally accepted principle that a first-class award in a trial of any standing shall be a trophy of some value, usually equal at least to that of the entry fee. A club cannot run its events at a loss, and thus, to prevent an undue proportion of expensive awards, organisers were driven to the inclusion of rock-strewn paths, studded with boulders, abounding in shattering cross-gullies, and generally calculated to provide the necessary difficulties. Competitors had asked for it, and they got it.

This was all very well for the dyed-in-the-wool enthusiasts, many of whom kept a special car for trials, and did not particularly mind knocking it about. A certain number enjoyed a considerable degree of works support, though retaining a nominal status as private entrants. Repair bills slid easily off their backs, and it was not difficult for these fortunate individuals to carry any number of spares, including such items as axle-shafts, which are not normally carried by an ordinary driver, but which now had to be replaced with great frequency. The trials "regular" thought nothing of breaking an axle-shaft, replacing it, and continuing in the event with the loss of less than half-an-hour.

For the select band of "regulars," rough courses were indeed essential, since otherwise it would all be much too easy, and no sport would be provided. But what of the huge host of "casuals," the men who liked to enter in three or four events each year, driving their ordinary cars as used for normal purposes, just for the fun of the thing? Still more, what of the novices, the fresh blood from which the stream of competitors has continually to be replenished? What did they think of all these rocks and boulders?

On an average, trials drivers go on competing for about four years, sometimes less, but seldom more. There are notable exceptions, but, generally, after that period competitors get married, and have to exchange their supercharged two-seater Whatsit for a family saloon, or have to devote more time to business, or suffer a gradual cooling of enthusiasm for all-night runs, and dashing up the sides of mountains.

As one well known figure after another has dropped out, men who in their time have been strong champions of the "comp." tyre, it has been found in the last few years that fresh drivers have not been forthcoming to take their places, and that entry lists have been dropping and dropping. Take the famous Gloucester trial, for example, a classic event which was always known to present a sporting course, but which yet catered for the ordinary driver who did not mind a few failures. Some years ago the car entry



Cars fitted with "knobbly" tyres, now banned by the R.A.C., waiting at a trials hill.

used to number over two hundred, but in the recent event it had dropped to a quarter of that figure.

Nor must one single out the "Gloucester" as an event that has lost its former big entry. The well known Brighton-Beer trial, another one-time classic for the ordinary driver, has shrunk to less than a third of its former proportions, despite recent efforts by its organisers to return to normal, or the *status quo ante* "comps." Even the M.C.C. classics have had a steadily diminishing car entry in recent years, though motor-cycle entries have been returning under the influence of special attention.

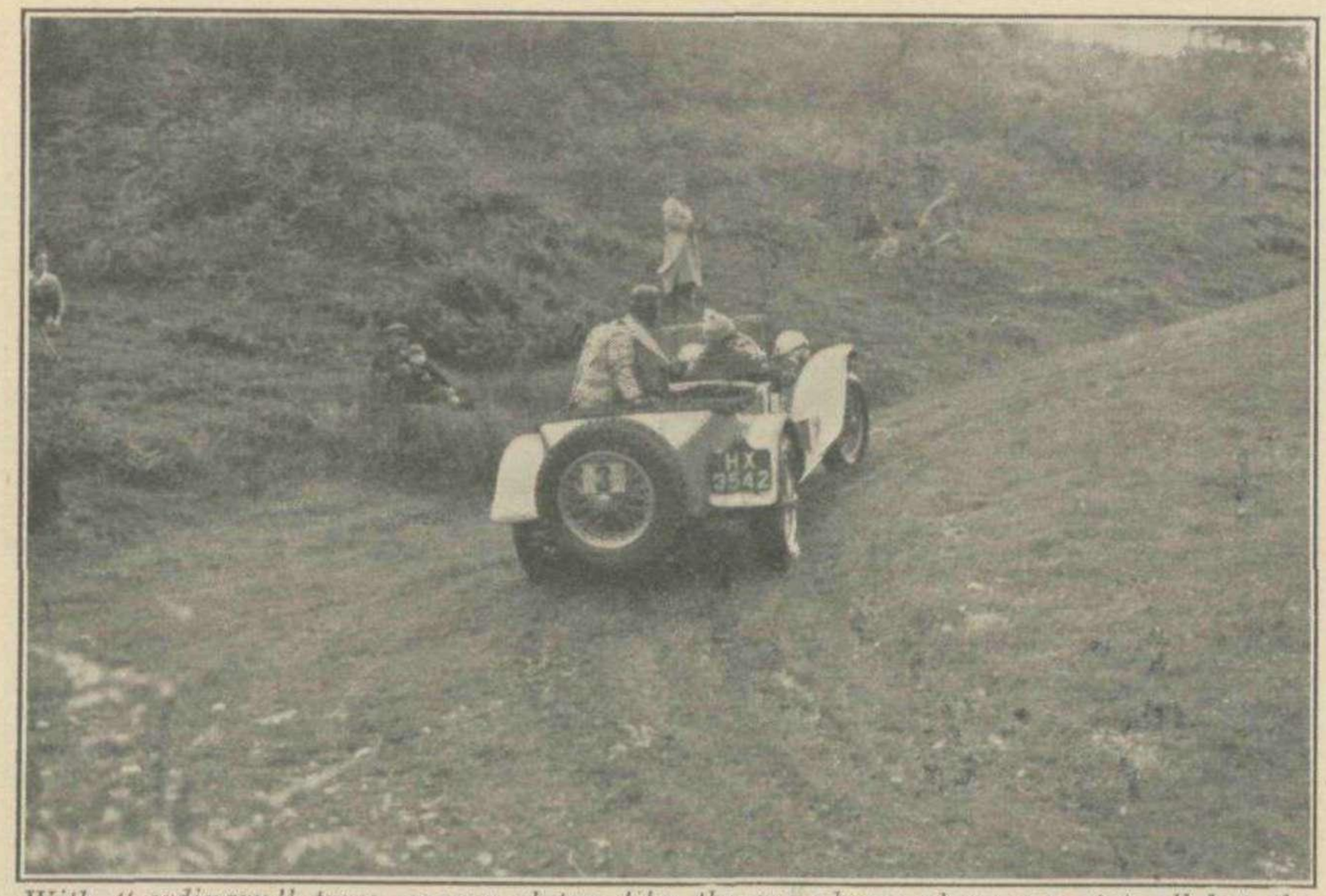
The M.C.C., it must be admitted, have always eschewed car-smashing stuff, but since "comp." tyres became general, in about 1933-34, causing the inclusion of hills such as Simms, it has been a very difficult matter for the ordinary driver, not one of the coterie of regular trials

FAREWELL "COMPS."—continued

competitors, to gain the coveted Triple Award.

The trouble has been that all trials have gained the reputation of using routes over which no ordinary driver would think of taking his car, Even at best, there have always been folk who, if asked whether they would take part in a trial, would reply "No, thank you! I have more respect for my car!" In recent years a great many trials courses would have merited this comment, and those clubs who have endeavoured to keep to fair going have suffered by being lumped with the rest.

For this state of affairs the competition tyre has been largely responsible, and the members of that M.C.C. committee which originally wished to ban it can now wag their heads and say "I told you so." One cannot blame the tyre manufacturers



With "ordinary" tyres, grassy slopes like the one shown above can stop all but the cleverest drivers in wet weather.

in any way. They perceived a demand, and were ready to supply it.

Only a decisive action by a governing authority such as the R.A.C. could have saved the situation, and that action has now been taken. It is one of those arbitrary actions which make for the general good.

If it had been possible to take a referendum amongst present trials drivers, there can be little doubt that a vote would still go, as at that M.C.C. meeting, in favour of "comps."

However, the people who voted would, in all probability, be the "regulars," that small and undaunted band, the minority with a loud voice. The "casuals," whose support is yet so valuable to trials, would probably omit to vote at all, as happens so often in a General Election unless much whipping in is done. As for the new blood, waiting to be attracted, they would still be in embryo, and would not hear of it at all.

Some clubs have always stuck out for the merits of a course designed for ordinary tyres. It was once decided that even on the well known Experts' Trial ordinary tyres should be used, but the move was naturally unpopular, for in this event above all others the "regular" comes into his own, and the cry has been for "nothing barred."

It is perhaps ironical that the R.A.C. ban on competition tyres has arrived at a time when the military authorities are taking a serious interest in cross-country motoring, and, as the old saying goes, all's fair in love and war—even competition tyres!

The "comp." tyre, however, has not led design along paths which make a sports-car suitable for ordinary motoring. It has encouraged very low bottom gears, for the absence of spin makes it necessary for plenty of power to be available. With ordinary tyres, and a high-geared sports-car, a clever driver will actually *use* a little spin in order to keep the revs. up.

It has masked the effects of the modern tendency to put the engine far forward in the chassis, thus leaving insufficient weight on the rear wheels, and causing many steering problems. The change to "ordinaries" is likely to provide several shocks for hitherto confident competitors, till they learn a new technique.

There is, indeed, a different style of driving necessary with "ordinaries." Rush tactics, so successful with "comps." and often so damaging to a car, are not always desirable, though much depends upon the gear ratio. A driver has to pick his way, for if his front wheels come up against any projecting ledge it may cause the rear wheels to start spinning, where "comps." would have carried him through unconcerned.

Tyres have to be let down to much lower pressures, and there is scope for nice judgment. If security bolts are not used, too low a pressure will cause the cover to creep, thus pulling out the tyre valve. On the other hand, a few lb. of pressure one way or the other may make all the difference in obtaining wheel grip, especially on slippery mud. Security bolts, which have not been seen much of late, since the beaded edge tyre was discarded, are certainly to be recommended in the new conditions.

One of the arguments against the use of one's ordinary tyres for trials is that the low pressures which are necessary on most observed sections are not good for the walls, and in general there is considerable wear and tear on the tyres. This cannot be denied, but better to suffer some additional tyre wear rather than to spoil the whole car! Wear can in any case be kept to a minimum by having a tyre pump ready to restore the pressure as soon as the slippery section is past. On soft mud little harm will be done. It is on hard roads that normal pressures are necessary.

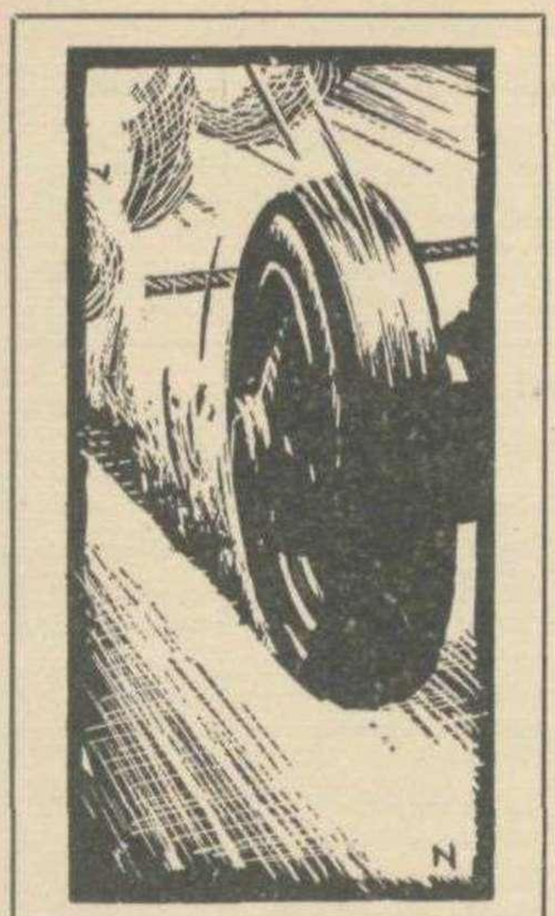
A counter-argument is that with "ordinaries" one is spared the expense of maintaining a separate set of "comp." tyres especially for trials, and probably the expense of two extra spare wheels as well. If one has not indulged in extra wheels, one has had to carry "comps." on the normal spares, and few even of the most ardent "comp." enthusiasts will advocate their use for ordinary purposes on the road. Not only does wear take place much more quickly, if a "comp." is driven on tarmac roads, but the steering and road-holding, so good on loose stuff, is usually affected on a hard surface, owing to the flexion of the projecting rubber knobs.

One of the difficulties has always been to define a competition tyre. Some manufacturers have boldly listed their products as "sports" or "competition" but in other cases tyres with formidable projecting treads have lurked under quite normal tyre names. The R.A.C. has taken the only course by issuing a list of banned types of tyre, a list to which additions will have to be made from time to time, for the wiles of competitors in finding loopholes are many.

One may expect a great increase in tyre diameters, but this seems quite a proper subterfuge, as large tyres are equally suitable for use on ordinary roads. In the past some clubs have laid down a limit in the overall diameter, and this may have to be done if the over-zealous find a tyre which, again, will render any but abnormally rough surfaces too easy.

Already many clubs have been anticipating the new rule by ordaining the use of "ordinaries," but it is useless for organisers to expect to be able to use the same hills which they have included hitherto. Otherwise, difficulties will be so great that long delays will ensue while the new entrants will be more discouraged than ever.

It will be necessary to choose a course very carefully, bearing in mind the possibility that rain may make an easy hill impossible, or dry weather may make a terror easy. Where possible, a route in winter conditions may include alternatives, to be used according to the weather, as was done on the Inter-'Varsity Trial in 1937. In summer, when one hopes for more stable conditions, this precaution is less necessary.



1938 RECORDS

World's and International Class Records to date



WORLD'S RECORDS

Record	Speed m.p.h.	Car and Drivers	Track
1 km. ...	117.3	Auto-Union (B. Rosemeyer) ...	Frankfurt
1 ,, (f.) ...	357.3	Thunderbolt No. 1 (G. E. T. Eyston)	Bonneville Salt Beds
1 mile (s.) ...	138.7	Auto-Union (B. Rosemeyer))...	Frankfurt
1 ,, (f.) ...	357.5	Thunderbolt No. 1 (G. E. T. Eyston)	Bonneville Salt Beds
5 kms. (f.) ...	292.12	Campbell Special (Sir M. Campbell)	Bonneville Salt Beds
5 miles (f.) ...	251.40	,, ,, ...	,,
10 kms. (s.) ...	238.67	,, ,, ...	Daytona
10 miles (f.) ...	223.9	Auto-Union (B. Rosemeyer) ...	Frankfurt
50 kms. (s.) ...	166.38	Mormon Meteor (D. A. Jenkins)	Bonneville Salt Beds
100 ,, (s.) ...	171.96	,, ,, ,,	,,
200 ,, (s.) ...	175.93	,, ,, ,,	,,
500 ,, (s.) ...	172.88	,, ,, ,,	,,
1,000 ,, (s.) ...	171.58	,, ,, ,,	,,
2,000 ,, (s.) ...	163.60	"Speed of the Wind" (G. E. T. Eyston)	,,
3,000 ,, (s.) ...	163.49	,, ,, ,, ...	,,
4,000 ,, (s.) ...	159.13	Mormon Meteor (D. A. Jenkins)	,,
5,000 ,, (s.) ...	157.80	,, ,, ,,	,,
10,000 ,, (s.) ...	148.97	Mormon Meteor (Jenkins and Stapp)	,,
15,000 ,, (s.) ...	89.93	Citroen (Marchand and Others)	Montlhery
20,000 ,, (s.) ...	88.29	Matford Yacco (Mdme. Descollas and Others)	,,
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	,, ,, ...	,,
45,000 ,, (s.) ...	77.64	Citroen (Marchand and Others)	,,
50,000 ,, (s.) ...	77.56	,, ,, ,, ...	,,
60-300,000 ,, (s.) ...	75.82-58.08	,, ,, ,, ...	,,
50 miles (s.) ...	170.27	Mormon Meteor (D. A. Jenkins)	Bonneville Salt Beds
100 ,, (s.) ...	175.11	,, ,, ,,	,,
200 ,, (s.) ...	177.43	,, ,, ,,	,,
500 ,, (s.) ...	170.83	,, ,, ,,	,,
1,000 ,, (s.) ...	168.11	,, ,, ,,	,,
2,000 ,, (s.) ...	163.75	"Speed of the Wind" (Eyston and Denly)	,,
3,000 ,, (s.) ...	158.37	Mormon Meteor (D. A. Jenkins)	,,
4,000 ,, (s.) ...	150.53	,, ,, ,,	,,
5,000 ,, (s.) ...	149.42	,, ,, ,,	,,
10,000 ,, (s.) ...	89.71	Citroen (Marchand and Others)	Montlhery
15,000 ,, (s.) ...	87.91	Matford Yacco (Mdme. Descollas and Others)	,,
20,000 ,, (s.) ...	87.10	,, ,, ...	,,
25,000 ,, (s.) ...	84.14	Austin Special Yacco (Marchand and Others)	,,
30,000 ,, (s.) ...	77.63	Citroen (Marchand and Others)	,,
40-180,000 ,, (s.) ...	75.27-57.97	,, ,, ,,	,,
	mls. yds.		
1 hr. (s.)	177 85	177.05	Mormon Meteor (D. A. Jenkins)	Bonneville Salt Beds
3 hrs. (s.)	512 1,446	170.94	,, ,, ,,	,,
6 hrs. (s.)	1,008 1,546	168.15	,, ,, ,,	,,
12 hrs. (s.)	1,964 350	163.68	"Speed of the Wind" (Eyston)	,,
24 hrs. (s.)	3,774 778	157.27	Mormon Meteor (Jenkins and Meyer)	,,
2 days (s.) ...		148.63	Mormon Meteor (Jenkins and Stapp)	,,
3 ,, (s.) ...		90.43	Citroen (Marchand and Others)	Montlhery
4 ,, (s.) ...		89.95	,, ,, ,,	,,
5 ,, (s.) ...		89.69	,, ,, ,,	,,
6-10 days (s.) ...		88.33-86.99	Matford Yacco (Mdme. Descollas and Others)	Montlhery
11 ,, (s.) ...		83.90	Austin Special Yacco (Marchand and Others)	,,
12 ,, (s.) ...		84.07	,, ,, ,, ...	,,
13-54 ,, (s.) ...		77.61-64.65	Citroen (Marchand and Others)	,,
55-59 days (s.) ...		58.23-58.28	Citroen (Marchand, Presale and Others)	,,

INTERNATIONAL CLASS A.—Over 8,000 c.c.

1 km. (s.) ...	88.52	Napier Railton (Cobb)	Brooklands
1 ,, (f.) ...	357.3	Thunderbolt No. 1 (Eyston) ...	Bonneville
1 mile (s.) ...	102.52	Napier Railton (Cobb)	Brooklands
1 ,, (f.) ...	357.5	Thunderbolt No. 1 (Eyston) ...	Bonneville
5 kms. (f.) ...	268.47	Campbell Special (Sir M. Campbell)	Daytona
5 miles (f.) ...	251.40	,, ,, ...	,,
10 kms. (f.) ...	238.67	,, ,, ...	,,
10 miles (f.) ...	181.1	Mormon Meteor (D. A. Jenkins)	Salt Beds
50 kms. (s.) ...	166.38	,, ,, ,, ...	,,
100 ,, (s.) ...	171.96	,, ,, ,, ...	,,
200 ,, (s.) ...	175.93	,, ,, ,, ...	,,
500 ,, (s.) ...	172.88	,, ,, ,, ...	,,
1,000 ,, (s.) ...	171.58	,, ,, ,, ...	,,
2,000 ,, (s.) ...	163.60	"Speed of the Wind" (Eyston and Denly)	,,
3,000 ,, (s.) ...	162.49	,, ,, ...	,,
4,000 ,, (s.) ...	159.13	Mormon Meteor (Jenkins and Meyer)	,,
5,000 ,, (s.) ...	157.80	,, ,, ...	,,
50 miles (s.) ...	170.27	Mormon Meteor (D. A. Jenkins)	Salt Beds
100 ,, (s.) ...	175.11	,, ,, ,, ...	,,
200 ,, (s.) ...	177.43	,, ,, ,, ...	,,
500 ,, (s.) ...	170.83	,, ,, ,, ...	,,
1,000 ,, (s.) ...	168.11	,, ,, ,, ...	,,
2,000 ,, (s.) ...	163.75	"Speed of the Wind" (Eyston and Denly)	,,
3,000 ,, (s.) ...	158.37	Mormon Meteor (Jenkins and Meyer)	,,
4,000 ,, (s.) ...	150.53	Mormon Meteor (Jenkins and Stapp)	,,
5,000 ,, (s.) ...	149.42	,, ,, ,, ...	,,
mls. yds.			
1 hr. (s.) 177 87	177.05	Mormon Meteor (D. A. Jenkins)	,,
3 hrs. 512 1,446	170.94	,, ,, ,, ...	,,
6 hrs. 1,008 1,546	168.15	,, ,, ,, ...	,,
12 hrs. 1,964 350	163.68	"Speed of the Wind" (Eyston and Denly)	,,
24 hrs. 3,774 778	157.27	Mormon Meteor (Jenkins and Meyer)	,,
48 hrs. 7,134 88	148.63	Mormon Meteor (Jenkins and Stapp)	,,

INTERNATIONAL CLASS B.—5,001-8,000 c.c.

1 km. (f.) ...	268.9	Mercedes-Benz (R. Caracciola)	Autobahn
1 ,, (s.) ...	117.3	Auto-Union (B. Rosemeyer) ...	Frankfurt
1 mile (s.) ...	138.7	,, ,, ...	Darnstadt
1 ,, (f.) ...	268.7	Mercedes-Benz (R. Caracciola)	Autobahn
5 miles (f.) ...	228.9	Auto-Union (B. Rosemeyer) ...	Darnstadt
5 kms. (f.) ...	251.4	,, ,, ...	,,
10 ,, (f.) ...	221.9	,, ,, ...	,,
10 miles (f.) ...	223.9	,, ,, ...	,,
50 kms. (s.) ...	165.21	Auto-Union (H. Stuck) ...	,,
100 ,, (s.) ...	163.40	,, ,, ...	,,
200 ,, (s.) ...	151.46	Duesenberg Special (D. A. Jenkins)	,,
500 ,, (s.) ...	151.32	,, ,, ...	,,
1,000 ,, (s.) ...	137.16	,, ,, ...	,,

1938 *RECORDS—continued*

Record	Speed m.p.h.	Car and Drivers	Track
2,000 kms. (s.) ...	138.03	Duesenberg Spécial (Jenkins and Gulotta) ...	Darnstadt
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)	,,
mls. yds.			
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	,, ,, ,, ...	,,
mls. yds.			
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	123.23	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.) ...	89.34	Matford Yacco (Mdme. Descollas and Others)	,,
4 ,, (s.) ...	89.53	,, ,, ,, ...	,,
5 ,, (s.) ...	88.07	,, ,, ,, ...	,,
6 ,, (s.) ...	88.33	,, ,, ,, ...	,,
7 ,, (s.) ...	87.91	,, ,, ,, ...	,,
8 ,, (s.) ...	87.79	,, ,, ,, ...	,,
9 ,, (s.) ...	87.50	,, ,, ,, ...	,,
10 ,, (s.) ...	86.99	,, ,, ,, ...	,,
11 days (s.) ...	83.90	Austin Special Yacco (Marchand and Others)	Montlhery
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 Monc
1 ,, (f.) ...	155.13	,, ,, ...	,,
1 mile (s.) ...	102.86	,, ,, ...	,,
1 ,, (f.) ...	154.44	,, ,, ...	,,
5 kms. (f.) ...	131.03	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.) ...	113.10	,, ,, ,, ...	,,
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	,, ,, ,, ...	,,
mls. yds.			
1 hr. (s.) 124 1,196	124.68	Bugatti (Divo)	,,
3 hrs. (s.) 361 1,614	120.64	,, (Divo and Chiron) ...	,,
6 hrs. 683 1,108	113.94	Alfa-Romeo (Raph and Others)	,,
12 hrs. 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 Liechenstein)	Tat
1 ,, (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	,, ,, ,, ...	,,

1938 *RECORDS—continued*

Record		Speed m.p.h.	Car and Drivers	Track
500 kms.	(s.) ...	112.27	Hotchkiss (Eyston and Denly)	Montlhery
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.) ...	96.69	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)	,,
	mls. 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	,, ,, ,, ...	,,
5 days	(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 F.—1,101-1,500 c.c.

1 km.	(s.) ...	89.7	Maserati (G. Furmanik) ...	Autostrade Firenze-Mone
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	Citroen (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.) ...	58.52	,, ,, ,, ...	,,
50,000 ,,	(s.) ...	58.41	,, ,, ,, ...	,,
60-180,000 ,,	(s.) ...	58.39-57.97	,, ,, ,, ...	,,
	mls. 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	,, ,, ...	,,
12 hrs. (s.)	1,213 313	101.10	Riley (Eyston and Maclure) ...	,,
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	,, ,, ,, ...	,,

INTERNATIONAL CLASS G.—751-1,100 c.c.

1 km.	(s.) ...	82.1	Appleton-Riley (R. W. J. Appleton)	Brooklands
1 ,,	(f.) ...	186.6	M.G. (Major Gardner)	Autobahn
1 mile	(f.) ...	186.5	,, ,, ...	Frankfurt Darnstadt
1 ,,	(s.) ...	91.3	Appleton-Riley (R. W. J. Appleton)	Brooklands
5 kms.	(f.) ...	143.6	M.G. (Major Gardner))	Autobahn
5 miles	(f.) ...	144.6	,, ,, ...	Frankfurt 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.) ...	71.66	Simca Fiat (Gauthier and Others)	,,
5,000 ,,	(s.) ...	71.62	,, ,, ,, ...	,,
10,000 ,,	(s.) ...	71.55	,, ,, ,, ...	,,
15,000 ,,	(s.)	65.99	,, ,, ,, ...	,,
50 miles	(s.) ...	120.72	M.G. (Capt. Eyston)	,,
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.) ...	71.59	Simca Fiat (Gauthier & Others)	,,
4,000 ,,	(s.) ...	71.51	,, ,, ,, ...	,,
5,000 ,,	(s.) ...	71.60	,, ,, ,, ...	,,
10,000 ,,	(s.) ...	66.09	,, ,, ,, ...	,,
	mls. yds.			
1 hr. (s.)	120 1,554	120.88	M.G. (Eyston)	,,
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.) ...	71.63	,, ,, ,, ...	,,
3 ,,	(s.) ...	71.53	,, ,, ,, ...	,,
4 ,,	(s.) ...	66.64	Adler (Schweder and Others) ...	Avus
5 ,,	(s.) ...	65.95	,, ,, ,, ...	,,
6 ,,	(s.) ...	66.02	,, ,, ,, ...	,,

INTERNATIONAL CLASS H.—501-750 c.c.

1 km.	(f.) ...	140.5	M.G. Midget (B. Kohlrausch)	Gyon
1 mile	(f.) ...	140.7	,, ,, ,, ...	,,
1 km.	(s.) ...	83.6	Austin (Dobson)	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 ,,	(s.) ...	64.35	Simca (Gordini and Others) ...	,,
3,000 ,,	(s.) ...	64.16	,, ,, ,, ...	,,
	mls. 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) ...	,,

INTERNATIONAL CLASS I.—351-500 c.c.

1 km.	(s.) ...	65.32	D.K.W. (J. Moritz)	Gyon
1 ,,	(f.) ...	100.76	Nibbio (Count G. 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	,, ,, ...	,,

1938 *RECORDS—continued*

Record	Speed m.p.h.	Car and Drivers	Track
50 kms. (s.) ...	79.88	Standard (von Fuchsenfeld and (Meyer)	Montlhery
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	,, ,, ,, ...	,,
mls. yds.			
1 hr. (s.) 74 700	77.44	De Rovin (De Rovin)	,,
3 hrs. (s.) 200 923	66.84	D.K.W. (von Fuchsenfeld and Meyer)	,,
6 hrs. (s.) 406 339	67.70	Standard (von Fuchsenfeld and Meyer)	,,
12 hrs. (s.) 764 1,429	63.65	D.K.W. (von Fuchsenfeld and Meyer)	,,
24 hrs. (s.) 1,364 1,065	56.85	,, ,, ,, ...	,,

INTERNATIONAL CLASS J.—Up to 350 c.c.

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
500 ,, (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

Record	Speed m.p.h.	Car and Drivers	Track
200 miles (s.) ...	51.37	Vitesse (Gush and Greenhough)	Brooklands
500 ,, (s.) ...	48.26	,, (Richards, Selby and le Croisette) ...	,,
mls. yds.			
1 hr. (s.) 73 67	73.04	,, (Gush)	,,
3 hrs. (s.) 155 546	51.77	,, (Richards and Selby)	,,
6 hrs. (s.) 309 1,542	51.65	,, (Richards, Selby and le Croisette)	,,
12 hrs. (s.) 514 1,124	42.89	,, ,, ,, ...	,,
24 hrs. (s.) 514 1,124	21.44	,, ,, ,, ...	,,

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

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.) ...	99.10	,, ,, ,, ...	,,
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

(Fastest Speeds irrespective of Class)

Record	Speed m.p.h.	Car and Drivers
1 km. (s.) ...	89.73	E.R.A. (R. Mays) ... ...
1 mile (s.) ...	102.52	Napier Railton (J. Cobb) ... ...
10 kms. (f.) ...	130.16	Sunbeam (Kaye Don) ... ...
50 ,, (s.) ...	123.67	,, ,, ...
100 ,, (s.) ..	124.45	,, ,, ...
200 ,, (s.) ...	120.91	,, ,, ...
500 ,, (s.) ...	111.24	Leyland Thomas (J. G. P. Thomas) ... ...
1,000 ,, (s.) ...	104.76	Talbot (Lewis and Hindmarsh) ... ...
2,000 ,, (s.) ...	76.06	Aston-Martin (Moir Davis and Gailop) ... ...
50 miles (s.) ...	124.19	Sunbeam (Kaye Don) ... ...

Record	Speed m.p.h.	Car and Drivers
100 miles (s.) ...	123.74	Sunbeam (Kaye Don) ... ...
200 ,, (s.) ...	115.96	,, ,, ...
500 ,, (s.) ...	110.04	Leyland Thomas (J. G. P. Thomas) ... ...
1,000 ,, (s.) ...	95.27	Lanchester (Thomas, Duller and Rapson) ...
mls. yds.		
1 hr. 120 1,402	120.80	Sunbeam (Kaye Don) ... ...
3 hrs. 333 1,477	111.20	Leyland Thomas (J. G. P. Thomas) ... ...
6 hrs. 628 1,104	104.77	Talbot (Lewis and Hindmarsh) ... ...
12 hrs. 1,148 843	95.70	Lanchester (Thomas, Duller and Rapson) ...
24 hrs. 1,581 1,310	65.91	Napier (S. F. Edge) ... ...

RECORDS ANALYSIS

Study of the 1939 Record List shows that A.C. has three records, Adler twenty, Alfa-Romeo six, Amilcar six, Appleton-Special two, Austin sixteen, Auto-Union twenty-one, Bugatti thirty-seven, Blue Bird four, Napier-Campbell two, Citroen 260, Delahaye six, Derby-Miller five, Derby seven, D.K.W. seven, Duesenberg seventeen, E.R.A. one, Fiat twelve, Simca Fiat fourteen, Hotchkiss four, Hawkes Special one, Jappic two, Maserati eleven, Yacco twenty-five, Mercédès-Benz two, M.G. thirty-three, Miller four, Mormon forty-three, Napier-Railton two, Nibbio three, Packard three, Riley six, Speed of the Wind eight, Standard two, Studebaker fifteen, Sunbeam three, Thunderbolt four, Union 76 Special two, Vitesse seventeen, Voran one and Yacco-Special five. The fastest records in each class are :—World's: Eyston (Thunderbolt) 357.3 m.p.h. Class A : Eyston (Thunderbolt) 357.3 m.p.h. Class B : Caracciola (Mercédès-Benz) 268.9 m.p.h. Class C : Rosemeyer (Auto-Union) 219.5 m.p.h. Class D : Furmanik (Maserati) 154.44 m.p.h. Class E : Mrs. Stewart (Derby-Miller) 147.79 m.p.h. Class F : Furmanik (Maserati) 148.2 m.p.h. Class G : Major Gardner (M.G.) 186.6 m.p.h. Class H : Kohlrausch (M.G.) 140.7 m.p.h. Class I : Lurani (Nibbio) 100.76 m.p.h. Class J : Gush (Vitesse) 77.52 m.p.h. Oil-Engine : Eyston (Flying Spray) 159.1 m.p.h. The coveted flying mile, world's hour and world's 24 hour records are held respectively by : Eyston (Thunderbolt) 357.5 m.p.h., Ab. Jenkins (Mormon) 177.05 m.p.h. and Jenkins and Meyer (Mormon) 157.27 m.p.h.—beyond the ken of Brooklands and Montlhéry. The oldest standing International Records are the Class J standing start mile and kilo, by Walters's Jappic at 52 and 58 m.p.h., established in 1925. The oldest British Record is Edge's Napier 24 hour record of 1907, at 65.91 m.p.h. The 1912 Lorraine records (6 hours at 86 m.p.h.), the 1913 Sunbeam figures (12 hours at 90 m.p.h.), the 1922 Bentley 12 hours (87 m.p.h.), and the old Aston-Martin, Lanchester and Leyland-Thomas figures still appear. The fastest British Record is Campbell's 217.6 m.p.h. over the kilo with the Napier-Arrol-Aster. The British " Hour " belongs to Kaye Don's Sunbeam at 120.8 m.p.h., and the British 12 Hours (the 24 hours is unattemptable because of the Brooklands silence-is-golden outlook) belongs to Thomas, Duller and Rapson (Lanchester) at 95.7 m.p.h. Thirty-one International records still standing were made at Brooklands.

Club News

VINTAGE SPORTS-CAR CLUB COTSWOLD TRIAL, NOVEMBER 27th

This annual invitation event attracted twenty-six entries, including four teams entered by the Vintage, Harrow, United Hospitals and Bugatti Owners' Clubs. The placing was in this order, the Vintage carrying off the S. C. H. Davis Cup by one mark. The team consisted of Miss Barbara Marshall's assorted G.N., Denyer's stout Lea-Francis and Heal's versatile 30/98. Harrow had the misfortune for one of their team to park his sump on a stony prominence and the Bugatti Club team included Lind Walker's fast 1½-litre G.P. Bug. running, complete with dope! It was one of the very few cars to rise up Gypsy Lane without assistance. This hill incidentally proved the undoing of all the larger cars and outstanding climbs were made by Denyer and Biggs with his blown 2-litre B.M.W. Miss Marshall only failed by the narrowest margin.

Stony Lane only failed the Bugatti and at a special test at the top Biggs, Harris (M.G.), Denyer and Heal were the four best, in that order. Heal's performance was particularly good, considering the size of the car, and most of the big cars, including Baillie-Hills and Shakespeare's saloon Bentleys, got into fearful contortions. "Porky" Lees (erstwhile of 'Nash fame) was also good on his 4½-litre Bentley.

At the acceleration test Windsor-Richards and Heal's 30/98s did well to beat the blown B.M.W., which was third.

Biggs made the best performance of the day, followed by Denyer, who wins the Harold Powell Cup. Other provisional award winners are as follows:—

Harris (M.G.), Miss Marshall (G.N.), Heal (30/98), Baddeley (Austin), and Claridge (Frazer-Nash).

CHILTERN CAR CLUB

There were seventeen entries for the Daw Cup Trial held on the 4th of last month, but two non-starters reduced the field to fifteen cars. The start was from the Lambert Arms Hotel at Aston Rowant at 2 p.m. and competitors drove to a stop and re-start test on Bald Hill, where best times were put up by D. Kane (M.G. Eight s/c), 10⅗ secs., H. Wood (Frazer-Nash-B.M.W. 16), 15⅘ secs. This was followed by another timed test on the cross roads at the bottom of Maidens Grove, which consisted of a series of forward and reversing movements on the rather slippery ground. Five competitors lost marks by not carrying out the test correctly and best times were put up by B. D. Acland (M.G. "N" type s/c), 24 secs., E. N. Bunting (M.G. 7), 26⅕ secs., C. W. Taylor (M.G. 10 s/c), 26⅗ secs.

The last movement of this test carried onto the short but sharp ascent of Soundess with its chalky surface well intersected by ruts. The hill was not in very bad condition in spite of the passage of sixty cars over it on the Friday night and only two competitors failed here. The next hill was Scrubbs, where the observed section was arranged so that the cars had to make a sharp left hand turn before getting onto the mud at the bottom of this hill. This section, which has a very easy gradient, was not nearly as sticky as it can be, however, and only recorded two failures. Had this mud extended for a few yards further, though, four other competitors would almost certainly have been brought to a standstill.

The next non-stop section, Widmere, was also in a mild mood and the only competitor to fail here would probably have climbed without difficulty had he not tried to take the corner at the bottom too fast and gone off the track. The last hill, however, was a very different story. This section, Seagrave's Farm, was a mass of thick mud on a fairly steep gradient and although several cars ploughed their way most of the way up, only one, H. Wood (Frazer-Nash-B.M.W.), made a clean climb. The short afternoon was drawing in rapidly by the time the last car attempted the ascent, but it was only a few miles to the finish at the King's Arms Hotel, Amersham.

The Daw Cup was won by E. N. Bunting (M.G.). First-class Awards went to H. Wood (Frazer-Nash-B.M.W.), B. D. Acland (M.G.) and C. W. Taylor (M.G. s/c), Second-class Awards to Miss M. V. Betts (M.G.), S. E. Harman (M.G.), R. F. Hield (M.G.) and Third-class Awards to M. Zwick (Ford 30), D. Kane (M.G.).

The Club's annual dance will be held on January 20th, 1939, at the Cartwheel, Amersham, from 9 p.m. to 2 a.m.

The next motoring event is the Mixed Trial on February 19th, an all-day trial with non-stop observed sections in the morning and special rally type tests on private ground in the afternoon. Five clubs have accepted invitations to take part, the M.G. Car Club, Junior Car Club, North-West London Motor Club, Standard Car Owners' Club and the Ford Enthusiasts' Club. All particulars can be obtained from the Chiltern Car Club, King's Arms Hotel, Amersham, Bucks.

THE ROAD RACING CLUB'S CALENDAR FOR 1939

15th April. Coronation Trophy for racing-cars:—two heats and final—three group handicap.

Coronation Vase for sports-cars:—short race—group handicap.

20th May. Sydenham Trophy for racing-cars:—two heats and final—three group handicap.

Sydenham Vase for sports-cars:—short race—group handicap.

1st July. Crystal Palace Cup for racing-cars:—two heats and final—1,500 *c.c. Scratch.*

Crystal Palace Vase for sports-cars:—short race—group handicap.

12th August. Imperial Trophy for racing-cars:—two heats and final—three group handicap.

Imperial Vase for sports-cars:—short race—group handicap.

7th October. London Grand Prix for racing-cars:—two heats and final—three group handicap.

London Vase for sports-cars:—short race—group handicap.

N.B.—London Grand Prix date.

CITY AND GUILDS M.C.

The City and Guilds M.C. held a quite ambitious trial on December 17th, with two starting places, as far apart as the "Ace of Spades" and Stafford, competitors meeting at Bicester. Old Hollow was to be tackled at about 5 a.m. but all but one competitor got lost and when the hill was finally located the marshals were partaking of a very ineffective two-shillings' worth of food at the "Bear" and so this hill was voted as cut out. Thereafter, the trial started in the best 'varsity tradition as to time, i.e. when everyone was ready, and was conducted on a follow-my-leader run, led by Clerk-of-the-Course H. L. Riseley (Hillman Minx saloon) who was also a competitor. The first hill was Ham Mill, divided into ten sections, as were the other gradients. Most of the Northern starters were missing, and we heard of one who had motored through the hedge in the night and of one who had lost the bottom bits of his Austin Seven's carburetter. A Vauxhall Ten saloon with remarkably flexible suspension found the rocky outcrop in section one and failed and showed no very ready inclination to restart. An onlooker said he expected the plug gaps were too wide. The Hillman got up well, Gordon's 1925-type Morris Cowley tourer made section two, aided by a fairy on the hood, but dashed backwards after stopping, two Austin Seven chummies stopped where we expected they would stop and the only really good car climb was that of M. Laudet's Wolseley-Hornet. T. N. Blockley (B.S.A. solo) and H. N. Toomey (Royal Enfield solo) lent the expert touch amongst the two-wheeler element. Nailsworth was attempted next. We saw Laudet ascend nicely, but everyone else amongst the car entries seemed either to have become lost again or to have failed, and a B.M.W. motor-cycle fell over during its climb.

Why competitors got so easily lost is not easy to explain, because the Guilds' men had provided excellent blue-prints of the whole area. Incidentally, numbers were not used, identification letters indicating the particular University represented being employed instead. The trial led on to Station Lane and concluded at the "Plough" at Cheltenham. It

CLUB NEWS—continued

was hardly a serious event but very good fun and, for MOTOR SPORT, an excuse to go down yet again to a piece of country of which we are especially fond.

RESULTS

First-Class Awards : M. P. Laudet (Wolseley-Hornet); H. L. Riseley (Hillman-Minx).
Second-Class Award : D. Baddeley (Austin Seven).

A USEFUL TYRE ?

In trials circles a tyre is being discussed which would seem to have great possibilities for standard tyre trials, if the R.A.C. does not ban it—and they had not done so last month. This is one of the Bata range of covers, made by the great Czechoslovakian shoe firm, who also build the Bata Zlin XII low-wing monoplane. . . .

The examples we saw were the 5.25″ ×16″ Bata Cord Pneu. pattern, on the back legs of a Hillman Minx. Naturally, it is the tread which is interesting. Other types of tread bear a strong resemblance to already well known British designs. These tyres are handled over here by Atlas Importers, Ltd., 20, Eastcheap, E.C.3.

FORD ENTHUSIASTS' CLUB

The Ford Enthusiasts' Club held a successful trial on December 27th on private W.D. ground at Camberley, which is reported at some length elsewhere in this issue. For 1939 an ambitious programme of events is being planned. It is hoped that the Croydon driving-test meetings will be continued and that the social side will be developed. K. N. Hutchison finds he no longer has time to act as joint secretary with Sydney Allard, but W. Boddy is now assisting with much of the organising and secretarial work. S. Harman and P. G. Hooper were elected as members during December. The new subscription rate is 10/6, with an entry fee of 2/6. There is no social membership. The car badge costs 7/6, and buttonhole badges are available at 1/6 each.

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

N.W.L.M.C.

The North-West London M.C. made some rather sad mistakes over this year's London-Gloucester trial, which up to now has been a classic. They made standard tyres compulsory, yet inserted sixteen observed sections, some of them extremely stiff even for comp. shod special cars. They used a route card which confused lots of competitors after the entire entry had been led badly astray by local tampering with route markings—which shows what is thought of trials in this part of England. Will future organisers of Gloucestershire events please rely on good route cards only? They had too few marshals, and travelling marshals in cars unsuited to the route. As a result, very unfortunate delays resulted. At one hill we saw an unfortunate lady sprayed from head to foot with slime while ascending to her home—because no marshal was present to warn her of an approaching car. Doubtless her view of trials underwent modification from that which she had expressed to us a moment earlier. The N.W.L.M.C. is the premier slime-storming club but the Gloucester was far from being an object lesson to smaller trials-organising bodies. In fairness, one must record that the need for silent, careful driving was emphasised in the programme almost to the point of monotonous repetition.

We will refrain from a long report of an event that is by now out of date and perhaps better forgotten. Hutchison motored some miles in the night with one front wheel running free, following a fall into a ditch which broke a steering connection. This was eventually mended by Soames, with the aid of a local welding plant. Guy Warburton won the Gloucester Cup with the original Allard-Special and the victors in the capacity classes were P. S. Flower (M.G.), F. H. Bacon (Singer), W. P. Uglow (H.R.G.) and M. S. Soames (Allard-Special). Soames had Allard's new V8 pointed-tail car. Miss Barbara Marshall (Anzani G.N.) was the best lady, and N. J. Ebdon (M.G.) the best novice. The Allard "Tailwaggers" won the Team Award, which is becoming a habit. There were lots of lesser awards. The Club has abandoned its Team Trial.

R.A.C.

The R.A.C. was inundated with applications for 1939 Fixtures and abandoned the meeting of Club Secretaries which it had intended to hold on November 30th. Instead, it has apparently approved every application for fixtures up to March 31st, with the exception of trials on Sundays in black-areas where Sunday trials are not well received. Organisers of such trials have the option of changing day or locality. Fixtures for the remainder of the year will be dealt with by the end of March. Bad clashing seems inevitable, but a meeting of secretaries would surely have eased matters. At all events, we hope the R.A.C. will again issue those excellent fixture booklets, even though two editions will now be necessary. It was astonishing how many well known drivers were unaware of the existence of this extremely useful publication, last season.

B.T.D.A.

It is interesting news that the British Trials Drivers' Association has definitely introduced a Trials Star for 1939 events. The Star will be awarded to the driver gaining the greatest number of marks during the season's trials driving. So very complicated is the system of scoring that we are relieved to hear that the B.T.D.A. will issue a provisional marks analysis at intervals, and, for our part, we fear we shall be entirely in their good hands. Isn't it curious that the hardly-serious art of storming slime requires such a complicated system to determine an outright winner, whereas the season's leading road-racing and track-racing drivers are much more easily picked? Would trials be better if this were not the case? The Star is a most interesting innovation and gives rise to speculation as to who *is* our leading slime-stormer. Guy Warburton is driving exceptionally well just now, but the M.G. and Austin boys are essentially outstanding. There isn't much you can teach Sydney Allard, Soames is very very good and will undoubtedly improve with every fresh trial in which he starts, and what of Hutchison? A friend of ours who goes to nearly all trials mentions the consistent award-netting of P. S. Flower, with a small-engined, not very young, motor. It is an interesting topic and we give herewith the B.T.D.A.'s system for awarding a Trials Star for the 1939 season—it may be very instructive to some of our slide-rule readers but to us it is only productive of a fuzzy-buzzy head :—

SCORING

Ordinary Events : Wherever the Regs. for an event provide a Premier Trophy or similar award determined by an Order of Merit irrespective of class (i.e. Best Performance), or when such can readily be determined from the Official Results (using method of settling ties stated in the Regs. for example), marks towards a B.T.D.A. seasonal Star total shall be allocated on the basis of :—

One mark for every competitor officially listed as a **starter**, less one mark for each competitor placed above the B.T.D.A. star claimant in order of merit.

Other Events : When no Order of Merit can be determined, but when first and second-class Awards were made, irrespective of c.c., h.p., club or other groupings (e.g. most M.C.C. events), the following shall be the basis :—

First-class Award Winners: Each will receive a number of marks equalling percentage of competitors **not** gaining first classes, divided by two.

Second-Class Award Winners: Ditto . . . of competitors **not** gaining **second or first classes,** divided by two.

Third-Class Award Winners: Ditto . . . of competitors **not** gaining third, second or first classes, divided by two.

Trials not coming under either of above shall either be struck out of the eligible optional events or marked at the discretion of the Committee, such marking to be referred to all members interested for approval.

No bonus marks for Trophies, Team Awards, etc.

Claimants at end of season may put in their **TEN** best scores by above marking out of the list of Trials approved for the Star competition.

The Experts' Trial marks will be doubled.

M.G. C.C.

The Chilterns Trial will be held on January 22nd, starting from Beaconsfield at 11 a.m. and finishing at Amersham. A fifty-mile course will embrace several new hills. Twenty per cent. of the starters will get first-class awards and second-class awards go to twenty per cent. of the remainder. Details from :—F. L. M. Harris, 30, Holborn, E.C.1.

THE E.R.A. CLUB

A well known daily paper motor-writer has published the statement that Humphrey Cook has declared that he can no longer run the E.R.A. team during 1939, and that, in consequence, the team will be disbanded. We believe that the true position is that E.R.A. funds are getting low, and that after this year Humphrey Cook may feel obliged to withdraw his very generous and essentially sporting support. In that case, only public contributions could keep the official E.R.A. team alive. Meanwhile membership of the E.R.A. Club swells the amount handed over to the gentlemen of Bourne every year by this unique club, so that membership is more than ever to be encouraged. It would constitute a worthy New Year's present to yourself or a friend.

HARROW C.C.

The Harrow Car Club will hold its Film Show in South Harrow on January 12th. Capt. Eyston and George Monkhouse will be present.

CLUB NEWS—continued

GENERAL NOTES

Well, we had to get home rather promptly (I won't write quickly) after riding with Hutchison through the Experts' Trial, and did so by leaving Minehead at 10 p.m., three up in the hack Austin Seven coupé, and getting in at 8 a.m on the Sunday morning with both the passengers soundly asleep. You may argue, if you wish, that this only represents an average speed of 17 m.p.h., but then we proceeded across the latter bit of Salisbury Plain in the pale light of dawn with the writer blowing down a tube, to puff the dregs of fuel that remained in the well-nigh empty tank through to the carburetter. The Austin must run mostly on air, because we did some ten miles in this fashion. Then there was the evening when we proceeded optimistically into Sussex to survey a course for a map-reading contest and had the headlamps fail on strange roads in darkness and torrential rain, so that the hastily appointed co-driver said tersely that the rear light was a power more brilliant than the sidelamps, which was only too true. He said even more pungent things when the dashboard became illuminated by an electrical bonfire after midnight. Later, engine roughness suggested that the gasket beneath the alloy head had blown and a hard evening's work replacing the standard head led to the discovery that there was just nothing at all amiss in that department, and that the bad running was due to the fact that the rubber buffers beneath the front engine bolts had succumbed to age and repeated dosings of oil and had ceased to exist as rubber buffers, so that the engine was all but loose in the chassis—a wonderful car, the Austin Seven. Spirits were restored by a winter afternoon's run to Aldershot in one of the latest Ford Eight saloons, which was something of a revelation as to the average which the modern baby will achieve if you really push it, while the Girling brakes work very nicely indeed, though the proximity of first gear to reverse still reveals the skill, or otherwise, of the driver.

A day's journey to Cambridge with an A.B.C. car-engine as a silent passenger on the way up led to our making acquaintance with an early Buick and a very beautiful pre-war four-cylinder F.N. solo motor-bicycle at a small garage, and of unearthing a small two-cylinder Renault of 1911-12 vintage at another garage. At the latter establishment a very old Morgan tricar and a Waverley Six coupé with very cleanly-designed engine were also reposing.

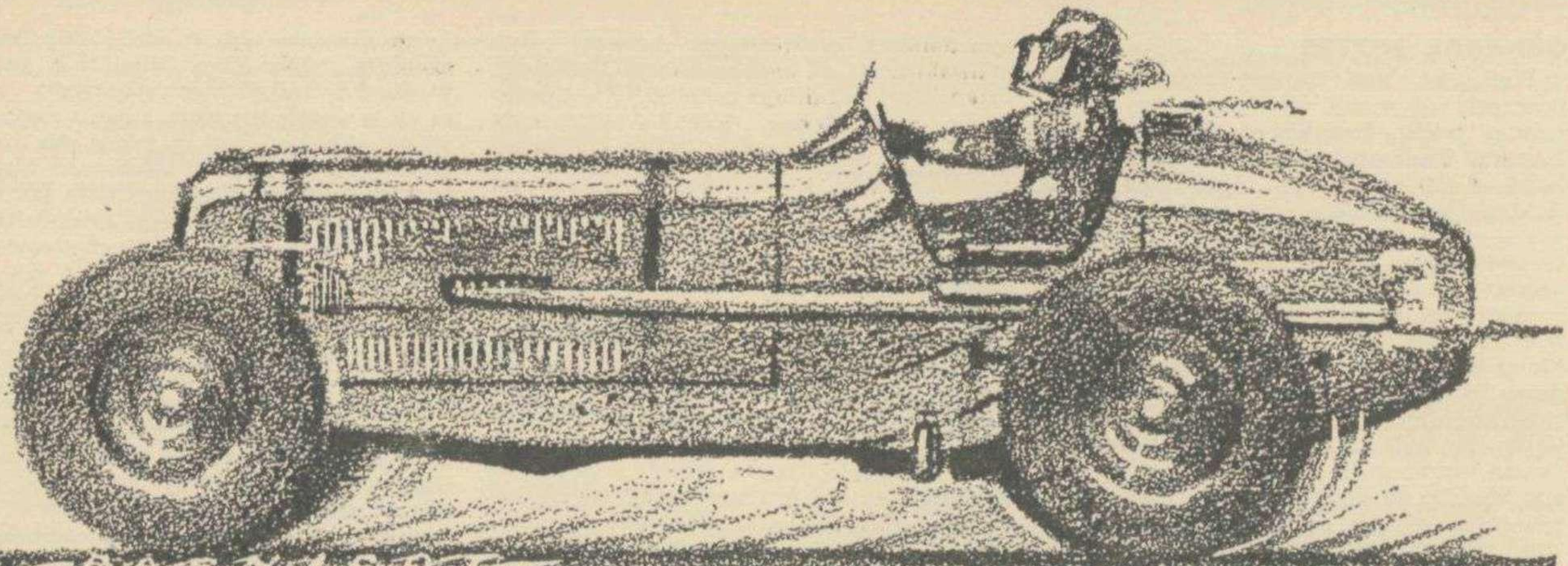
So far, the winter 1938 has been conducive of less motoring adventure than previous winters, but most emphatically one's personal motor-cars are not laid up on wooden blocks, enshrouded in vaseline and dust-sheets. So one can live in hope! Meanwhile, work can proceed on a small and purely personal book entitled "Automobiles—Their Shortcomings," as more and more friends reveal experiences of the sadder sort that they have had with interesting cars, both ancient and not so ancient. Need it be said that this work will never find its way to a publisher's desk or even see the interior of such a gentleman's waste-paper basket! But contributions, if authentic and definitely established as failings peculiar to a specific make and model, will be gratefully received. It's better fun than collecting match-box lids . . .

Naturally, you do not miss the "Gloucester" if you can help it, though it seems an unlucky run for us, for in 1936 we had every adventure possible, going down by night in a Brough-Superior, and seeing nothing at all of the trial save a few trials motors sailing past our starved car the London side of Bicester, while last year in the Riley we came right on the sad accident near Kineton. This time we said, quite firmly, that we definitely would not turn out, but finally gave in when it was explained that a nice closed Ford Ten death-box would be used to convey us westwards. Well, without any time for sleep, we started and on the back seat of that Ford it was bitterly cold. But the driver said he could never keep awake in a death-box unless he has most of the glass wound out of the way, and it seemed better to be cold than rolled on. "The Anchor" at Shepperton looked essentially cosy, but no sooner were we in than we were out again and en route for the first flood-lit hill. This wasn't terribly entertaining and was rendered worse by the arrival of two friends who had coaxed our hack Austin Seven down to see the fun, but only just. They reported that it was running like a London-Brighton veteran. And they took a cruel delight in emphasising the hardships of motoring to Gloucester by night in December, though we subsequently discovered that they took nearly as long to return to London (which is why a 1935 engine is now installed in this particular Austin).

The night run was very chilly, even though we at last persuaded the man at the helm to almost completely wind up the windows—it was not until about 2 a.m. the following morning that we discovered that he had very quietly wound out the screen as he wound up those side windows . . . Breakfast we took at a lorry-drivers' establishment, and a very clean, excellent and sufficient breakfast it was—allowing for the fact that any breakfast is good at 6 a.m. I cannot recall where this café is, but it is just beside a garage on whose roof reposes a tattered Fairey biplane and in whose showroom we saw our first Standard Eight open tourer. Prior to this we had investigated by-ways in which to snatch forty winks and had come upon a house at the foot of quite a trials hill, all in darkness, but with a light burning in the garage—was an enthusiast at work at this ungodly hour rebuilding a special motor or had a fug-box driver rushed out of the lock-up in such haste as to forget the switch? To such a low ebb does the human-being descend in the early a.m. that at the time it seemed quite vital to know the answer! We were down early, for the modern Ford certainly can get a move on. After breakfast there was just time for a little railway photography, and then into the hills. At the end of one of the usual long spells without any sustenance save that provided by Mr. Cadbury, we appeared ready to sally London-wards, only to find that a friend's skeleton trials Riley Nine that we had planned to tail thought otherwise. First of all it would not start, then it required a wheel change, then it twice ran out of petrol, and finally it displayed signs of fuel starvation, so that we both got home at 2 a.m. on the Sunday—still with the Ford's screen open. Much later that morning, for both parties slept late, our modern machinery refused to commence, until engineers had been phoned for and, arriving with a Ford V8 A.R.P. fire-tender, had towed it all round the locality. After lunch, however, we went sleepily on to another trial, winter brightness immediately turning to rain and a big-end shedding its very necessary white metal (don't tell me Ford uses lead-bronze?) so that glumness descended on the party. However, at least we could count yet another week-end completely devoted to sporting-motoring.

The following Sunday we optimistically rose early and prepared to venture into Kent to observe one more trial, only to find that our friend had the cylinder head off his Riley, having recently replaced No. 2 big-end. He optimistically said we should soon be starting, but, although everything fell back into position ever so nicely, while we admired Riley design when the motor was a motor-car again the dynamo refused to behave and, the battery being flat, that was that. However, by the next Friday all was reported well and we were bade go to Gloucestershire again, commencing at 2 a.m. on the Saturday morning. As the hood, or what remains of it, was observed to be erect, we said we would go. At 4 a.m. filling up at the local garage preparatory to getting away (alarum clocks sometimes play these tricks) that hood was carefully and irretrievably furled by its fond owner. Off we went and duly made "The Bear" on Rodborough Common where, for 2/- a head, we partook of their two-course breakfast, the first course sausage and bacon, the second rolls and butter, no bread and butter or toast was forthcoming in spite of frequent requests.

So to the hills and, this time quite early, a track for home. Then the fun commenced, for it turned icily cold. The road up from Rodborough, via Witney and onto the excellent Oxford By-Pass to the home-country is a good one, but the Riley, stiff of big-end, was not allowed to exceed 40 m.p.h. Several 4¼-litre Bentleys and a chauffeur-driven Rolls-Royce came past, silently taking their occupants London-wards at an impressive speed. A special bodied Lancia, driven by a warmly-coated lady, made to-and-fro expeditions between Witney Aero Club and a destination unknown. Here a silver painted B.A. "Swallow" prepared to take two tough persons up into the forbidding and increasing murk. That road, under a snow-laden winter sky, might well have stirred the pulse of sports-car enthusiasts. Nothing existed as an excuse for dallying, traffic was sparse, and speed seemed not only desirable, but sensible. A Big Six Bentley roared by as we filled up, and a Ford V8 going the opposite way was most certainly in the late "seventies."



RUMBLINGS

This Supercharging

SUPERCHARGING of ordinary road-cars is ever a fascinating topic, for all save the very fortunate can do with more urge beneath the throttle foot, and yet not so many wish to go to the trouble of super-tuning or hotting up and the more frequent attention that this entails. Unfortunately, you cannot buy a blower in a big cardboard box, tack it onto your engine, and sail past Mr. Smith and Mr. Brown in their identical (but unblown) motors, and still sleep soundly at nights. In the first place, a supercharger must be correctly applied, and not so many engineers have the knowledge or have had sufficient experience to do the thing correctly. Then, not every little power-unit likes being forcibly-fed. And, even correctly fitted and applied, to a sound engine, blowing almost always means much heavier fuel consumption, because in this planet you never get something for nothing. You have to rotate your blower or compressor and you enjoy using the urge it gives, and in consequence you burn more fuel—usually lots more fuel. Nevertheless, the addition of a supercharger gives advantages that cannot well be attained in any other way. Let us have a look at supercharger application in general.

About the first that the ordinary everyday motorist heard about supercharging was that Mercédès were applying it to certain of their production models—incidentally, before they and, later, Fiat, Delage, Alfa-Romeo and Sunbeam, etc., used it for racing. In 1925 MOTOR SPORT road-tested the 12/40 h.p. Mercédès but, even then, supercharging figured only on the more expensive cars and was regarded by Mr. Everyman as he to-day thinks of rotary valves and direct fuel injection.

Mercédès, of course, sucked from the carburetter and continue to do so to this day, save on the more recent of their G.P. cars. Some years ago the writer had a very instructive correspondence with the leading supercharging authorities on this question of whether it is better to blow or to suck. Merc. had the throttle-actuated clutch control, which some engineers believe to be the most sane application of forced induction yet applied to ordinary mortals' cars. Stutz also used a clutch control on the few blown jobs they made, also sucking from the gas-works, and last year Atalanta tried clutch control with normal positioning of the supercharger—but in both instances a hand-lever operated the clutch.

Actually, before Mercédès became sufficiently satisfied with supercharging to serve it up to their clients, the Sizaire brothers, and Marc Birkigt of Hispano-Suiza, had applied centrifugal blowers to four cylinder engines, as early as 1911.

By 1923-4, apart from G.P. cars, supercharging was becoming quite an open book to racing folk. Austin used it for record work, H. Hagens, of British Anzani, applied it to Horstmann racing-cars, and single and twin-cylinder motor-bicycles appeared with boosters. Capt. G. E. T. Eyston had been producing the Power-plus compressor for use in other fields and developed it for automobile work and a few sports-cars had this proprietary blower fitted, while French sports-cars had the Cozette compressor inflicted on them, Austin and Lea-Francis, in this country, making use of this supercharger.

So supercharging became more generally understood and attempts were launched to popularise proprietary blowers. The Galley Radiator people took up the Cozette and J. A. McEvoy sponsored the German Zoller vane compressor. Laurence Pomeroy, Junr., who now does so much to enliven one's weekly dose of "The Motor," first displayed his literary genius in writing up the Zoller compressor, with which he was associated in company with McEvoy. Very soon, tacking on a blower became the accepted thing to do when you craved non-standard performance. The Centric vane-compressor and the Marshall Roots-blower came along and simple fittings and belt-drive enabled installations to be rigged up on Morris Eight, Ford Eight, M.G. and even Jowett engines, not too expensively. Granville Grenfell built himself a shed on Brooklands Aerodrome and more or less specialised in such installations, even to putting a blower beneath

RUMBLINGS—continued

the floor boards of an aged Armstrong-Siddeley and driving it by belt from the carden-shaft. Incidentally, he taught L. M. Ballamy all he knows of this new cult of tacking on forced-induction. Francis Grenfell used to prowl round talking high technicalities—his favourite subject was the speed at which different makes of vane-compressors developed maximum efficiency. Few argued with him . . .

Hereabouts Amherst Villiers got very cross because a motor-writer unwisely laughed at his experiment of supercharging a 40/50 Rolls-Royce with a blower driven by a separate Austin Seven engine. The fun now began in earnest. Those whose fortunes were bound up in vane-type compressors preached far and wide that the Roots-blower had to be made very carefully to maintain accurate clearances, that it lost efficiency with wear, and that it had to function very fast to be of value. On the other hand, those who had their shirts staked on the Roots-type supercharger told of the complication of a vane-compressor, of difficulties of lubricating it and of oil used in so doing going into the engine. Actually, supercharging had made commendable headway and early shortcomings, such as bad running and starting on account of fuel deposition, noise, and the need to add oil to the fuel (the first blown M.G. asked for over a quart of oil per tankful of fuel), had mostly been banished. The primary worry now was that production engines, particularly those of utility type, disliked more than about 5 lb. blow, and if a blower or compressor was made to do useful work low down the speed range it became too much of a good thing at cruising and above-cruising speeds. On the other hand, if arranged to humour the engine at high knots, unblown motors were on an equality with the blown jobs. However, there was no shortage of proprietary superchargers. We have been introduced to the Shorrok-Haydock axial vane-compressor, the Centric, Zoller, Gillett, Cozette, Powerplus, Velox and Foxwell vane superchargers, the Berk, Marshall, David Brown and Jamieson Roots blowers and the Zens, which cheerfully contrived to be *both* a Roots *and* a vane-instrument. More recently, Arnott has made the Arnott compressor, rather like a Centric, and mated it up to his excellent carburetter, which can be used as a vertical, horizontal or down-draught gas-producer, at will.

Personally, we experienced some quite un-catalogue happenings with proprietary-blown motors. Heavy fuel consumption was universal, run big-ends not uncommon, one early blown M.G. blew out the complete insides of its sparking plugs, and a Ford lost its complete installation at the bottom of a long hill. The only car which gave great urge and a reasonable fuel consumption ran splendidly for two years and then ate its compressor vanes, to the detriment of its bearings. Perhaps the early nineteen-thirties must be regarded as the pioneer years of tacked-on forced-induction. Meanwhile, Pomeroy and McEvoy made a bold bid to overcome the urge-at-low-revs./burst-at-high-revs. problem. First, they introduced the external piston-action pressure control. Later they seemed less inclined to use this component, but in 1936 introduced the "Velox" variable delivery compressor, in which movement of the vanes controls the output. They had previously learnt how to use Clayton-Still delivery piping to ensure simple inter-cooling, thus pioneering in another sphere of supercharge application. Just as the "Velox" was being launched, Pomeroy threw down the spanner and took up the pen, but this unique supercharger is believed to have valuable application in the aero-engine field. And now we are up to date.

Usually these paragraphs point some sort of a moral, or attempt to do so. But having got this considerable bit of supercharger history off our chests, we will leave it to you, dear reader, to draw what conclusions you can as to the future of supercharging. Possibly this is a matter which is largely in your own hands.

The Next Formula

Considerable attention having been given of late, in print and spoken word, to the desirability of producing a team of British Grand Prix Formula cars, naturally people have turned to discussing the next G.P. Formula, for, should the miracle happen, our team could not hope to be effective under the existing ruling, which will hold good until 1941. In the first place, we can hardly agitate for a change before then, because Germany has spent good money on the production of all-conquering 3-litre cars to Formula requirements and cannot be expected to scrap them just because other nations have found the ruling unpalatable. But certainly we may consider what the 1941 Formula should be. It is not often that our two leading motoring weeklies disagree completely, but, on this subject, while the sports editor of one of them advocates a plain 1½-litre Formula, the technical editor of the other feels that, whatever happens, the 1½-litre class should continue to exist as a separate entity. The latter not only argues that 1½-litre cars would cost more than present Formula *bolides*, but that, outstanding as this country is in this class at present, it might not continue so if subsidised nations turned their whole attention to 1½-litres. Those in favour of a 1½-litre Formula point to the rosy possibilities of bigger entry lists and the greater chance this country would probably have of success.

As we see it, it might have been a good policy to plead for the 1½-litre Formula when our E.R.A. team was at full strength. Unfortunately, Humphrey Cook has announced that he can no longer maintain it and that it must lapse unless £5,000 can be raised annually by public subscription to support it. We would like to feel that this sum will be raised and that the team will carry on, but it is over twenty times the amount so far raised annually by the E.R.A. Club—and Sam Green has not been backward over publicity. If the official E.R.A. team, like the Sunbeam and Bentley teams of yore, fades, doubtless independent drivers of E.R.A.s will still effectively meet Continental opposition in the 1½-litre class, even in three years' time. But they could hardly represent us in full Formula racing and a 1½-litre Formula would spell lost prestige in both categories (G.P. and class racing) unless our £250,000 dream-team happily materialises.

RUMBLINGS—continued

Furthermore, we cannot see that high-revving highly-boosted 1½-litres will do any more to hand on lessons of value to the touring-car designer than the present 3-litre cars. Even if our team is shaping, it might be unwise to shout too loudly for the 1½-litre Formula. We must remember that up to now the International Formula has not unduly favoured any particular nation at its introduction. The first ruling sought to reduce the speed of road-racing cars; the existing Formula to equalise the chances of various-sized cars. At first, Italy, then Germany, became masters of the situation by building the most suitable cars. So, if we shout for a 1½-litre Formula in 1941, Germany will be justified in shouting equally loudly for continuation of the existing ruling, or, perhaps reversion to the old Formula, France in demanding an unblown 4½-litre Formula and America probably for an unblown ruling. Italy might, or might not, join us in wanting a 1½-litre limit. We do not profess to know how seriously the representatives of the various nations take the A.I.A.C.R. meeting at which the terms of the new Formula are decided, but certainly we can foresee trouble if a ruling is discussed which expressly favours one country more than another. G.P. racing is at present not at a very high ebb and any strong feeling at this important gathering might well kill essential subsidy which alone makes G.P. racing possible. So, granting that a 1½-litre ruling would allow more independents to compete, which would be a good thing, and that this country is a nation of small car users, we still do not wish for an International 1½-litre Formula.

The E.R.A. Club, in the December issue of "Hearsay," also votes against a 1½-litre Formula, preferring one of 3-litres with no weight restrictions of any kind.

To suggest a useful new Formula is not easy. Banning all forms of special fuel might assist towards making to-day's racing-car once again to-morrow's touring car. Michael McEvoy wants an oil-engine Formula—which has points in its favour but is a thing one can never see really coming about—we haven't yet got Diesel classes, based on capacity, in the record field, in spite of this paper's emphasis on the need to develop oil-engines of all sizes, particularly those suited to private cars and light commercial vehicles, like the specially hotted Perkins unit used by Munday in the Thomas-Special. Maximum weight rulings play into the hands of those who are substantially subsidised and can experiment extensively with light alloys. Why not a slight modification of the existing Formula, to give the unblown cars and 1½-litre cars a fairer chance in relation to the bigger blown machines? Such a change need not wait until 1941, because the Germans would welcome keener competition for their existing 3-litre cars.

If we cannot suggest a really good new Formula, at all events we are going to repeat a suggestion which MOTOR SPORT made last October. It is that we should have, right away, a classic 1½-litre scratch contest. Will it be Mr. Craner, Mr. Bradley, Mr. Edwards, Mr. Morgan or Mr. Scannell who will get the credit for organising such a race? We would like to see it held at Donington on the Saturday preceding the next British Grand Prix, which we hope Mr. Craner will run on a Sunday this year. At least Mr. Craner is sympathetic towards 1½-litre cars. If he does not give us this race, Brooklands should give Londoners an opportunity to see it. The "200" used to be the 1½-litre classic and might well revert to its old form, over the Campbell circuit. The Palace circuit is hardly suited to a long-distance race but Mr. Edwards might get those Alfa and Maserati drivers who would come over for this race to a curtain-raiser at the London track on the Saturday before the big contest. On the other hand, so many B.R.D.C. drivers handle 1½-litre cars that surely Mr. Scannell is interested? Anyway, let us have a 1½-litre G.P. One of the most impressive things about the last Donington G.P. was the fine showing of the E.R.A.s. Let us further emphasise our 1½-litre leadership. We might make the race one of 400 miles, the better to test reliability and pit work. And we should hold it now, while the existing Formula classes the 1½-litre cars as a separate entity.

Odd Spots

J. K. Mason writes that his Brescia Bugatti has done 3,000 miles without trouble and runs up to 5,200 r.p.m. He uses Champion R1 plugs and has no oiling-up bothers.

* * *

S. H. Allard, one of our foremost trials drivers, is Director of Adlards Motors Ltd., who handle Ford passenger-car and commercial sales and service from depots at Putney, Streatham and Brixton. As a hobby he builds and drives Allard-Specials.

* * *

M. S. Soames has built himself a very special Morgan three-wheeler.

* * *

Humphrey Symons is attempting to drive from London to Cape Town in seventeen days with a specially-equipped 18/85 Wolseley saloon.

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H.R.G. have introduced a 9 h.p. Singer Bantam-engined model, priced at £289. It has the same chassis features as the 85 m.p.h. 1½-litre car, which now has a three-bearing 1½-litre o.h.c. Singer engine in place of the former push-rod Meadows unit. The new car weighs 13¼ cwt. and is said to do 75 to 80 m.p.h. and 35 m.p.g. A 9 h.p. model has been supplied to a well known trials man.

* * *

The first big British race of 1939 is the B.R.D.C. Empire Trophy, on April 1st.

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The J.C.C. may change its title to "British Motor Club."

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Major Gardner hopes to reach about 210 m.p.h. with his M.G. when he takes it to Germany again in April.

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The "Jabberwock" Ford V8 team seems likely to be disbanded. The cars are up for sale.

THE BRITISH MOTORING FIXTURE LIST

From January 12th to March 30th, 1939. Reliability Trials unless otherwise stated.

Date	Club	Area
	JANUARY	
12th	Ammanford & D. M.C.	Carmarthen and Glamorgan
14th	Club of Nomad Motorists	W. Surrey
22nd	Margate & D. C.C.	E. Kent
	Southend & D. M.C.C.	S. Essex
29th	Chester M.C.	Chester-Denbigh
	Hagley & D. L.C.C.	Wolverhampton-Worcester
	M.G. Car Club	S. Chilterns
	Newcastle & D. M.C.	Northumberland
	North Bucks M.C.	Bucks and Beds
	Ringwood M.C. & L.C.C.	Shaftesbury
	FEBRUARY	
4th	Lanarkshire M.C. & C.C.	Scotland
	Swansea M.C.	Carmarthen and Glamorgan
5th	Great West M.C.	Surrey
	Kentish Border C.C.	Hants
	Maidstone and Mid-Kent M.C.	Mid-Kent
	Oxford M.C. Speedway C.	Oxford-Bicester
	R.P.M. Motor Club	Newcastle
	Yorkshire Sports C.C.	Skipton-Bateley Bridge
11th	Ammanford & D. M.C.	Carmarthen and Glamorgan
	Bristol M.C. & L.C.C.	E. Somerset and W. Wilts.
	N.W. London M.C.	Purley
	Oxford University M.D.C.	Chilterns
12th	Essex Ford Owners' C.	Essex
	M.G. Car Club (Midland Centre)	Shropshire
	Rochester, Chatham & D. M.C.	E. Kent
	Sittingbourne M.C.	E. Kent
	Swansea Comets M.C.	Carmarthen
	Wakefield M.S.C.	Wakefield
18th	M.G. Car Club (Scottish Centre)	Scotland
	Riley M.C.	Chilterns
19th	Astra M.C.	S. Chilterns
	Berkhamsted M.C. & C.C.	S. Chilterns
	Cemian M.C.	W. Kent
	Chiltern C.C.	S. Chilterns
	Dittons M.C.	S. Chilterns
	Ford Enthusiasts' C.	S. Chilterns
	Harrow C.C.	Bedford and Herts
	Leicestershire C.C.	Leicestershire
	M.G. Car Club (N.E. Centre)	Yorkshire
	North Bucks M.C.	Banbury, Buckingham
	Port Talbot M.C.	Carmarthen and Glamorgan
	St. Thomas & D. M.C.	N.E. Devon
	Southend & D. M.C. & C.C.	S. Essex
	Vintage Sports C.C.	Buxton
	York M.C.	N. Yorks
25th	Sutton Coldfield & N.B.A.C.	Gloucestershire
	S.S. Car Club (Speed Event)	S.S. Works, Coventry
26th	City & Guilds College M.C.	Oxford
	Luton & D. M.C.C.	Bedford
	Margate & D. C.C.	Mid-Kent
	Pendennis M.C. & L.C.C.	Truro, Lizard
	Royal Ordnance Factories S.A.M.C.	Surrey
	Southsea M.C.	Surrey
	Sunbeam Talbot Owners' C.	Hertford
	MARCH	
4th	Glasgow University C.C.	Scotland
	Scottish Sporting C.C.	Scotland
	West of England M.C.	Mid-Devon
	Bristol M.C. & L.C.C. (Hill Climb)	Naish House
5th	Birmingham U.M.C.	Shrewsbury
	Holbeach & Spalding M.C. & L.C.C.	Boston
	Ilford M.C. & L.C.C.	Essex
	M.G. Car Club (N.E. Centre)	Doncaster
	Plymouth M.C.	Tavistock
	West Bromwich M.C. & C.C.	Bridgenorth
	West Hants & Dorset C.C.	Salisbury-Devon
	Yorkshire Sports C.C.	Ilkley
8th	Scarborough & D. M.C.	Scarborough-Bridlington
11th	Caledonian M.C.	Scotland
	M.G. Car Club (S.W. Centre)	Salisbury
	Old Marlburian M.C.	Cotswolds
	Brooklands Automobile R.C. Race Meeting	Brooklands
	Lancashire A.C. (Hill Climb)	Adlington
12th	Civil Service M.A.	W. Kent
	English Electric (Stafford) M.C.	Stafford
	Ford Enthusiasts' Club (Rally)	Autodrome, Croydon
	Ilkley & D. M.C.	Yorkshire Moors
	Liverpool M.C.	Denbigh
	Rochester, Chatham & D. M.C.	W. Kent
	Rothbury & D. M.C.	Rothbury, Morpeth
	Sittingbourne M.C.	W. Kent
16th	Ammanford & D. M.C.	Carmarthen and Glamorgan
18th	Cambridge U.A.C. (Speed Trials)	Syston Park
	M.G. Car Club (Scottish) Freak Hill Climb	Scotland
	Riley M.C. (Speed Event)	Crystal Palace
19th	Great West M.C.	Staines and Coast
	Hagley & D. L.C.C.	Worcester
	Margate & D. C.C.	S.E. Kent
	M.G. Car Club (N.E. Centre)	Pateley Bridge
	M.G. Car Club (N.W. Centre)	Manchester
	Newcastle & D. M.C.	Newcastle
	Club of Nomad Motorists	Surrey
	Plymouth M.C.	Mid & South Devon
	Port Talbot M.C.	Carmarthen and Glamorgan
	Salisbury M.G.	Salisbury
	York M.C.	N.W. Yorks
	Southampton C.C. (Hill Climb)	Southampton
25th	Edinburgh & D. M.C.	E. Scotland
	Gloucestershire A.C.	S.W. Gloucester
	Sporting Owner Drivers' C.	Gloucester
	Women's A. & S.A.	Dover
	Junior Car Club (Speed Meeting	Brooklands
25th-26th	Vintage Sports C.C.	Bagshot-Llandrindod Wells
26th	Brighton & Hove M.C.	Sussex
	Ilkley & D. M.C.	Harrogate
	Middlesex C.A.C.	Banbury-Maidenhead
	Oswestry & D. M.C.	Denbigh
	Southend & D. M.C. & C.C.	S. Essex
	S. Liverpool M.C.	E. Lancs.
	Taunton M.C.	N. Exeter
	Westmorland M.C.	Lake District
	Yeovil M.C.	Yeovil
30th	Grimsby M.C.	N. Lincs.

TO DEFEAT WHEELSPIN

ALMOST every car has in its back axle a differential, which permits of inter-rear-wheel movement when cornering. Certain French small sports-cars were notably possessed of differential-less axles, perhaps because their designers were never given Meccano sets in their youth with which to model the differential—which is about the only way to understand how it functions. The snag about the differential of ordinary construction is that it allows all the drive to pass to the free wheel when one rear wheel is locked or impeded. On a trials hill this gives rise to excessive spin. Consequently, certain trials drivers have locked solid their car's differentials, by bolting them up, or, more crudely, by pouring molten lead into the assembly. S. H. Allard used to lock his differential on the original Allard-Special as required, by a system of brakes formed of Morris clutch plates brought into operation by an outside hand-lever. This had an interesting sequel, when, almost stopping on a bad hill, Allard seized the hand-brake, whereupon several observant people protested that he had locked up his differential, in what was a non-solid-axle trial. Actually, at the time his device was not in use, and we believe he abandoned it because of the impossibility of avoiding sheared axle-keys when thus locking the assembly.

Now that competition tyres are banned in trials, wheel spin is a major problem and in certain quarters it is expected that most well known drivers will use locked axles where these are not banned by the regulations. Unfortunately, a solid axle results in excessive tyre wear and sometimes adversely affects cornering. Moreover, it is so often barred by the regulations, except where used as standard by a manufacturer, as in the case of the Frazer-Nash.

A differential which seems likely to defeat spin very effectively while still remaining a differential within the meaning of trials regulations is the ZF, which is used on the Mercédès-Benz, Auto-Union and E.R.A. racing-cars. This differential works on a cam and pawl system and prevents excess spin of the wheel which is carrying no load. It thus prevents the drive from passing to that wheel which is running on more slippery ground than its fellow, or which is bouncing clear of the ground. On the other hand, it still merits description as a differential, because it allows a certain degree of inter-movement, when cornering. In the ZF units used by E.R.A. this movement is limited to 15 per cent. The ZF controlled differential is made by Zahnradfabrik Friedrichshafen of Lake Constance, Germany. It should be investigated by all serious trials competitors and is handled in this country by H. Louis Lungmuss, of 5, Holland Road, Aston, Birmingham.

Another controlled differential is being made by L. M. Ballamy. Known as the L.M.B., this works on a piston system, whereby oil controls the differential action, the axle being locked by pistons endeavouring to compress oil within small radial cylinders and released as the oil escapes via ports in the pistons. It would appear that with the L.M.B. system there will be some danger of axle keys shearing, on account of the intermittent locking and unlocking of the axle shafts, or fluctuating loading on the keys. In the case of the ZF unit there is special provision for the drive to take up with the minimum amount of movement, while with this differential the drive ceases to that wheel which attempts to spin, whereas in the L.M.B. the axle locks up and both wheels take the drive.

HERE AND THERE

A REMARKABLE SPORTS-CAR

A reader of this paper, Mr. J. Eisner, is building a sports-car which will challenge Forrest Lycett's 8-litre Bentley and Sir Lionel Phillips's Leyland-Thomas, as a road car which is both potent and unique. He has purchased the old racing V12 Delage from Gerald Sumner and is making it into a touring machine. This Delage was built as a sprint car in 1923, took the Land Speed Record in 1924 in the hands of René Thomas and, coming to this country, was successful at Brooklands in the care of John Cobb and, later, Oliver Bertram. Later still, the now defunct Junior Racing Drivers' Club was said to have bought it, fitting a two-seater body, though anything less suited to learners can hardly be imagined. The Delage had remarkable accelerative properties and lapped at 133.8 m.p.h. Mr. Eisner will use a new chassis, with independent suspension all round, and will add real brakes. Ramponi, of High Speed Motors, is in charge of the conversion work, which will occupy six or nine months. A new two-seater body will be installed and twin Powerplus compressors are being fitted. The speed is expected to be in the region of 160 to 170 m.p.h.

THE DECEMBER VINTAGE S.C.C. BULLETIN

The December Bulletin of the Vintage S.C.C. arrived on December 31st, too late for mention in the correct part of the paper. We confess to reading it from cover to cover as soon as it comes, and the latest number is as good as the nine printed Bulletins that have preceded it. Twenty full members and seven associates have been elected since September, including three ladies. Their cars comprise: two 4½-litre Bentleys, three 3-litre Bentleys, two 12/50 Alvis, a Silver Eagle Alvis, two Lancias, a Ballot, a 2.3 Bugatti, a 3-litre Sunbeam, a 1912 Renault, a 1910 15/20 Mercédès, a 36/220 Mercédès-Benz, a Salmson, a Riley Nine, a Frazer-Nash, an M.G. Six and John Fry's "Red Biddy." There is a description of Peter Clark's trials 3-litre Bentley, a report of the Gloucester Trial which the Vintagents won from the Harrow C.C. by one mark, some notes on the H.E. marque (which provide material for the present writer's book "Automobiles—Their Shortcomings"), the Veteran Notes, the Northern Notes, notes on the Brighton Run, and an extremely funny article on the Show, written by a contributor who had vintage interests essentially to the fore. Also some Assorted Nonsense and a poem. Clive Windsor-Richards takes the Forrest Lycett Trophy for the highest aggregate performance during 1938, with 143 marks. He drove various 38/98 Vauxhalls and a 5-litre Delage. A. S. Heal gets the Runner-Up Trophy with 120 marks, driving a 30/98 Vauxhall, and the Veteran Trophy, with his 1910 10-litre Fiat. Denyer takes the Pitchford Cup for the best performance using the same 1½-litre car—his Lea-Francis, for which Wrigley (Lea-Francis) is runner-up.

C. W. P. Hampton has acquired a 1910 Type 13 Bugatti and Fitzpatrick runs a supercharged Phantom II Rolls-Royce.

Tim Carson has moved to "Egarston," Park Lane, Basingstoke, and proposes to open a room there as Club headquarters. An award for the best-kept vintage car owned by a member is under consideration and the Club hopes to have the use of Prescott for a speed hill-climb again in 1939. Entry fees and membership are notably reasonable, especially so in view of the growing prestige of this very live club.

WILL THEY BE BARRED ?

Interest in non-slip differentials, such as the ZF, is increasing now that the R.A.C. has banned the competition tyre in trials. Naturally, lots of trials competitors are anxious to know whether, in trials in which solid axles have been prohibited in the past, these new-type differentials will also be barred. Perhaps the R.A.C. or the B.T.D.A. would like to let us have their views on the subject, while we would like to know what action the leading organisers of solid-axle-barred trials propose to take, if any. S. H. Allard is believed to rather scorn specialised differentials, though we believe he is not entirely disinterested in the ZF device.

* * *

CORRECTION

In the article on "Tuning the Austin Seven," published last month, which was extremely well received, we referred to copper-asbestos jointing washers as C of A, instead of C.A., washers. Enthusiastic Austin Seven speedmen are assured that such washers need not be up to Certificate of Airworthiness standards !

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A LONDON VENTURE

CITY AND GUILDS M.C. INCLUDE MANY NOVEL FEATURES IN UNIVERSITIES' TRIAL

THE day before the City and Guilds M.C. Universities' Trial was the wettest for the last ten years. The day following was the coldest for the last nine years, or something of the kind. During the event itself the weather varied between these extremes, being warm but wet during the night run, and cold but still wet during the day.

The original idea of the organisers of the trial, the City and Guilds College, part of London University, was a grand one, for the event was to be open to members of seven different Universities. Besides the organising club, and Oxford and Cambridge, Birmingham, Manchester, and Dublin Universities had been invited to take part, and also the United Hospitals and University of London M.C.

The inclusion of Dublin nearly caused the organisers to have to apply for an international permit, which could scarcely have been granted! However, this difficulty was smoothed out, and a contingent from the Irish University was actually expected. However, on hearing that a night run was to be included in the route, the Irishmen found themselves unable to come over, on the ground that their machines had no lighting sets (the Dublin team was to be composed of motor-cyclists), nor had they any "ordinary" tyres. To those unaware of conditions governing the sport in Ireland, these difficulties certainly seem very extraordinary, but that was that, and the "international" element was out.

Birmingham and Manchester had also promised teams, and a special starting point had been arranged for them in the Midlands. But they, too, had to cry off at the last moment, one, it is said, because they had mistaken the date until it was too late—these midnight starts are sometimes a little confusing—and the other because of an important club function on the same day. In their defence it must be stated that the organisers brought some of these troubles on themselves, as the regulations were not issued until very late.

Oxford and Cambridge Universities, both dispersed for the Christmas vacation, managed to send a few starters, but not even the powerful Cambridge U.A.C., which has more than three hundred members, could survive with a complete team, Thus the event developed into an internecine contest between the City and Guilds and the United Hospitals clubs, for these two bodies are closely allied, and their members enjoy equal privileges.

In the circumstances, though there was a strong entry from the City and Guilds, the team value of the contest was lessened, and the winning trio, composed, as it happened, of three motor-cyclists, might have claimed to come from either club.

A night run is now something of a rarity in trials, except for the M.C.C. events and the "Gloucester," but the Guilds men were not discouraged by the torrents of rain which fell during the preceding day, and turned up at the London starting point, the Ace of Spades, on the Great West Road, some in incredibly open and exposed Austin Sevens, even girl passengers appearing comparatively lightly clad.

The rain ceased to fall shortly before the start, but it was only a temporary respite, enough to let the mists and fog gather in the Cotswold Hills, for which competitors were making. Old Hollow was included during the night run, and the foot of this hill is quite difficult to find even in the daylight, owing to the maze of narrow lanes. The fog was particularly thick here, in the early hours of the morning, and many of the competitors lost their way. Their resultant late arrival was perhaps just as well, since the marshals due to take charge of the hill were also lost, but arrived in the nick of time.

A scheme had been devised to divide each of the observed sections into ten sub-sections, and marks were awarded according to the distance that a driver covered before coming to a stop, a clean climb counting the full ten marks. This, at any rate, was what the organisers intended, and so it turned out in the end; but the wording of the clause in the supplementary regulations gave rise to an objection that a competitor failing low down on a hill and subsequently restarting and climbing the rest of the hill could claim marks for all sub-sections through which he passed unassisted.

A Guilds trial is run in the most friendly manner, however, and upon an explanation from the man who drew up the regulation, saying what he meant, the objection was withdrawn without the necessity for a ruling from the Stewards. It is certainly very pleasant to be able to settle any such discussions over a hotel fire, instead of lodging formal and embittered protests.

The sub-sections scheme has been used before in trials, and gives interesting results. It is necessary, however, to make quite sure that all marshals understand the plan, and can mark their cards accurately and intelligibly for the different sections with which they are concerned.

One card in the Universities' Trial bore algebraic symbols such as: OC x (6-8) 5, which may be interpreted as meaning that the third member of the Oxford team stopped in sub-sections 6 to 8, and received five marks! It should be explained that, instead of competition numbers, small cards were mounted on the windscreens bearing initial letters, the first corresponding to the University of entry, and the second to the driver's place in the team. Thus "G.P." on an ancient Austin Seven would not indicate that it was a Grand Prix model, but that the driver was the sixteenth entered by the Guilds College. Unfamiliar, but informative, if one has the key, and, since some appear to object to competition numbers, quite a good substitute.

Owing to so many drivers losing their way to Old Hollow, it became difficult to assess the results on this hill, but everyone turned up in the end at the breakfast stop, the well known Bear Hotel on Rodborough Common—everyone, that is, except the Chief Marshal, I. K. Nixon, in his Austin, who had with him all the necessary cards and impedimenta for the running of the event. Consternation was created, but at last Nixon arrived, having been home, since he left the start, fitted a new dynamo, changed several wheels, and generally rebuilt the car.

The trial then proceeded, and the first hill after breakfast was Ham Mill, rough and rocky as ever. The formidable rock step near the bottom caused quite a lot of drivers to fail even in the first subsection, but on the whole results were evenly divided over the various sections, and one of the motor-cyclists had the misfortune to foot in the very top section, thus gaining only nine marks. The only two car drivers to climb the whole hill were M. P. Laudet, with his Wolseley, and H. L. Riseley, with a Hillman Minx. Laudet kept going very fast all the way up, while Riseley's effort, in a saloon car not of trials type, was most creditable, for on wet chalk the top slopes of the hill were very slippery.

The next hill was Nailsworth Ladder, but three of the plucky little Austins, GK, GL, and GM, driven by P. F. Strouvelle, H. Oxlin, and R. M. H. Gordon, were so jaded by their attacks upon Ham Mill that their owners decided not to attempt the precipitous gradient. Perhaps this was as well, for on Ham Mill their hand brakes had seemed none too gripping, and the Ladder is a nasty place to run down backwards. The Austin contingent had been further depleted when G. K. Grey retired, in some confusion, as he and his passenger were proceeding quietly along when the rug was suddenly whipped from their knees, to entwine itself round the propeller shaft!

Most competitors found the Ladder in difficult condition, and only Laudet with his Wolseley reached the summit. Riseley stopped in the fifth section, and thus received four marks.

By this time the air was growing colder, and damp mists were drifting across the hills, so that waiting for the competitors, behind schedule after the difficulties of the first two sections, was a wearisome business. Station Lane was divided into two parts, of which the second, a narrow, winding path through the wood, was so difficult that it stopped the entire entry. D. Baddeley, driving a sports Austin with overhead valve engine, did extremely well to reach the seventh subsection, and here Laudet fell from grace, scoring only two marks, as he failed in the third section, while Riseley could only get one section higher.

Finally came the muddy Gypsy Lane, but all competitors climbed this successfully, before returning for lunch, which had, for many, become tea, at the Plough Hotel at Cheltenham. The results were quickly worked out, and the City and Guilds team of motor-cyclists were declared the winners with a total of 153 marks, while Laudet made the best car performance.

VALVE DESIGN

THERE is matter of considerable moment to racing-car engineers in the paper "Valve and Valve Seat Technique for Automobile and Aero Engines" which F. R. Banks, of The Ethyl Export Corporation, published in the December Journal of the Institution of Automobile Engineers.

Mr. Banks said that it is no longer possible to get away with valves made from "3½ per cent. nickel-steel" or "bumped up iron railing." Even in these enlightened times there are still many examples of poor exhaust valve design and that of its surroundings in the cylinder block. A hot-running exhaust valve—one having a head temperature in the region of 800° C. or higher—will have a short life and may limit engine performance. The valve and its operating mechanism should require little or no attention between decarbonising periods—20,000 to 30,000 miles, or 350 to 500 hours in the case of high-duty aero engines. The valve material should have high strength at elevated temperatures, be resistant to scaling and hot and cold corrosion attack, and possess a certain degree of stem hardness.

Improper seating is caused by extending the guide into the port and counterboring the boss, by leaving too much material between the seat and the water jacket and by distortion of the seating in the block. Some restriction of the exhaust port is unavoidable but the exhaust side can put up with a certain degree of throttling without serious power loss and the greater guide area will result in a cooler valve. The port may be spread laterally (looking at the port end) making it more or less oval in plan from the bossing to the outlet, so retrieving a certain amount of area, but water passages must not be restricted around this end of the port. In small s.v. engines greater seat distortion is usually encountered, and, in conjunction with small stiff valves, trouble can arise because of faulty contact. Because the valve position the hottest part of the cylinder is not the highest and if the water boils locally round the exhaust seating it is more difficult to get rid of steam pockets than with an o.h.v. design. In many cases, bolting down an s.v. head stresses the block to such an extent that distortion of the valve-seatings occurs, and in order to lap in the valves a dummy head has to be first bolted in place.

Turning to valve-shapes, the flat-headed valve is cheap to produce and universal. The dished or modified tulip type is highly satisfactory, with plenty of material backing the seat to prevent overheating. To-day's materials have destroyed the advantages the pure tulip valve once had for the exhaust side but it is sometimes employed as an inlet valve in conjunction with fancy port shapes. The neck has a large exposed surface area and therefore it usually runs hotter and feeds back heat to the seat. The mushroom headed valve is used mostly in lorry engines. It is probably somewhat heavier for a given diameter and perhaps stiffer mechanically, which may not necessarily assist in good sealing, as it will not easily conform to seat distortion. It offers a relatively large surface for heat collection.

Blind holes or slots in the valve head are to be deprecated as they tend to cause deformation of the head and a fruitful source from which cracks commence. S.v. valves can be ground in with the aid of a tool possessed of a rubber sucker.

The author considers that the stem should be of as large a diameter as possible, because, in spite of weight being undesirable, considerable heat can be removed via the stem and guide, as well as by the seat. Considerable importance is attached to the proportioning of the stem and neck to the head.

The author favours the 45° seat for the exhaust valve as it is easier to maintain a good seal than in the case of the 30° seat. The 30° seat gives a better valve opening coefficient, but this is of greater importance for the inlet valve. In the case of very narrow seats the use of 45° or 30° is an extremely moot point. Seat widths vary fairly widely. For instance, in one case for a valve diameter of 1.5" the width is approx. 2 mm. and in another approx. 3 mm. It is often believed that a wide seat improves heat dissipation. In practice this is not necessarily the case, because unit loading exerted by the valve spring will be lower and also there is more chance for particles of carbon to become trapped between valve and seat. If a soft seating material is used a wider seat than usual may be needed to prevent seat shrinkage.

In connection with seat wear and shrinkage, the closing velocity of the valve on its seat is in the region of 1.5 to 2 ft. per sec. and this holds good for a wide range of engines of various designs. It is important to maintain correct tappet clearances, otherwise enlarged clearances will increase the closing velocity and may increase wear. However, this is better than too small a clearance, which is often demanded by the slaves of silence and is the best way of quickly ruining the valve.

The valve stem should be as hard as possible and have a good surface finish. The clearance between stem and guide should be as small as possible as not only does this assist in removal of heat, but modern experience shows small initial stem and guide clearance results in lower rate of wear between the two.

The author recommends inserted valve seats, but says that for engines having capacities of 750 c.c. to 2,000 c.c. it is probably impracticable to fit inserts. Alloy irons, heat-treated high-speed steels and Silcrome No. 1 make good insert materials. Probably the best arrangement is a steel ring with a seating of Stellite No. 6. Various methods of fitting inserts are satisfactory but the author prefers the plain ring insert. There is no reason why a steel insert should not be satisfactory for an aluminium car head—aero engine designers have discarded aluminium-bronze and Monel metal in favour of steel. N.M.C. or D.T.D. 49b and Silcrome No. 1 are satisfactory. The modern car valve has a life of 10,000 to 15,000 miles and the aero engine valve a life equivalent to 45,000 to 50,000 miles, before overhaul. There are nine-cylinder two-valve radial aero motors in service developing about 1,100 b.h.p. or about 120 b.p.h. per valve. Naturally, they operate only for a few minutes per flight at these figures and the cruising power is about half these values. Whereas the average b.m.e.p. of a 2-litre car on a run of 100 miles will be about 30-40 lb. per square in., reaching 80 to 90 lb. for short periods, the aero engine operates continuously at about 110 to 140 lb. per square in.

The author here makes the very interesting point that in low-duty car engines valve trouble can sometimes be traced to the valves running so cool that they are not plastic enough to conform to local seat distortion and so burn at the point of leakage. He remarks that British aero-motor designers only fill the valve stem with sodium, allowing the heads to run hotter than those in American engines. This is because we use four valves in big cylinders and small valves remain too stiff if the heads are cooled. It is fairly certain that most valves in British aero engines have some degree of plasticity. In tests in which stem-filled valves were replaced by hollow-headed valves in which sodium came within 2 to 3 mm. of the seats, just as bad and in some cases worse burning occurred—in an engine known to suffer bad head and insert distortion. Rolls-Royce use Brightray seats and heads to defeat corrosion. The author believes valve cooling by sodium to be unnecessary and unduly costly for car work, save, perhaps, for special sports and racing engines. He does not think the poppet valve will be banished from car engines for many years to come, but recalls Argyll's pre-war and Arrol-Aster's post-war attempts to develop the Burt single sleeve valve [what of Vauxhall?—Ed]. The valve-spring does not always receive proper attention. Spring ends must be flat, to obviate side thrust.

A FAIR RULING

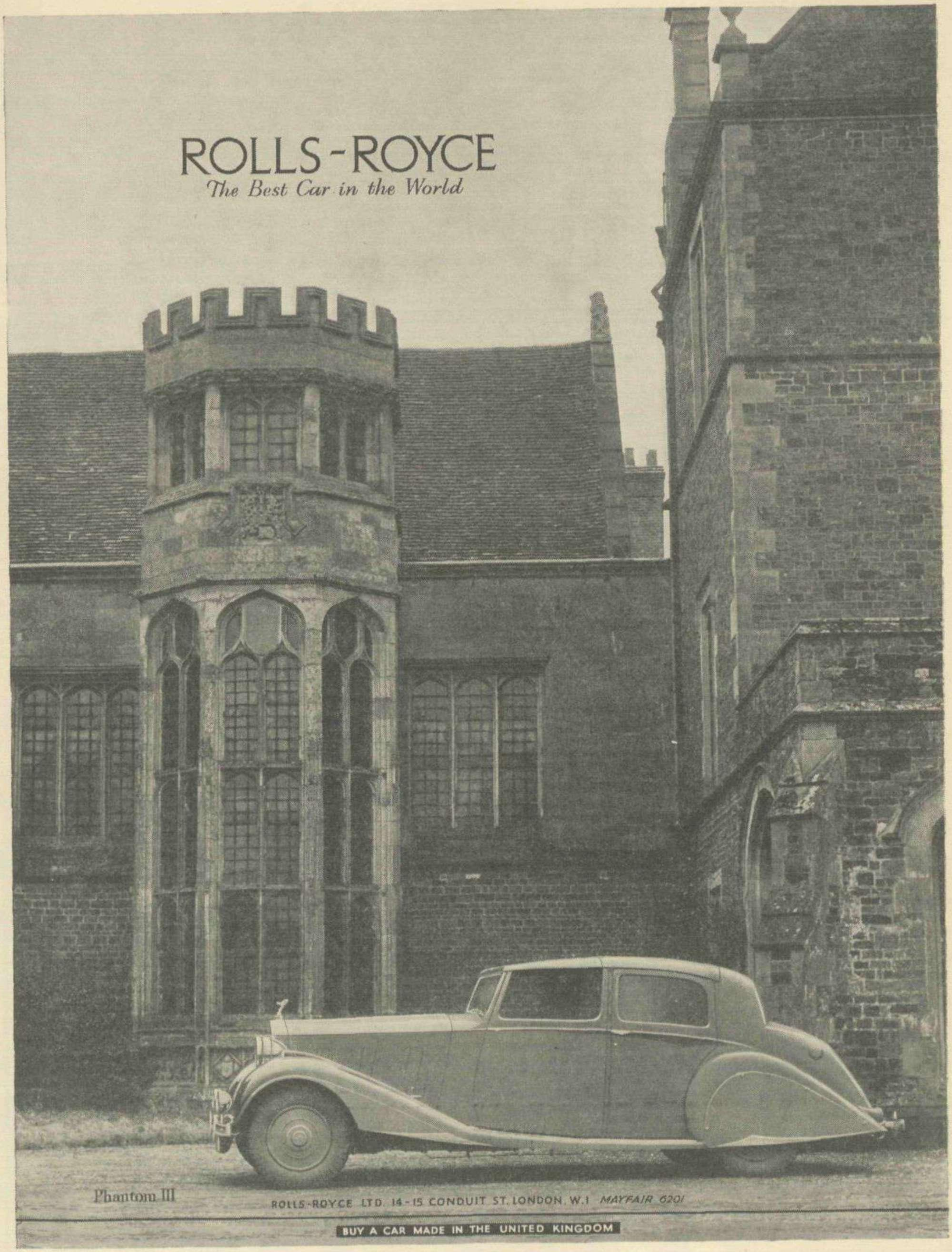
Tyre manufacturers sometimes mark their tyres in sizes slightly smaller than the actual dimensions. To allow for this the R.A.C. announces that tyres may be 10 per cent. larger than the size stamped on the cover, when considered in relation to the maximum sizes laid down for various sized cars competing in trials.

THE SCARBOROUGH SCHEME

The plans for a big race course at Scarborough, which were quashed because it was felt that Scarborough's social prestige might suffer, are again being afforded publicity by the Scarborough & D. M.C. The cost of the proposed circuit is estimated at £150,000.

A JABBERWOCK MOUSE

W. C. N. Norton used a Fiat 500 for town work, painted Jabberwock yellow and bearing the name "Jabberwock Junior I" on its bonnet. Another user of a Fiat 500 is picture-maker Louis Klemantaski.


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G. WARBURTON'S "30/98"

[Guy Warburton sends the following letter concerning the continued potency of his famous 30/98 Vauxhall, which we gladly record.—Ed.]

You will be interested to hear that your old bus has just won its first " Pot " in South Africa, quite a respectable looking pint tankard with glass bottom (and full when presented ! !)

The event was the Joburg. Car Club's Hill Climb at Quaggapoort and I carried off the first in the sports-car class, beating a 4½-litre Bentley, an S.S.K. Merc., a blown Alfa, and a blown Bug., and another 30/98 by 9 secs., being beaten for fastest time by three cars in the racing class. The hill is narrow and loose stones and dust like a trials course after a bad drought but the " comps." gave no wheel spin and real get-away from the two sharp bends. Also peak revs. (3,600) in third were just right for the straights and my time of 51 secs. was only reduced to 48 secs. by the fastest in the racing class (I consider the course too rough for my " Bugs.").

As the best time by trade entries of stock American cars such as Hudson, Packard, Buick, Ford, etc., was 61 secs., it shows up the old 30/98 pretty well.

The announcer on the loud speaker gave an interesting commentary on the car's age, history and mileage during my ascent.

The trip up from Capetown was practically 1,000 miles of a muddy trials course—took three days to get the car decent again.

(Signed) G. HINDLE.
Johannesburg.

MONTE CARLO

On Boxing Night we spent six hours clearing a way through a snowdrift in a Kentish lane, that we could extricate our modern 8 h.p. saloon. Long before the job was done we had given much thought to those enthusiasts who will soon be starting on the Monte Carlo Rally and who will probably have such tasks to perform many times over in far colder, more desperate conditions, not after a comfy day with normal consumption of good food, but after hours without sleep and rest and days and nights without proper meals. We, in our small experience, discovered a few shortcomings in the car under these conditions, not noticed before. Which proves the value of the Rally. Incidentally, the car was a Ford Eight and it deserves credit for excellent acceleration, splendid steering and surprisingly good road-holding, on ice and snow, and very pleasant Girling brakes. To those adventurers and enthusiasts in the 1939 Monte Carlo we extend every good wish. The British entrants at the time of writing are :—P. A. Collins (Railton), G. W. Wilkins (Triumph), Miss Wilby (Lea-Francis), J. H. T. Edwards-Moss (S.S.), S. C. H. Davis (Daimler), A. E. Dobell (Railton), B. W. Fursdon (Wolseley), H. M. Balfour (Alvis), J. W. Whalley (Ford), A. C. Scott (Ford), Miss S. C. Rowar-Hamilton (Sunbeam-Talbot), T. H. Wisdom (Ford Eight), Miss Amy Johnson and Mrs. MacEvoy (Ford), J. MacEvoy and F. M. Montgomery (Ford), F. S. Barnes (Vauxhall), R. J. Morton and G. E. N. Watson (Vauxhall), R. V. Gunter (Wolseley), Sir Carmichael Anstruther (S.S.), J. M. Miller (Lagonda), A. W. Fletcher (Railton), Mrs. Wisdom (Vauxhall), Lord Waleran (Humber), N. Garrard (Humber), Major Douglas-Morris (S.S.), J. E. P. Howey (Lagonda) and A. Good (Lagonda).

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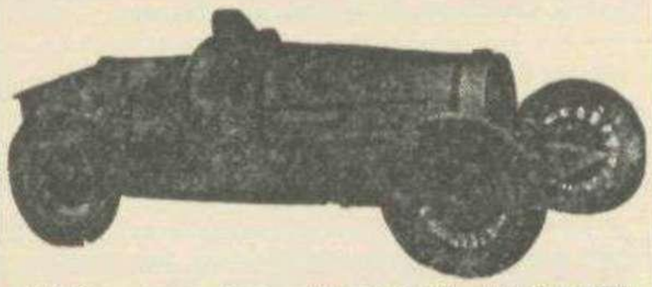
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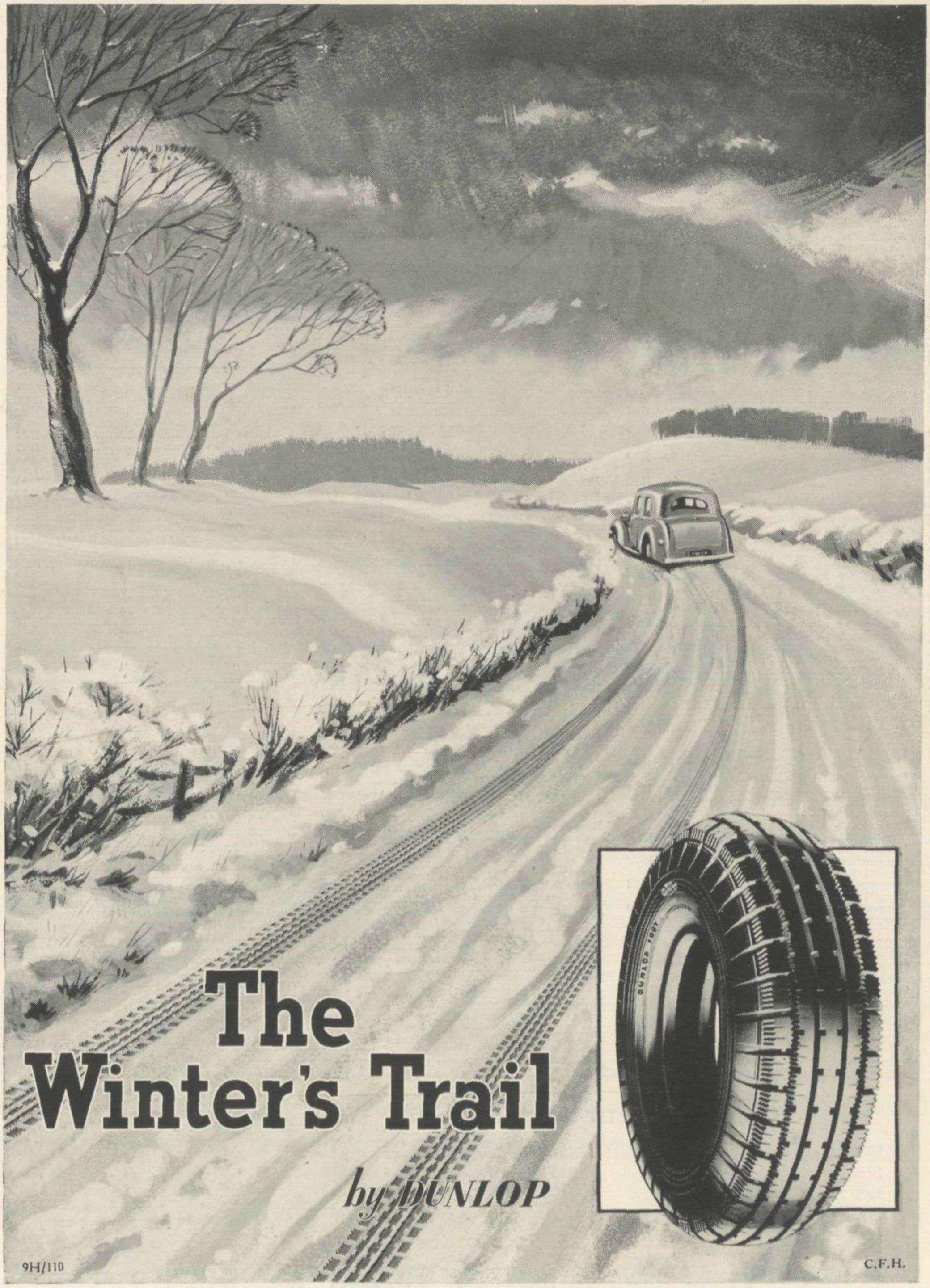
Make of Car	Issue
A.B.C. 11 h.p. 2-cyl., 2-seater	Feb. 1926
A.C. 2-litre, short-chassis, 15.7 h.p. 2-seater	July 1936
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A.C. 2-litre, 16.66 h.p., 4-seater	June 1934
Alfa-Romeo 1½-litre supercharged 6-cyl. Charles 2-seater (1929)	March 1934
Alfa-Romeo 1¾-litre supercharged 8-cyl. "Zagato" 2-seater (1932)	July 1934
Alfa-Romeo 2.3-litre supercharged 8-cyl. "Zagato" 2-seater (1933)	Aug. 1936
Alfa-Romeo 2.3-litre supercharged 8-cyl. 4-seater (1931)	Aug. 1932
Alvis 11.9 h.p., 4-cyl., "Firefly" saloon	Feb. 1933
Alvis 4-cyl., 12.60 h.p., 2-seater	July 1931
Alvis 6-cyl., "Silver Eagle" 4-seater coupe (1929)	Aug. 1931
Alvis 6-cyl., "Silver Eagle" 4-seater	June 1930
Alvis 3½-litre saloon	Feb. 1936
Alvis Speed Twenty Vanden Plas saloon	Feb. 1935
Alvis Speed Twenty Charlesworth saloon	Feb. 1934
Alvis Speed Twenty 4-seater	June 1932
Ansaldo 2-litre, 4-cyl., o.h.c., 4-str.	Sept. 1924
Armstrong-Siddeley 20 h.p., 6-cyl., 4-seater	July 1933
Aston-Martin Mark II, 11.9 h.p., 2-4-seater	Jan. 1935
Aston-Martin Ulster 11.9 h.p., T.T. 2-seater	Oct. 1935
Aston-Martin Le Mans 11.9 h.p., 2-4-seater	June 1933
Aston-Martin International 11.9 h.p., 4-seater	Aug. 1932
Aston-Martin T.T., 11.9 h.p., racing 2-seater	Dec. 1931
Aston-Martin 11.9 h.p., 2-seater	Jan. 1930
Auburn 30 h.p., 8-cyl. supercharged 2-seater	June 1935
Austin Seven Boyd Carpenter 2-str.	Sept. 1930
Austin Seven "65" 2-seater	Jan. 1934
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Bentley 4½-litre, 6-cyl., Park Ward saloon	June 1936
Bentley 6½-litre, 6-cyl., long-chassis saloon (1928)	Dec. 1936
Bugatti 3.3-litre 8-cyl., Type 57 saloon	May 1934
Bugatti 2.3-litre 8-cyl., Type 55, supercharged, 2-seater	July 1932
Bugatti 2.3-litre, 8-cyl., Type 43, supercharged 4-seater (1930)	Dec. 1932
Bugatti 2.3-litre 8-cyl., Type 43, supercharged 4-seater	May 1930
Bugatti 3-litre, 8-cyl., Type 44, saloon	July 1928
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Crouch Anzani 12.30 h.p., 2-seater	Aug. 1924
DARRACQ 12.32 h.p., Weymann saloon	Sept. 1924
Delage 14 h.p., 2-litre, 2-3-seater	June 1927
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Frazer-Nash 4-cyl., 1½-litre T.T. Replica push-rod o.h.v. 2-3-str.	Nov. 1931
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Invicta 4½-litre low chassis, 4-seater	March 1931
Invicta 4½-litre Weymann saloon	June 1929
Invicta 4½-litre saloon	Dec. 1929
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LAGONDA 2-litre 4-cyl., twin o.h.c. 4-seater	Jan.-Feb. 1928
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Lagonda 4½-litre, 4-seater	May 1936
Lagonda 4½-litre Rapide 4-seater	May 1935
Lagonda 4½-litre, 4-seater	Jan. 1934
Lagonda Rapier 10 h.p., 4-seater	Sept. 1934
Lagonda 16.80 h.p., 6-cyl., 4-seater	Jan. 1933
Lagonda 3-litre, 6-cyl., 4-seater	March 1932
Lagonda 2-litre, 4-cyl., twin o.h.c., 4-seater (1928)	March 1931
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Lea-Francis 1½-litre supercharged special T.T. 2-seater	Sept. 1933
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M.G. Midget Jarvis 3-4-seater	Jan. 1931
M.G. Magna, 12 h.p., Abbey 4-seater	Feb. 1932
M.G. Magna, "L" 2-seater	Nov. 1933
M.G. Midget "P" 2-seater	Aug. 1934
M.G. Midget "J3" supercharged, 2-seater	May 1933
M.G. Midget 750 c.c. Montlhery supercharged 2-seater (1931)	May 1932
M.G. Six Mark I, saloon	Aug. 1930
M.G. Midget Double-Twelve racing 2-seater	June 1930 & Aug. 1930
M.G. Midget "J1" 850 c.c. 2-str.	Sept. 1932
M.G. Magnette "N" 4-seater	Feb. 1935
M.G. Midget "PB" 2-seater	April 1936
M.G. 14/40 4-cyl., 3-speed, 4-seater	Oct. 1925
M.G. Midget "T" 2-seater	Jan. 1937
M.G. 14/40 h.p., 4-cyl., super-sports, 2-seater	May 1927
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O.M. 6-cyl., 2-litre, 4-seater	Oct.-Nov. 1928
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RAILTON Terraplane 4-seater	Oct. 1934
Railton Light Sports tourer	Dec. 1935
Riley Nine "Gamecock" 2-seater	March 1932
Riley Nine "Monaco-Special," two-carb. saloon	March 1931
Riley Nine, 4-seater	June 1931
SINGER 1½-litre, 6-cyl., Le Mans 2-seater	March 1935
Singer Nine, 4-seater	March 1933
Squire 1½-litre, 4-cyl., 2-seater	Aug. 1935
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S.S. I coupe	June 1933
S.S. II coupe	May 1932
Steyr Type XII, 14.35 h.p., Wey-mann saloon	Aug.-Sept. 1928
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Stutz 5-litre, 8-cyl., 4-seater	Dec. 1927
Sunbeam 3-litre, 6-cyl. (twin o.h.c.) fabric saloon	Nov. 1927
Sunbeam 6-cyl., 21 h.p. (push-rod) Speed Six saloon	Dec. 1933
TALBOT "90" Brooklands-bodied 2-4-seater	April 1931
Talbot "105" sports saloon	April 1934
Talbot 3½-litre saloon	March 1936
Talbot Ten "Rally" 4-str.	Oct.-Nov. 1936
Talbot "105" Vanden Plas 4-str.	Nov. 1932
Talbot "90" 4-seater	Nov. 1930
Tatra 4-cyl., 1,154 c.c., coupe	Dec. 1932
Terraplane, 8-cyl., 29 h.p., 4-str.	July 1935
Triumph 2-litre "Vitesse Six" saloon	April 1935
Triumph 10 h.p. "Gloria Southern Cross" 2-seater	June 1935
Triumph 10 h.p. "Gloria" saloon	Jan. 1934
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Vauxhall 20/60 h.p. "Hurlingham" 2-seater	Feb. 1930
Vauxhall 17 h.p., 6-cyl., "Cadet" saloon	Sept. 1931
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WINDSOR 4-cyl., 11 h.p. "Special" 2-3-seater	Nov. 1926
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