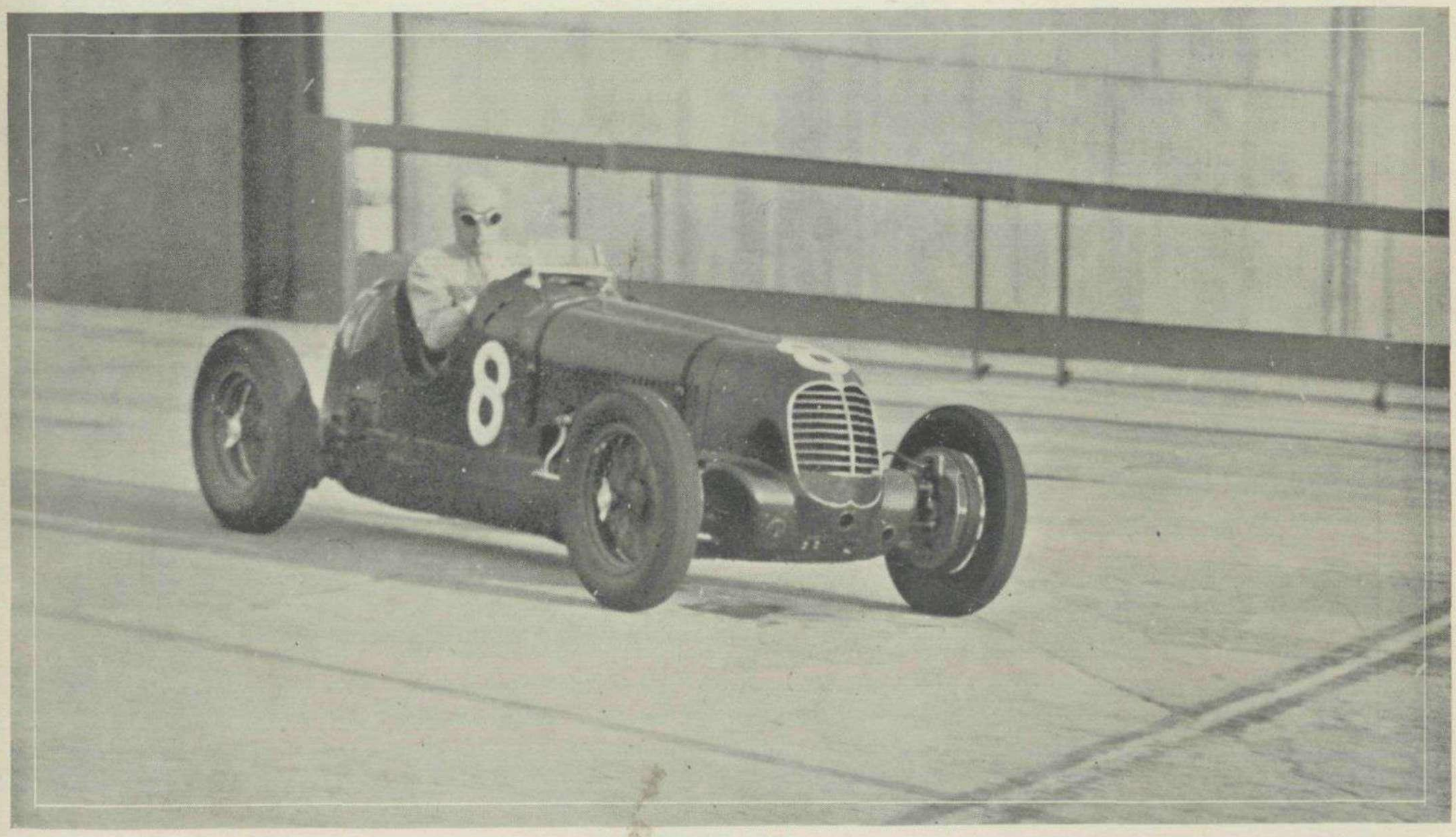
Vol. XIII. No. 12 **The French and English Motor Shows, and all the End of the Season's Events** *November, 1937*

MOTOR SPORT

LAND - AIR - WATER

SIXPENCE MONTHLY



The last meeting of the season—Count Trossi driving Rovere's 1½-litre Maserati. [*Motor Sport Photograph*

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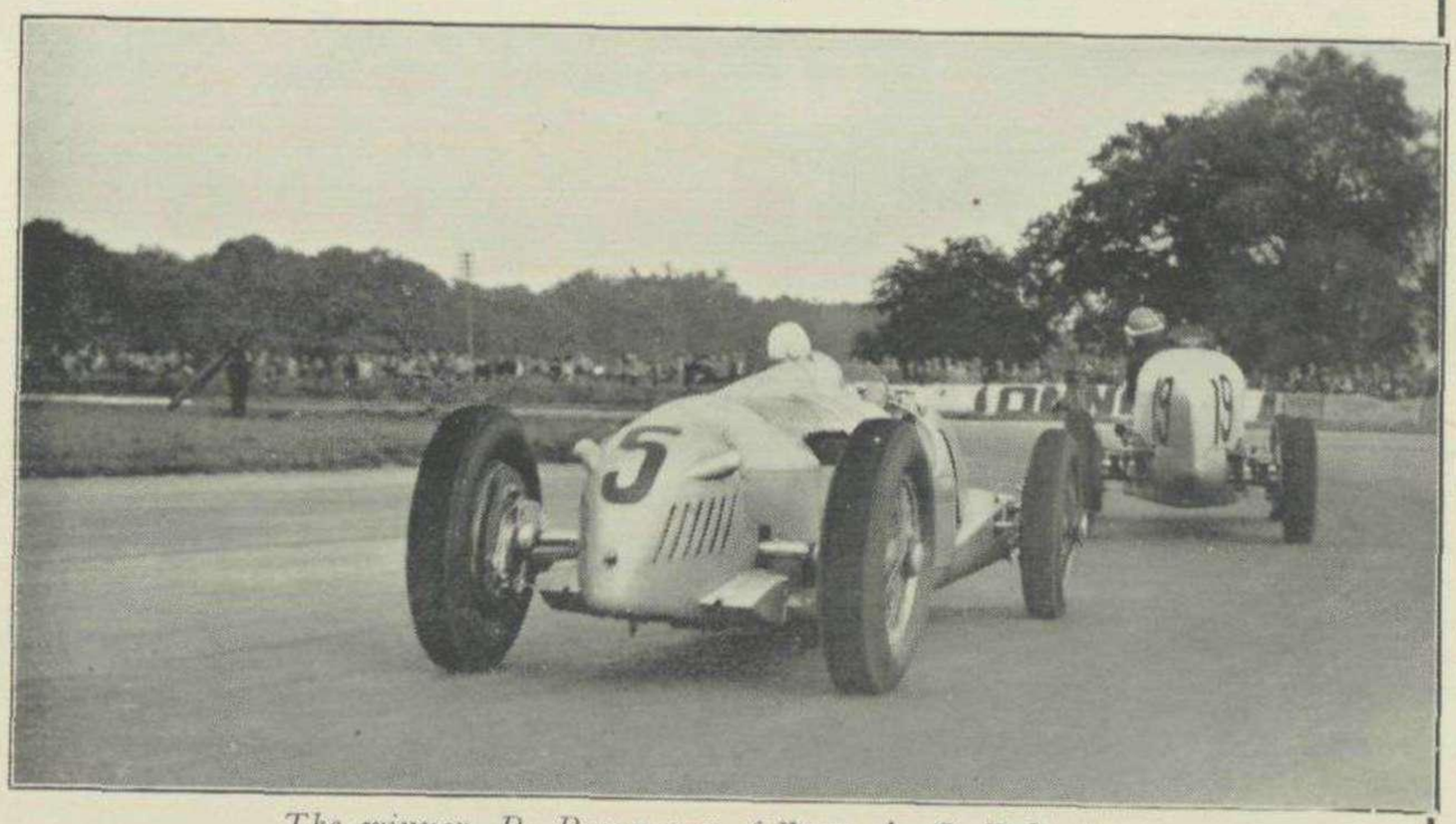
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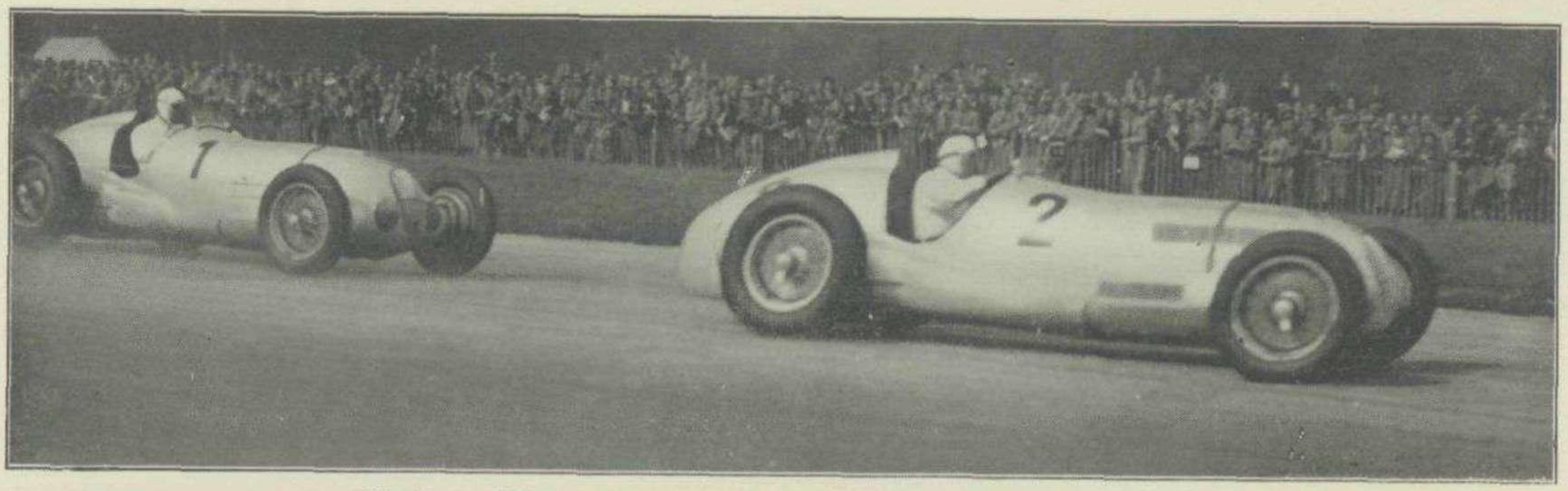
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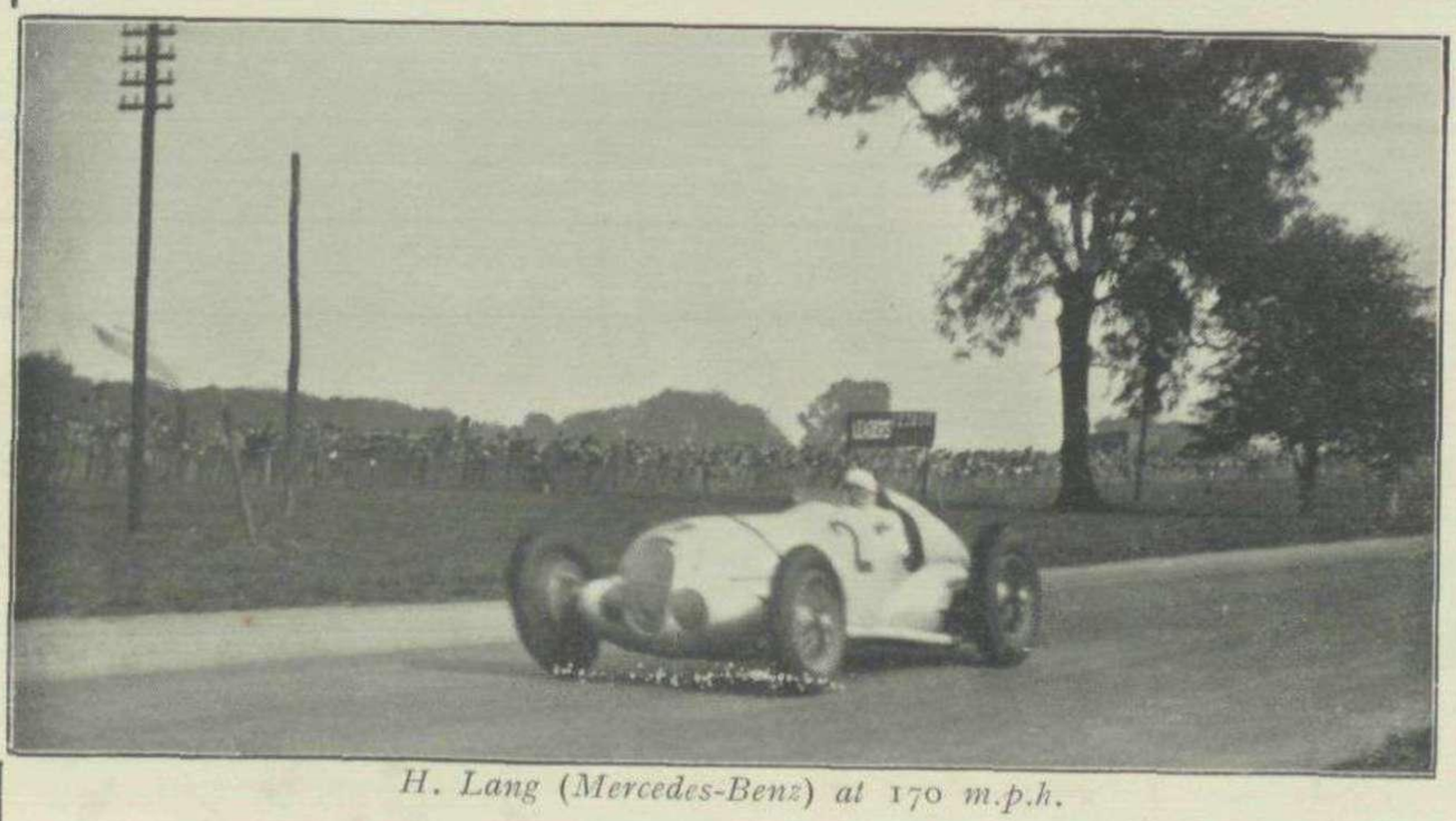
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ITEMS OF INTEREST

THAT MERCEDES-BENZ SUSPENSION

After writing the Afterthoughts about Donington we were able to glean some further information about the rear suspension of the G.P. Mercédès-Benz, on what we believe to be good authority. Apparently a light dummy-axle runs between the rear wheels, being bolted at each end to the brake back-plates and pivoting in the centre from a member protruding from the final-drive casing, which is carried on the frame. The driving half-shafts are universally jointed and the torsion bars run forward on each side. Thus the suspension is not independent, though some additional free movement possibly occurs as universally-jointed shafts take the drive. The layout combines the rigidity and freedom from roll of a conventional axle, without the weight of axle tubes and driving shaft bearings. A similar layout is used on the production model 5-litre Horch.

* * *

INVICTA C.C.

That bright publication "The Gauntlet" continues to come forth at frequent intervals, the October issue containing a long article by J. Reed on his lighting modifications. This is interesting reading and a valuable survey, but how does he find time to dim with the resistance while negotiating hump-back bridges—we usually come upon them very unexpectedly and need both hands for the tiller. L. Wills has had his 4½-litre's frame braced on the Reed-system.

The Club now has nearly fifty members, practically all Invicta owners—a very fine effort. They held a map reading contest and firework party on November 6th and are planning a winter rally in Wales for a January week-end. Hon. Sec.: D. Monro, "Windbrow," Winnington Road, N.2.

A TRIALS TEAM

Messrs. W. C. N. Norton, Derek Loader and Howard Copenhagen will run as a team in future trials, driving 1933 Ford V8 cabriolets fitted with 1937 engines. The cars will be yellow-hued and maintained by J. Eason-Gibson.

* * *

BROOKLANDS IN 1938

We now learn, after "Rumblings" closed for Press, that the B.A.R.C. will not hold the Campbell Trophy Race next year. The only long-distance events will be those held by other clubs, and will probably comprise the J.C.C. International Trophy Race and the B.R.D.C. "300." The Light Car Club has plans in the wind for a Six-Hour High Speed Trial for sports-cars. The B.A.R.C. will hold short races on its several circuits, of which those on the Campbell Trophy course should be very popular indeed. What particularly pleases us is that they have no intention of neglecting outer-circuit racing, so those who are thinking of developing interesting chassis for sheer speed-work can go right ahead. The J.C.C. and M.C.C. Members' Days will undoubtedly be held as before and the B.M.C.R.C. will be especially active.

* * *

E.R.A. CLUB

Another visit to the E.R.A. works at Bourne was arranged for November 7th, and the Annual Downstage Dinner will be eaten at the Victoria Grill on December 3rd. S. C. H. Davis has consented to take the chair and a film show will be given, including a film composed entirely of E.R.A. activities, not omitting "shots" of Club outings. This club is doing valuable work in fostering interest in racing and furthering a British racing policy.

Hon. Sec.: S. H. Green, 591, London Rd., Thornton Heath.

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THE NEW FORMULA

THE chief interest prevalent amongst followers of International Grands Prix concerns the new formula that will remain in force from 1938-40; what new cars it will originate and how it will govern the trend of design. As long ago as August, 1936, MOTOR SPORT discussed the possibilities of the Formula at some length, and that article might profitably be re-read at the present time. It was originally proposed that the new formula should come into force this year but the existing maximum-weight ruling remained for the 1937 season and we start racing under the new formula next season.

This new formula limits the capacity of supercharged cars to 3-litres and that of unsupercharged cars to 4½-litres, and it imposes a scale of minimum weights for various engine size classifications, as follows :—

Capacity	Blown Engine Minimum Weight	Unblown Engine Minimum Weight
666 c.c.	7¾ cwt.	—
1,000 c.c.	—	7¼ cwt.
1,500 c.c.	10½ cwt.	8⅞ cwt.
2,000 c.c.	11⅞ cwt.	9½ cwt.
2,500 c.c.	13⅛ cwt.	10¾ cwt.
3,000 c.c.	15⅜ cwt.	11¼ cwt.
4,000 c.c.	—	13⅝ cwt.
4,500 c.c.	—	15⅜ cwt.

These weights relate to cars without fuel, engine-oil and tyres. Whereas the existing formula, introduced with a view to reducing the maximum speeds of the cars, stipulated a *maximum* weight of 750 kg. (approximately 14¾ cwt.) for cars of any capacity, the new Formula involves a scale of *minimum* weights. Now the old ruling not only failed to reduce speed, but it did not, as we at first imagined it must, limit designers to engine capacities of around 3-litres and thereby encourage fast-revving engines blown at high pressures. Auto-Union contrive to install 6-litre, and Mercédès 5½-litre power-units and still get within the 750 kg. limit and naturally crankshaft speeds and blower boosts are limited automatically in very large engine sizes by reason of inertia stresses and heat-flow, apart from the desire to court complete reliability when some 400 to 500 b.h.p. is already realised, without going to extremes. Now the new formula imposes *minimum* weights, which is an attempt to prevent the construction of super-fast dangerously light cars, as well as to even things up amongst cars of varying engine capacity, but it also limits engine size. The Auto-Union, Mercédès-Benz, Alfa-Romeo, Maserati and Bugatti G.P. cars, built for 1934 to 1937 formula racing, are no longer eligible.

Had the existing formula merely been modified by substituting a minimum weight limit in place of the 750 kg. maximum, designers would almost certainly have made use of even larger engine sizes, and would not have made use of the extra weight "allowance" to use more rigid frames or better faired bodies, etc. (if there can be anything better streamlined than a G.P. Merc.). In this connection it will be recalled that last year Mercédès employed a 5.6-litre engine for record work, but could not at first get within the 750 kg. limit. If, on the other hand, engine size had been limited, but the 750 kg. ruling retained, valuable engine developments would have been encouraged, and experiments in weight reduction would probably have continued, but the cars would have tended to be as dangerous as before, because equivalent power/weight ratios would be realised. And although the road-holding of the present 750 kg. 5½ to 6-litre cars is so remarkable that the present G.P. cars are not, in fact, as dangerous as everyone feared at first, this happy state of affairs might not hold true of a 3-litre car, developing some 350 b.h.p. and weighing under 13 cwt. So, taken all round, the new formula seems a very Good Thing. Especially as engine design should benefit, as was the case under the 1½-litre capacity limit of a decade ago, in view of the sliding weight scale rendering it practically equivalent to a fixed capacity limit. Indeed, there will be more incentive to increase crankshaft speeds and improve volumetric efficiency under the new Formula than under one which specified a fixed capacity limit but allowed designers a free hand as regards minimum weights, because startling things can now be done as regards weight conservation, whereas highly-boosted or tuned engines are likely to be unreliable, so that engine development would tend to be superseded by weight cutting under such a ruling. That this question of reliability is not stressed too highly is indicated by the use of very big power-units, developing around 90 b.h.p. per litre, in existing cars, rather than the use of smaller, more efficient engines that would reduce the total weight appreciably below the 750 kg. limit for an equivalent power-output. Another way of looking at it is that Auto-Union and Mercédès-Benz are building unblown 4½-litre cars as well as blown 3-litre jobs for the new Formula contests, deeming the unblown cars to have certain advantages over certain circuits. The blown racing engine develops far and away so much more power than its unblown brethren that, even on courses with few bends and long straights, or, alternatively with corner following corner in such close succession that full acceleration could not be used, one would expect the blown motor to score heavily and to hold the fort, were it not for the reliability factor. In this argument the sliding weight scale does not enter, as 3-litre blown and 4½-litre unblown cars are allotted the same minimum weight of 15 cwt., and in neither case should the leading designers have the slightest difficulty in getting both types down to it.

In theory, at any rate, a ruling which allows 750 c.c. cars weighing 880 lb. to compete with 3-litre blown and 4½-litre unblown cars weighing 1,700 lb. should encourage designers to seek high outputs from all sizes of engines, which will mean high-pressure supercharging or high compression-ratios in unblown engines, and increased crankshaft peak speeds, while in the case of cars which are now below the set weight minimums, beneficial advantage will doubtless be taken of the opportunity to strengthen frames and suspension units, to completely fair off protuberances and, perhaps, to use bigger fuel tanks with a view to reducing the number of pit-stops in the course of a race—for the minimum limits take no heed of the weight of fuel carried, but petrol tank size does put up weight, even when forming part of the bodywork, and has in the past undoubtedly been limited in G.P. cars to get them within the 750 kg. limit (the Auto-Unions apparently fill tanks to a capacity of around 20 gallons, necessitating two stops in a 250 mile race)* and in 1½-litre cars to preserve a good power-weight ratio. There is, however, one curious aspect of the new formula. Whereas the 750 kg. maximum limitation resulted in remarkable weight paring to make cars eligible and was only possible for the leading racing-car constructors, who could afford to experiment with, and use, very expensive light alloys (remember the very big engines, the use of which might seem to contradict this statement, only came as knowledge of lightweight construction increased—14¾ cwt. *is* astonishingly light for even a 4-litre racing-car), the new sliding scale of minimum weights will, as we have just emphasised, give designers something to play with. But this only applies to the larger engined cars. Having built 5½ to 6-litre cars weighing under 14¾ cwt., Auto-Union and Mercédès, for instance, will not be embarrassed by making blown 3-litre and unblown 4½-litre cars turn the scrutineers' scales at 15⅜ cwt. Indeed, having done what they have with relatively huge power-units, they should be able happily to get unblown 4-litre cars within the 13⅝ cwt. limit or blown 2½-litres to turn the scales at the same figure, if so inclined. But when we come to the smaller engined cars the opposite rules. Although cars well outside the minimum limits will naturally be eligible to start, they will not draw more than starting-money, and probably not that for long, for they will be up against a weight maximum imposed not by the A.I.A.C.R. but by their rivals. So we shall have the curious state of affairs that while some constructors are *adding* weight, in a beneficial manner we hope, in order to comply with the Formula, other constructors will be fighting as hard as before the complex battle of weight-paring, that they may put up a show against rivals in the same capacity classes, or, indeed, in the races as a whole. Fortunately no one maker is likely to gain such a lead in this weight conservation as to be able to overlook the need to develop engine design as well. Fortunately again, small engines lend themselves better than large ones to high peak speeds and high-pressure boosting, which will even up to some extent these power-weight ratio discrepancies. But this is really where the 1938-40 Formula weakens, at all events in the eyes of impartial observers of design-progress as exemplified by G.P. racing and of those particularly associated with the smaller-engined cars, which include

*These are rough calculations based on the Donington G. P.

THE NEW FORMULA—continued

British constructors. In the first place, even if the specified minimums could be exactly realised all down the scale, the new Formula is not based on a "straight-line" graph. Thus, the 3-litre blown cars are allotted 850 kg. minimum, or a capacity/weight ratio of 3.53 c.c. per kg., whereas a 2-litre car is set 3.04 c.c. per kg. and a 1-litre, 2.15 c.c. per kg. While we do not entirely agree with Humphrey Cook's recent statement that it is easier to obtain b.h.p. from a large-bore engine than one with a small bore, certainly engines below 1½-litres, or, conversely, over 3½-litres, in our opinion, are hardly likely to be on level terms in respect of b.h.p. output per litre, with those coming within these limits, at all events for the first season to which the new Formula applies and applying this consideration especially to British cars. Consequently, it is apparent that the Formula does not treat various-sized cars on an equality, either in respect of power/weight ratio pure and simple or from the viewpoint of possible power output per litre allied to capacity/weight ratio. But things are even worse in practice, for so few cars are likely to get down even to the set minimums. As MOTOR SPORT pointed out in August 1936, neither the Austin Seven nor the then existing 1½-litre E.R.A.s came very near to the set minimums (the scale has been slightly modified since that article was written), weighing 1,092 lb. and 1,500 lb. respectively. The Maserati Six 1½-litre was appreciably nearer and we suggested at the time a four-cylinder engine as a modification to realise the rock-bottom minimum, which is now used. The 2-litre E.R.A., although handicapped, is in a promising position, and E.R.A. will race, but amongst blown cars the 3-litre class seems to have most advantage. Mercédès-Benz and Auto-Unions are preparing cars of this size, probably straight-eights, and Delage, Alfa, Bugatti and Fiat may follow suit. Also, we believe that E.R.A. Ltd. will make a brave stand with a 3-litre E.R.A., though we do not think a team of such cars will be raced during 1938. We agree with Mr. Cook that the 3-litre looks like being in an unassailable position, at all events for the first season, basing one's outlook on the fact that as engine outputs are at present, and having regard to the weight scale and difficulties of realising the minimums in the smaller classes, a 1-litre car would need to develop 64 per cent. b.h.p. per litre, a 1½-litre 32 per cent. b.h.p. per litre and a 2-litre 16 per cent. b.h.p. per litre above that of a blown 3-litre developing 300 b.h.p. (a not unattainable figure) to hope to start on an equality.

The 2.9-litre Alfa-Romeo is in a very enviable position, as the 1936 two-seater Mille Miglia cars actually came within the 750 kg. limit. So Kenneth Evans will be able adequately to represent Britain as a driver and we wonder if he will merely add ballast to comply with the new Formula. Staniland and Martin have 2.9 Alfas and Ashby's 3.2-litre Alfa-Romeo should liner down suitably if its owner contemplates racing abroad. Darracq is said to be building a blown sixteen-cylinder 3-litre, and the use of multi-cylinders implies our predicted rise in peak revs. and volumetric efficiency generally.

Coming to the unblown cars, Auto-Union are using rear-engined twenty-four-cylinder 4½-litres, according to rumour, on short, twisty courses, and Mercédès 12-cylinder, 4½-litre cars. Bugatti is developing his new straight-eight 4½-litre, Delahaye will run the recently-introduced 12-cyl 4½-litre, which took the big prize at Montlhèry road-circuit, and Darracq probably their sports-type 4-litre which won the T.T. Only on certain circuits would one expect present unblown cars to hold the blown jobs.

Experience in modern sports-car racing should enable 4½-litre unblown cars like Bugatti, Darracq and Delahaye to get down to their set minimums fairly easily and in some cases they may even be lighter than the 3-litre blown contingent by reason of not needing to carry so much fuel with which to run through a race or run until a routine stop. Our 4½-litre Bentleys and 4½-litre Lagondas are appreciably heavier, but a lot of weight could no doubt be pared.

There is another aspect in which the new Formula tends to handicap the smaller cars, and that is that bodywork size has to conform to measurements that represent building the car within a rectangle of 850 mm. x 250 mm. The result will be that the smaller car will have a frontal area of almost the same as that of the bigger cars, which will limit maximum speed and acceleration to high speeds and not assist the very vital weight-paring process. A pity the sliding scale was forgotten here. Bodies will be wider than hitherto, which should best suit the converted unblown sports-cars and Ettore Bugatti.

Finally, there is the aspect of speed reduction. Certainly the new Formula cars will be less spectacular to watch, even the best of the blown 3-litres, next year, but even so they will probably be giving off something like 460 to 480 b.h.p. quite soon, and possibly 600 b.h.p. eventually, which will go a long way towards washing out that extra cut of avoirdupois, as well as fostering engine efficiency in a commercially widely-used capacity division. The new Formula is not ideal, but it is very, very interesting.

ASHBY'S ALFA DEVELOPMENTS

When we visited A. F. Ashby to glean some information on the tuning of the Riley marque, we were invited to examine the 3.2-litre monoposto Dubonnet suspended Alfa-Romeo which Ashby acquired from the Scuderia Ferrari last year, taking delivery in time to record 3rd fastest time at Brighton at 76.27 m.p.h. It is fairly common knowledge that the Alfa-Romeo cylinder blocks have given considerable trouble—Shuttleworth, for one, admitted defeat in this respect—and Ashby's car had this bother in the Campbell Trophy Race this year. This was rectified, but a piece of broken valve guide had lodged beneath the retaining bolt of the blower-release valve, and when Ashby really opened out in practice on the Friday before the International Trophy Race it became dislodged and entered No. 3 cylinder with unhappy results. After this Ashby decided to entirely redesign the cylinder heads and blocks, using knowledge gained in the development of his "flat-iron" Riley Nine, the Alfa heads and valve layout being very similar to that of the Riley and the bore almost identical. As in the Riley experiments, Ashby bases his calculations largely on single-cylinder practice. We have seen drawings of the new head design, but naturally our lips are fairly fully-sealed. However, it may be disclosed that the new blocks (with fixed heads, as before) will be of iron and not light alloy and twenty modifications will be made in the head design alone. These include new shape ports, 14 mm., unmasked, newly-positioned plugs and very special attention to the water flow, which will have separate off-takes by each exhaust valve. The blocks will be attached to the crankcase by a new method. Special con-rods have been made, with stiffening ribs on the big-ends, in accordance with patents granted to Ashby in 1934. The blower pressure will remain at about 12 lb. per square inch, but a new system of distribution will be used, probably incorporating separate delivery branches. New pistons have been designed. Some mysteries in respect of lubrication have also come to light recently. Mr. Ashby does not hold much brief for the power-outputs commonly claimed for modern G.P. units,* and believes that his Alfa engine, before modification, only gave about 175 b.h.p., still a creditable output for so large a unit. He hopes eventually to release 300 b.h.p. After modification the engine will be of 3-litres capacity, to comply with the new Formula, with which Ashby is in favour. Asking how he would use the additional weight allowance we were interested to learn that the Alfa already weighed over 15 cwt. when delivered, although built to comply with the 1934-7 Formula. Ashby finds the Dubonnet independent front suspension of great value. He contemplates racing at Brooklands and Donington next year, but we gather he has little use for the Crystal Palace circuit.

* A view also held by S. E. Cummings, see MOTOR SPORT, January 1937.

OUT LIKE A LION

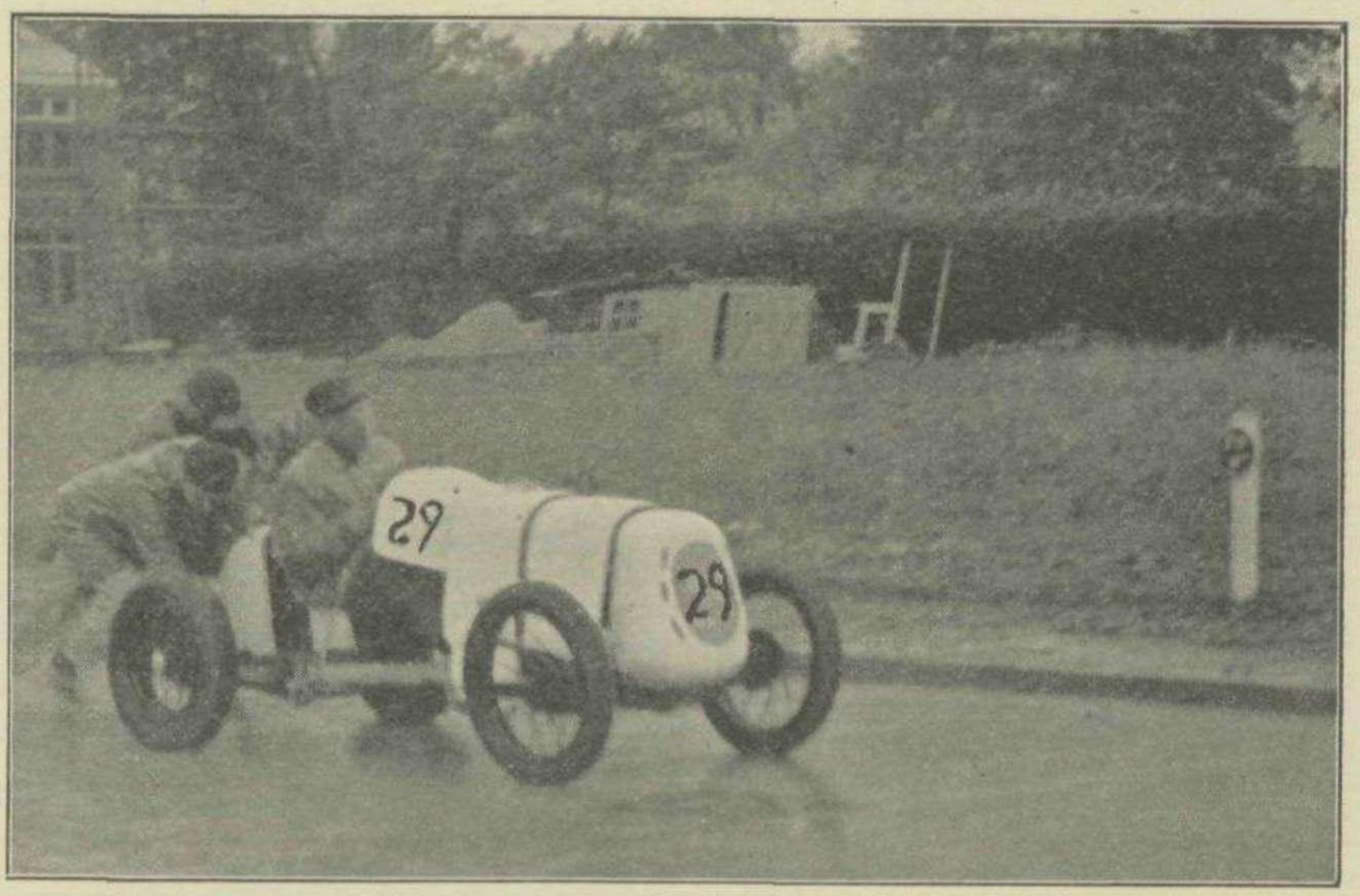
APPALLING WEATHER CONDITIONS AT SOUTHSEA SPEED TRIALS, WHICH CONCLUDED THE 1937 SPEED SEASON. FASTEST TIME BY ARTHUR BARON (2.3 BUGATTI)

The 1937 season of speed events went out like a lion on October 23rd, when a gale and torrential rain swept the exposed field in which was situated the course used by the Southsea M.C. for their postponed speed trials. Nevertheless, in spite of these highly unpleasant conditions the meeting was started at 1 p.m. instead of 2 p.m. and run through to schedule, without accident, by 5 p.m. Much of the credit for the organisation goes to D. P. Kirkman, a member of the Southsea and Vintage Clubs and owner of a cut-down, single-carburetter 12/50 Alvis, who worked very hard to make a success of the event.

Last year's course was not available, nor did the local town council offer big money prizes this time. The course, as has frequently been the case since the use of public roads was wisely banned in 1924, was of "circus-like" aspect, the straights being too short and the bends too acute to provide a real test of car-performance and driving skill. To purists like ourselves this seemed sad, but there is no denying that a deal of fun is to be had from these smaller meetings, which is why events like gymkhanas and treasure-hunts continue to flourish. And drivers definitely liked the Southsea course. Timing was by hand (stop watch) and the broadcasting rather inadequate, but typed results sheets were issued to competitors at frequent intervals and the sliminess of the competitor's paddock was manfully overcome.

Fastest time of the day went to Arthur Baron with the ex-Howe 2.3 G.P. Bugatti, beautifully stark in unpainted condition, though it will soon be repainted. It now has a Wilson gearbox. Baron got wheel-spin everywhere, but displayed fine acceleration down the 200 yard straight, visibility hampered by water-spray, and took the bends cautiously, clocking 49.5 secs. John Bolster put up a wonderful display, making a policeman hop at the first corner, and snaking furiously to the finish, where "Mary's" throttles stuck open and she only just pulled up in time, burning out the clutch in the process. Result: second fastest time in 51.3 secs.

Third fastest time went to P. R. Monkhouse in a T.T. M.G. Magnette, who arrived late in the afternoon and did a useful run in 51.7 secs. Hunter's Type 328 Frazer-Nash-B.M.W., much admired, clocked 52.2 secs., and Clive Windsor-Richards's 30/98 Vauxhall, with subdued exhaust note, 53.6 secs. Mud on the course rendered the corners extremely hectic and the first nine drivers either turned round, swung into the barriers, or ran out of the road at the first corner. Rogers controlled his Montlhèry M.G. well, the driver of an S.S. 100, which had real Jaguar-skin upholstery, Gordon Brettell's famous Austin Seven, and a number of M.G.s being equally good. Wilkes turned his G.N. round twice, Poore spoilt a very good run with his blown M.G. in the same way, and Sumner used the escape road on his first run with the Sumner-J.A.P. Peter Clark turned three-quarters round at the fatal first bend, driving Marcus Chambers's single-seater Austin, but went decidedly better with his own H.R.G. Miss Redfern drove her H.R.G. very well indeed, sending the revs. up to the sky on the indirects, and between runs sheltered beneath an umbrella, which many envied her. Burness drove the 2-litre G.P. Sunbeam and several interesting motors were competing, including some comic, cut-down 12-50 Alvis and a Riley with a Triumph Super Seven body. An Aston-Martin lacked acceleration but Bagratouni's blown Alfa-Romeo was much admired. Several people seemed to forget to pump up adequate pressure, not surprising as they were soaked to the skin and frozen, and the day went to those who treated the bends with great respect, as instanced by Baron, Bolster, and Brettell, the last-named carefully blipping the Austin round. We believe this little car is now for sale. Quite a number of spectators turned up and bravely withstood the elements. The Southsea M.C. deserve congratulations for staging a very good event. Unfortunately the road is on a building estate and is unlikely to be available next season. We believe that gate-money went to charity. Two of the three policemen present were sufficiently undamped to ask for results at the conclusion (we are investing in police capes and helmets for the coming winter trials season!).



Peter Clark finds many helpers in spite of the wet.

PROVISIONAL RESULTS

Fastest Time of Day: A. Baron (2,300 c.c. Bugatti, S.), 49.5s.

Fastest Sports-car: P. R. Monkhouse (1,430 c.c. M.G.), 51.7s.

Fastest Southsea Member: M. W. Sheppard (1,292 c.c. M.G.), 55.3s.

Sports-Cars

Up to 850 c.c. Unsupercharged: A. G. Sanderson (M.G.), 59.3s.

Up to 1,100 c.c. unsupercharged and 850 c.c. supercharged: B. Rogers (747 c.c. M.G., S.), 54.6s.

Up to 1,500 c.c. and 1,100 c.c. S.: P. R. Monkhouse (1,430 c.c. M.G.), 51.7s.

Up to 3,000 c.c. and 1,500 c.c. S.: P. R. Monkhouse (1,430 c.c. M.G.), 51.7s.

Unlimited: P. R. Monkhouse (1,430 c.c. M.G.), 51.7s.

Racing-Cars

Up to 850 c.c.: M. Chambers (Austin), 58.2s.

Up to 1,100 c.c. and 850 c.c. S.: B. Rogers (747 c.c. M.G.), 54.6s.

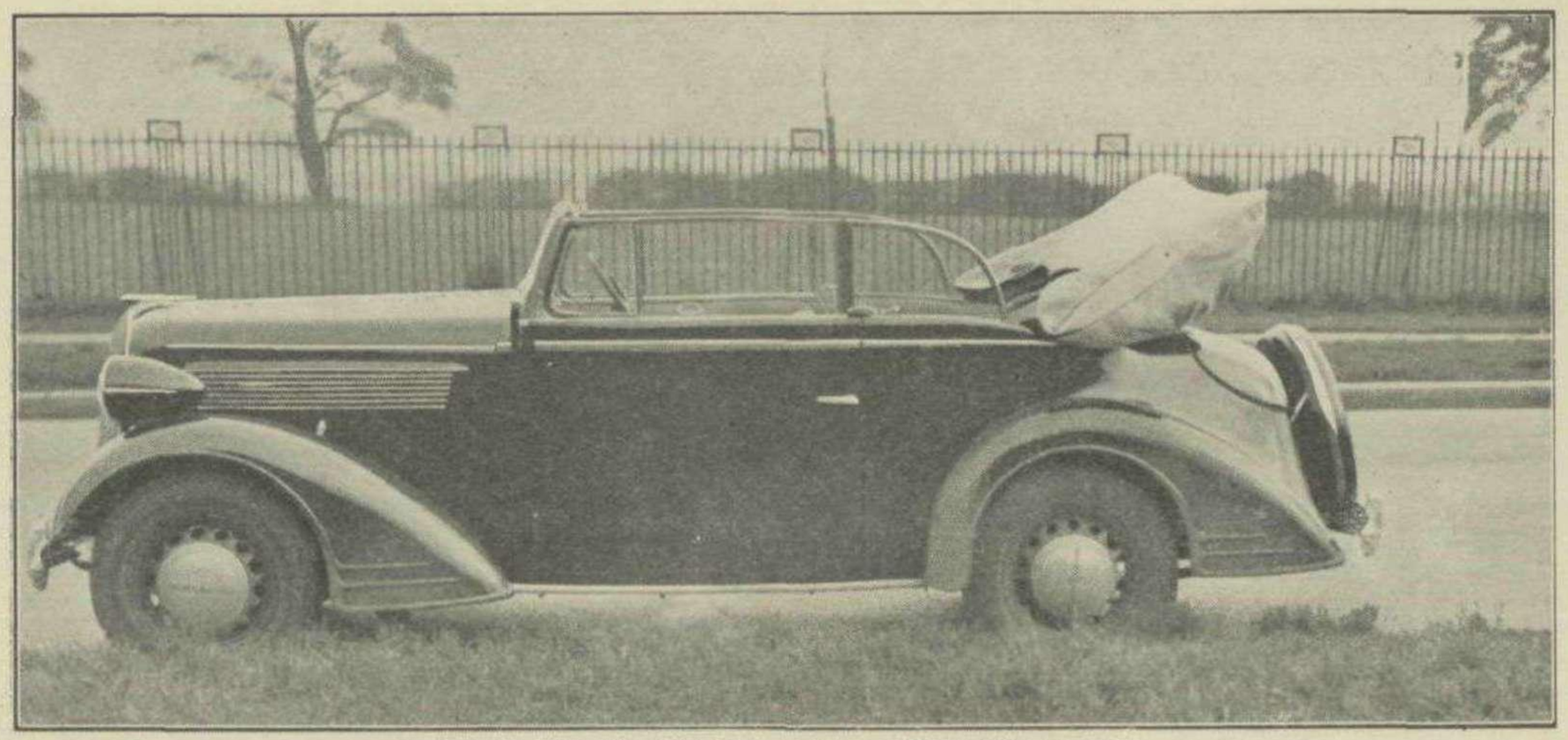
Up to 1,500 c.c. and 1,100 c.c. S.: B. Rogers (747 c.c. M.G.), 54.6s.

Up to 3,000 c.c. and 1,500 c.c. S.: J. Bolster (1,992 c.c. Special), 51.3s.

Unlimited: A. Baron (2,300 c.c. Bugatti, S.), 49.5s.

LOTS FOR LITTLE—continued from page 456

by single clips each side, which are a trifle stiff to release. Externally the Opel has a clean, dignified and pleasantly unadorned appearance and it keeps very clean. Oil-pressure is indicated in numerals and not by a definite number of pounds, and remains steady. The speedometer is calibrated in m.p.h. and has a total mileage recorder but no trip, and the fuel gauge registers accurately in quarter, half, three-quarter and intermediate tank contents. In conclusion, this Opel is a welcome newcomer to the ranks of medium-sized high-performance cars of essentially modern conception. It can hold its own with far larger cars in respect of point-to-point average speed, it is at all times productive of a feeling of security and controllability and it has outstanding braking and suspension. And its accommodation and the quality of its interior appointments prompted the title of this test-report, for definitely the 2½-litre Opel Drophead Foursome is very good value at £265 and very attractive from its open or closed car dual characteristics alone, apart from high-spots already mentioned.



The 2½-litre drophead foursome which sells at £265.

LOTS FOR LITTLE

THE 2½-LITRE OPEL CREATES A GOOD IMPRESSION

THE Opel, German-built and introduced to this country by the great General Motors Corporation, is creating great interest just now amongst prospective purchasers of well-finished, comprehensively equipped cars of good performance. We recently tested the 2½-litre during a long week-end and were very favourably impressed. The 2½-litre Super Six is the o.h.v. model of the Opel range, and with an £18 tax engine developing 60 b.h.p. at 3,600 r.p.m. and a weight of 23 cwt. it is naturally an excellent performer. Right at the outset it appeals as belonging to that excellent modern family of cars which are restful to drive, extremely lively and essentially controllable. A driver strange to the car takes his seat, which is very comfortable, yet high set and close to the wheel without need for microscopic adjustments to accommodate individuals of differing body measurements, and at once he commences to swing through traffic with complete confidence. Visibility is excellent, as although only the near-side lamp is visible, this seems ample means by which to judge the car's width, possibly because the wings do not project very far beyond it. The pick-up, after momentary hesitation from a crawl, is extremely good and there is definite "bite" at over 20 m.p.h. in top gear, the brakes are immensely powerful and sensitive, and the steering permits of accurate negotiation of difficult traffic obstructions, so that the Opel has a pleasing sense of being "accident-proof" and tireless to handle, even to a novice driver in a considerable hurry. A little more acquaintance with the car and you realise how very silently this Foursome Drophead Coupé functions. The engine is unobtrusive, so that at idling speeds it is difficult to tell if it is running, by ear alone, and it makes very little fuss when working hard. The bodywork is not prone to undue storm-noise, and apart from a slight rattle in the region of the facia and an occasional drumming by the off-side door towards the conclusion of the test, it was commendably silent. The doors shut firmly, the windows are taut and wind up and down nicely and the generous build of the seats creates a worth-while air of real quality and the leather upholstery is particularly noteworthy in this respect. We encountered truly terrible weather conditions and can vouch for the rain-proof qualities of this drophead coupé, while the ventilation arrangements are admirable, only occasional trace of fumes being noticeable, and then only momentarily and accounted for by the newness of the car. This Opel, then, is well finished internally and contrives to function in a very lively manner with no display of effort, concealing very effectively that it may be bought for as small an outlay as £265. In town-driving only the patter of the wheels over surface irregularities intrude during 90 per cent. of the running. The suspension is definitely of the soft variety, giving a very high degree of comfort over the worst surfaces. Indeed, no real shocks ever reached the occupants, even when driving quite rapidly over kerbs while manœuvring, and the worst that occurs is some throw-up motion. Yet, in spite of this supple suspension, road-holding is entirely adequate. Some roll takes place when cornering fast but the car as a whole merely leans over rather than rolls outwards, and tail slides can only be provoked by injudicious cornering on wet surfaces and even then only need about a quarter-turn of correction on the low-geared steering. Wet tram-lines give rise to minor deviations of no real consequence and there was a slight tendency to slide at the front, cornering abnormally fast at considerable lock on a sodden surface. At full lock, particularly to the right, a curious action seems to occur in the front suspension, but the lock is so generous that this is only encountered at low speeds in extreme manœuvring. Generally it is very good suspension of a well-balanced kind and the Dubonnet independent system at the front is well worth having. The steering is fairly light and would probably get lighter with additional use. We found it rather too low-geared for our personal requirements, approximately three and a quarter turns being needed, lock to lock, which, in conjunction with some lost motion and a rather big wheel, called for considerable arm-work in fast negotiation of congested areas. However, the control is decisive and one grows accustomed to working at the tiller in traffic. There is no real castor action, a feature of the Opel "Cadet," so that the car has to be continually directed, though the wheel can be spun back rapidly after a corner. No return motion is conveyed through the wheel, but on ripply surfaces some vibratory movement is transmitted from the facia board to which the column is attached. The clutch is a trifle fierce, biting only at the end of a fairly considerable pedal-movement and some care is necessary to avoid starting jerkily, particularly as the engine hesitates momentarily from low revolutions and is so quiet that its speed is difficult to access. This applies rather to acceleration from a crawl after disengaging the clutch to change down, rather than to starting from rest. The pedal action is extremely light and the engagement positive. Flexible mountings are responsible for a sense of vagueness about clutch engagement in many

BRIEF SPECIFICATION

Engine : 6 cylinders, 80×82 mm. (2,473 c.c.) 24 h.p. Tax £18. 60 b.h.p. at 3,600 r.p.m. Push-rod o.h.v. Bosch coil ignition, automatically controlled. Pump cooling, thermostatically controlled. Four-bearing crankshaft.
Gearbox : Three speed and reverse. Synchromesh and helical silent gears. Central lever. Ratios, 12.64, 7.13 and 4.3 to 1. Reverse 16.25 to 1.
Suspension : Independent at front on Dubonnet system. Half-elliptic at rear with stabiliser bar. Hydraulic shock-absorbers.
Brakes : Hydraulic on all wheels. Hand lever actuates mechanically on rear wheels. Drum diameter 9 1/8". Area 113.6 square inches.
Fuel Range : 8¾ gallons. Approximately 180 miles.
Dimensions : Wheelbase 8' 8".
Track 4' 1⅛".
Turning circle 37' 4".
Ground clearance 7⅞".
Weight (unladen) approximately 1 ton 3 cwt.
Price : Drophead Foursome two-door coupe : **£265.**
Agents : General Motors, Ltd., 3, St. James's Square, London, S.W.1.

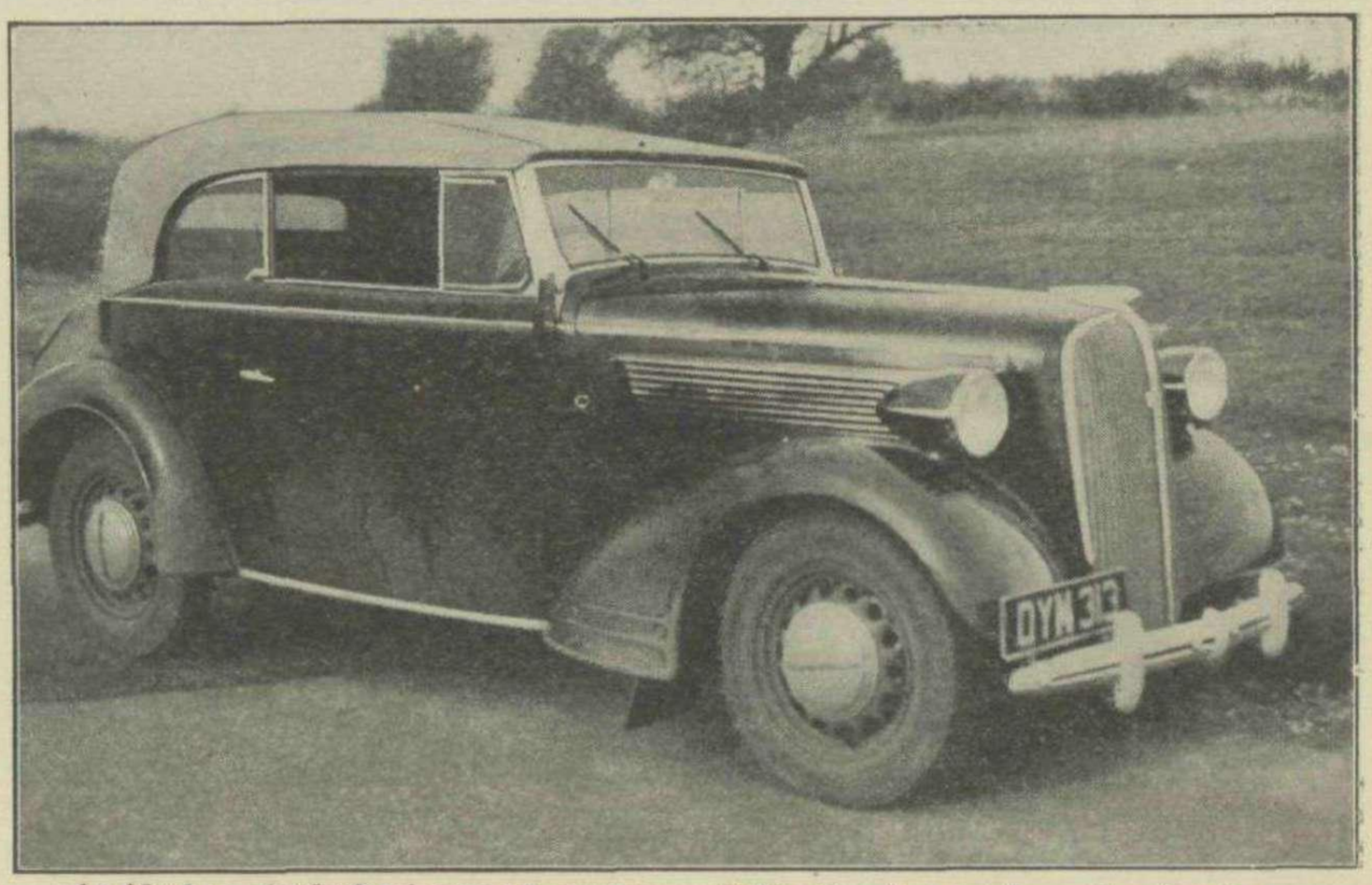
LOTS FOR LITTLE—continued

modern cars. The three-speed gearbox possesses excellent synchro-mesh that can be operated really rapidly. On the car tested the lever was rather stiff to move in second and top positions doubtless due to the small mileage run, which was under 4,500. It is centrally placed and comes almost up to the wheel, but is nevertheless quite rigid. Double-declutching could be satisfactorily employed, though at low speeds it was hampered by pick-up hesitation. Towards the end of the test the engine stalled repeatedly in traffic and the clutch did not appear to disengage fully, so adjustments were probably due which would overcome this difficulty. First and second gears hummed slightly in spite of helically-toothed gears, but the sound was not unpleasant. Gear positions are normal.

The brakes are most commendable in every way. They are extremely powerful, pulling the car up smoothly, in a manner that gives vast reassurance to a nervous driver or passengers, and they do their work in complete silence. Moreover, the pedal pressure could not be lighter, yet the action is truly progressive, controlled not only by the pressure applied but by the extent to which the pedal actuating the hydraulic system is depressed. An emergency pull-up on sodden Brooklands concrete resulted in very slight deviation from the straight and no sign of wheel-locking, nor did the car's nose bow excessively. Another stop, from 30 m.p.h., using only moderate pressure on the pedal, was accomplished in approximately 40 feet, on the same unsuitable surface. The hand brake is in the form of a trigger on the right-hand side of the facia. Its grip and ratchet action are good, but it is necessary to stoop to make certain it is fully disengaged, as one's reach is hampered by the rim of the steering-wheel. It operates mechanically on the rear wheels and is a parking brake pure and simple. On the other hand it does hold the car securely on hills and releases to permit clean restarts, which so many parking brakes do not, and hand-brakes are still used frequently in traffic driving by 99.9 per cent. of drivers (the .1 per cent. is skilled enough to operate foot-brake and accelerator with one foot and uses cars in which the pedal spacing makes this manipulation possible). The Opel system is probably amongst the best of the modern trigger hand-brakes, but we are not yet used to having this major control so tucked away.

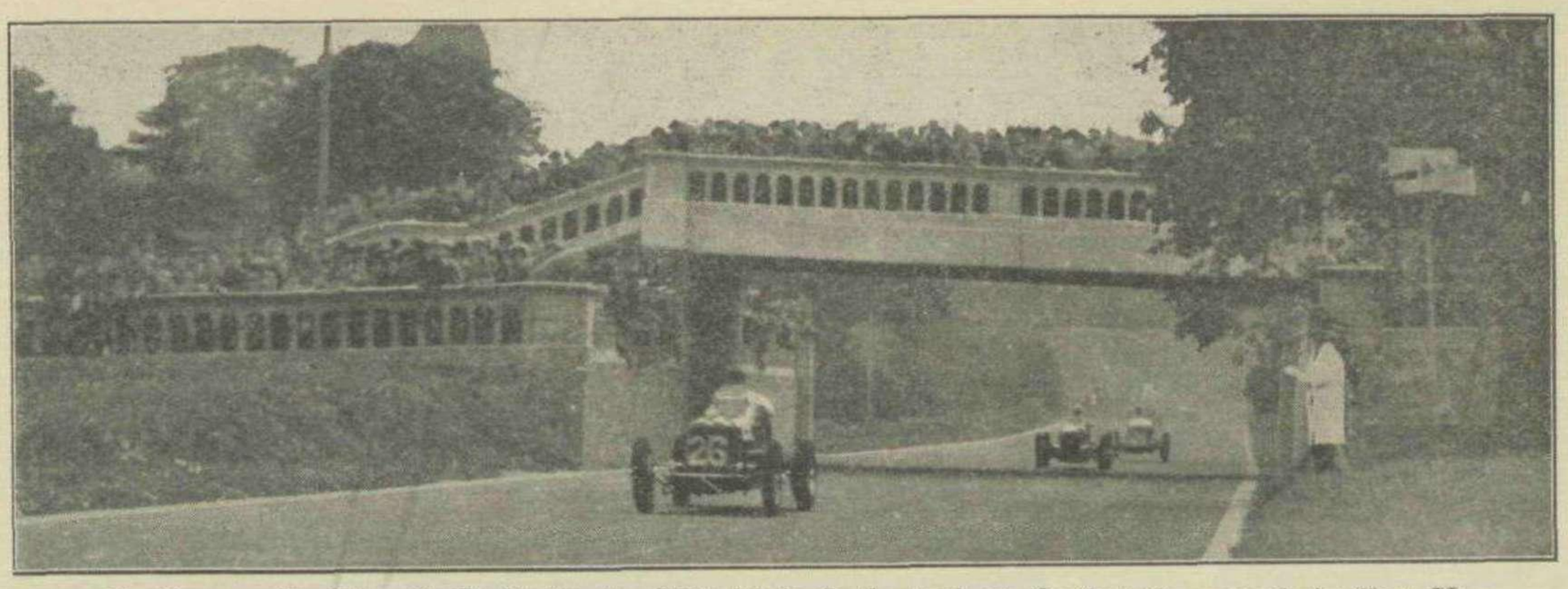
On the concluding day of the test we visited a fog-bound rain-drenched Brooklands. No acceleration figures or timed tests were taken, partly because so many masses of figures relating to utility cars appear in the weekly motoring press that we hesitate to further confuse the ordinary purchaser, and partly because weather-conditions were so unfair. Without working up speed on preliminary laps the Opel held 69 to 70 m.p.h. on its speedometer down the Railway Straight and round the Byfleet Banking and about 60 to 65 m.p.h. up the hill to the Members' Banking. In fairness to the maker's claim of 80 m.p.h. we are informed that the speedometers read slightly slow on account of larger size tyres being fitted than was originally planned and we confess we did not check the instrument. This high-speed work seemed to worry the car not at all. The suspension behaved in a most praiseworthy manner and we have never lapped Brooklands in greater comfort. Over the roughest going the frontworks ride steadily, the lamps moving only very slightly, and the bonnet-top rippling without giving rise to any drumming. On first gear the maximum, by speedometer, was 25 m.p.h., and on third 45 m.p.h., At these speeds the engine is a little obtrusive and normally changes would be made at 15 to 20 m.p.h., and 30 to 35 m.p.h. respectively. In top gear it was possible to run at literally 1 m.p.h., per speedometer, and to get away quite smoothly, the acceleration beginning in earnest from 15 to 20 m.p.h. It is possible to start in top and normal to do so in second, if so disposed, on level roads. The acceleration is of a very high order for a car of this size and assists materially in happy negotiation of straggly traffic on our beautiful by-pass roadways. From Brooklands the writer drove to his home in thirty-five minutes without really hurrying and under adverse weather and traffic conditions. This run embraces very twisty, restricted country roads, the Kingston By-pass, a large town and several miles of tram-lined main high-streets, and forty-five minutes is considered the usual time for a fast car. To average 33 m.p.h. indicates how this Opel will eat the miles in long-distance main-road going.

The driving position is excellent, and the seats very comfortable. The pedals are close but well spaced and there is never any danger of operating the throttle while braking. The treadle-accelerator has a fairly strong spring. There seemed a tendency to sluggishness on the over-run on the indirects, but this may have been accentuated by the heavy condition of the roads. There was some slack in the transmission. The facia carries, from left to right : a big cubby hole with useful, locking lid, with inset clock, direction indicator switch, lamp switch, 100 m.p.h. speedometer, combined oil-pressure and fuel gauge, indicator warning light. The dynamo-charge lamp shines from behind the facia onto the floor. The horn button is in the wheel centre ; starting and dimming switches on the floor. The ignition lock is carried on the steering column and incorporates a steering-lock. To start, the throttle pedal has to be fully depressed while the starter switch is used. Our objection to this system lies in the fact that both feet are needed, so that on a hill the car must be held on the hand-brake, while an "L" driver sometimes likes to disengage the clutch while using the starter, to obviate disengaging a gear. There is no starting handle. To an experienced driver those are minor points. The direction indicator and lamp switches are of identical pattern and close-set, which is confusing on first acquaintance, as one frequently extinguishes the lights, intending to cancel the indicators, or signals a right-hand turn by putting on the headlamps! The Bosch lighting is admirable and the mechanically-driven screen-wipers are fully up to their work. The wide rear window permits of an excellent view in the central, oval mirror, if the driver stoops slightly. We have commented upon the high quality of the leather interior upholstery, and the imitation-polished wood facia and ivory minor controls and gear-lever knob blend well and impart a sense of the quality German production. The rear seat has a useful central armrest and push-in ash-trays. Entry and exit is easy, as the floor is very low, running-boards being dispensed with. The backs of the front seats fold forward, that of the passenger's seat tending to do so automatically under heavy braking. Care must be taken not to foul the pavement when opening the doors on a cambered road. Ventilation half-windows are fitted and the doors have small metal "pulls," and big pockets. The bonnet is held effectively



An ideal car for both winter and summer. Notice the absence of running boards on the 2½-litre Opel.

Continued on page 454



On Terrace Straight. C. E. C. Martin (E.R.A.) leads the pack on the first time round, in Heat II of the Imperial Trophy.

"BIRA" MAKES HIS BOW

VICTORY IN IMPERIAL TROPHY RACE AT THE CRYSTAL PALACE WITH HIS E.R.A. THE LAP RECORD SET TO 58.63 M.P.H. BY ARTHUR DOBSON (E.R.A.). EXTREMELY CLOSE FINISH.

THE last meeting of the season at the Crystal Palace had a hang-over, as it were, of the glamour of Donington the previous Saturday, because Dick Seaman was to do an exhibition run with a Grand Prix Mercédès-Benz and the Road Racing Club had contrived to obtain the entries of Count Trossi, Count Lurani and L. Villoresi, of the Scuderia Ambrosiana, with Maseratis. Actually, we expected Villoresi to drive in place of Lurani, but all three Italian drivers came, bringing the cars in O.M. vans, Trossi driving a four-cylinder, Lurani a four-cylinder with quarter-elliptic rear suspension, and Villoresi a "six," similar to those which Austin Dobson introduced to these shores. Some 25,000 to 30,000 spectators duly attended. "Bira" and Mays were expected to have a great tussle for the closing points for the B.R.D.C. Gold Star, but very unfortunately Raymond's 1,100 c.c. E.R.A. blew up in practice on the Thursday. On that day one of the Italian Maseratis seemed to worry Lurani, while the very cheery and clown-like head mechanic provided a great turn attempting to start his refractory Hillman Minx. Dick Nash only put in a few laps with the Frazer-Nash-Union Special, while Trossi seemed as fast as Arthur Dobson. Seaman was out with the "Merc." but was not opening up, though getting plenty of wheel-spin, the little Austin all but holding him. Afterwards he was photographed in the car alongside the Hon. Mitchell Thomson's 1903 Sixty Mercédès.

To return to race-day, the first heat was ten laps, or twenty miles, with the class system of handicap. Hadley led away in the Austin but had plug trouble and retired after one lap, while Brooke's M.G.-Riley was running badly. Maclure's unblown 2-litre Riley Six then led, followed by Sinclair's Alta that led lap 2, Lurani's Maserati, Dobson's E.R.A. and Whitehead's E.R.A. Maclure drove magnificently and actually broke "Bira's" lap record, establishing a new record at 56.47 m.p.h. There was then no catching Maclure, who started rather better than Dobson, though the latter's old, white E.R.A. ran the Riley close and set the lap record to 58.63 m.p.h. Lurani's Maserati, definitely too low-geared for

RESULTS
IMPERIAL TROPHY FINAL

Handicap : 1,100 c.c., 15s. start; 1,500 c.c., 8s. start; unlimited, scratch.

1. "B. Bira" (1,500 c.c. E.R.A.), 31m. 58.5s. 57.80 m.p.h.
2. A. C. Dobson (1,500 c.c. E.R.A.), 31m. 58.8s. 57.79 m.p.h.
3. C. L. Goodacre (744 c.c. Austin), 32m. 42.3s. 55.04 m.p.h.
4. L. Villoresi (1,500 c.c. Maserati), 32m. 56s. 56.07 m.p.h.
5. Count G. Lurani (1,500 c.c. Maserati), 33m. 8.9s. 55.7 m.p.h.
6. P. Maclure (2,004 c.c. Riley U/S); 7, R. Hanson (1,500 c.c. Maserati); 8, J. H. T. Smith (1,087 c.c. M.G.); 9, A. B. Hyde (2.9 Maserati); 10, H. Stuart Wilton (747 c.c. M.G.).

R. A. Jarvis Trophy for Fastest Lap : A. C. Dobson (E.R.A.), 2m. 2.8s. 58.63 m.p.h. (record lap).

HEAT 1 (10 laps)

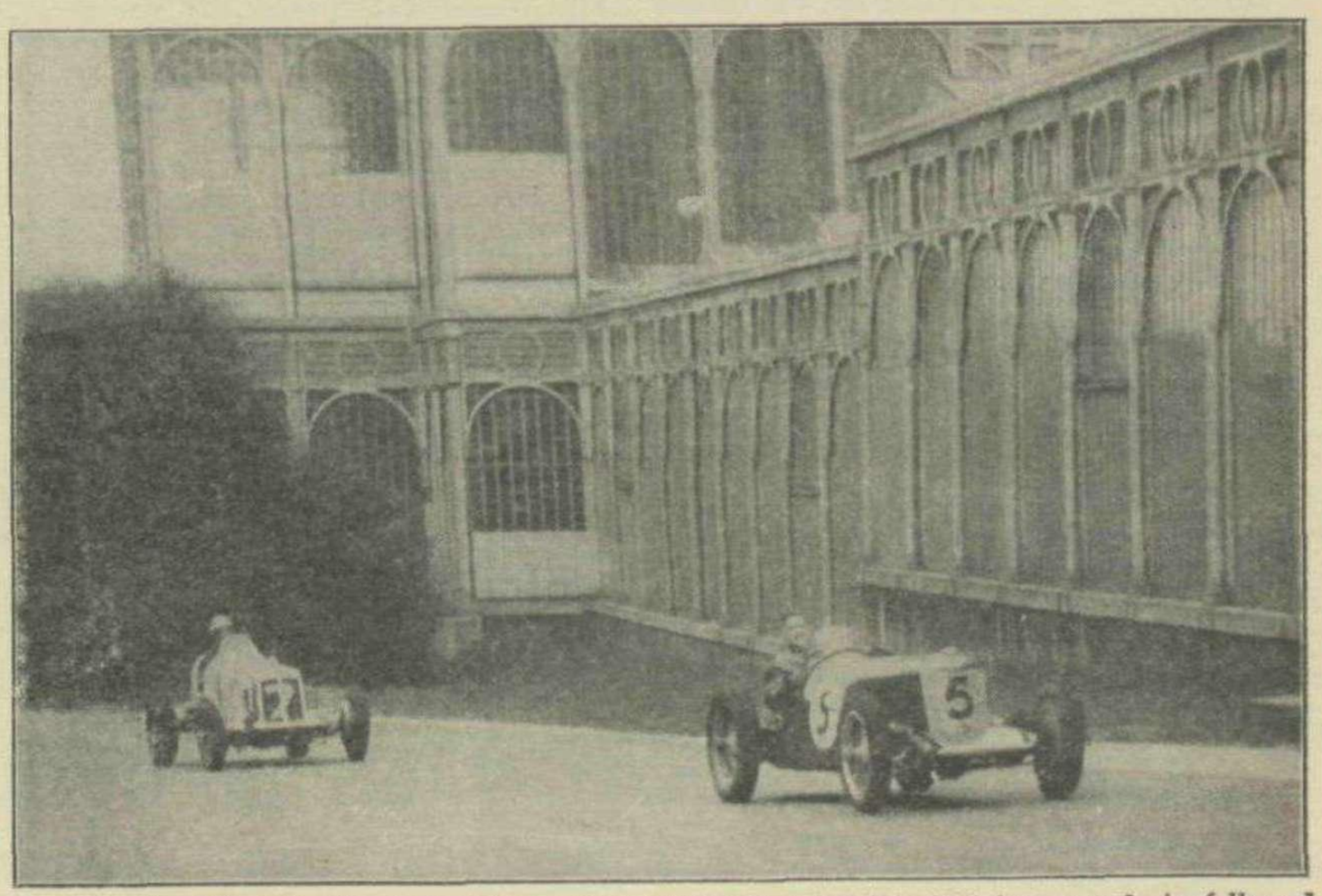
Handicap : 1,100 c.c., 50s. start; 1,500 c.c., 10s. start; unlimited, scratch.

1. P. Maclure (2-litre Riley U/S), 21m. 52.4s. 56.59 m.p.h.
2. A. C. Dobson (E.R.A.), 21m. 53.1s. 56.55 m.p.h.
3. Count Lurani (Maserati), 22m. 27.8s. 55.05 m.p.h.
4. P. N. Whitehead (E.R.A.), 22m. 41.8s. 54.47 m.p.h.
5. R. Hanson (Maserati), 23m. 9.3s. 53.36 m.p.h.
6. L. Villoresi (Maserati).

HEAT II

10 Laps. Handicap as for Heat 1

1. Count Trossi (1,500 c.c. Maserati), 21m. 37.9s. 57.24 m.p.h.
2. C. E. C. Martin (E.R.A.), 21m. 40.4s. 57.12 m.p.h.
3. "B. Bira" (E.R.A.), 21m. 41.8s. 57.06 m.p.h.
4. C. L. Goodacre (Austin), 21m. 46.3s. 55.12 m.p.h.
5. Hon. Peter Aitken (Maserati), 22m. 45.1s. 54.34 m.p.h.
6. A. B. Hyde (Maserati); 7, J. H. T. Smith (M.G. Magnette); 8, H. Stuart Wilton (M.G. Midget).



P. Maclure (Riley), who drove like one inspired to break "Bira's" lap record, is followed by A. C. Dobson (E.R.A.) The Riley was the only unblown car in the race.

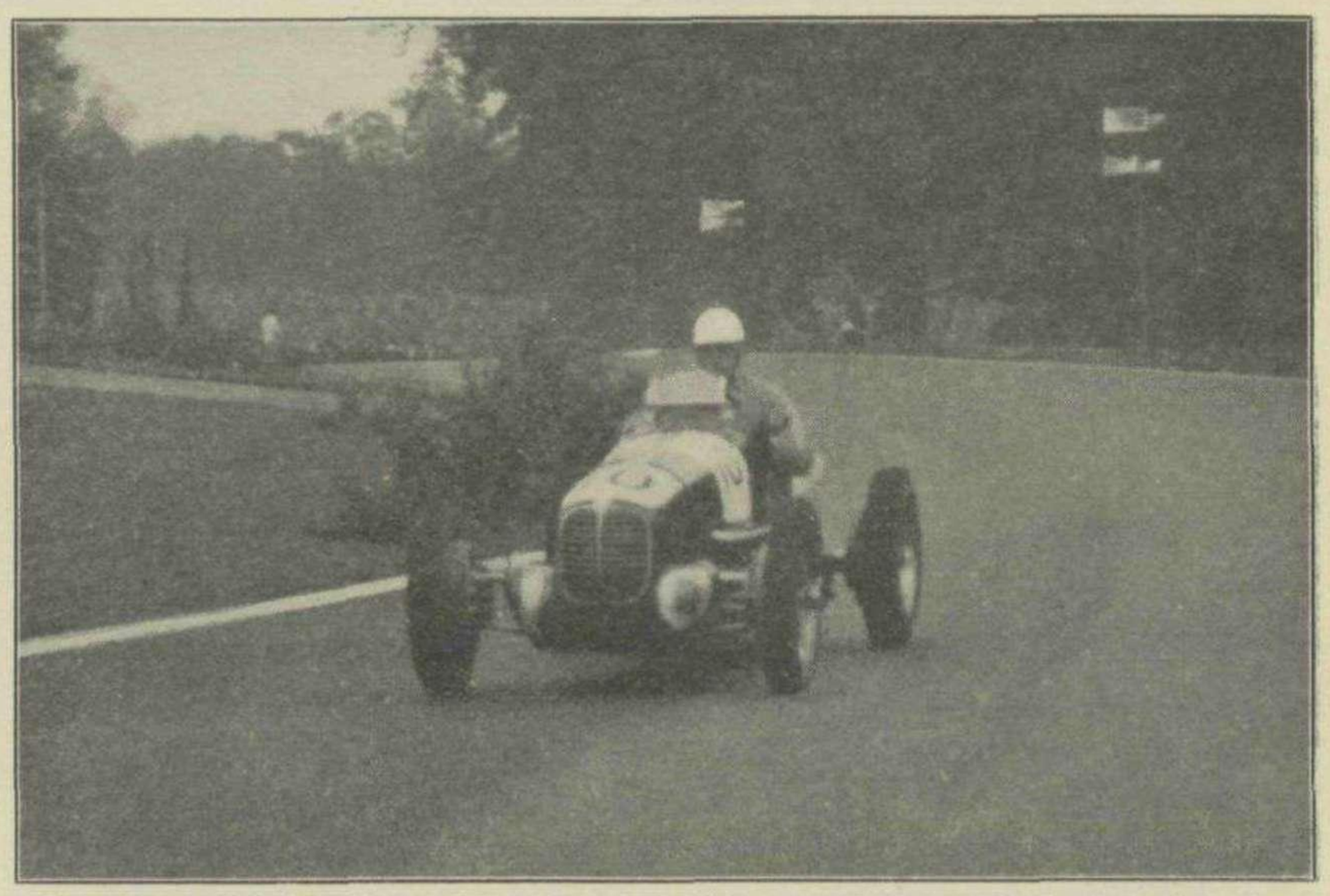
IMPERIAL TROPHY RACE—continued

the course, in spite of the short straights, retained third place, and Whitehead finished fourth, with Robin Hanson's Maserati Six behind him. Maclure averaged 56.59 m.p.h., Dobson 56.55 m.p.h. and Lurani 55.05 m.p.h. Dobson re-broke the lap record on lap six, setting it at 57.92 m.p.h. and at 58.63 m.p.h. on lap 7. Sinclair's 1,100 c.c. Alta went out with big-end trouble and Villoresi coasted to a standstill round Fisherman's Bend. Maclure continued to put up his speed with the astonishing unblown Riley, doing lap 8 at 58.06 m.p.h. The finishers got £25, £20, £15, £10 and £5, respectively.

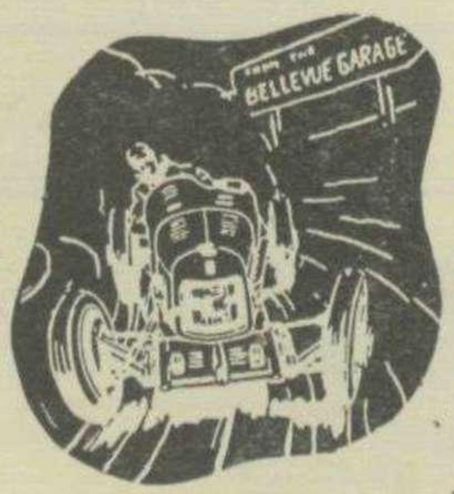
In the next heat, over the same distance, and similarly handicapped, a fine battle waged between Charlie Martin's E.R.A., "Bira's" E.R.A. and Count Trossi's four-cylinder Maserati. Goodacre's Austin made the most of its start and led until the last lap but one, when Trossi lay second, having passed Martin very skilfully on the inside at Stadium Dip half-way through. "Bira" got into fourth place on lap 3, and Trossi finally won, at 57.24 m.p.h., followed by Martin at 57.12 m.p.h. and "Bira" (E.R.A.) at 57.06 m.p.h., with Goodacre's Austin fourth and Aitken's Maserati Six fifth. Ian Connell's E.R.A. retired early with cylinder trouble, and Nash dropped out on his sixth lap after skidding right round at the Link the previous lap. Trossi's best lap was in 2 mins. 4.3 secs., compared to Dobson's record lap of 2 mins. 2.8 secs.

Sixteen cars lined up for the twenty-lap final, also handicapped, but on a different time allowance. Goodacre built up a very useful lead with the Austin from Brooke's M.G.-Riley, Stuart-Wilton's Q-type M.G. and Smith's M.G. Magnette. The three Italian Maseratis were with "Bira's" and Martin's E.R.A.s in the front row of the next group, in which Hyde's ex-Cholmondeley-Tapper 3-litre Maserati was easily outpaced. Arthur Dobson was behind, as grid positions, wrongly, we feel, were decided on *practice* times and not on lap times established during the *heats*, and passing is so difficult on the Palace circuit as to make this a matter of considerable moment. Martin did a lap in 2 mins. 3.8 secs., but eventually turned the E.R.A. round on his tenth lap and retired with gearbox trouble. Goodacre held his lead followed by "Bira" (E.R.A.), A. C. Dobson (E.R.A.), who made desperate attempts to pass coming down to Stadium Dip, Villoresi and Lurani. Trossi had trouble early on and retired. It was noticeable that Villoresi's "Six" did not stick down very well at the rear end, a trouble that is evident on the Maserati Sixes in this country, though Trossi's car, with underslung quarter-elliptic rear springs, *not* reversed as on a Bugatti, by the way, was more stable. On lap thirteen Goodacre spun round at Fisherman's Bend, losing about 26 secs., and "Bira" came by, to win at 57.8 m.p.h., with A. C. Dobson's E.R.A. right on his tail, only 0.3 of a second, or about half a length away, unable to get by at the final bend into the straight, especially as "Bira," going all he knew, floated outwards.

Dobson averaged 57.79 m.p.h., and his new lap record of 58.63 m.p.h. remained unbeaten. Goodacre managed third place on the Austin at 55.04 m.p.h., Villoresi was fourth at 56.07 m.p.h., and Lurani fifth at 55.70 m.p.h. Peter Aitken also spun round at Fisherman's Bend. The Palace has a very queer surface, of a decidedly slippery nature, and one wonders what will happen if novice drivers are allowed to use it next year. "Bira," a very popular winner, was presented with the Imperial Trophy and had also conclusively won the 1938 Road-Racing Gold Star, so that he left this country, taking an E.R.A. with him, quite happily on the following Wednesday. We hope he and Prince Chula will be back by Christmas. Incidentally, the White Mouse equipe erected a portable covering behind "Bira's" pit as protection from the rain that fell during practice, though the day of the race was perfect. Some complaints were rife, notably that an extra charge was made to a new enclosure, the position of which prevented spectators from walking completely round the circuit, as advertised, and the loud-speaker commentary was awful. The speaker did not pronounce "Mercédès" correctly, so goodness only knows what he would have made of D.K.W. or B.M.W. Seaman's exhibition run was truly worth



Count Lurani (Maserati) on New Zealand Hill in the 2nd heat of the Imperial Trophy.



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THE IMPERIAL TROPHY RACE—continued

seeing, but he did not open out and wipe up the lap-record, being content to circulate at around about 2 mins. 4 secs. (best 2 mins. 3.8 secs.), though putting up this record might have been worth while to others besides Seaman and Mercédès-Benz, for the Palace is a very slow circuit. Peter Mitchell-Thomson's '03 Mercédès also obliged. The television went off very well, Seaman being duly "put over" after his demonstration. King Farlow and the Le Roy timing machinery functioned impeccably and the Press service was good, albeit one Bulletin gives the Lap Record to Percy Maclure instead of to Arthur Dobson! The general opinion seems to be that the circuit is too wiggly in places and could well be wider, with something done to the surface. Unfortunately, it seems doubtful if much can be done in the way of improvements, because apparently Harry Edwards expected an attendance of around 70,000 souls per meeting, instead of the very excellent 20,000 to 30,000 actually realised, and we believe that a loan is necessary if things are to continue next season. Personally, we have thoroughly enjoyed the meetings at the London road circuit, even though the "atmosphere" can never be likened to that at Brooklands and Donington, and the racing thereat was a pleasant surprise. Future success undoubtedly depends on how much prize money is forthcoming next season—it has been generous, this year—and what dates are allotted to the R.R.C. in the 1938 Fixture List, for only names like "Bira," Mays, Dobson, Martin and Maclure, etc., will draw big crowds. Nevertheless, if Harry Edwards opens shop again we would like to see some Club Meetings at the Crystal Palace, assuming that they would not bring the noise-nuisance problem to a crisis.

REMARKABLE RECORDS

THERE is something very stimulating about a record attack, which represents a carefully-planned achievement undertaken when car and driver are absolutely ready, and free from the "ifs" and "buts" of racing. Some very remarkable records have recently been established, during the German record-week at the Frankfurt *Autobahn*. Rosemeyer took 5,000-8,000 c.c. Class Records for the s.s. mile at 138.674 m.p.h., the flying kilometre at 252.47 m.p.h., and the flying mile at 252.45 m.p.h. He drove a 16-cylinder G.P. Auto-Union with faired nose, covered-in wheels and open cockpit. These speeds are truly wonderful. Much has been made of 252 m.p.h. on a road. Actually the *Autobahn* probably provides an ideal surface for any speed attempt and the "road" factor only enters on short runs in regard to the twisting sections that have to be negotiated when getting up speed and in the fact that instant disaster would follow any deviation from the straight and narrow path, whereas on a beach there is more safety-area. Albeit, even then cars have run into the sea at these speeds, notably when the late Frank Lockhart was killed, after achieving 200 m.p.h. on 3 litres of Stutz, as detailed in MOTOR SPORT last year. Actually there are about six miles of straight on the *Autobahn* which is 25 ft. wide and of concrete surface.

It is interesting that Auto-Union also went for Class C records (3-5 litres) although they use bigger engines for racing. In this class Rosemeyer took the s.s. kilometre at 105.515 m.p.h., the s.s. mile at 123.966 m.p.h., the flying 5 kilos. at 215.089 m.p.h., the flying 10 kilos at 212.232 m.p.h., and the flying 10 miles at 211.80 m.p.h. Later he took the flying kilo at 218.83 m.p.h., the mile at 219.51 m.p.h., and raised the other records to the figures quoted above, after doing slightly slower runs on the Monday. On the standing start Class B records the cars were doing over 200 m.p.h. at the end of the timed sections, so that the streamlined Avus Grand Prix car was actually faster than the short-chassis, specially-light Auto-Union. Later it had blower trouble. It does not seem greatly altered from racing form, but undoubtedly has a more highly tuned engine. The s.s. mile at 138.674 m.p.h. stands also as a world's record. To gain a conception of this performance imagine passing the stationary Auto-Union at nearly 139 m.p.h. and finding its radiator snout level with yours at the end of a mile!

Mercédès-Benz brought out a 12-cylinder three-speed twin-blower car with an almost totally-enclosed cockpit. The wheels are enclosed and the body lower than before. The driver enters by a special wooden platform that is wheeled up to the side of the car. At the time of writing, no records have been captured, but Caracciola has tried the car and registered about 230 m.p.h. It has a new nose and a higher ground-clearance than formerly and appeared light on the steering when at speed. The instrument board contains a maximum-recording rev-counter.

Major A. T. G. Gardner ably upheld British prestige by taking Class G flying kilo at 148.73 m.p.h. and the flying mile at 148.72 m.p.h. in his M.G. Magnette, tuned by Robin Jackson. Later, trying for the magic 150 m.p.h., the supercharger seized, but Major Gardner was able to hold the car and pull up safely.

At the time of writing, Bobby Kohlrausch is preparing to attack Class H records with his Zoller-blown, roller-bearing M.G. Midget which has already done 140 m.p.h. and now has a special B.M.W. independently-sprung chassis frame.

Then, away at Utah, George Eyston has taken out the Rolls-Royce engined "Thunderbolt" and clocked 309 m.p.h. on one run while testing the timing apparatus. On his return run he experienced clutch trouble at about 310 m.p.h. but expects to make his proper attack soon and will probably hold the world's mile and kilo records by the time these words appear in print—we would hazard a guess at between 320 and 330 m.p.h. Bad weather conditions have, up to now, interfered with Eyston's attack on the 12-Hour Record with the front-drive "Speed-of-the-Wind."

HARROW CAR CLUB

The Harrow Car Club held its annual General Meeting on the 27th October. The chair was taken by Mr. C. G. Cullen.

The Club has gone ahead rapidly with its increasing membership and during the past year has staged many successful events. The following officials were elected for the coming year :—

Patrons : The Earl Howe, Mrs. K. Petre.
President : S. C. H. Davis, Esq.
Vice-Presidents : Oliver Bertram, Esq., D. L. Briault, Esq., C. G. Cullen, Esq., Raymond Mays, Esq., A. E. Moss, Esq.
Hon. Secretary : P. G. Fowler.
Hon. Treasurer : F. J. Coyne.
Hon. Competitions Secretaries : L. G. Eckett, Miss M. Webb.
Club Captain : S. G. E. Tett.
Hon. Magazine Editor : L. G. Wilkins.
Hon. Press Secretary : V. W. Bailie.
Hon. Social Secretary : G. B. Murphy.
Hon. Solicitor : A. L. Philips.
Hon. Auditor : W. Jackson.
Committee : R. M. Andrews, E. J. Haesendonck, A. W. Jones, R. E. Thurston.

At the end of the meeting two presentations were made. The Moss Cup for the Chiltern Summer Trial to D. E. Harris and an electric clock to A. W. Rackham for his success in the non-stop variety run which was held on the 17th October.



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(No. 227). Fur-backed Gauntlets, lamb's wool lined; these are warm and at the same time very hard-wearing - - 25/- and 30/-

(No. 22a). Double texture Silk Undergloves, with four thickness gauntlet. For winter warmth - 5/-

(No. 22). Single texture Silk Undergloves, without gauntlet - - 2/6

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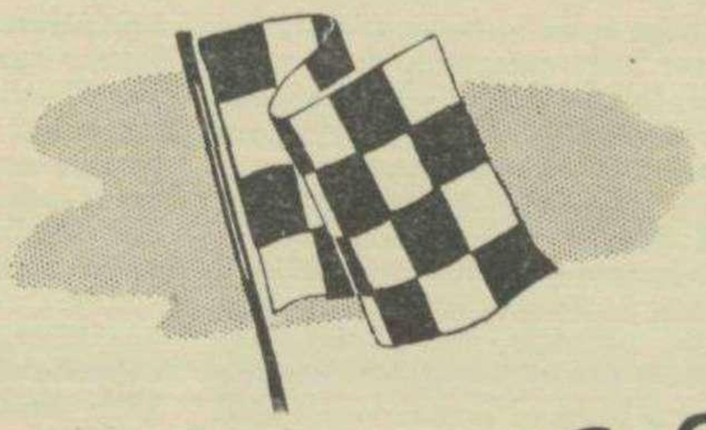
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IN GAY PARIS

MANY SPORTS CARS AT THE SALON. FIRST DETAILS OF THE GRAND PRIX DELAHAYE

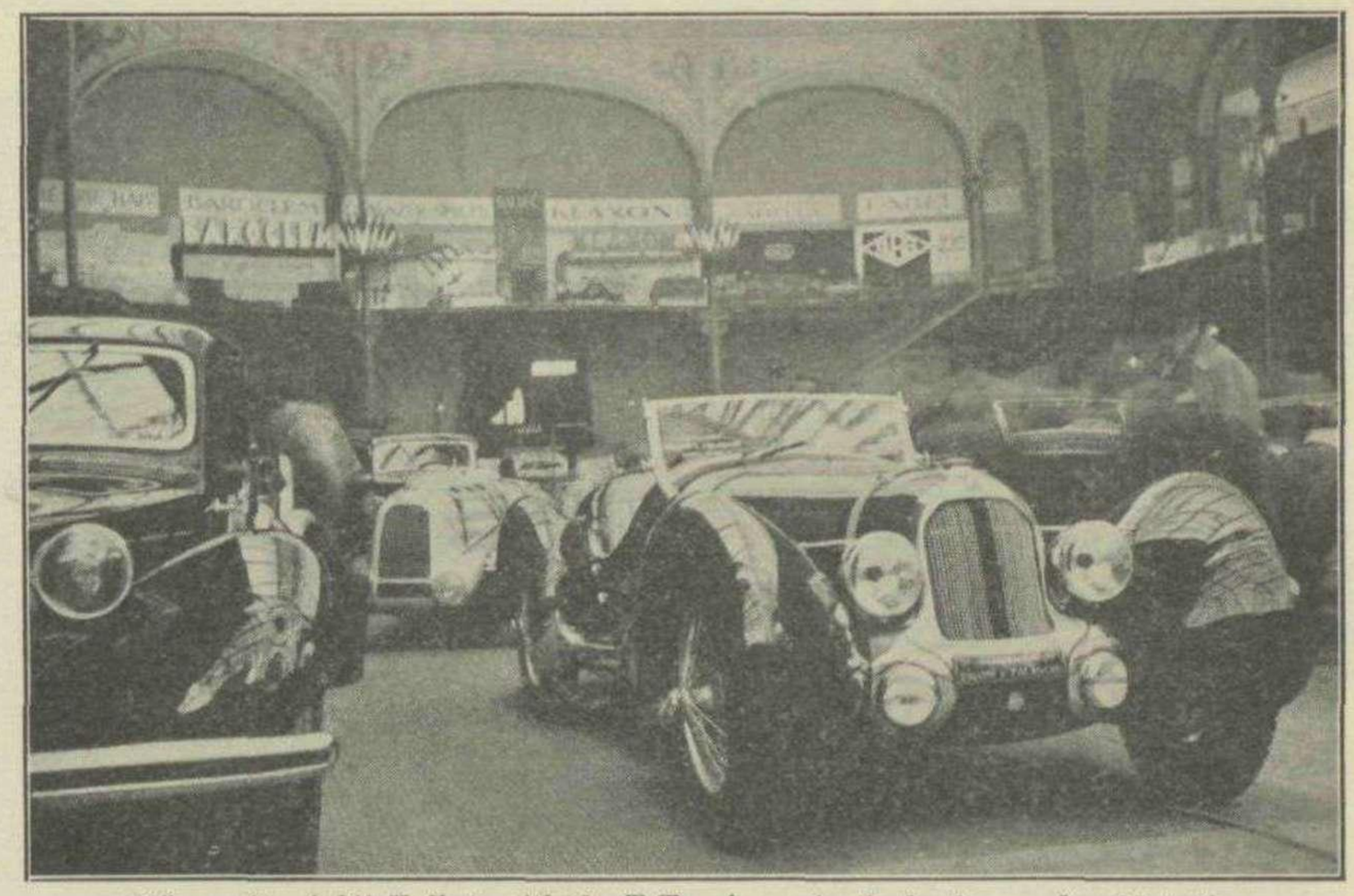
AS London is different from Paris, so is the annual Salon de l'Automobile in the French capital entirely different from the Motor Show at Earl's Court. This year's Paris Show was particularly notable owing to the International Exhibition going on at the same time, and many British motorists took the opportunity to see both exhibitions in one journey. The M.G. Car Club, for instance, ran a special trip to Paris for the occasion, and found the city crowded to its limits with sightseers.

For the sporting enthusiast the Salon was of considerable interest, for whereas at Earl's Court sports-cars had to be sought out with some difficulty from amongst the host of touring saloons, in the Grand Palais many firms proudly exhibited actual racing-cars, while a place of honour in the centre of the exhibition was accorded to a real Grand Prix machine, the new twelve-cylinder Delahaye. This must be one of the first occasions on which a Grand Prix car, built to the next year's formula, has been exhibited to the public so well in advance. At the last Berlin Show, it will be recalled, the Grand Prix Mercédès-Benz and Auto-Union racing-cars were on exhibition.

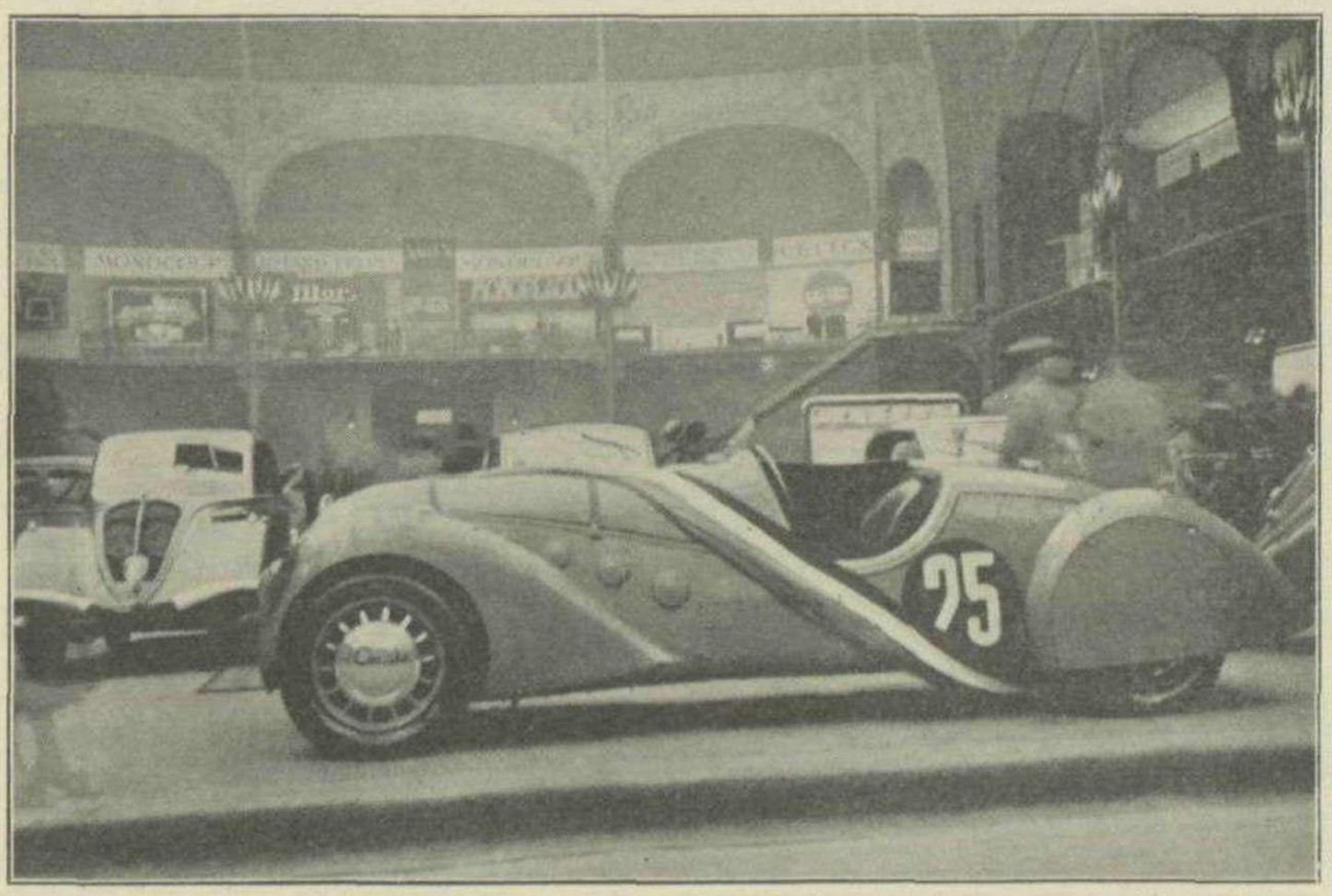
A colourful exhibit including actual cars that have taken part in races would not be allowed, incidentally, by the rules of the S.M.M. & T. at Earl's Court, where, save in special circumstances, all cars must be new and offered for sale. Exceptions have been made in such cases as Sir Malcolm Campbell's Bluebird—the car, in other years, and, this year, the boat.

tional than in the case of British firms, for the Continental public is not so conservative.

The Grand Palais itself, light and spacious by day, with its glass roof, became a place of beauty at night, when the whole scene changed as the Neon tube designs in pink, green, and pale blue were switched on, and gave back myriad reflections off the glistening cars beneath.



"Lago Special" Talbot, with the T.T. winner in the background. Note the reflections of the Neon lighting on the cars.



The Peugeot which achieved second place at Le Mans, adorned with the French tricolour sash.

Paris has a reputation for gaiety, and the sporting cars on the various stands, painted in the national colours, and decked with the French tricolour sash, certainly provided a vivid note. Technical designs, too, were far more unconventional than in the case of British firms, for the Continental public is not so conservative.

Independent suspension for the front wheels still excites comment on a British car, though an increasing number is now so fitted, but on the Continent it has already "arrived." There was scarcely a single Continental car at the Salon without independent springing for at least one pair of wheels, if not for all four.

The main trend of design was the appearance of new and interesting small cars. The success of the huge Renault firm was built up in the early days by a string of racing successes, beginning with the Paris-Toulouse race of 1900. This was the first big victory of a comparatively small-engined car, and now Renault have produced a 1-litre "Juvaquatre" model, not in any way a sporting car, but interesting none the less because, with full four-seater body and independent front suspension, it costs in France, at the present rate of exchange, no more than £110.

Another new "baby" car was the 1,100 c.c. Simca-Fiat, produced by the French branch of the Italian factory. This is a four-cylinder car, but a new small "six" was the 1,100 c.c. Rosengart, an exception to the prevailing tendency for bigger four-cylinder engines. This car was one of the few without independent front springing. The small 747 c.c. Rosengart, with transverse front spring and axle layout similar to that of the Austin Seven, is also continued.

Ten years ago, when French racing supremacy was at its zenith, the Amilcar was a name to conjure with in sporting circles. This firm has now been amalgamated with Hotchkiss, but at the Salon the two had separate exhibits. On the Amilcar stand appeared the interesting 1,185 c.c. car with front-wheel drive and independent suspension of all four wheels, at the rear by torsion bars and in front by transverse springs. This car, with its bi-metal frame, of Alpax light alloy at the front, bolted to a pressed steel rear portion, with integral flat floor, was also seen at Earl's Court on the Hotchkiss

IN GAY PARIS—continued

stand. In Paris, Hotchkiss created interest by the first appearance of their new 2.3-litre four-cylinder car.

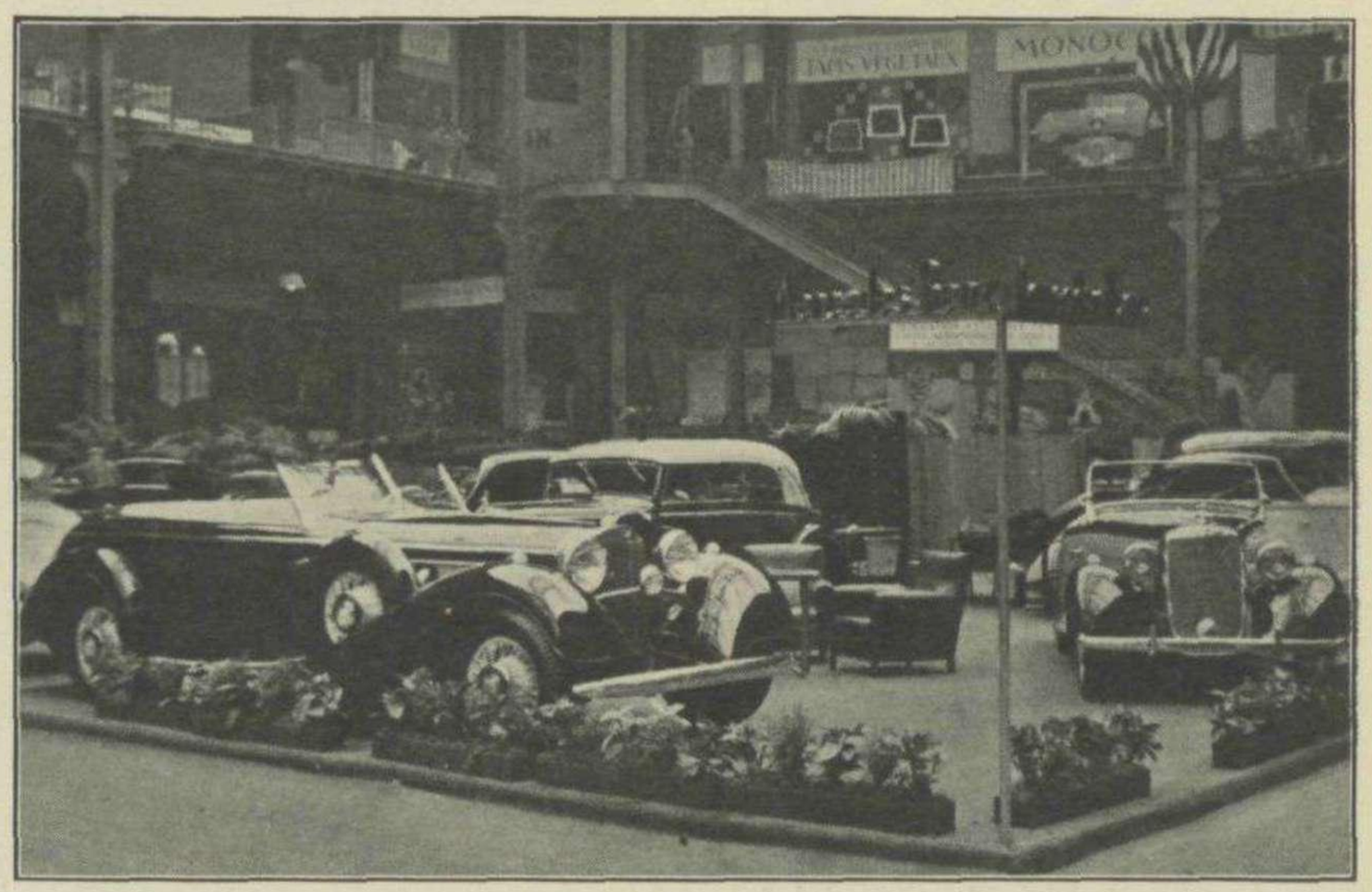
One of the finest exhibits of sporting machines was that displayed by the French Talbot Company. The actual car which won the French Grand Prix, driven by Chiron, and the Tourist Trophy at Donington, driven by Comotti, was on show, and this type is now to be produced for sports touring work as the Lago special. These cars have six-cylinder 3,996 c.c. engines, and, besides the racing-car, several of the Lago models were on view, fitted with self-change gearboxes. The sports two-seater was a particularly handsome car.

The new Grand Prix 4½-litre Delahaye has already been referred to as the high spot for sporting enthusiasts. The unsupercharged V12-cylinder engine is of 4,490 c.c., and has four valves and two plugs per cylinder. Between the two banks of cylinders are three large Solex carburetters. The car is built to the new formula, which lays down a minimum weight of 850 kgs. (approximately 16.7 cwt.) for this size of engine, and is said to be capable of about 160 m.p.h. It has already shown its paces by averaging 91.07 m.p.h. for 200 kms. over the Montlhèry road circuit.

Peugeot also had a racing-car on their stand, the machine which gained second place at Le Mans. A new Peugeot model, based upon this car, is the "402 légère," with the 1,991 c.c. four-cylinder engine in the light "302" chassis. The "302" model has a 1,760 c.c. engine

Bugatti stood apart from the other French sporting makes in exhibiting no racing-cars on his stand. His repute is such that beautifully-finished saloon and convertible bodies on the 3.3-litre chassis were deemed sufficient, and an aerodynamic coupé of the type seen at Earl's Court was also shown.

This was nevertheless an "exciting" corner of the Salon, for next to Bugatti was Mercédès-Benz. The splendid 5.4-litre supercharged car was shown with a particularly handsome four-seater cabriolet body, a feature of which was a disappearing hood and a rear screen which could be folded down neatly inside a cover with zipp-fasteners. This body was not shown at Earl's Court, but a 2.3-litre sports roadster of the same type that was seen in London was at the Salon, and the new 3.2-litre model, designed for high speeds over long stretches on the *Autobahnen*, excited much favourable comment.



The Mercedes-Benz stand, with the four-seater 5.4-litre car in the foreground.

On the other side of the Bugatti stand were Bentley and Rolls-Royce, both with fine French coachwork. In the special coachbuilders' section, magnificent bodies were noted on the Vanvooren Bentley, the Labourdette streamlined Delage, with its four outside exhaust pipes, and the Franay Rolls-Royce. Lagonda showed a "V12," with cabriolet body, and other British exhibitors were Humber, Hillman and Singer. On this last stand, arranged only at the latest moment, appeared an open sports four-seater body on the 1½-litre model, which shows French enthusiasm *pour le sport*, as this model is not included in the official 1938 Singer range.

Finally, one of the most interesting cars in the show was the Panhard-Levassor, once a famous sporting make. The frame is of the tubular backbone type, with only one light cross-strut. The bodies are mounted on six large rubber cushions, and otherwise are quite isolated There are three sizes of sleeve-valve engines, 2.5, 2.8, and 3.8-litres, and springing is by torsion bars all round, independent at the front. The steering box, mounted on the back of the engine, operates two steering arms, one on each side of the car. Unconventional, perhaps, but then conventions are not always followed in France!

A Guide to 1938 High Performance Sports Cars

(Continued from the October Issue)

The following specifications arrived too late to be included in our article of last month, and in order for the article to be as comprehensive as possible, we are publishing them underneath.

MORGAN

British. Morgan Motor Co. Ltd. Pickersleigh Road, Malvern Link, Worcs.

4/4. 4 cyl., 63×19, 1,122 c.c., 9.8 h.p. Tax £7 10 0. 3 bearing crankshaft. Comp. ratio 6.85 to 1. 36 b.h.p. at 4,500 r.p.m. Thermo syphon cooling. 1 Solex carburetter. Hard rubber engine mounting. S.d.p. clutch. 4 speed gearbox. Synchromesh 3rd and top. Ratios 5, 7, 12, 17.5 to 1. Maximum speeds, 1st 17, 2nd 32, 3rd 55, top 75 to 80. Hardy-Spicer prop. shaft. Spiral bevel drive. Springs, coil front, semi-elliptic rear. Newton shock absorbers front, Hartford rear. Girling brakes. Turning circle 35′. 12 v. Battery. 9 gallon petrol tank. Consumption 35 to 38 m.p.g. Disc wheels. Tyres 16×5. Wheelbase 7′ 8″. Track 3′ 9″. Ground clearance 6″. Weight 15 cwt. Price £210.

SINGER

British. Singer Motors Ltd., Coventry,

1½-litre Sports. 4 cyl., 68×103, 1,496 c.c., 11.47 h.p. Tax £9. 3 bearing crankshaft. Comp. ratio 6.9 to 1. 12.7 b.h.p. at 1,000 revs. Thermo syphon and fan cooling. Twin S.U. carburetters. 3 point rubber engine mounting. S.d.p. clutch. 4 speed gearbox, synchromesh, 2nd, 3rd and top. Ratios, top 4.75, 3rd 6.46, 2nd 10.0, 1st 18.08 to 1. Road speeds at 1,000 r.p.m., 1st 4.6, 2nd 8, 3rd 12.85, top 17.5. Maximum speeds, 1st 22.5, 2nd 40, 3rd 63, top 85.75 m.p.h. Hardy-Spicer needle roller propeller shaft. Spiral bevel drive. Semi elliptic springs. Andre telecontrol shock absorbers. Worm and nut steering. Lockheed brakes. Turning circle 30′. Two 6 v. batteries. 12 gallon petrol tank. Consumption 25 to 28 m.p.g. Knock-on type wheels. Tyres 4.75×18. Wheelbase 7′ 11″. Track 3′ 10½″. Ground clearance 7½″. Weight 17½ cwt. Price £279.

RILEY

British. Riley (Coventry) Ltd., Coventry.

"Sprite." 4 cyl., 69×100, 1,496 c.c., 11.81 h.p. Tax £9. Counter balanced crankshaft. Comp. ratio 20.74 b.h.p. at 1,500 r.p.m. 65 b.h.p. at 5,000 r.p.m. Pump and fan cooling. Two 30 m.m. S.U. carburetters. 3 point rubber engine mounting. S.d.p. clutch. 4 speed all helical or 4 speed preselective gearbox. Ratios (all helical) 5,22, 7.62, 13.05, 20.25, (preselective) 5.22, 7.39, 10.91, 18.79. Maximum speeds, 1st 21, 2nd 37, 3rd 57, top 85. Enclosed torque tube propeller shaft. Spiral bevel drive. Semi elliptic springs. Hartford shock absorbers. Riley, worm and segment steering. Girling brakes. Turning circle 28′. 12 v. battery. 15 gallon petrol tank. Wheels, 3.00×19. Tyres 5.00×19. Wheelbase 8′ 1½″. Track 4′. Ground clearance 6½″. Weight 18 cwt. Price £450.

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INTERNATIONAL MOTORING FIXTURES, 1938

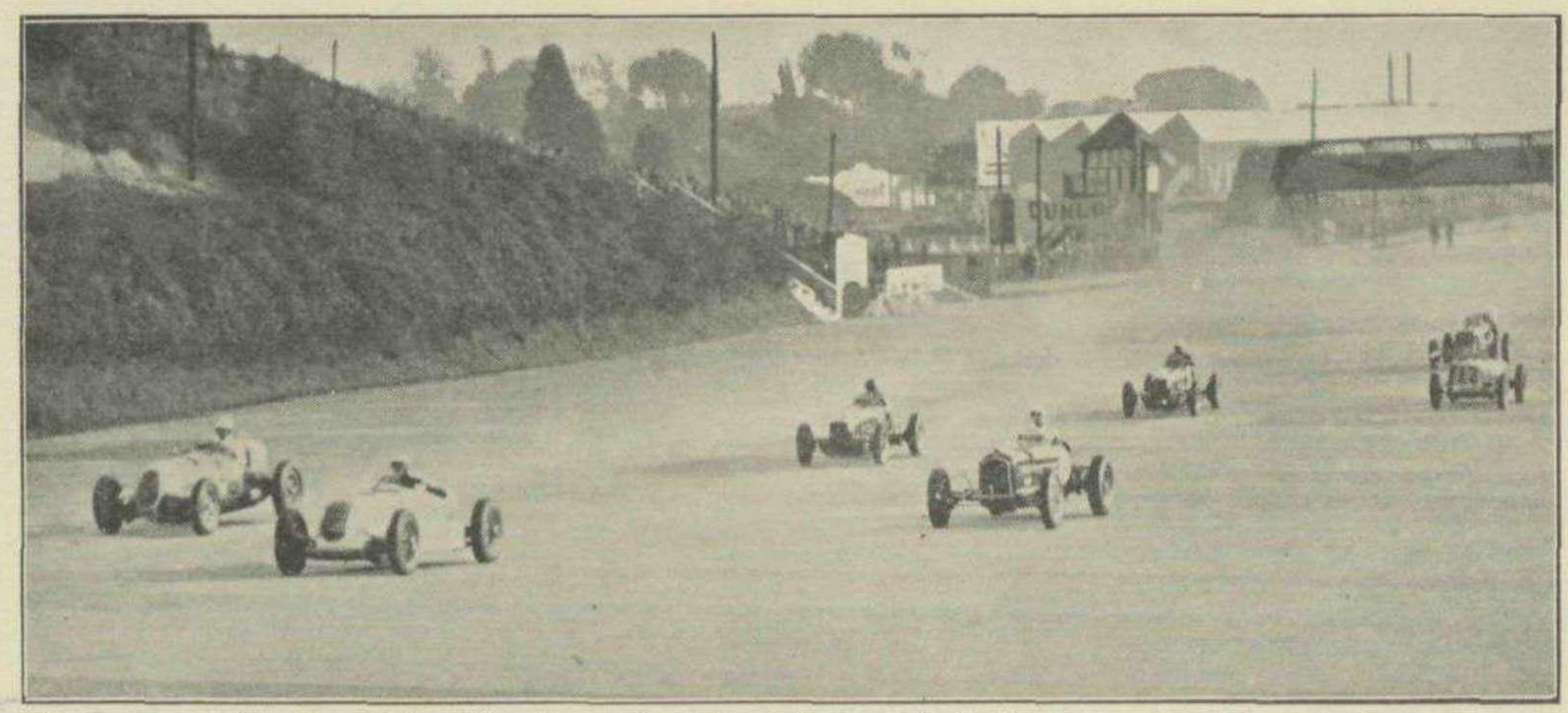
THE Royal Automobile Club has issued the list of fixtures comprising the International Calendar for 1938. For next year, Great Britain has twenty-two International dates, this being an increase of six over this year, the additional dates being the second Coronation Trophy Race, the Sydenham Trophy Race, the second London Grand Prix, the second Crystal Palace Cup Race and the second Imperial Trophy Race, all at the Crystal Palace, the Dunlop Jubilee Meeting at Brooklands, the 12 Hours' Sports-Car Race at Donington, and the Royal Scottish Automobile Club's Rally. The R.A.C. International Car Race, previously held in the Isle of Man, and the Light Car Club's Relay Race at Brooklands are not included in the Calendar for 1938.

Jan.	1	South Africa	*South African Grand Prix.*
,,	15	South Africa	*Grosvenor Grand Prix.*
,,	25-30	Monaco	Rallye de Monte-Carlo.
Feb.	4-6	France	Rallye Lyon-Chamonix.
,,	13	France-Switzerland	Course de Cote Hivernale Saleve-Geneve.
,,	15-20	France	Concours de Tourisme Feminin Paris-Vichy-St. Raphael.
April	2	Great Britain	Coronation Trophy Race.
,,	3	Italy	Coupe des 1,000 Milles.
,,	9	Great Britain	British Empire Trophy Race.
,,	10	France	*Grand Prix de Vitesse de Pau.*
,,	18	Great Britain	Easter Monday Meeting.
,,	23	Ireland	Cork International Car Race.
May	7	Great Britain	International Trophy of 200 Miles Race.
,,	8	France	*Grand Prix Automobile de Tunisie.*
,,	10	Finland	Elaintarhanajo-Djurgardsloppet.
,,	12	Italy	Raduno Internationale del Nord Africa.
,,	15	Italy	Gran Premio di Tripoli.
May	21	Great Britain	Sydenham Trophy Race.
,,	22	Italy	Targa Florio.
,,	25-10 June	Greece	Rallye Interbalkanique.
,,	28	Great Britain	Shelsley Walsh Hill Climb.
,,	29	Austria	Intern. 3 Bundeslander Wertungsfahrt.
,,	29	France	Rallye Internationale de l'A.C. Ardennais.
,,	30	U.S.A.	Indianapolis 500 Miles.
June	5	Belgium	*Grand Prix des Frontieres.*
,,	5	Italy	Circuit de Naples—Coupe Princesse de Piemont.
,,	5-6	France	Bol d'Or Automobile.
,,	6	Great Britain	Whit Monday Meeting.
,,	6-10	Great Britain	Royal Scottish Automobile Club Rally.
,,	11	Great Britain	Nuffield Trophy or 12 Hours' Sports-Car Race.
,,	12	Germany	Eifelrennen.
,,	12	Brazil	*Grand Prix de la Ville de Rio.*
,,	12	France	3 Heures de Marseille.
,,	12	France	*Grand Prix de Picardie.*
,,	18	Great Britain	Ulster Race Meeting.
,,	18-19	France	24 Heures du Mans.
,,	19	Hungary	*Grand Prix de Hongrie.*
,,	20-26	Poland	Concours International de Tourisme.
,,	25	Great Britain	*London Grand Prix.*
,,	26	Italy	Circuit de Florence.
July	3	France	*Grand Prix de l'A.C.F.*
,,	4	U.S.A.	Coupe Vanderbilt.
,,	9	Great Britain	Nuffield Trophy or 12 Hours' Sports-Car Race.
,,	10	Belgium	*Grand Prix de Belgique de 24 Heures.*
,,	10	France	Circuit de Vitesse de l'Albigeois.
,,	14-17	France	Rallye des Alpes Francaises.
,,	16	Ireland	Leinster Trophy International Car Race.
,,	16-17	France	*Grand Prix de la Marne.*
,,	16-18	Austria	International Hohenstrassenfahrt.
July	17	Luxembourg	*Grand Prix du Luxembourg.*
,,	24	Portugal	Circuit de Vila Real.
,,	24	Germany	*Grand Prix d'Allemagne.*
,,	31	Germany	Grosser Bergpreis von Deutschland.
,,	31	France	*Grand Prix de Vitesse Automobile du Comminges.*
,,	31 or 28 Aug.	Belgium	Les 1,000 kilometres de la Ville d'Anvers.
,,	31	Italy	Coupe Cianco—*Grand Prix* 1,500.
Aug.	1	Great Britain	August Bank Holiday Meeting.
,,	1	Ireland	*Limerick Grand Prix.*
,,	1-6	France	Paris-Nice et Coupe Prince Rainer de Monaco.
,,	5	France	Course Internationale de Cot de la Turbie.
,,	7	Monaco	*Grand Prix de Monaco.*
,,	13	Great Britain	Crystal Palace Cup Race.
,,	14	Italy	Coupe Acerbo.
,,	17-21	Belgium	Championnat d'Endurance Liege-Rome-Liege.
,,	21	Switzerland	*Grand Prix de Suisse et Grand Prix de Berne.*
,,	27	Great Britain	200 Miles Race or International Trophy Race.
,,	28	Italy	Course du Stelvio.
,,	28	France	*Grand Prix de la Baule.*
,,	28-4 Sep.	France	Rallye International sur la Baule.
Sept.	3	Great Britain	Tourist Trophy Race
,,	10	Great Britain	Shelsley Walsh Hill Climb.
,,	10	Ireland	Phoenix Park Race.
,,	11	Italy	*Grand Prix d'Italie.*
,,	17	Great Britain	"500" Race.
,,	18	Italy	Circuit de Modene.
,,	24	Great Britain	Dunlop Jubilee Meeting.
,,	25	Czecho-Slovakia	*Grand Prix Masaryk.*
,,	25	Italy	Circuit du Championnat d'Italie.
Oct.	1	Great Britain	*Donington Grand Prix.*
,,	2	Roumania	Course de Cote de Feleac.
,,	8	Great Britain	Imperial Trophy Race.
,,	15	Great Britain	Autumn Meeting.
Dec.	18	South Africa	*Grosvenor Grand Prix.*

LAGONDA AVERAGES OVER 104 M.P.H. FOR ONE HOUR

EARLIER this year a stir was caused when S. C. H. Davis averaged 102.2 m.p.h. for 60 mins. at Brooklands under official R.A.C. observation, driving a fully-equipped sports Frazer-Nash-B.M.W. running on pump fuel. To encourage such public demonstration of a sports-car's ability to achieve over 100 m.p.h., and to possess a high degree of reliability into the bargain, L. A. Badderley of the M.C.C. put up a trophy for the car equalling or exceeding 100 miles during either of the M.C.C. One Hour Brooklands runs. Unfortunately, weather conditions were against competitors and the best time was Elgood's 98 m.p.h. with an old-school, 4½-litre Bentley.

Last month, on a rather unsuitable day when the Track was wet, Alan Hess, driving Arthur Fox's 4½-litre T.T. Lagonda, carried the "sports-car hour" a stage further. Hess averaged 104.4 m.p.h. and lapped with remarkable consistency. He carried a passenger and the car had wings, lamps, horn, number-plates, bonnet-straps and two aero-screens in place. It ran on Discol fuel and Champion R11 plugs. Not so very many sports-cars will *lap* at over 100 m.p.h., especially on their "touring plugs," and to maintain this lap-speed for 60 minutes is an extremely fine performance. Unfortunately, although the figures are rendered quite authentic because of the R.A.C. observation, a run of this nature does not constitute a record. It would seem that the time is ripe for the R.A.C. to recognise such runs as National Stock-car Records, as is done in the U.S.A. No doubt the answer will be that it is quite impossible to define a stock car, which is the argument eternally quoted in respect of races or other contests for purely standard cars. We feel that it should not be beyond the ingenuity of the R.A.C. Competitions Department to check up on cars submitted singly for record attempts. To prevent untold confusion we would suggest three classifications only: Brooklands flying-lap, the "hour," and a 12-hour record. Perhaps sub-divided into over and under 1½-litre categories. As it is at present full equipment is carried, but any fuel may be used. This is quite a useless basis, as it at once admits racing-cars with road-equipment, and even were the R.A.C. to encourage the restriction that pump fuels only be used, many a racing-car could put up a good fake showing with dropped compression-ratio, or minus its blower. In this country we should have a pretty shrewd knowledge of what car was used, but remember that such runs have a high publicity value the world over. We have not the slightest doubt that the Frazer-Nash-B.M.W. and Lagonda were standard cars, at all events within our own T.T. definition of a sports-car, but in case considerable further activity takes place in this category—and it would be highly instructive—we urge the R.A.C. to consider some serious committee sittings on the subject of National Stock-car Records. It would be interesting to know if any existing sports models could lap Brooklands at over 120 m.p.h., officially timed, and to see who will first put the "sports-car hour" at this figure. In the meantime, Alan Hess and Arthur Fox deserve the greatest credit for so convincingly demonstrating the speed, allied to reliability, of a very fine and widely respected British marque.



The start of the Mountain Championship. From left to right there are Hans Ruesch (Alfa-Romeo), J. H. Bartlett (Alta), J. P. Wakefield (Maserati), K. Evans (Alfa-Romeo), behind, R. Hanson (Maserati), P. Maclure (Riley) and Billy Cotton (E.R.A.).

CLOSE OF THE BROOKLANDS SEASON

HANS RUESCH (ALFA-ROMEO) MOUNTAIN CHAMPION. MAYS (E.R.A.) VICTORIOUS IN SIAM MOUNTAIN RACE. AN OUTER-CIRCUIT RACE WON BY OLIVER BERTRAM'S BARNATO-HASSAN AT 128¼ M.P.H.

AN extremely interesting meeting on October 16th finished the 1938 B.A.R.C. season, attended by quite an excellent crowd, as is usual when so many people are "up" (or "down") for the Show. For the first time at any motor-course, outer-circuit, mountain and road-circuit races were staged during the same afternoon, and a record number of entries was obtained.

The first race on the card was a short, outer-circuit handicap. Powell's 847 c.c. M.G. led at first, followed by Gordon Brettell's skinny Austin Seven and Fred Thatcher's M.G. Magnette. Brettell eventually got into the lead, but the back markers came up fast and Elgood's 4½-litre Bentley, which ran so well at the M.C.C. Meeting, won by 2 secs. at nearly 102 m.p.h. from Wooding's 3.3-litre Talbot off the same mark, followed home by Powys-Lybbe's Alfa-Romeo, which pulled down excitingly off the Home Banking for the last time, in order to pass Barker's sports 3-litre Sunbeam. The scratch Bowler-Hofman-Special lacked knots. The next short handicap saw Harvey-Noble's very rapid, mono-posto M.G. Midget, holder of the Class H lap record, make good use of a 21 secs. start to stave off the back markers and win at 113.4 m.p.h., followed by a mere ⅕ of a sec. by Couper's Talbot 105, which had the same handicap. Oliver Bertram, who snaked about on his first lap, pulled close in on the Railway Straight and thundered the Barnato-Hassan-Special into third place. It looks very imposing in pale blue finish, with the protruding air intake tunnel, and black disc on the rear wheels. Clayton drove his Amilcar Six and P. Courtney the Amilcar Six once raced by Widengren.

The third race was a long handicap. Miss McOstrich led for a while in her Frazer-Nash, followed by Thatcher's M.G., Follett's 1½-litre Alvis and Barker's 3-litre Sunbeam. Then T. H. Wisdom, from the 42 sec. mark came through on a stripped edition of the new sports 3½-litre S.S. 100. He won easily at 111.85 m.p.h., lapping at 117 m.p.h. We believe the car had a compression-ratio of 12 to 1, against the standard ratio of 7.2 to 1, but was otherwise completely standard. This definitely puts the new S.S. amongst the forefront of ultra-fast sports-cars. It will be recalled that Wisdom did a similar pre-Show demonstration with the 2½-litre S.S. last year. How so much speed is built into such moderately-priced cars is a question other fast-car designers should endeavour to solve. Another sports-car was second, in the form of H. J. Aldington's Type 328 Frazer-Nash-B.M.W., fully equipped as usual, which started 16 secs. before the S.S. Follett was third on his Alvis. The Sunbeam, which is blown, had trouble.

In the last of the outer-circuit handicaps, a long race, Oliver Bertram pulled out some real speed, coming through from scratch with Capt. W. Barnato's Barnato-Hassan-Special, to win at 128¼ m.p.h., finishing ⅕ sec. ahead of W. E. Humphreys's special M.G. Midget. The Clayton Amilcar was third. Bertram did some neat passing of several slower cars, going in to the finish.

We are glad the B.A.R.C. still stages outer-circuit races, in spite of the attraction of the other circuits, and urge them to continue to do so next year. There are still spectators who enthuse over flat-out speed and members of the B.A.R.C. who still enjoy a fast race round the outer-circuit, even though so few now specialise in building cars for this class of racing. Many amateurs are missing a good opportunity of converting interesting material into fast outer-circuit cars—which involves less expense



C. Martin (E.R.A.) scratch man with Billy Cotton (E.R.A.) in the second Campbell Circuit Handicap, won by R. H. Eccles (Rapier Special).

BROOKLANDS CLOSING MEETING—continued

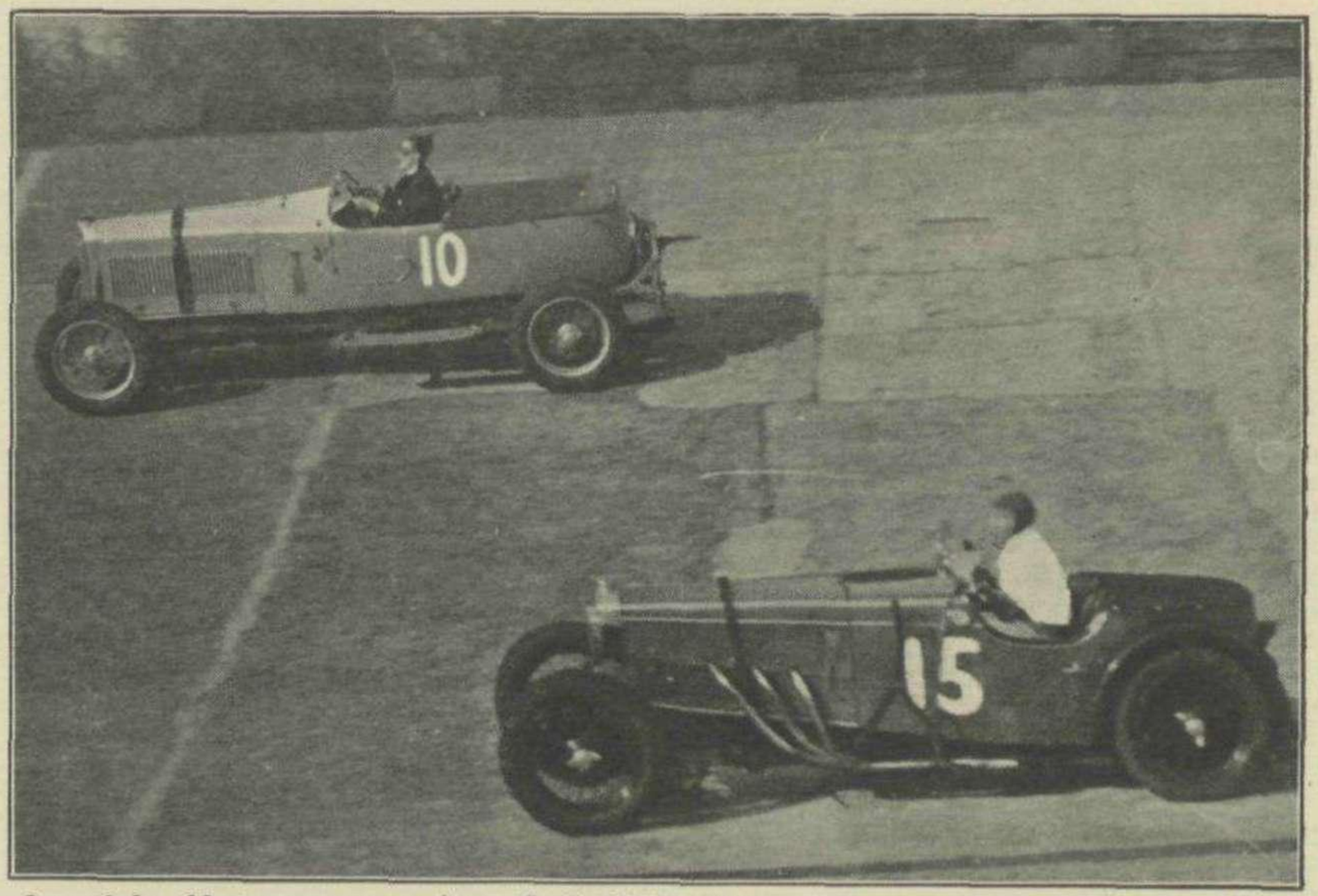
than is the case when brakes, steering, gearbox and transmission have to be of a high standard such as the other circuits demand and where power-weight ratio becomes of extreme importance.

Next we had the Mountain Race over 10 laps, for the Siam Challenge Trophy, held by Raymond Mays and presented by H.R.H. Prince Chula of Siam. A class handicap was used, 750 c.c. cars getting 20 secs. start, 1,100 c.c. cars 15 secs., with 1½-litre cars—the limit—on scratch. Hadley on the little green Austin went round in the lead for five laps, but Mays on the works E.R.A. was coming up steadily, driving absolutely at his limit. Peter Aitken's Shelsley Frazer-Nash toured in after a lap and R. G. J. Kingsmill on the Spikins-Singer-Bantam was in trouble later, while Hadley retired on his last lap. Walker was going great guns on his E.R.A., but Count Trossi on the four-cylinder Maserati passed him, only to retire a couple of laps later—these Mountain races are stern medicine. Charles Martin was giving us a great exhibition of verve in his E.R.A. and at last he got past Walker to lead by about a length, only to be passed by Walker at the Fork on the very last lap. So Mays's black, very business-like E.R.A. came home to another victory, at 80.08 m.p.h., well ahead of Walker's E.R.A., with Wakefield's Maserati only ⅘ sec. away in third place. Last year Mays won this race for E.R.A. at 77.98 m.p.h.

So to the scratch 10 lap contest for the Mountain Championship. Very regrettably Mays had experienced trouble with the 2-litre E.R.A. in practice and he was obliged to scratch. Things looked pretty promising for Hans Ruesch who, as in 1936, was over specially for the race in the now familiar, much-used 3.8-litre eight-cylinder Alfa-Romeo. Sure enough, after a momentary dash by Bartlett's 2-litre Alta, the Alfa led, getting so comfortable a lead that Ruesch eased up, to win by 22⅘ secs. at 80.41 m.p.h., compared with Mays's average of 80.84 m.p.h. when his E.R.A. won this race last year. Ruesch gets £40 and a replica of the "Kathleen Drogheda" Trophy. A great duel took place for second place between Kenneth Evans with his 2.9-litre monoposto Alfa-Romeo and Wakefield's little Maserati. Wakefield drove magnificently and passed Evans on the eighth lap going into the Members' Corner, but he thereafter retired, presumably with locking brakes. Evans was second, Bartlett's Alta third and the irrepressible Percy Maclure fourth with the 2-litre Riley—unblown, but "boosted" for all that, as it well deserves to be.

The next three races were over 3 laps of the Campbell Road Circuit, handicapped on the usual B.A.R.C. basis. These races follow those run off at the special Campbell Circuit Meeting held earlier this year and very excellent races they are. The urge that sooner or later possesses a new driver to compete in an event with corners is easy to understand and these events are obviously going to form an extremely important and instructive part of B.A.R.C activities in 1938. Those who specialise in making cars go into and around corners very quickly are likely to find much increased work as a result, for the Brooklands road-course is one of very fast bends. The spectators, too, like these events, and from the Hill an excellent close-up view of three corners and the starts and finishes is available, as well as a bird's-eye view of most of the rest of the course. Paddock on-lookers have the alternative of crossing the finishing-straight bridge to the new pits, or of going "out into the country" to the Aerodrome bends. At present one is kept rather far back from the road at the latter position, which is wise, and starts and finishes cannot be seen. We suggest a new bridge and a stand *inside* the Wey bend, if possible with high enough seating to command a view of the Hill Straight.

In the first race Lind-Walker's Bugatti led from John Dugdale's smart black



One of the oldest cars now racing. C. L. W. Barker's Sunbeam, which has now a blower fitted, passes Miss P. McOstrich's Frazer-Nash in the First October Long Handicap.

unblown M.G. Magnette and Nickols's blown M.G. Midget, until Nickols took the lead to win at 63.46 m.p.h. with M. S. Soames, driving J. H. T. Smith's well-tuned M.G. Magnette, second and Walker, from scratch, third in the E.R.A., which slid far enough off the road to raise a shower of earth one lap. In the next race Roy Eccles's Eccles-Special won at 67.19 m.p.h. from the Appleton-Special with H. J. Aldington's Type 328 fully-equipped Frazer-Nash-B.M.W., which cornered most impressively and almost matched the Appleton-Special it seemed on acceleration, third. Billy Cotton and Martin, on E.R.A.s, were both on scratch and Martin finished ahead. Hyde drove the ex-Tapper 3-litre Maserati carefully—it has a normal, centrally disposed gear-lever and rev.-counter on the steering column. Finally, in the last race, Count Trossi, who had been a non-starter in the Mountain Championship, started from scratch and drove a most polished race, just failing to catch Austin Dobson's Maserati, which started 18 secs. ahead, for third place. J. B. Wilson's R-type M.G. won at 61.55 m.p.h. with Hunter's sports Type 328 fully-equipped Frazer-Nash-B.M.W. second. No one had bettered A. C. Dobson's lap record for the circuit of 73.13 m.p.h., established with his E.R.A., though attempts were anticipated during the following fortnight. Nor had anyone bettered the highest average for a Campbell Trophy handicap, which remains at 71.09 m.p.h., also to the credit of A. C. Dobson and his E.R.A.

So ended another highly successful Brooklands year, admirably managed in every respect, as one has come to expect of Mr. Percy Bradley. It is noticeable that there have been no bad accidents throughout the season, excepting the unfortunate practice crash of Mrs. Petre's, from which, we are glad to record, she is slowly recovering.

October strikes cold after 5 p.m., and the meeting having finished commendably to schedule, there was a general flocking to the car-parks and much winding-up of saloon car windows and slamming of saloon car doors. Here's to the spring!

RESULTS

FIRST OCTOBER SHORT HANDICAP
About 6½ miles

1. F. E. Elgood (4,487 c.c. Bentley), 44s.
2. G. A. Wooding (3,377 c.c. Talbot), 44s.
3. A. Powys-Lybbe (2,551 c.c. Alfa-Romeo, S.), 14s.

Twelve ran. Won by 2s.; ⅕s. between second and third. Speed: 101.92 m.p.h.

SECOND OCTOBER SHORT HANDICAP
About 6½ miles

1. G. P. Harvey-Noble (747 c.c. M.G., S.), 21s.
2. W. M. Couper (3,377 c.c. Talbot), 21s.
3. *O. Bertram (7,963 c.c. Barnato-Hassan), scr.*

Eleven ran. Won by ⅕s.; 3⅕s. between second and third. Speed: 113.40 m.p.h.

FIRST OCTOBER LONG HANDICAP
About 9 miles

1. T. H. Wisdom (3,485 c.c. S.S. Jaguar), 42s.
2. H. J. Aldington (1,971 c.c. Frazer-Nash-B.M.W.), 58s.
3. R. F. Oats (1,496 c.c. Alvis), 1m. 34s.

Twelve ran. Won by 12s.; ⅘s between second and third. Speed: 111.85 m.p.h.

BROOKLANDS CLOSING MEETING—continued

SECOND OCTOBER LONG HANDICAP

About 9 miles

1. O. Bertram (7,963 c.c. Barnato-Hassan) scr.
2. W. E. Humphreys (747 c.c. M.G.) 42s.
3. H. T. H. Clayton (1,097 c.c. Clayton-Amilcar) 31s.

Twelve ran. Won by ½s.; 5s. between second and third. Speed: 128.25 m.p.h.

SIAM CHALLENGE TROPHY

About 12 miles

1. R. Mays (1,488 c.c. E.R.A., S.), scr.
2. P. D. Walker (1,488 c.c. E.R.A., S.), scr.
3. J. P. Wakefield (1,494 c.c. Maserati), scr.

Thirteen ran. Won by 25½s.; ⅔s. between second and third. Speed: 80.08 m.p.h.

MOUNTAIN CHAMPIONSHIP

About 12 miles

1. H. Ruesch (3,800 c.c. Alfa-Romeo, S.).
2. K. D. Evans (2,904 c.c. Alfa-Romeo, S.).
3. J. H. Bartlett (1,960 c.c. Alta, S.).

Seven ran. Won by 22⅘s.; 12⅕s. between second and third. Speed: 80.41 m.p.h.

FIRST CAMPBELL CIRCUIT HANDICAP

About 7 miles

1. I. H. Nichols (747 c.c. M.G., S.), 59s.
2. M. S. Soames (1,087 c.c. M.G., S.), 38s.
3. P. D. Walker (1,488 c.c. E.R.A., S.), scr.

Twelve ran. Won by 9s.; 3⅘s. between second and third. Speed: 63.46 m.p.h.

SECOND CAMPBELL CIRCUIT HANDICAP

About 7 miles

1. R. H. Eccles (1,083 c.c. Rapier Special, S.), 33s.
2. R. J. W. Appleton (1,089 c.c. Appleton Riley, S.), 33s.
3. H. J. Aldington (1,971 c.c. Frazer-Nash-B.M.W.), 45s.

Eleven ran. Won by 2⅘s.; 1⅘s. between second and third. Speed: 67.19 m.p.h.

THIRD CAMPBELL CIRCUIT HANDICAP

About 7 miles

1. J. B. Wilson (747 c.c. M.G., S.), 1m. 2s.
2. H. C. Hunter (1,971 c.c. Frazer-Nash-B.M.W.), 1m. 2s.
3. A. Dobson (1,488 c.c. E.R.A., S.), 18s.

Ten ran. Won by 1⅘s.; ⅘s. between second and third. Speed: 61.55 m.p.h.

LAND'S END TO JOHN O'GROAT'S

Town-to-town records can be very fascinating, but in this country they are apt to rise to heights of endeavour which look decidedly criminal, especially if portrayed by the daily Press. And the fact does stand out that however much a driver imagines he is driving "with due care and attention," an attempt to do a given run in the shortest possible time is apt to distort the safety factor of any but the strongest-willed driver. Consequently, it is as well that our classic town-to-town records remain a subject discussed chiefly amongst motoring enthusiasts at the Universities, who presumably have their own methods of checking the authenticity of such feats, and not one that is aired in the daily or motoring Press. Abroad, in the Dominions for instance, such runs are a much more gruelling affair, that unquestionably form a very severe test indeed, but to us, in this country, who do not encounter such freakish conditions in normal motoring, they cannot be of any great interest. We think chiefly in terms of safe average speeds over sane routes and judge cars by racing and speed-trial and long-distance Rally results. Where distance enters into the picture, town-to-town records, over normal British motoring roads, certainly have an undeniable interest, even if much of the foregoing still applies.

Consequently, recognition must be given to J. W. Stocks, ex-racing cyclist and veteran motorist, who recently drove from Land's End to John o'Groat's in 26 hours 10 minutes, single-handed. The mileage was 910 by the route used, which was Land's End, Redruth, Launceston, Exeter, Bristol, Pershore (an error, adding 13 miles), Warrington, Wigan, Kendal, Carlisle, Pitlochry, Perth, Blairgowrie (another error, adding extra mileage), Inverness, Dingwell, Strathpeffer (an error of eight miles), Alness, Helmsdale, Wick, John o'Groat's. Land's End was vacated at 12 noon on a Monday and John o'Groat's reached at 2.10 p.m. on the Tuesday, an average speed of just under 35 m.p.h. Stops were made to refuel, but not for meals. The Ford V8 "22" saloon averaged just over 21.7 m.p.g. and used about 2 pints of oil. The average for the first two hours was 39 to 40 m.p.h. and for the first five hours about 39 m.p.h., and 834 miles were put into the first twenty-four hours. The following two days were occupied in returning to London, the run down from Edinburgh taking 11¾ hours (45 min. stop), which we about equalled last year in a blown Ford V8 "30" with only seven big-ends, driven by R. B. Lakin.

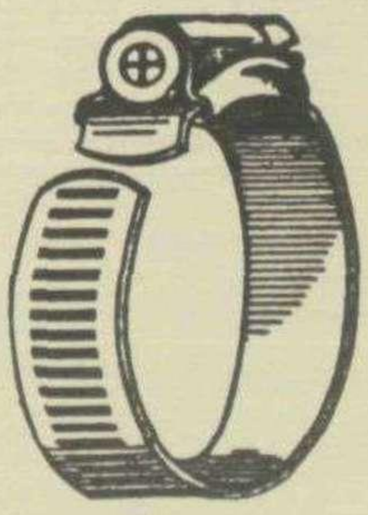
Stocks actually put up a better time in 1934 with a 30 h.p. Ford V8, taking 26 hours 5 mins. with 825 miles accomplished in the first twenty-four hours. In 1902 he did the End-to-End run in 2 days 14½ hrs. (48 hours driving time) in an 8 h.p. De Dion (using a route of 888 miles). In 1899 he had tried the journey on an Ariel motor-tricycle and retired with a broken exhaust-valve at Kendal. People will question the sense of this run and it is difficult to answer them.

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DONINGTON AFTERTHOUGHTS

That great Grand Prix at Donington is still the foremost topic of discussion in motor-racing circles, and the arrival of November fog cannot dim memories of that great day at Donington (itself misty, to commence with) when the silver Auto-Unions and Mercédès-Benz screamed round in the sunshine at prodigious speeds amidst an odour of rubber dust and boot-polish "dope."

Both teams have returned now, and for some reason or other Mercédès never got to Brooklands to see about those records. Seaman gave his demonstration at the Crystal Palace on October 9th, but did not break the lap record, some say because of the twisting nature of the circuit, we believe he did not wish to do more than demonstrate. After all, at Monaco Caracciola's Mercédès set a lap record of 66.7 m.p.h. and Von Brauchitsch's winning Mercédès averaged over 63¼ m.p.h. for nearly 200 miles of the extremely twisty "round-the-houses" circuit . . .

Seaman's car was subsequently displayed in the very well-lit Mercédès-Benz showrooms in Park Lane, suitably isolated in a roped off enclosure and surrounded by extremely fine enlargements of the photographs taken by George Monkhouse, of Kodak Ltd., during his five weeks' tour abroad with the Mercédès team.

Throughout October, also, Rosemeyer's winning Auto-Union was on show at the Great Portland Street showrooms of Auto-Union Sales, Ltd., although not so nicely displayed, as we mentioned last month, and sometimes even hidden away behind a utility car. Mercédès staged a very fine show of films, including some excellent shots of Continental races, to round off the Donington visitation.

As the winning car, naturally the Auto-Union is the topic of topical discussion. Its 6-litre V16 engine is apparently supercharged at about 12 lb. per square inch. The power-weight ratio of the complete car is four to five lb. per h.p. Each cylinder has a swept volume of 375 c.c. and the b.h.p. per litre is around 90. The fuel consumption works out at under 7 lb. per b.h.p. per hour, giving over 5 m.p.g. in the course of the Grand Prix, and alcohol fuel is used to produce power and not to any extent as an internal coolant. The o.h. valves are not inclined in one plane, but are set in a hemispherical-type head, the inlets being on the inside of the cylinder blocks, operated from the single camshaft by rocking-levers, with the exhausts outside, actuated by push-rods and bell-cranks. The Auto-Unions for the new Formula will be rear-engined cars.

The technical head of the Auto-Union team is Herr Robert Eberan von Eberhorst. He takes life lightly, and while waiting to leave Croydon on arrival in this country, amused us by taking a cardboard "L" sign from a nearby M.G., which he proposed to attach to Rosemeyer's car when he got to Donington.

It is interesting that Auto-Union have stated that racing definitely sells their touring D.K.W., Wanderer and Horch cars and establishes prestige for themselves as well as for Germany. This season they have won races in all the English-speaking race-organising countries—South Africa, America, and Great Britain.

We can, I think, afford to overlook the weak points in the race organisation, and fortunately they gave rise to no accidents. Afterwards, at a party at Derby, Lord Howe delivered a speech which pleased the Germans very much, and the German Anthem *was* duly played.

In London, Auto-Union had a little party for Rosemeyer at the showrooms, and at the B.R.D.C. reception at the Hotel Splendide about 130 persons were present, including the German drivers and personnel, Lord Howe, Cobb, Oliver Bertram, Mr. and Mrs. C. E. C. Martin, Mr. and Mrs. Cook, Mr. and Mrs. Appleton, Mr. and Mrs. Denis Evans, K. D. Evans, Percy Bradley, Mrs. Hall-Smith, Charles Follett, Mr. and Mrs. Couper, Robin Hanson, S. C. H. Davis, F. G. Craner, as well as representatives of the German Embassy. The German drivers were well pleased with Donington, but found it rather bumpy. They were especially pleased at the efficiency of our flag marshals and the manner in which our slower cars allowed them room to pass. The Donington layout and surface came in for high praise. Not so the practice of silly Englishmen who ran across the course in the path of approaching cars . . .

Accurate figures for attendance have been difficult to get, but apparently a crowd of between 40,000 and 50,000 attended, and it seemed much larger. Incidentally, the Derby and District M.C. paid out in full to those Germans who had suffered from the welshing of the bookies. The amount of starting-money paid to the Mercédès and Auto-Union teams has not been disclosed, but rumours have set it at about £500 per car, which would represent £2,000 for Mercédès and £1,500 for Auto-Union. Auto-Union won £425. The gate-money was probably about £10,000, exclusive of car-park revenue. Capt. Phillips of the R.A.C. had the honour of flagging Rosemeyer in. The winning Auto-Union used Shell fuel, Shell oil, Bosch plugs, Bosch magneto, Lockheed brakes and Continental tyres The Mercédès-Benz cars used Standard fuel, Bosch plugs, Bosch magneto, Lockheed brakes and Continental tyres. Before the race the Germans found their axle ratios too low for Donington and duly altered them.

The drama of the race, how much depended on Brauchitsch's burst front tyre, and on Caracciola feeling his steering to be stiff and not speeding up early enough, seems to have been missed by quite a few close followers. This spectacle of real racing certainly indicated just how popular motor-racing can be in this country. A correspondent in one of the motoring weeklies has suggested racing on Sundays, which "Grande Vitesse" elaborated in "The Motor" of October 5th. It would be a most interesting experiment, allied to real G.P. racing, which makes ample starting moneys imperative. Those who missed the 1937 Grand Prix have been rendered eager to see the next by the accounts of their friends, and most of these persons only stayed away from this year's race, one assumes, because of business ties.

Certainly it was a very great day and we are proud to have been present at a race which will live for ever in the annals of the Sport. We only echo everyone's wish when we hope that the German teams will race here again in 1938.

Still race-goers are talking of the immense acceleration of the German cars, of their astonishing leaps from the bumps before and after Melbourne Corner, of the singing sound of their exhausts that kept up a continuous howl around the circuit, changing to a crash of noise as each car shot past, and of how Brauchitsch's tyre flew to bits at 170 m.p.h., with bits of tread flung hundreds of feet upwards . . . The British Movitone news-reel of the race was brief, but very stimulating, especially the shot of an Auto-Union driver with *both* hands at the *base* of the wheel-rim, fighting his car round a bend, and of the waving blades of grass after the German cars had thundered through right on the road verge.

Some doubt seems to exist as to whether the Mercédès-Benz cars had independent rear suspension, in view of the changes that have been made since the cars were designed. Enquiry at the showrooms, where a car was on view, elicited the information that even then they were uncertain, as the body-cowling disallowed a view of the rear suspension, but the opinion was that the universally-jointed half-shafts still rise and fall independently and that the bars which to some people have suggested a rigid assembly are probably merely torque or stabilising members pinned to the frame.

Herr J. Werlin, managing director of the Mercédès-Benz Company in Germany, presided at the tea-party at the Dorchester on the eve of the race, and went up to Donington and back to London the same evening in his Type 230, and Mr. K. F. Speer, general manager of the English branch of the Company, smoothly handled much of the activities that the team's visitation involved.

HAVE YOU SEEN OUR FEATURE DEALING WITH THE SALE OF SPARE PARTS?

IF NOT, TURN TO :—

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ON THE EARL'S COURT SHOW

IT is fortunate that first impressions are not final, because our first impression of Earl's Court was one of disillusionment that all its parks and garages were full early on the first afternoon that it was opened—after all that we had read about the vastness of the accommodation available. It's an ill-wind that blows nobody any good, and I suppose Dyer and Co. were quite happy because police and park attendants were just sending everyone to the "Olympia Garage," which landed most of us at the vast new Metropolis Garage managed by the popular, late Secretary of the J.C.C. We went there ourselves, after visiting the Ford Exhibition, to see the H.R.G. show, but we did not get to Earl's Court that day, for the garage is too far from the new home of the motor-show to encourage one.

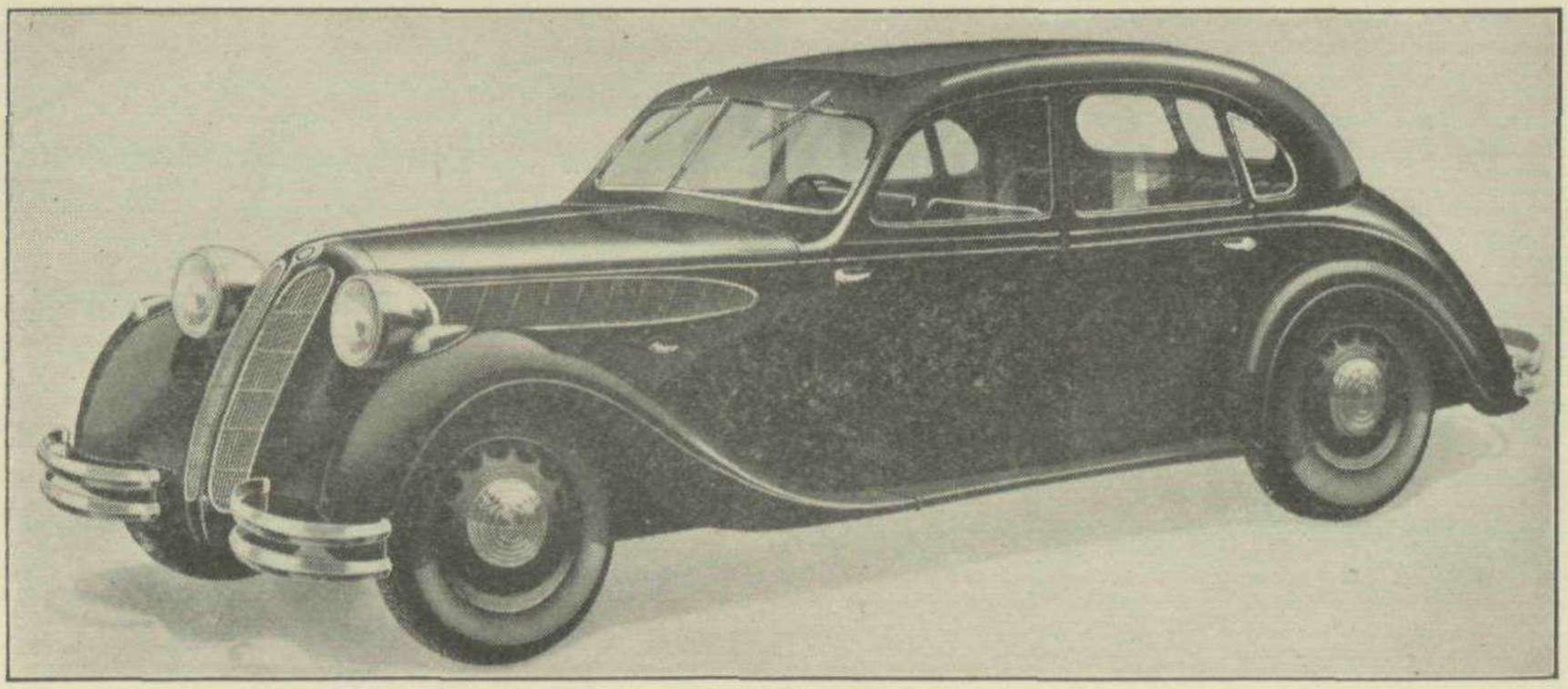
Once inside Earl's Court, impressions were certainly very favourable. The stone floors and ample ventilation prove an excellent antidote to even the most susceptible Olympia "heads," and the bareness of the stands, with their conventional layout, even to the makers' signs, is compensated by the freedom of movement made possible—only in isolated cases were these stands roped round—by the general sense of light and airiness, and particularly by the ease with which one could locate a stand from a glance at the high-slung overhead names. The feeding arrangements, too, are excellently planned, even if supplies were failing late on the Saturday nights, while the escalator up to the accessories should encourage more persons than ever before to nose around this very interesting section of the Show.

As to the cars, one has to acknowledge them as a very fine collective achievement indeed. The modern car, no matter of what class, is very fine value for money, safe and far easier to drive safely than its forebears of a decade earlier. We, as enthusiasts for fast motors, can congratulate ourselves that this has largely been brought about by the lessons resulting from racing and competition generally, fostered down the ages by keen drivers who sacrificed quite a lot of valuable things, economy, comfort, even in some cases I'm afraid, safety, that they might have greater performance than their fellow road-users. To-day, performance is on everybody's tongue and to a greater or lesser degree snappy getaway and a decent cruising speed is built into every modern car. The visitors to this year's show, old and young, gentleman or lady, showed a very notable degree of motoring intelligence. Even a North Country working-class young man of simple demeanour, who got into conversation with me on the way out, had very decided views about motor-cars, condemning a certain famous chassis as not fit to ride in, another as yet too experimental to be a safe purchase, and quoting with awe the "0-50" accleration of the Lammas-Graham. People to-day seek sports-car qualities built into nice, quiet, gentlemanly, ease-to-drive vehicles and they are exceedingly well served. We, in our turn, ask for more performance than ever before without the worries associated with former fast stuff, and find a very adequate answer amongst marques like Bentley, Frazer-Nash-B.M.W., British-Salmson, Lagonda, Railton, Aston-Martin, M.G., Delahaye, Bugatti, Alfa, Mercédès-Benz, and the rest you know so well. No, the efforts of racing men, many, alas, no longer with us, and of enthusiasts who spent incredible sums in the dark ages on things like Brooklands Hillmans or eight-valve Bugattis have certainly not been in vain.

Yet design does not stagnate—no one who has gone round this Exhibition at all carefully will fear that—while coach-work, likewise, is happily varied, so that if you want a car that looks highly conventional you are well served, but seekers after the unorthodox find much to appeal—the 16 h.p. Willys, for instance, carries modern frontage to excess, air reaching the radiator only through horizontal ducts in a V-fronted bonnet of extreme curvature. Nevertheless, there are some very striking cars that come between the two extremes, notably the coupé on the 57S Bugatti and a very fine, two-colour Bertelli coupé on the Type 328 Frazer-Nash-B.M.W. Also a very normal, yet quite distinctive Armstrong-Siddeley 25 saloon, while Rolls-Royce struck another note of individuality by the yellow and black finish of their Barker sedanca de vilbe body on a "Phantom III" chassis. This year the Continental exhibits make a very strong bid for popularity, and are of considerable technical diversity. This time Riley and Talbot staged the last-minute surprises, the former with the newly introduced "Nine," Talbot with the 3-litre side valve model.

Looking around at the small sports-cars one was amused at designers' struggles to find accommodation for comp.-shod spare wheels, a big fuel tank and some luggage-space, all at the rear end. One wonders whether spare wheels might not be carried beside the bonnet, within the wheelbase, in spite of their greater weight and bulk nowadays—as is done on the "Boulogne II" Frazer-Nash. The Morgan 4/4, of course, has a two-well recess for its comp.-shod spares, and they are nicely clamped in, a similar arrangement to that used on the sports two-seater British Salmson Six, though the actual car of the latter marque exhibited had a neater touring body with room for only one wheel in its locker. The permanent jacks were a prominent sight on the British-Salmsons.

The Earl's Court venue seemed to encourage cheeriness and good spirit, but funny incidents were few and far between. There was one good theory, however, expressed on the stand of the maker of a popular 2-litre. Someone was asking why this car had never been road-tested by the better-known motor papers. "Oh," said an unofficial standsman "there was once a case of a faked car being offered for road-test and perhaps—now fight shy of submitting *standard* jobs." "But" protested the first speaker "I know of the case to which you refer, and it was with a smaller



The Type 326 Frazer-Nash-B.M.W.

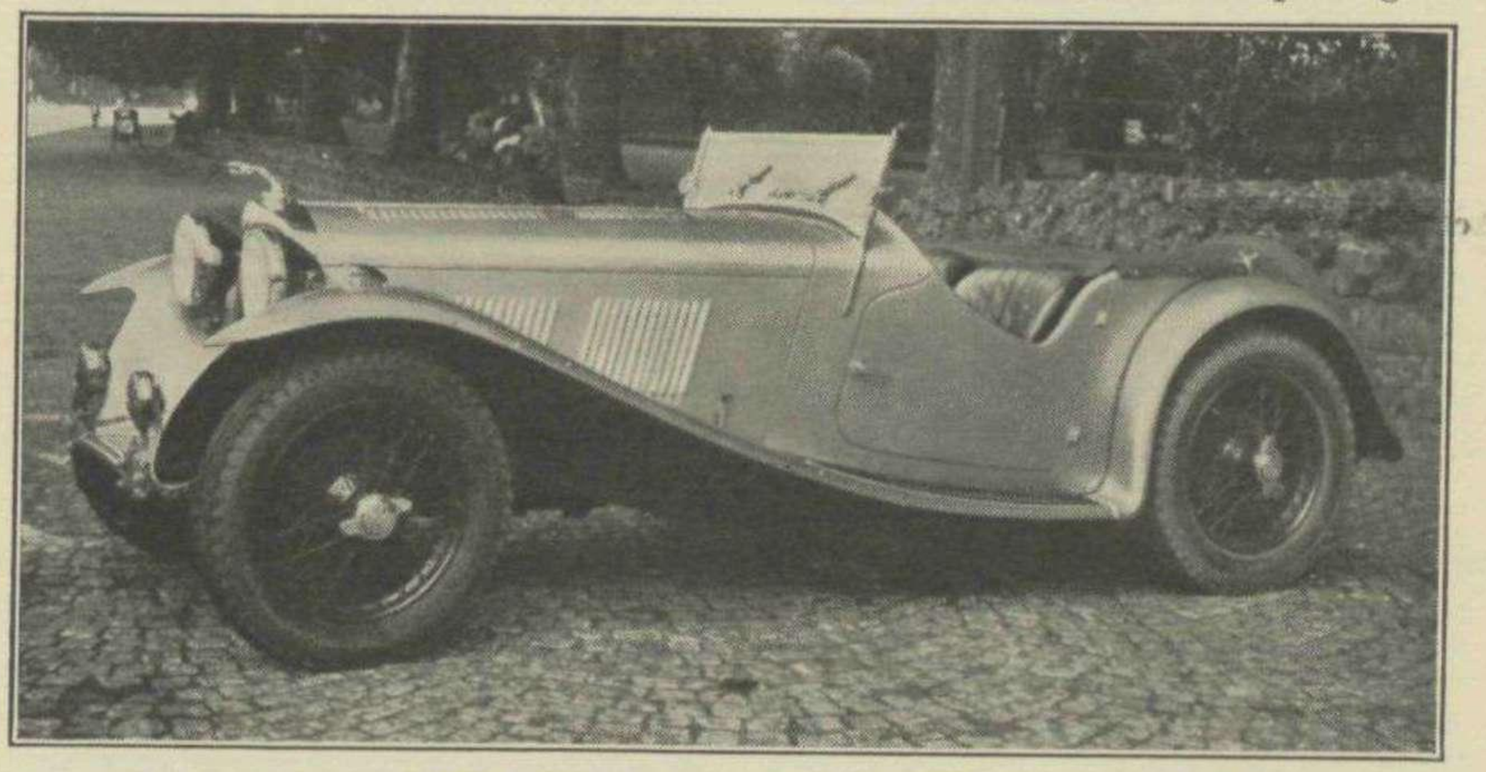
ON THE EARL'S COURT SHOW—continued

specimen of this same make." "Well," replied our informer "that suggests what other makers may do, and is all the more reason why this maker should not enter the same arena . . ." All very ingenious, of course, and decidedly humorous, but actually, while no motor-scribe can adequately "scrutineer" the cars offered to him for test, isn't it obvious that figures for fuel consumption and slow running in top gear will spoil any evil efforts to bump up compression-ratios and otherwise tamper with demonstration cars? Apart from which we have a much higher opinion of present-day publicity departments!

Oh yes! I want to see that salesman who told me you can easily change the central plugs on the V12 Lagonda, in a Lagonda pit at a big race, some day, for even the best motors oil candles sooner or later . . .

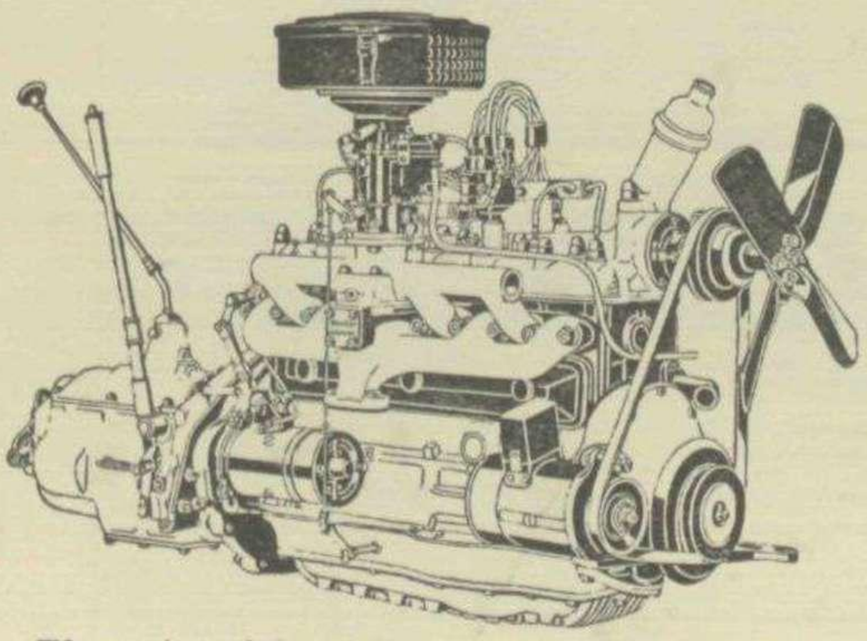
Also, I am anxious to try the Morgan 4/4, to see whether its steering column floats about over bad going, for, as last year, this very long column is supported only by a flimsy, tubular bracket near the base on the chassis exhibit, and can be waved about without effort. On the complete cars it is quite adequately held, and if the scuttle isn't prone to flexing all will be well. Only a road-test could confirm that. The new four-seater Morgan has very generous accommodation for a car of this kind. Examination of small sports-cars made me interested in the vision offered to the competition driver with his screen folded flat. In the case of the Morgan the passenger was confronted by the wiper-box, wiper-arm and mirror. The B.S.A. had the mirror rather in the driver's line of look-see, though the steering wheel was well clear of the dash. The short-chassis Aston-Martin possessed a particularly clear view, with two aero-screens erect. The 4¼-litre open-bodied Bentley was exhibited with its screen folded flat and here, again, the vision was impeccable. We were present, incidentally, when H.R.H. The Duke of Kent inspected the V12 power-unit on the Lagonda stand, and His Royal Highness seemed to hold the name of W. O. Bentley as much in awe as do hundreds of other enthusiasts—which is not surprising, as his personal car is a Bentley.

Some makers seemed rather cramped for room on their stands, notably Frazer-Nash-B.M.W. and their neighbours, Mercédès-Benz, but Alfa-Romeo, with, at all events on the Monday morning, only two closed cars and a long, open four-seater, and Aston-Martin, with three exhibits, had ample room in which to stage an effective display. Rolls-Royce and Bentley were amongst the most dignified stands, each containing four cars, one in each corner, with their c.c. or h.p. designations shown on their number-plates. Literature did not seem as plentiful as usual, or perhaps it was stored away from small boys' prowling eyes. But George Tuck had some very interesting publications to give away on the M.G. stand, our road-test of the T-model Midget included. Opel had a very comprehensive book of owners' opinions, delightfully illustrated by Fenwick. But, in general, the catalogue collector seems not to have penetrated to Earl's Court, possibly because Trojan is not there to give away those collecting bags!

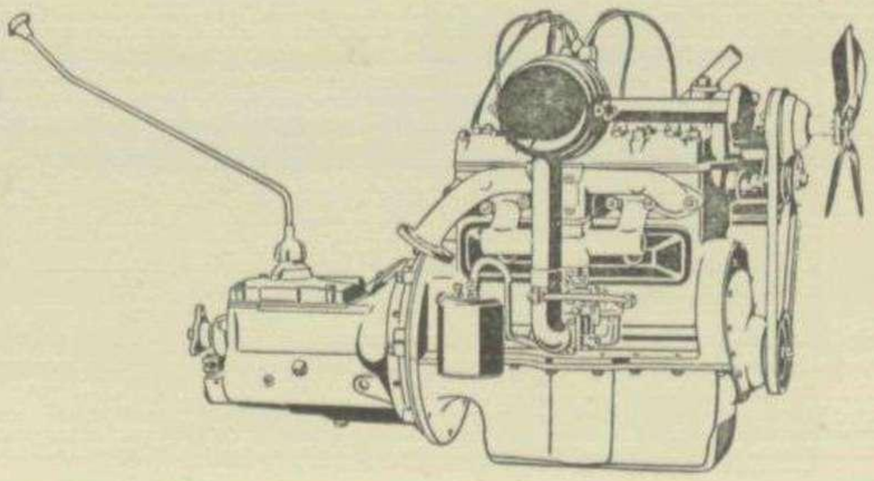


The **16/80** *h.p. Competition Model A.C.*

All manner of odd things strike the keen observer amongst this excellent range of automobiles. I was intrigued with the transversely-placed seat behind the main seats in the Type 320N Mercédès-Benz cabriolet, priced at £995. The two lone and both closed 3.3-litre Bugattis drew a discerning crowd and the value of the French franc had resulted in the startling low prices inscribed on their windscreens. Far be it from me to criticise the works of Ettore, though I did think the steering wheel spokes likely to mask the typically Molsheim dash-protruding minor controls of the Type 57. Lancias are squatter than ever, and the new separate-chassis Aprilia obviously has greatly increased accommodation. By the way, many open sports jobs have useful cubby-holes in their instrument boards, but far too few have covers for them, as on the B.M.W. Gloves and maps are so easily lost . . . B.S.A. give plenty of luggage area on their sports two-seater, but I did not like the metal spare wheel cover. A.C. showed a very striking 18/80 h.p. two-seater with mottled metal facia, a covered luggage compartment and hood well, a tonneau-cover over the passenger's seat and a steering wheel rim matching the colour scheme. In contrast, the front-age of one of the bigger Adlers was quite ghostly, on account of in-built lamps, and I was amused at the designation "Supercharged Phæton" applied to the ulta-modern f.w.d. Cord. Aston-Martin, I noticed, has grown bumpers, which contrast strangely with outside exhaust pipes on the short chassis two-four-seater, but even Bugatti had these aids to unblemished bodywork, of curious tubular-pattern, in two sections, on the Type 57. Riley showed no open Sprite this year and, as expected, the shapely new four-cylinder Alvis was a closed car. Alvis, by the way, showed, as usual, a beautifully turned-out stripped chassis and Rolls-Royce, Bentley, B.S.A., and Lagonda were amongst those showing engines. In the Demonstration Chassis section the part sectioned 540K



The engine of the **2.3***-litre type* **230** *Mercedes-Benz.*



The engine of the **1.7***-litre type* **170** *Mercedes-Benz.*

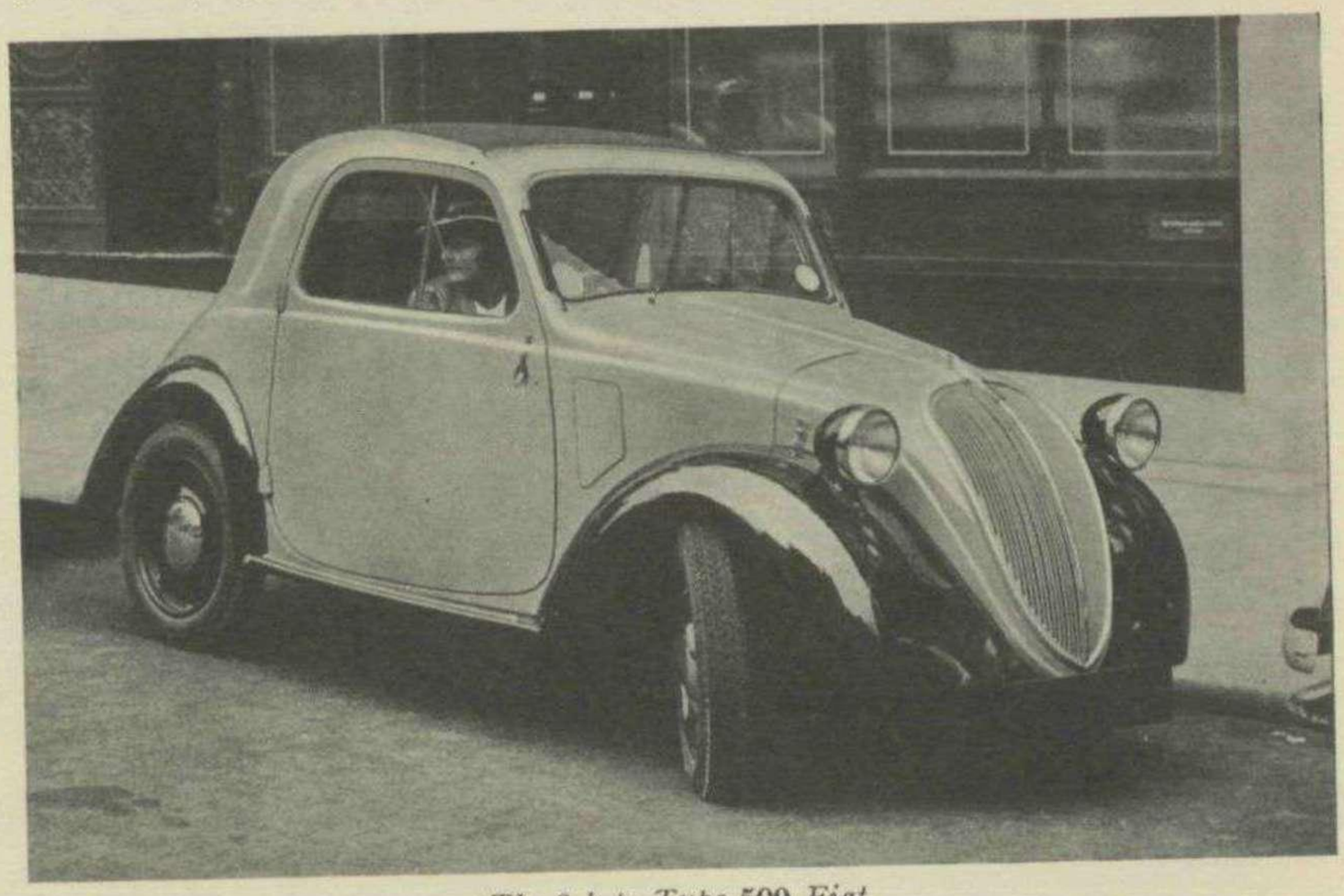
ON THE EARL'S COURT SHOW—continued

Mercédès-Benz enthralled everyone and maintained a crowd thereat.

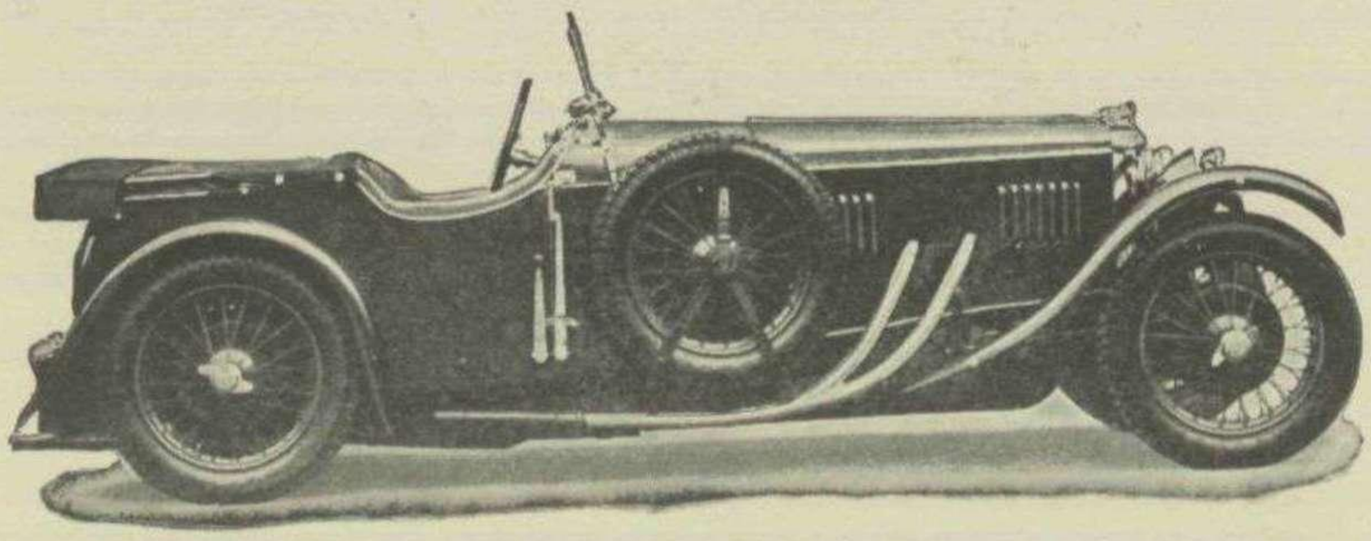
Although the sports-type car was amply in evidence, as befits its present commercial significance, the Type 328 Frazer-Nash-B.M.W. was probably the most strikingly displayed, with its big list of achievements and its road-test figures, showing a maximum of over 103 m.p.h., accompanying it. And the only Frazer-Nash present, the four-cylinder "Boulogne II" job, was certainly the only example of stark, unadorned fast stuff in the whole exhibition. I thought that the Type 540K straight-eight Mercédès-Benz, sold early during the Show to H.H. the Sultan of Johore, did not look quite so clean-cut or impressive as the model of this type shown last year, albeit it is a magnificent car. It may have been the colour-scheme or lighting, of course, that helped this impression. The smaller Merc. models had an irresistible appeal and are solid-looking, beautifully finished cars. The little Type 170V has a big air-cleaner with an intake duct directed at the radiator header-tank. The Type 230 saloon was easily identified, with memories of that great Grand Prix week still in mind.

Delahaye showed striking bodywork, yet not so sensational as one of their exhibits last year, and the quiet finish of the efficient three carburetter engine was a sight to please, resembling the finish of Alfa-Romeo's beautiful twin o.h. camshaft units. A sensible point on the Delahaye stand was a bracing rod to steady the side panel of the rear wings. Wings, of course, could fill many pages and it is noticeable that even sports models of the more pretentious sort now have well shrouded wheels and front-works, as witness, for example, the 4½-litre and V12 Lagondas. Not everyone is in sympathy with this trend, one friend of mine in particular, who likens it to dressing up cars in tin shirts to resemble fourteenth century hobby horses, and he deplores this return to the Victorian era, when everything had to have a petticoat. And, as he says, so often you get mud and water slung at you by so-called streamlined moderns, when older cars can be followed without a fouled screen. Yet, from the appearance point of view, I suppose simple wings would blend very badly with the flowing lines, grilled radiators and sweeping built-in luggage lockers we now admire. Enthusiasts still have the Frazer-Nash and H.R.G., of course. But elaborate wings, even on small cars, can add heaps of quite unwelcome weight.

It's curious, of course, how first impressions can be altogether faulty. Last year, at Olympia, for instance, a friend and I scoffed at the baby Fiat and told ourselves it was only a toy and not a very clever one at that. Now, having driven the thing, I must confess to waxing very enthusiastic, and it doesn't need this statement to convince you of the little car's worth. The new Balilla Fiat, of similar appearance, looks to be another very nice car, rather more compact than we expected, but losing nothing on that account. Then there was the Triumph Dolomite's radiator treatment, which first met with distinct disapproval, yet which most people now agree is extremely effective; we certainly enjoyed the air of luxury and wealth so conveyed, when testing the 2-litre Dolomite last May. In rather a different way the Type 328 Frazer-Nash-B.M.W. presents food for thought, inasmuch as it does 103 m.p.h., on 2-litres of push-rod engine, developing not excessive power, and you just cannot argue light weight where maximum speed is concerned. Yet think what lots of horses, often realised by complicated design, have been needed to put other fully-equipped cars up to this speed. Good output low down and thus an ability to pull a high top-gear ratio is the clue. The new S.S. attracted deserved attention as another car likely to achieve a genuine 100 m.p.h. (Wisdom lapped at 117 at Brooklands on the Saturday) and the S.S. people really do deserve high praise in respect of the present range, for only a few years ago lots of us used to hold our noses rather aloft as they passed, regarding them as imitations of something their owners would like them to be. Not so, to-day. Another very fast car is the 90 m.p.h. British-Salmson Six and one of the most dignified and best finished of really fast cars at the Show. And if you want lots and lots of passenger space in a car of modest engine size, inspect the 14 h.p. British-Salmson, whose twin o.h. camshaft engine was a source of interest throughout the Show period.

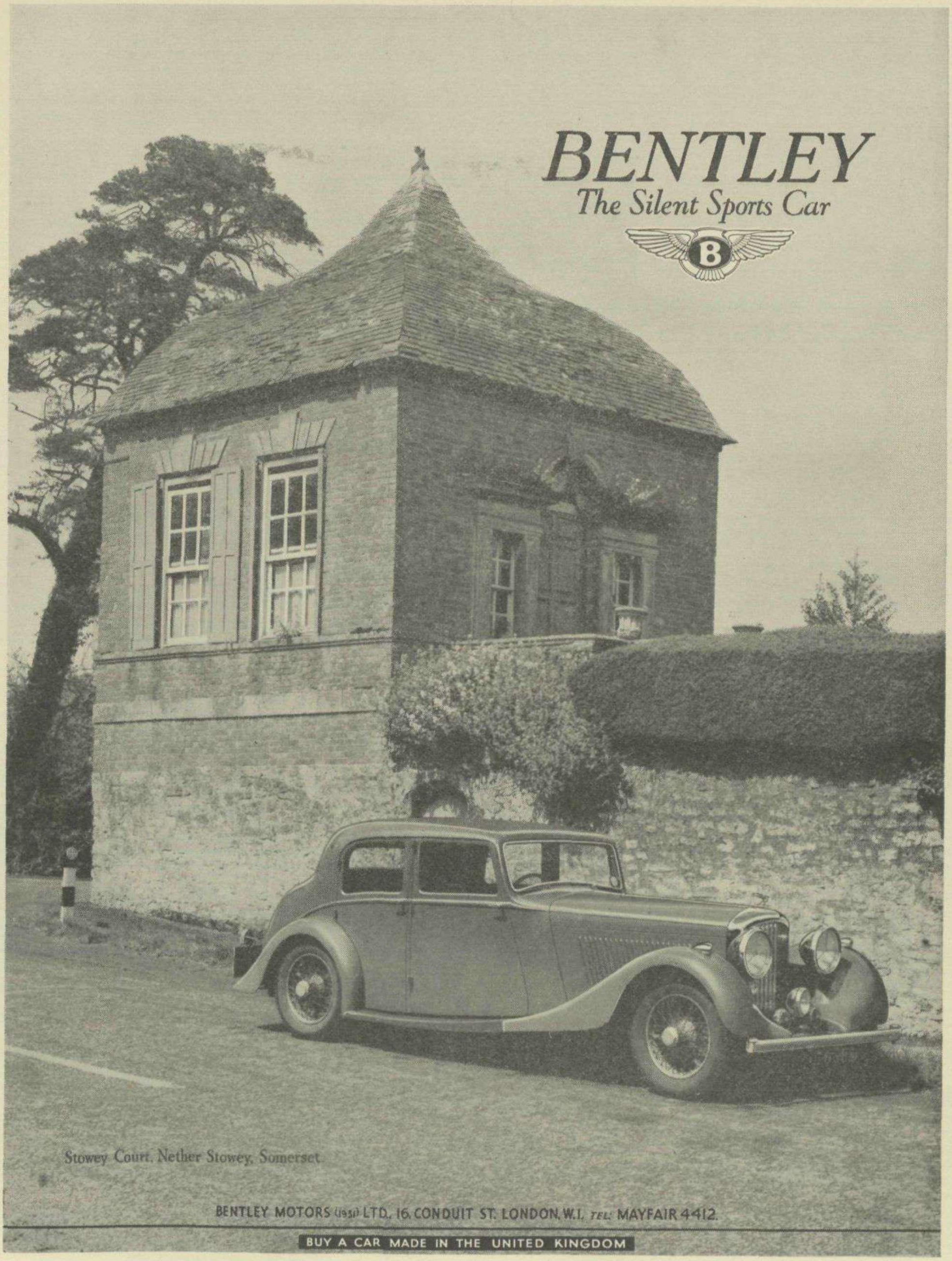


The 6 h.p. Type 500 Fiat.



The "Colmore" Frazer-Nash.

Delahaye showed an attractive drop-head coupé, having a satisfying number of neat air-ducts along its bonnet sides and louvres in the top panel of the bonnet, which are not only highly practical (hot air rises, you know) but can add so much to a car's appearance when the bonnet is a lengthy one. Pages could be written about gear-levers, from those on the Lagonda, which were higher than the steering wheel rims, to those of the Adlers, B.S.A.s and Imperial, which didn't seem to possess any. In the same way I could carry these notes into the coach-work section, or up the escalator into the gallery of extraordinarily interesting accessory exhibits. But perhaps enough has been written to indicate that the first Motor Show at Earl's Court has been a great, indeed a magnificent Exhibition—like that other exhibition staged by Mr. Craner up at Donington earlier last month. Oh yes! Will the S.M.M.T. please show the Great Motoring Public some racing cars at Earl's Court in 1938, having sanctioned Sir Malcolm's record-breaking motor-boat this year?


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Club News

THE MOTOR SPORTS CLUB

An opening gathering of the Motor Sports Club was held at its premises during Grand Prix week. The scheme is for a Club, limited for the present to 200 members, open to motor enthusiasts, and existing solely as a London Club, not organising competitions of any kind. This seems to us a very excellent idea indeed, for so often, as when, for instance, the daily papers announce a piece of news sensational to our world, one feels the need of a talk with fellow enthusiasts. At the Motor Sports Club that will be possible, as will writing letters, reading the current world's motoring press and looking after the inner man—the premises are licensed, of course. The club rooms are in Grand Buildings, Trafalgar Square, and are open from 11.30 a.m. to 3 p.m., and from 5.30 p.m. to 11 p.m. on weekdays, and from 12.30 p.m. to 2.30 p.m. and 7 p.m. to 10 p.m. on Sundays. Guests can be introduced by members during club hours. The provisional committee was composed of J. A. Masters (M.C.C.), F. H. Whittingham (N.W. London M.C.), F. L. M. Harris (M.G. C.C.), A. S. Heal (Vintage S.C.C.) and C. C. W. Burrage (Standard C.O.C.), which should be sufficient recommendation. The premises have been most tastefully redecorated and furnished by Messrs. Heal & Co. The annual subscription is 10/- for members living within 50 miles of Charing Cross and 5/- for those outside this area. Particulars from : The Motor Sports Club, Grand Buildings, Trafalgar Square, W.C.2.

M.C.C.

Out of the long list of results of the Brooklands Members' Day come two corrections. R. J. T. Marston, as we thought, had trouble with his Type 43 Bugatti after some very rapid lappery and retired, so that he gains no award. B. E. Fielding (847 c.c. M.G.), originally credited with a Silver Medal, actually nets a Premier. E. K. Farley (H.R.G.) gained a Premier—his name was inadvertently left out of the detailed results last month.

GREAT WEST M.C.

The popular Thatcher Trophy Trial will be held on November 14th, starting from the Bull Hotel, Gerrards Cross, Bucks, at 10.30 a.m. The course comprises about 100 miles, finishing where it began, and with a stop for lunch at the Crown Hotel, Pishill. Details from : Paul Hardy, 33, Cryrus Avenue, Twickenham, Middlesex.

U.H. & U.L.M.C.

Another excellent Donington Meeting was held on October 9th, this time using the new Melbourne Leg. These club Donington meetings provide perhaps the finest training possible for more serious road-racing, and we hope they will flourish and be supported exceedingly well next season. As the following results show, Miss Joan Richmond not only won the first race won by the H.R.G. marque, but another race as well, with other H.R.G.s frequently in the picture. Her average was 66 m.p.h. on both occasions. Burness with the fine old G.P. Sunbeam was lucky this time, averaging nearly 70 m.p.h. for ten laps—highest average of the day. We want to see more people supporting these race-meetings, in preference to slime-storming.

RESULTS

Sports-Cars

Three-lap Scratch Race (up to 1,500 c.c.) : 1, N. V. Terry (1,496 c.c. Frazer-Nash), 63.6 m.p.h.; 2, A. C. Scott (1,497 c.c. H.R.G.), 63.5 m.p.h.; 3, P. C. T. Clark (1,497 c.c. H.R.G.), 62.6 m.p.h.

Three-lap Handicap (unlimited) : 1, R. Watkins-Pitchford (1,496 c.c. Frazer-Nash), 62.2 m.p.h.; 2, Miss Joan Richmond (1,497 c.c. H.R.G.), 65.8 m.p.h.; 3, R. M. Strang (4,168 c.c. Hudson), 65.9 m.p.h.

Three-lap Handicap (cars prior to 1932) : 1, R. H. Whitworth (4,234 c.c. Vauxhall), 61.6 m.p.h.; 2, A. C. Scott (4,398 c.c. Bentley), 58.4 m.p.h.; 3, G. Swain (1,498 c.c. Alvis), 55 m.p.h.

Four-lap Handicap (up to 1,500 c.c.) : 1, Miss Joan Richmond (1,497 c.c. H.R.G.), 66 m.p.h.; 2, C. C. D. Miller (1,496 c.c. Riley), 62.1 m.p.h.; 3, P. C. T. Clark (1,497 c.c. H.R.G.), 63.4 m.p.h.

Four-lap Handicap (unlimited) : 1, R. M. Strang (4,168 c.c. Hudson), 67.2 m.p.h.; 2, N. V. Terry (1,496 c.c. Frazer-Nash), 68.5 m.p.h.; 3, A. C. Scott (1,497 c.c. H.R.G.), 67.6 m.p.h.

Five-lap Handicap (unlimited), for the U.H.U. Trophy : 1, Miss Joan Richmond (1,497 c.c. H.R.G.), 66 m.p.h.; 2, G. M. Crozier (3,622 c.c. Ford), 54.8 m.p.h.; 3, P. C. T. Clark (1,497 c.c. H.R.G.), 62.4 m.p.h.

Racing-Cars

Ten-lap Handicap (unlimited) : 1, G. K. Burness (1,991 c.c. Sunbeam), 69.6 m.p.h.; 2, H. A. Richards (1,087 c.c. Riley), 61.5 m.p.h.; 3, H. K. Place (1,496 c.c. Frazer-Nash), 64.2 m.p.h.

B.A.R.C.

Brooklands Track was officially closed for its annual repairs on October 30th, but, as usual, certain portions will be available for testing reasonably sober motor-cars, and, of course, there is always plenty of interest going on off the Track, within the Weybridge Estate.

AN EASTERN COUNTIES CLUB?

An enthusiast is anxious to start a club for real dyed-in-the-wool enthusiasts residing in the Eastern Counties, the idea being to form a really live body as distinct from a club merely existing to run socials and occasional trials. It is hoped that eventually permission may be obtained to form such a club into a Midland branch of the Vintage S.C.C. In the meantime, Mr. Geoffrey Deason would like to hear from anyone who is interested. Mr. Deason owns a G.N. and recently completed a 1,000 miles holiday tour of the Lake District and Scotland in a 35/- Jowett which he subsequently sold for 70/-, only the silencer having fallen off. He it was who wrote that very enthusiastic article "Memories" for us, last January, and amongst motors owned by fellow enthusiasts are a fast Balilla Fiat and a blown Lea-Francis. Those who live in the Eastern Counties and appreciate real motoring should do something about it. Mr. Deason can be found at Messrs. Cooks Garages, Ltd., London Road, Peterborough, Northants. Peterborough 3021.

B.O.C.

That adventurous affair, the Bugatti Owners' Club Night Trial, will be held on November 20th, and as the Veteran Car Run is on the following day marshals should have an excellent chance of twenty-four hours or so dedicated to motoring interests—whereas, in past years, there was the dismal prospect only of bed after a night out with the Bugattisti. Details from E. L. Giles, 2, Queen Street, Mayfair, W.1.

J.C.C.

The South Western Trial started from Wilton, near Salisbury, and at its conclusion a dinner and dance was held at the Runnacleave Hotel, Ilfracombe. The hills were in a dry condition and humoured quite staid motors. But Kersham put paid effectively to many hopes and actually only H. R. Winnicott (Frazer-Nash) climbed all the gradients and thus netted the only Premier Award for the Chain Gang. Dr. A. B. Waters drove Peaty's interesting Vortic Velox Special, which has been described and illustrated in MOTOR SPORT—incidentally, this is an example of sensible nomenclature, because the car is a combination of Velox Vauxhall and Vortic Hillman, the former the 14 h.p. Vauxhall and not the older Velox 30/98, the latter the later-series straight-eight Hillman. Shelsley Special builders, please copy.

A large number of competitors finished with no award, including Haward's famous Bayliss-Thomas, Norton Bracey's A.C., D. F. Scutts's L.M.B. and L. M. Ballamy's still experimental 1,099 c.c. Allard-L.M.B., so the J.C.C. can duly offer itself congratulations.

RESULTS

First-class Award : H. R. Winnacott (Frazer-Nash).
Second-class Awards : The Earl of Essex (M.G. Midget), N. A. Prince (Singer), G. Warburton (Vauxhall), Dr. A. B. Waters (Vortic Velox Special), D. Maclean (M.G. Magnette), M. W. Sheppard (M.G.), R. E. Rushbrook (M.G.), S. L. H. Potter (M.G.), F. N. Crane (M.G.), L. K. Holdaway (Austin), C. G. Palmer (Austin), R. Peaty (Frazer-Nash).

The following competitors finished the course : W. J. Howard (Bayliss-Thomas), J. M. Laing (Riley), Miss E. M. Dobson (O.M.), R. Vidler (Wolseley), P. St. V. Tabberner (Morris), R. H. B. Mason (Rover), B. H. Holloway (Ford), H. F. Burt (Triumph), R. F. Peacock (Riley), W. J. Lanes (M.G.), W. R. Wood (Singer), N. Bracey (A.C.), D. F. Scutts (L.M.B.), L. M. Ballamy (Allard L.M.B.) S. S. Dawes (Fiat).

CLUB NEWS—continued

BERKHAMSTED & D. M.C.

Lockhart-Bossingham Cups Trial

Dry weather made the course extremely easy for the competitors in the club's Lockhart-Bossingham Cups Trial held on Sunday, 17th October. The various hills included as observed sections were all so hard and dry that the results of the trial depended entirely on the three special tests. Had it been wet, however, the result would have been very different for the course itself was excellent and consisted of plenty of gradient and some really good trials sections.

Since all but two competitors got through to the finish without loss of marks everything therefore depended on the three special tests. The first of these was a driving test. This took place on a downhill section of road. Here C. W. Taylor (Singer) clocked the best time.

In the next test, a brake test, K. N. Hutchison in his rakish-looking special short-chassis Ford V8 did well. The results of these two tests, together with those of the third, a go-stop-go affair, evidently produced sufficient means wherewith the organisers were able to work out the official results, which are as follows :

RESULTS

Bossingham Cup : K. N. Hutchison (Ford V8).
First-class awards : H. C. Dryden (Ford V8) ; E. J. Haesendonck (M.G.) ; C. D. Claridge (Frazer-Nash).

Second-class awards : Miss Redfern (H.R.G.) ; J. E. R. Wvidhart (M.G.) ; R. J. Harter (M.G.).

Team award : E. J. Haesendonck (M.G.) ; J. E. R. Wvidhart (M.G.) ; J. H. Payne (Wolseley).

Model Car Race Meeting

As a result of the highly successful meeting staged earlier on in the year it has been decided to hold another model car race meeting. This will take place in the Dance Hall at the Kings Arms Hotel, Berkhamsted, and the date of this "Grand Prix de Berkhamstee—eed" (as it has been titled) is fixed for Sunday evening, 28th November. The flag will fall for the first race at 7.30 p.m.

There will be classes for 6d. Woolworth, Schuco-"Mercédès" models, and the unlimited. In the latter class models must not have a wheelbase of more than 18 in. Steam, petrol or rocket as a means of propulsion are barred. Entries, at 6d. per car per class, will be accepted on the line. Awards will consist of a cup to the winner of each class and a medal to the runner-up of each class. There will be a special award for the fastest time of the day.

Any further details of this meeting may be obtained from the Hon. Secretary, Mr. N. C. Lone, 57, Marlowes, Hemel Hempstead, Herts.

THE VETERAN CAR RUN

The Veteran C.C. has continued active this year and will again hold the annual run to Brighton in co-operation with the R.A.C., on Sunday, November 21st.

As last year, the start will be from the Magazine in Hyde Park, from whence the first of the pre-1905 cars will set forth at 8.30 a.m. Cars of 1894-1896 will be required to average 10 m.p.h., those of 1903-1904 18 m.p.h., others in proportion. The usual route to Brighton will be followed. This is an admirable event, whether you run to demonstrate the achievement of the pioneers, or merely to have some rare fun and adventure. Once again we would ask those who go down to the sea in modern cars behind the veterans to give the drivers of these wonderful old cars as much room as they possibly can—both in which to brake and in which to steer. If you have a minor smash in your car you merely straighten a wing or send a bill to your insurance company, but the same happening to a lightly-constructed veteran may write off a museum piece. Of recent years congestion in the vicinity of competing cars has been all too evident. Make a point of seeing the run. Good vantage points, other than the start and finish, are Brixton Hill, the Croydon By-Pass (a hill for the competitors !) and Reigate Hill.

FORD ENTHUSIASTS' CLUB

A hill-climb was held at Knatt's Valley, Kent, on October 31st.

A trial in the Petersfield district is being arranged for Boxing Day, to which it is hoped other clubs may be invited. Classes for 8 h.p., 10 h.p. and over 10 h.p. Ford cars, using ordinary tyres and axles, will be used, with a special award for the best performance in each class, while drivers of other makes or of Ford cars with special modifications or equipment, will compete together in a separate class, whether members of an invited, or the organising, club. This class will also have a special award, and first and second-class awards will be given. Some stiff hills will be used, divided into sections, the marks earned depending on how far a driver climbs. It is probable that a short acceleration test will be instituted to decide ties and the entry fees were fixed provisionally at 5/- for members of the organising club and 7/6 for members of invited clubs, with team entries of two. These arrangements may be modified before the close of entries.

Membership is increasing healthily and the Club has the advantage of being able to use the Millbrooke Dining Club as headquarters. The annual subscription is £1, or 10/- for social membership, with an entry-fee of 2/6. Particulars are available from S. H. Allard, 15, Millbrooke Court, Putney, S.W.15, or from K. N. Hutchison, 23, Albemarle, Park Side, Wimbledon Common, S.W.

GENERAL NOTES

That great week at Donington entailed exciting journeys up "A5," starting unhealthily early in the a.m., on one of which the Opel Cadet cheerfully averaged 40 m.p.h. in spite of prolonged fog until well past St. Albans. These journeys were punctuated by a run to Brooklands in a very beautiful Type 43 blown 2.3-litre Bugatti, owned by an Englishman who has long been resident in France, the car having been imported for a holiday. The French registration letters and Bugatti blue finish of the special two-seater body attracted much attention as we drove out of Victoria Station and across London, the clutch fierce in traffic restarts, the "pur sang" machinery beneath the bonnet emitting an enthralling song as it idled. Screen flat, we motored in truly business-like fashion out on the Kingston By-Pass. Arrived at Brooklands, Mr. Bradley kindly "scrutineered" the French idea of a silencer to which Gatekeeper Cann had objected, and we were free to commit lappery—which in a good edition of a really fast Molsheim motor is a joyous undertaking indeed. This "2.3" had several interesting features, including a G.P. gearbox with central change and a camshaft, giving varied inlet timings whereby manifold pulsations, that would otherwise have resulted in unequal cylinder fillings, were claimed to be successfully defeated—which is a technical matter that deserves far more attention than I can afford it here. Alas, machinery of this calibre is a thought temperamental, and the Bugatti soon threw away its dynamo and disjointed its tail-pipe, while the timing could have done with some alteration and the water seemed to leave the radiator in some manner undiscovered. All we could do was to fit a bigger main jet, refill the rad. and mourn the damage (extensive) to the dynamo. We then lapped, two up, at 101.64 m.p.h., and that, I suggest, is a very good show indeed for a ten-year-old fully-equipped 2.3-litre car carrying two passengers and feeling "out-of-sorts" with the change of air. That Bugatti was very very stable indeed, with no heel-over and not a trace of tyre-squeal, and could be held within the inside black line round the Byfleet at something like 90 or more m.p.h. On the road it was a most satisfying motor-car, fast, fierce, and with top-gear acceleration that could be made most excellent use of in fast traffic running. So that we forgave it for discarding its expensive dynamo—so that Godfrey Davis had to come to the owner's rescue and provide a Vauxhall 14 for Donington—and for the embarrassing naughtiness of making very loud fire-engine noises when the starter pinion jumped the flywheel teeth ! That brief run set one's enthusiasms, so carefully worked up over all the nice modern sports-cars we were to see at Earl's Court, rather hopelessly askew . . .

Grand Prix day itself saw us off by 5.30 a.m. in the Opel, joined at Marble Arch by a very sporting Ford V8 cabriolet, a blown M.G. Midget and a very fine Frazer-Nash. We kept more or less together until over enthusiastic cornering after Weedon resulted in some excellent communal tail-sliding and a badly bent rear wheel on the M.G., while on the run up the Frazer-Nash had once gone ahead, temporarily, to deal with a certain rapid M.G. that had passed our procession. We then had fun with a car-load of enthusiasts in a 12/50 Alvis saloon, and with a cautious Jewish driver of a 4½-litre Bentley, who had probably hired his imposing motor-car from Mr. Godfrey Davis and, not being used to it, had, perforce, to suffer the indignity of being passed by our £135 automobile. Remarkable, how easily a 120 mile run passes, when enthusiasts meet enthusiasts . . .

Letters from Readers

HIGH SPEEDS

Sir,

I read with interest a letter from "Member—A.R.D.C.," Melbourne, Aus., published in your June issue, in which he doubts a Mr. Thompson being able to do the trip of 126.2 miles from Melbourne to Ararat in 2 hours 10 minutes.

As I did not see Mr. Thompson's letter, I am a bit hazy as to how the objection arose, but according to "Member's" own statement the road is good and there are no towns to mar speed.

If Mr. Thompson is any kind of a driver and the Master Chev. any sort of a Chev., the 2 hours 10 minutes is quite believable in spite of "Member" and any amount of his friends.

"Member" probably knows the New South Wales highway from Goulburn to Sydney. It is 136 miles. I have a 1929 Standard Buick tourer (Silver Anniversary model) and left the G.P.O. Goulburn with two friends at 9.50 a.m., arriving in Sydney at the G.P.O. at 12.20 p.m. (2½ hours). This time included two stops and the last twelve miles was through heavy mid-day traffic. The Buick isn't tuned up specially for speeding, although I look after its "innards." Perhaps "Member" doubts that. He can write my two friends or come along next time I am down that way.

My home is 250 miles from Sydney and the Buick does that pretty regularly in from 5 to 5½ hours, depending on catching the punt across the Hawkesbury River. A friend of mine here with a Chrysler Airflow does the trip in 4½ hours, but I'm not a speed hog. The roads are excellent of course but I don't like to see "Member" doubting Mr. Thompson's ability with his Chev., apparently because "Member" owns a more expensive car than the Chev.

I would like to see a crowd of the English racing and sports-car enthusiasts out here for the Round Australia Race next year. They would have a wild time with every make of road for about 9,000 miles. Concrete, bitumen, dirt, black soil, red soil and cart tracks and possibly no tracks at all. It should be exciting and an excellent advertisement for the cars that get through. Perhaps some of us, out here, will be able to show your crack English drivers a thing or two when it comes to "timber topping" per car.

I have only lately been getting the MOTOR SPORT but it makes me envious of those who get round the country side "flat out" more or less. I would like to be with them.

I am, Yours etc.,

New Member—N.R.M.A.

Sydney,
N.S.W., Australia.

ONE FOR THE "SPECIALS"

Sir,

In "Club News" in the September issue of MOTOR SPORT, I notice a certain amount of jubilation is caused by the location of an I.O.E. G.N. Suppose I were to whisper details of a full o.h.v. G.N. engine? This was removed from its chassis to make room for a four-cylinder plot. More of that anon. The engine is complete with two spare cylinders, con-rods and a few other oddments, but is lacking one set of top rockers. These, judging by the remaining set, should present no undue difficulties to manufacture.

In certain earlier articles, you have commented upon various epic performances put up by £5 cars. Surely, there is nothing outstanding in this? With expensive cars of this type one would expect to journey at least as far as John o'Groat's and return, without falling to pieces as extensively as a certain French marque is reported to have done. A year or two ago, I purchased a 1925 Gwynne eight for the modest sum of 20/-. Mileage covered to date is some 29,000 odd. Its previous total I am unable to find out, as it has only a 10,000 mile speedometer. This is not by any means a record mileage, but it has been covered without recourse to a garage, although there have been one or two involuntary stops, which have, however, responded to treatment.

"Nellie Gwynne's" last long run may prove of interest.

She left London late on the Friday before August Bank Holiday bound for Pendine. Crew consisted of three, and cargo, besides camping equipment, was composed of a trailer and two racing cycles, the idea being to participate in the sand-racing organised by the Carmarthen and District L.C. & M.C.C. The equipe arrived about mid-day on Saturday, the run being entirely uneventful. Racing over, and the cycles proved to be not so hot as we had hoped, the return journey was begun. Carrying two only this time, "Nellie" proceeded to hold 55 for as long as the roads would let her. I should add that, on occasion, the trailer was prone to have a will of its own. Another trouble-free run ensued, except for a little bother outside Uxbridge when that indescribable trailer broke its tow-bar and careered across the road, leaping a pile of gravel, crashing through a hedge and turning "base uppards" in the field beyond with the bikes underneath.

Fortunately, the speed at the time was low and the road was empty. The crew managed to scrape up the mess and tie it all together sufficiently well to finish the journey. I should explain that I was not one of the crew on this occasion. I was holidaying in Cornwall with the Special (G.N. chassis, etc.) and drove up to Pendine to meet the Gwynne, returning to Cornwall after the event. The following day, "Nellie" came down to join me and later we returned together. On this journey she demonstrated the 55 business time and again, and on one memorable occasion, showed me her heels to the tune of an honest 60! Mileage for that week about 1,200. By the way, the Gwynne still has its original pistons!

A description of the Special might interest you.

G.N. chassis, 12-50 Alvis power plot, Citroën front axle, Riley wheels, earlier Citroën steering gear, and a sprinkling of Bugatti, Bentley, Bianchi, Buick, Gwynne, Essex, Rover, Sunbeam, Swift, Ford, Wolseley and assorted oddments, not forgetting almost a complete A.C. tricar front axle to carry the spare wheel. Took almost four years to build, evenings and odd week-ends. Has a maximum of 84, the Alvis being quite standard, does 30 m.p.g. Three speeds, 4 to 1, 5.2 to 1, and 9 to 1, and is altogether a pleasant motor to drive.

If you can give me any information about the 2-litre Arab, about 1926, I should be very grateful. I have been offered one of these, but except for the fact that it is a product of the late Parry Thomas, I know nothing at all about it.

I am, Yours etc.,

C. H. PEACOCK.

Isleworth,
Middlesex.

[Can any readers help Mr. Peacock? Ed.]

* * *

STEAM CARS

Sir,

I enclose some interesting data referring to the performance of the Stanley Steam Car in 1905, 1906 and 1907, also a copy of a letter on steam power from Sir Malcolm Campbell, and a reference to a very interesting boilerless steam engine patented by Mr. H. R. Ricardo in 1920. Should they be "muzzled" or permitted to "let off steam"?

STANLEY STEAM CARS

From Derr's "The Modern Steam Car and its Background."

Sir Thomas Dewar, an Englishman, and a great lover of clean sport, offered a cup known as the "Dewar Cup" to be held by the one who could drive a car a mile in the shortest time. This cup was open to world competition, and the first international meet occurred at Ormond, Florida.

In January, 1905, it was won by Louis Ross in the then record time of 38 seconds for one mile, and in a Steam Car. The power plant in this car consisted of two 16 inch Stanley Boilers in which was

LETTERS FROM READERS—continued

carried 800 lb. pressure, and two $2\frac{1}{2}\times3\frac{1}{2}$ Stanley engines.

The following January, 1906, we entered a car to compete in the Ormond races. This car had a power plant comprising a 30 inch boiler and a $4\frac{1}{2}\times6\frac{1}{2}$ engine. Now a $4\frac{1}{2}\times6\frac{1}{2}$ engine had, with the same steam pressure, practically four times the power of two $2\frac{1}{2}\times3\frac{1}{2}$ engines. This car was driven by Fred Marriott and won the Dewar Cup, going a mile in $28\frac{1}{5}$ secs. It also made two miles in $59\frac{1}{2}$ secs. This was the first car to go two miles in one minute.

The boiler pressure used in these trials was 1,000 lb. The engine made one revolution whilst the driving axle made two. So the engine made only 300 revolutions to the mile. And, since the mile was made in $28\frac{1}{5}$ secs., the engine made $10\frac{1}{2}$ revolutions per second and the wheels twice that number, or 21 revolutions per second.

In the following year, 1907, we sent another car to Ormond to again compete for the Dewar Cup. This car had a much improved engine, and a boiler designed to stand a much higher steam pressure. But unfortunately the beach was in bad condition. There had been continuous strong east winds and the surface of the beach was wavy. But Thursday there came a strong north-wester and swept the beach in fine shape.

The next day about noon the car was brought out, and Fred was instructed to go over the course at about two miles a minute. He went a mile in about $29\frac{1}{2}$ secs., and discovered there was only one bad place in the mile. After some discussion my brother consented to have the trial made. The crowd was anxious and Fred was desirous of lowering the record. Fred went up about nine miles beyond the starting line. He set the automatic so as to raise the steam pressure to 1,300 lb. When he crossed the starting line he was going at a rate of speed never before seen. But when he reached the bad place in the course the car left the ground completely for a distance of nearly 100 feet, and it turned slightly in the air and struck at an angle, and of course was instantly smashed. The boiler was torn out, and with a tremendous roar of steam from the broken pipe, rolled several hundred feet down the beach. When that accident happened, the car was travelling at nearly three miles a minute, or fully 250 feet per second. Now 260 feet per second is faster than the speed of a golf ball when it leaves the club of a powerful expert.

The mile made in $28\frac{1}{5}$ secs. on January 26th, 1906, stood as a record for six years, and has never been lowered by a car weighing only 2,204 lb., which was the limit at the time. Had the beach been in perfect condition in 1907, the record would have been lowered by Fred Marriott to close to 20 secs., or at the rate of three miles in one minute.

From Sir Malcolm Campbell to "Steam Car Developments and Steam Aviation"

January, 1935.

Sir,

I have always felt that it is unfortunate that so little attention has been given to the development of the light steam unit for the purposes of road and air transport.

If the inherent disadvantages of steam as applied in these directions can be overcome, there are countervailing advantages in its use which are simply immeasurable. Obviously, the goal can only be reached by close and careful experiment, which has been lacking during the past twenty years.

At the moment there seems to be a revival of interest in steam and, according to report, some remarkable results have already been achieved—results which, if confirmed, cannot fail to be far-reaching in their influence on the future of aviation in peace and war.

I wish you well in your efforts to maintain the interest.

Malcolm Campbell.

From a Correspondent in San Francisco, January 1935.

If you look up British Patent No. 165,263 of April 15th, 1920, issued to H. R. Ricardo, you will find a most practical suggestion for a boilerless engine, complete with controls.

I am, Yours etc.,

Manchester. G. J. A. HOWARTH.

A Xmas Present for 1937?

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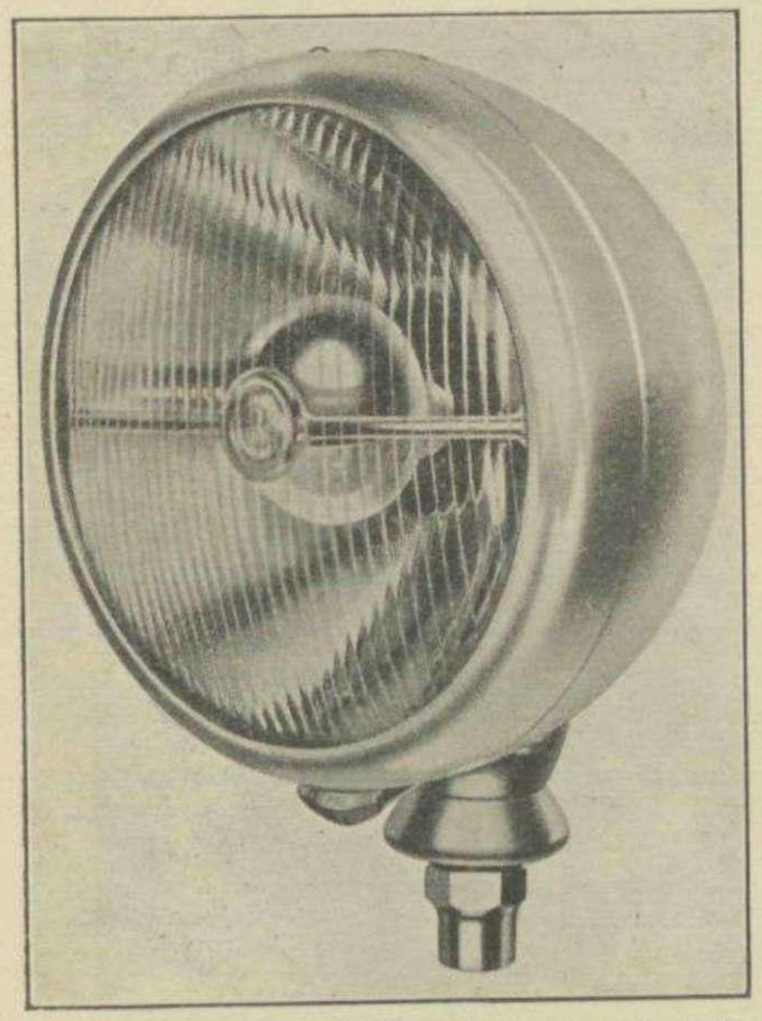
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PLAYING "IN" THE GALLERY

A REVIEW OF THE ACCESSORIES AT EARL'S COURT APPEALING TO SPORTSMEN

SPORTING motorists are not, as a rule, numbered amongst those visitors to a motor show who "only stand and gape," or, worse still, merely ask silly questions designed to catch out the stand attendants. The sportsman usually takes a keen interest both in technical and practical exhibits, and, apart from the main show of cars, nearly always finds time to wander round the galleries, where gadgets and accessories after his own heart are displayed.

The galleries at Earl's Court, even if many found it difficult to find their way about the numerous ramifications,



The Lucas Type FT57 Foglamp and Anti-Dazzle "Passlight"

had much of outstanding interest to offer. It is not proposed to deal solely here with accessories of a purely sporting character, but with a number of those which appeal to the discerning motorist, who realises what is useful in motoring, as apart from a mere "gadget."

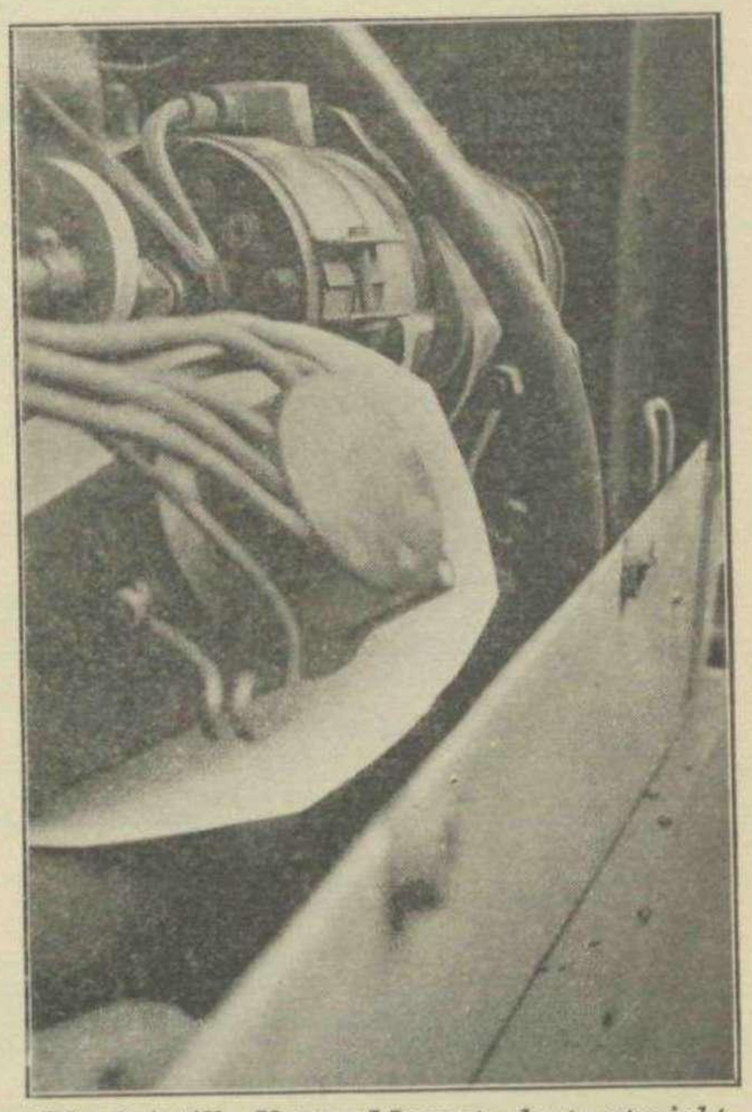
One of the first things that an enthusiast wishing to improve the performance of his car does is to raise the compression. This may be done in three ways—machining the face of the cylinder head, fitting pistons with a higher dome, or fitting a thin gasket. The cheapest method is the last, and here "Klingerit 1,000," made by R. Klinger, is useful. This gasket is manufactured in all sizes from $\frac{1}{8}$ in. to $\frac{1}{64}$ in., and takes its name from the claim that it will withstand 1,000 atmospheres, even at a temperature of 1,500° Cent. A change this year is that no steel mesh is now used to combine with the asbestos fibres. The thin $\frac{1}{64}$ in. gasket raises the compression quite a lot, but the faces of the head and block must be true, without distortion. Klinger die-pressed non-metallic brake and clutch linings were also seen on this stand. Another manufacturer of thin gaskets was J. Payen, who, amongst other types, supply thin copper gaskets for those who prefer this material.

As regards pistons, many types were on view, and enthusiasts were interested in the Specialloid, for this type is used on the majority of E.R.A.s. It is of a Y-alloy with great tensile strength at high temperatures, withstanding 11 to 12½ tons. Some touring types of piston, it may be mentioned, will only stand 4 tons. Small clearances are possible, and the crown is reinforced by eight ribs.

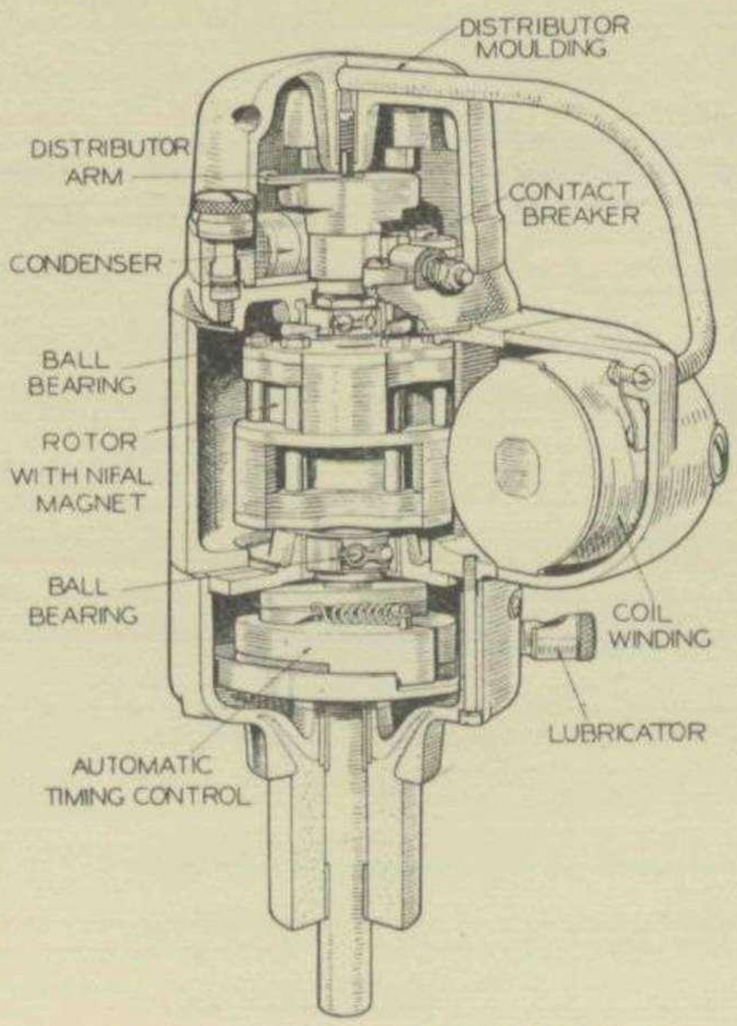
Hepolite pistons, made by Hepworth and Grandage, also have many racing successes to their credit, and these were on show in various metals, such as Y-alloy, silicon alloy, and cast iron. Then there was the Aerolite (Light Production Alloy Co.), slotted to prevent heat distribution to the pressure faces, and the Covmo, also slotted, and with a split skirt to allow even expansion. Another slotted piston was the Wellworthy "Welflex," with the head separated from the skirt except at the gudgeon-pin bosses. Wellworthy are famous for piston rings, such as the Simplex type, which has saw cuts round its circumference, to allow for expansion sideways. This type has no elasticity of its own, but is backed by an expander behind the ring to press it towards the cylinder walls and provide a perfect seal.

Exhibits of split crankcases and such broken parts on stands as of Laystall and Barimar remind the enthusiast of that day at Brooklands . . . Instead of buying an expensive replacement, however, these broken parts can be scientifically welded "as good as new," or better. The Laystall company have many other services for the man who wants the best out of his car, besides welding. There are Nitralloy cylinder liners and brake drum liners, of special hardened steel, both alloy and light cast iron pistons, and a special tuning and overhauling service, while special racing camshafts or crankshafts can be made to order.

Magneto ignition is popular among sporting motorists, and performance may frequently be improved by fitting a modern rotating armature instrument such as the Scintilla Vertex, examples of which, giving off huge, fat sparks, caused the crowds to stop. Magnetos of this



The Scintilla Vertex Magneto drops straight in to replace a coil distributor unit.



The Lucas camshaft speed vertical Magneto.

type, designed to replace a coil-ignition distributor unit, were also shown by the Lucas and B.T.H. companies.

The chief novelty among sparking plugs was the new range of K.L.G.s with "Corundite" insulation, a substance similar in appearance to porcelain, but with different heat-resisting qualities. This is the first time that K.L.G. plugs for cars have appeared with insulation other than mica, and the well known mica range, with the racing plugs that have served many drivers so well, is continued in addition to the newcomers. The Corundite plugs are not yet included among the racing range, but the "coolest" model is designed to stand up to a hot-stuff sports engine. Champion, Bosch and Lodge showed their well tried ranges of sports and racing plugs, both in 14 mm. and 18 mm. sizes, and such a wide variation is available that no extensions have been found necessary. Lodge showed a 12 mm. plug.

Even sporting folk like to be able to start their cars quickly in the morning, and Solex showed a new thermostatic starter control, automatically operating the separate part of the carburetter used

PLAYING "IN" THE GALLERY—continued

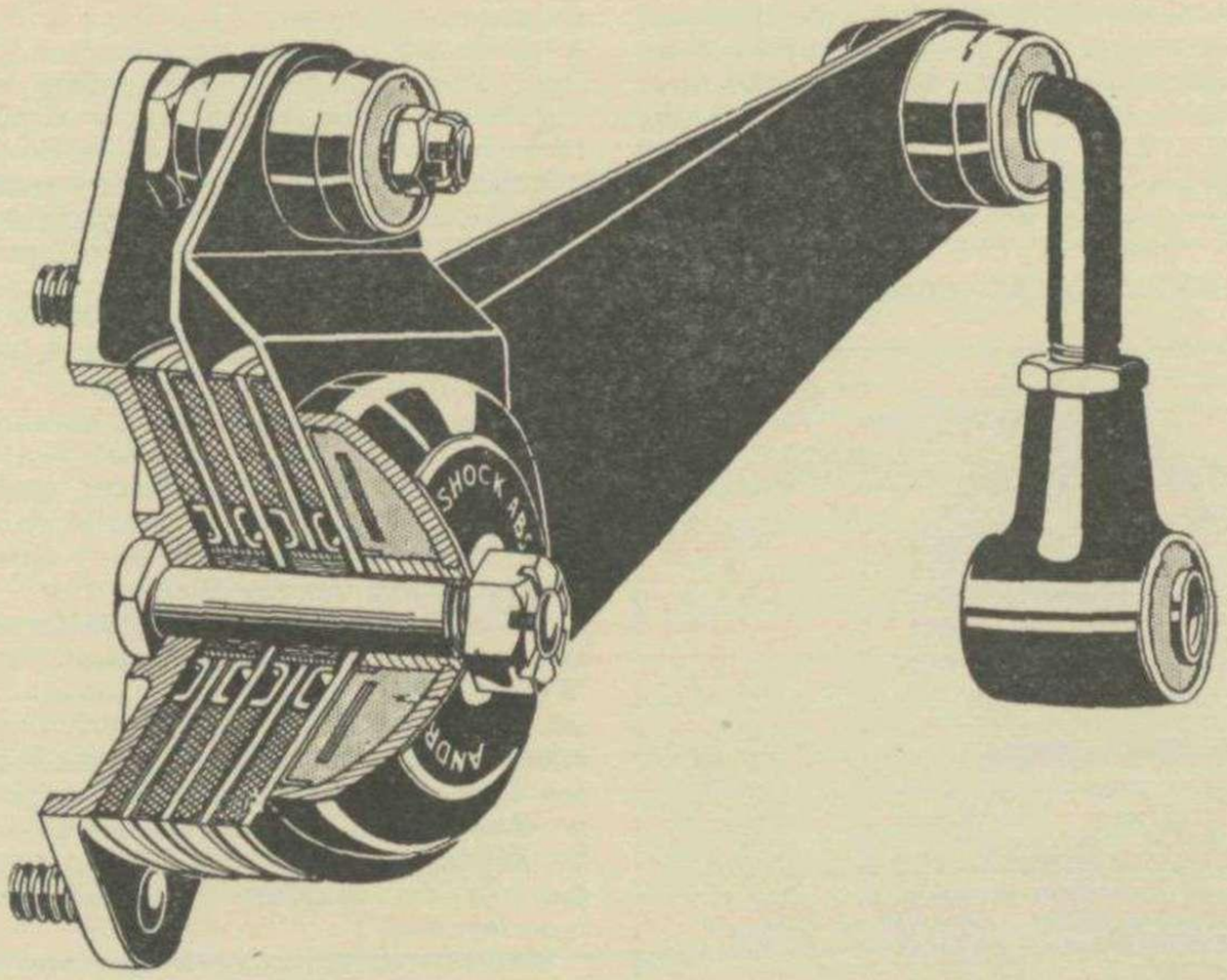
for starting from cold. This device is brought into operation by the suction of the engine, and shut off by a thermostatic spring when the engine is warm. Another new Solex feature, on their downdraught carburetter, is the provision of an intermediate position for the hand-operated starter control, to enable the car to be driven away with a rich mixture when cold. A third new feature is a membrane pump, also on the downdraught model, automatically operated by the depression in the induction pipe, and able to eject a stream of petrol when the throttle is opened for acceleration. Incorporated with this is a "speed jet," which comes into operation at high speeds.

The S.U. thermostatically controlled starting device, with electric operation by means of a solenoid, first appeared last year at Olympia, but during the last year it has been fully tested out. With this fitting, the usual S.U control for the variable jet is not necessary, and a small adjusting screw is covered by a dome nut.

Hydraulic brakes, with smooth and equally-divided pressure, are much used on racing cars. Lockheed have introduced a new slotted shoe anchorage, with which the shoe is allowed to move slightly at its pivot point, so as to exert equal pressure all round its circumference even when there are slight irregularities in the drum. The Lockheed "hill-holder," which keeps the brakes applied when the clutch is put out, is a useful fitting for trials enthusiasts in restart tests. Bendix showed a new "pistol-grip" handbrake control, which can be conveniently mounted under the dashboard. The Girling brake lay-out, with its direct-pull operation, was also an interesting exhibit.

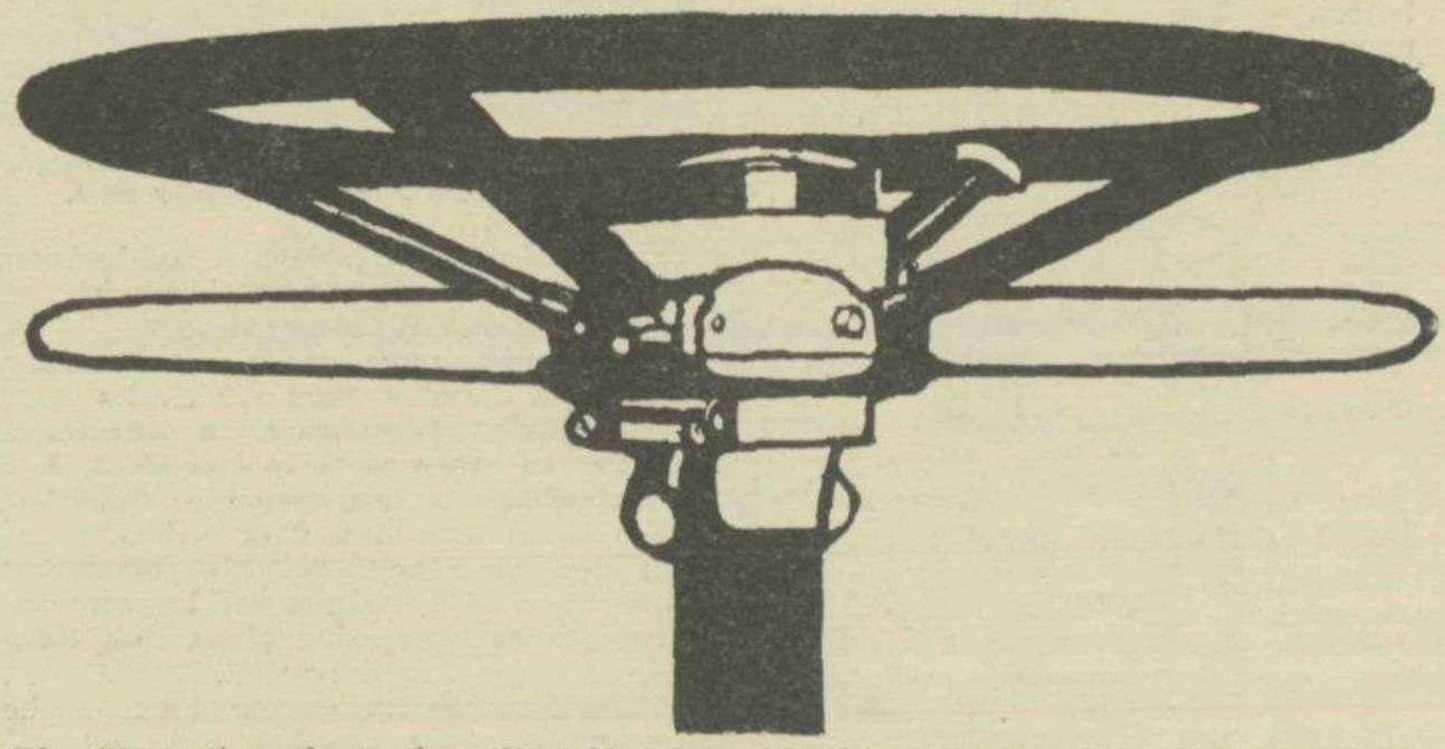
control, as with the Luvax system. Other hydraulic shock-absorbers on exhibition were the Armstrong and the Newton-Bennett.

There is an increasing tendency to make the driving position adjustable for drivers of varying heights and reaches. A very practical innovation seen at Earl's Court was the Dover adjustable steering



The H.C/S Telecontrol shock absorber is made in two sizes, Model H.C 23/S at £6 15 0 per pair and Model H.C 33/S at £8 5 0. The section drawing is of the Model H.C 33/S.

wheel, which has telescopic arms. As these are slid in and out, the amount of "dish" is varied, and as much as



The illustration shows the adjustable rim with the telescopic shock absorbing fully extended, and the simple lever arrangement. The rim may be brought to the lowest point or locked in any intermediate position.

Those who have lain under a car in the mud adjusting shock-absorbers welcome the Andre Telecontrol system. The latest type has friction discs, with a central adjusting nut, as on the normal Hartford type, but once the central nut has been set, further variation, up to "solid," can be obtained by the dashboard control. Hydraulic shock-absorbers can also have dashboard $3\frac{1}{2}$ in. adjustment is possible. Any controls located in the centre of the column are not affected. The Bluemel telescopic wheel, where the hub and column are machined with longitudinal splines, is another contribution to driving comfort. In both cases a positive locking device is provided.

Castrol had a remarkable "film-bar" for visitors, who were able to look through eye-holes and see Sir Malcolm Campbell in his record-breaking "Bluebird," and, by means of an ear-phone, listen to the famous driver giving advice on winter motoring. Shell had a special machine to test lubricants. Cleveland Discol is so popular with folk with high-compression engines that their stand was much visited, and on the Duckham stand an indefatigable young chemist demonstrated by an ingenious machine the properties of the new "Adcoids" in resisting cylinder corrosion. National Benzole had on view a complete model showing the production of their fuel.

On the Dunlop stand the new Fort tyre was worth studying. The outer ribs have serrated edges, and the walls have been further strengthened. Those interested in technical developments could study the new "synthetic rubber," called "Gaco," and handled in this country by George Angus and Co. This is similar to the German Buhna material, but it is stated that at present tyres would cost six times the price of those in the normal material. One practical use already being made of the new product is for oil seals. It is claimed that Gaco will remain effective with a 3 in. shaft running at 7,000 r.p.m., whereas many types of leather seal would only stand 3,400 r.p.m.

There was one day during the course of the Show when the fog was so thick that it actually pervaded the exhibition hall. Some say that ordinary lamps, dipped, are all one wants for driving in a fog. In the experience of the writer this is not the case. Indeed, on the Lucas stand one of their special fog-lamps was erected opposite to a screen which simulated a fog, and through which a "cyclist" could be discerned. The difference with the special flat-topped beam, given by the well known Passlight, compared to rays from an ordinary lamp, was marked. The Passlight has a split reflector and

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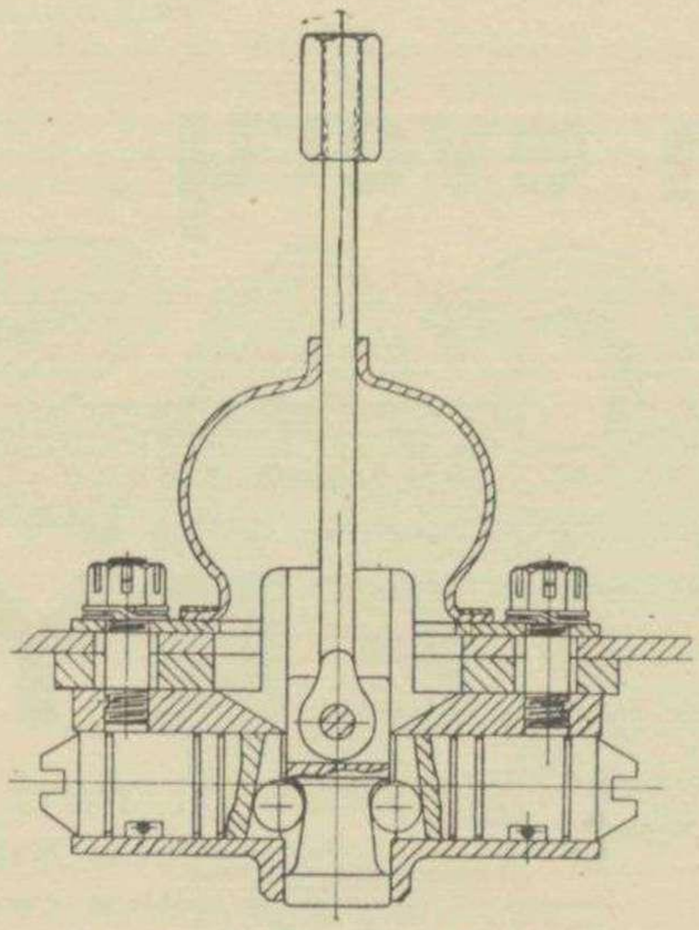


JOSEPH LUCAS LTD., BIRMINGHAM, 19.

PLAYING "IN" THE GALLERY—continued

a shielded bulb, to throw a broad, low beam, entirely non-dazzling, and without the upward rays that cause trouble in a fog. A new type has a shallower contour, to enable the lamp to be fitted where space is restricted. It was also possible on the Lucas stand to listen through headphones to the note of various types of horn. These, of course, could not be sounded openly in the exhibition.

It is not possible to mention here all the different types of fog-lamp which were on view, but mention must be made of the Bosch, a firm famous wherever electrical equipment is mentioned. The Bosch fog-lamp also gives a wide, flat beam, picking out both sides of the road. It is available with either tinted or clear glass, or alternatively amber or clear bulbs may be used. A larger version of the fog-lamp is now available, to increase the scope as an ordinary, non-dazzle driving light, and this larger lamp can now also be fitted with a dipping reflector. Bosch also showed replacement units for the headlamps of fast American cars, some of which, with 6-volt batteries, have lighting not suited for the roads of this country. This should be a great boon for sportsmen who love a long, fast run at night.



A sectional view of the Girling brake.

NEWS FROM SOUTH AFRICA

The Kimberley "100" Motor-cycle Race

The Kimberley 100 motor-cycle event was marred by a serious dust-up on "Schubbes Corners."

George Elliott of Bloemfontein got into a bad speed wobble and was struck broadside on by W. G. Letley his teammate—two other riders, Alf Long and R. T. Bridle, who were immediately behind, crashed into the others.

Elliott was rushed to hospital but died a short while later. The other three were not seriously hurt.

The race started in unpleasant windy weather and after twelve laps (about 85 miles) Wilson on a 250 c.c. James led from Barnett, Legar and Bell. The fastest lap time up to this stage was registered by Galway on a 500 c.c. o.h.v. Norton. Galway went on from scratch to catch Wilson who had 37 mins. 50 secs. on Galway. Wilson was caught on the last lap. The positions were

RESULTS

1. Galway (500 c.c. o.h.v. Norton).
2. Wilson (250 c.c. T.S. James).
3. A. S. Taylor (500 c.c. o.h.v. Vincent H.R.D.)

Galway lapped at an average speed of 77.41 m.p.h.

The Kimberley "100" Motor-car Race

Nineteen cars lined up for the start. Thompson in a 747 c.c. Austin was first away—an hour and five mins. before Roderick in his 2,600 c.c. supercharged Alfa-Romeo. Roderick was lapping at 88 m.p.h. and shaking off the tail enders in an attempt to catch Thompson but lost his chance when his engine overheated and cost him 10 mins. in the eighteenth lap—he had the same trouble a little later on and had to retire.

Thompson had held his lead for twenty-one laps when a rear tyre burst, but he got going again after an exceedingly fast wheel change. Jackson in a Ford V8 was lapping at 77 m.p.h. and rapidly catching the little Austin but could not quite do it and Thompson went on to win from Jackson who was followed by D. Van Riet (Austin), Miller, Woodhead, Sarkis.

The team prize was won by the Austin's team consisting of Van Riet, Anderson, Thompson.

The Coming Second Rand Grand Prix

Excellent prospects for the forthcoming Rand Grand Prix are still held. The overseas entry at this stage are: Lord Howe (E.R.A.); Raymond Mays (E.R.A.); N. Wilson (E.R.A.); W. G. Everitt (Riley); Count "Johnny" Lurani (Maserati); P. Tarruffi (Maserati); L. Villoresi (Maserati); W. Hartmann (Maserati); E. Siena (Alfa-Romeo).

Here is a brief list of some of the South African drivers:— "Mario" (2.7 Maserati); Steve Chiappini (Maserati); McNicol (Talbot); P. Robert (Bugatti); T. Lawrence (Bugatti); Clark (Brooklands Riley); Roderick (2.6 Alfa-Romeo), to mention only a few.

The races are due to be run on December 16th. In the morning are to be held the fourth Silver Springbok Trophy Races for South African drivers only, and in the afternoon the Rand Grand Prix. Then later on this year and early next year are to be held the South African Grand Prix at East London and the Grosvenor Grand Prix in Capetown.

Last year when the track was new Hans Ruesch put up a lap record of 52 m.p.h. He was touching 138 m.p.h. on the straight but the circuit has been modified and Roderick raised the record to 65.82 m.p.h.

And now that the track has been perfected even more we should see the sparks fly!!!

MODEL CAR RACING ASSOCIATION

At a meeting held on Sunday, October 24th, 1937, there was formed the Model Car Racing Association and the following officers elected.

President: Mr. Alan Hess.
Chairman: Mr. J. K. Hankinson.
Hon. Secretary and Treasurer: Mr. L. G. Tucker.
Committee Member: Mr. A. Deacon.

The Association will have its headquarters in London but the formation of affiliated clubs will be most heartily welcomed, in whatever part of the country they may be. Inter-club competition will be encouraged and the president has kindly offered a cup for such a competition.

Subscriptions:

Single Members	2/6 per annum
Affiliated Clubs within 15 miles of Charing Cross	10/- per annum
Affiliated Clubs outside that area	5/- per annum

All types of model cars will be encouraged whatever the motive power.

A Race Meeting will be held in the London District on Sunday, December 5th, for rubber-driven and clockwork models of the following classes and over the following distances.

Class A.	Cars not exceeding 8 inches in length	50 feet
,, B.	Cars not exceeding 16 inches in length	100 feet
,, C.	Cars not exceeding 24 inches in length	100 feet
,, D.	Cars of unlimited length ...	150 feet

Length to be measured overall, but not including front bumpers if fitted.

Cars must bear reasonable resemblance to full size racing-cars.

Motive power to be either twisted rubber or clockwork and to be applied via the wheels. Four wheel drive permitted.

All cars must have painted on each side a dead black circle of reasonable size, on which racing numbers (issued on the day of the race) can be chalked.

Races will be run with heats on the knock-out principle.

The judges' decision on all matters to be final.

Entrance fees per car in each class: Class A, 6d.; Class B, C & D, 1/-. Prizes will be given in each class.

A wire will be stretched over the finishing line at a height of 7 to 8 inches to enable automatic brakes (where fitted) to be worked.

The course will be arranged so that the maximum possible distance is afforded for slowing down after the finish.

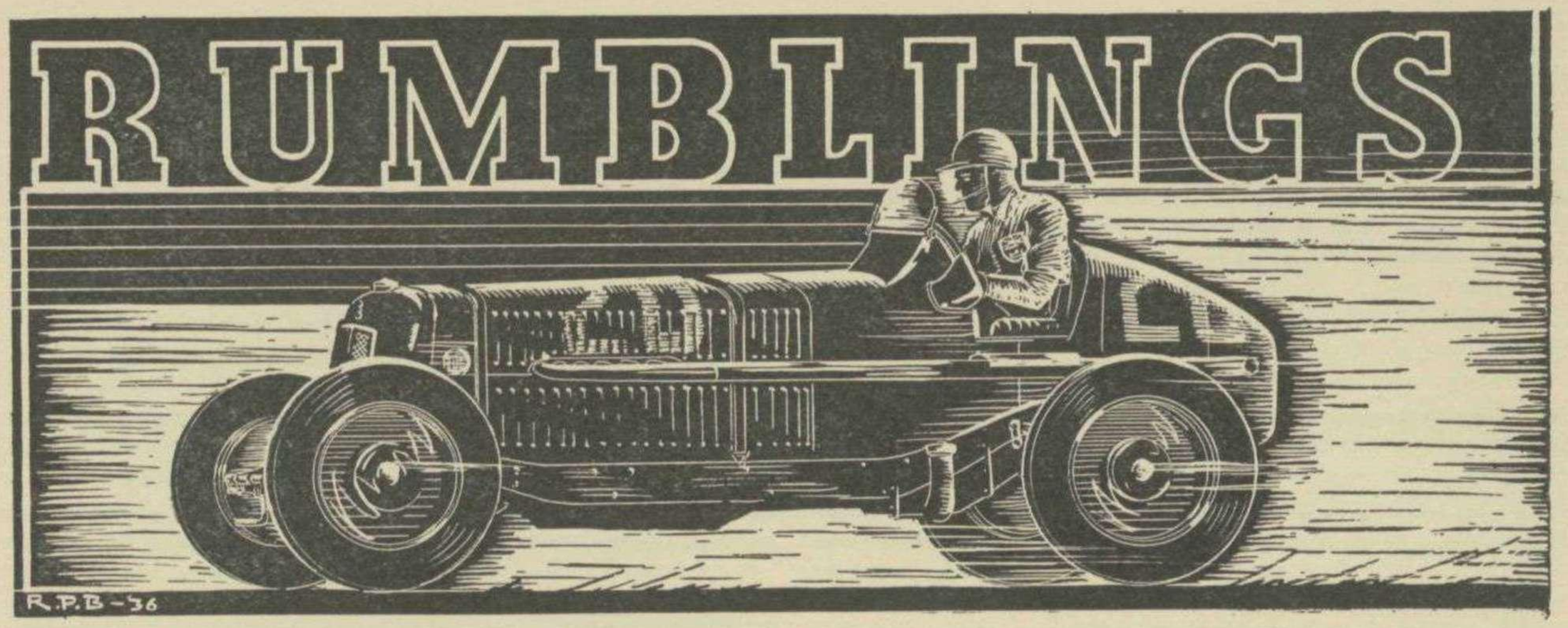
The M.C.R.A. extend a hearty welcome to all model racing-car enthusiasts to enter for these races whether they are members or not.

Subsequent race meetings will only be open to members of the Association or Affiliated Clubs.

The time and place of the meeting will be decided later, but will almost certainly be indoors on a smooth floor.

Further particulars of the Association, and race meeting, can be obtained from:

The Hon. Secretary: Mr. L. G. Tucker, 110, Harborough Road, Streatham, London, S.W.16.



If Winter Comes . . .

ALTHOUGH we should really be shaking the moth from our leather waistcoats and getting down to Monte Carlo Rally schedules, that great Grand Prix at Donington is difficult to forget and enthusiasts this autumn seem to weakly disregard the coming winter and to talk happily of the next racing season. Racing under the new Formula will be extremely interesting. New cars are always stimulating and slide-rule operators are going to have a particularly jolly time as facts and rumours of new racing bolides get intermingled these coming months.

Above all, let us hope, pray, beseech Mr. Shields, and even subscribe, that Mercédès-Benz, Auto-Union and, if possible, Alfa and Maserati, and other Continental Formula participants may embark for this happy land again next year and deport themselves at one, other or all of our racing courses. We shall not have a British Grand Prix in our Hyde or Richmond Parks, but we may have another shattering struggle, all complete with " boot-polish " and thunder, at Donington. Go to it, Mr. Craner, Sir, please . . . This time E.R.A. should not be so outclassed, my masters, particularly if the 3-litre is in the field.

Ideas for popularising racing in this country are many and fertile (*fertile*, Mr. Printer). I used to incline to the view (rather as a schoolboy inclines to the head master) that our great G.P. (translate : General Public) never, never would *understand* this motor-racing. Now I believe that, even though they never, never will *understand* it, they can be made to *like* it and to roll up in their 5/- paying tens of thousands. One big suggestion for the popularising of the Sport over here was made by " Grande Vitesse " in the " Motor " when he advocated racing on Sundays. Another, which I would put up, is that those racing motorists who wield pens in real Fleet Street offices of real newspapers, which have really astronomical circulations amongst the real G.P., should go flat out when writing their motoring features to get bigger attendances at our big race-meetings. Thank you, all concerned, whose names I do not need to tabulate. You have lost a vast opportunity to earn undying gratitude in our world, up to now. And remember that attendance at motor-races might be good for a public which is sooner or later going to be plunged into the excitement, movement and technicality of mechanised warfare. Many survivors of the last war coloured Brooklands history during the early 1920s, so why not, via our newspapers, cultivate war-mindedness amongst the civil population *before* the trouble starts, by imbibing them with " R "-fumes at race-meetings ? I'm sure Messrs. Bradley, Craner and Edwards will agree.

The Truth

Much time is occupied over discussion as to whether or no the German racing teams *are* assisted by the German Government. Although any idea of official National subsidy has recently been denied in the British motoring Press many of us feel that neither team would race on such an elaborate scale, the magnitude of which you will appreciate from our special article last month, purely on their own resources for publicity purposes, and that if no direct subsidy is paid, at all events it seems probable that Herr Hitler makes some very acceptable grants of one sort or another. One little point bearing on this matter is that only very small sums of money are allowed to be brought out of Germany by German citizens, yet the German mechanics apparently had sufficient with which to have a little flutter with the Donington book-makers.

1938

Returning to a consideration of the 1938 outlook, it seems that our racing will take place mainly on Donington, Brooklands, and at the Crystal Palace if all is well with the London circuit. Donington has proved a really fast course, excellent in every way, with ample accommodation for the biggest crowds we are likely to realise, in comfort, given a few modifications to the Derby and District M.C. organisation. That such a small club should have achieved so much is a great credit to all concerned, and Donington deserves all the big road-races next year. But the R.A.C. is still unhappy about the T.T. and, Ireland having said a conclusive " No," is thinking about the I.O.M.,

RUMBLINGS—continued

where the Light Car Race may, or may not, be run again in 1938. If no fresh course is forthcoming the T.T. may be held over for a few seasons. Personally, if sufficient interest is forthcoming to attract decent entries, we feel that Donington deserves to be the venue again, and it is a very central venue. At all events, Donington should have at least five big fixtures next year and to attend them all even London-living enthusiasts will only be called upon to do about thirty hours' motoring.

Brooklands, apart from the fact that it will always be Brooklands—mecca of enthusiasts—should see much activity over the Campbell Trophy circuit, so popular with spectators. We should have at least one big International race over that course, perhaps more than one, apart from which Brooklands is the only suitable course at which to hold the J.C.C. International Trophy Race. The B.R.D.C. will doubtless serve outer-circuit followers with another "500" and one wonders whether the Light Car Club, which Anthony Curtis volunteered to reorganise, might not profitably hold a light car race, devoid of hazards, round the outside on something like the lines of the classic pre-1925 J.C.C. 200-Mile Races, with moderate entry fees and each man for himself. Only a suggestion. The Campbell Trophy circuit is going to be intensely popular at B.A.R.C. meetings with drivers of all classes of cars, according to popular gossip, and then, of course, there are so many important National lap records waiting to be shattered at Weybridge. Scarborough, it seems, will not be, but it is hoped that the Palace circuit will be able to re-open. Shelsley will continue as before, with possibility of similar hill-climbs at a new venue at Cheltenham. So without prospect of hordes of new circuits, the 1938 season looks like being an extremely busy and absorbing one.

Quality Newcomers

Cylinder head research has again put the side-valve power-unit on the map, and nowadays very high performance is possible from this class of engine without sacrifice of its traditional qualities of low first cost, compactness, durability and silence. Consequently, interest centres around two outstanding new sports-cars in the s.v. field. The new six-cylinder Railton has an engine rated at 16 h.p. and commanding a tax of only £12 15s. It is a Railton in appearance and there is every reason to believe that it lives up to Railton characteristics in respect of combining very fine acceleration with silent, easy functioning. Moreover, it is reputed to be a very economical car, and the striking four-door saloon is priced at £399.

The other very attractive newcomer is the 3-litre Talbot. It is an open secret, as it were, that it has a power-unit developed from that which has endowed the Hillman Eighty—one of the best looking of our bigger cars, combining the practicability of the American with the dignity of a Britisher, in many people's eyes—with its excellent turn of speed and acceleration. With aluminium head and downdraught carburetter, and pulling a top gear ratio of 4.3 to 1, we should expect this new Talbot to achieve around 90 m.p.h. Yet it should perform excellently at the other end of the speed range, assisted by automatic mixture and ignition governors. Two very welcome newcomers.

Allard Specials

During a recent conversation with S. H. Allard I learned that Guy Warburton has acquired the original Allard-Special which has been restored after its plunge over Ben Nevis, an adventure that landed Allard and his famous car in the newspages of the daily Press. I do not know whether Warburton will eventually pension off his lusty 30/98 Vauxhall, but Allard is building himself another Ford V8 Special, having driven the original motor, subject of much experiment, in his last trial on October 30th—the Experts. While at the Allard Motors garage I saw another Allard-Special, built for Mr. Gilson, who has driven it in five trials to date, netting best performance in three and important awards in the other two, though he had not previously driven big trials motors.



The final Brooklands meeting. Charlie Martin adjusts his beret in the paddock. Mrs. Martin is behind with Kenneth Jarvis who says that he will be returning to racing next year.

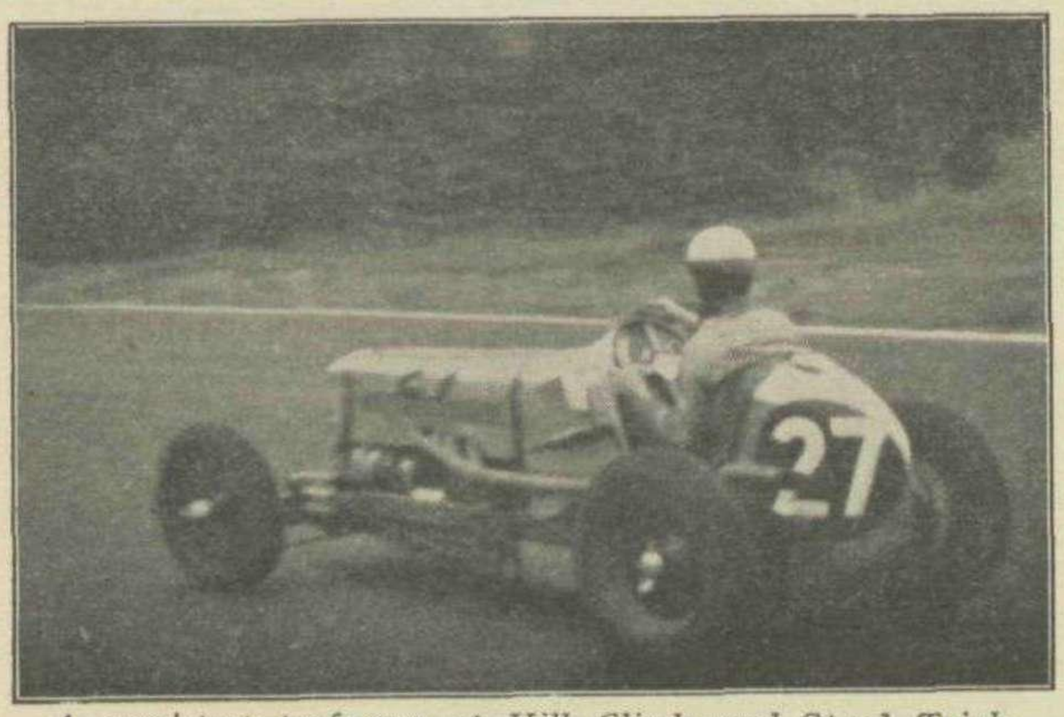
His car looked so impeccable that it might well have come straight back from a position in the Albert Hall, until I reflected that Allard was not able to exhibit his cars at the Ford Show. The mounting of a fire-extinguisher vertically on the slab-type rear fuel tank is very effective. These Allard-Specials are very interesting, combining appearance and dependability of the moderns with something of the old-time starkness of the "pur-sang," and possessing powers of acceleration quite out of the ordinary and a maximum of well over 90 m.p.h. in road-trim. I lapped Brooklands in Mr. Gilson's car at over 85 m.p.h. before it was completely run in, and Allard's motor, of course, exceeds 100 m.p.h. in racing-strip, sufficient to tease quite a few racing-cars.

Happy Days

Coming upon South Harting village in the course of a search for trials hills last month revived memories of former speed-trial days, when public roads were temporarily closed by marshals and real speed hill-climbs held thereon. After a chat with various locals who remembered the days when Raymond

RUMBLINGS—continued

Mays, Humphrey Cook, J. A. Joyce, Miss Ivy Cummings and Capt. "Archie" Nash used to figure large in local gossip, I negotiated the square, overflowing with the properties of a coming fun fair, and climbed the famous hill, which winds up from the Church, forking left half-way up, a second gear climb for the Austin Seven I was driving. The road is tarmac to-day, formerly it was loose, but it is reminiscent of a very exciting Shelsley-Walsh, beside which most of our present day speed hill-climb venues seem chronically "circus-like." At the summit the road is joined by a chalk lane used in present-day trials and nearby is a drive in private grounds that might make a first-class speed-trial venue if permission could be obtained. Visiting former classic speed-trial sites is an enthralling way of combining runs through pleasant scenery with a little motoring interest, if you have imagination enough to visualise how these quiet villages were transformed when "the racers" settled there, to compete on hills long and wide enough to encourage real speed and driving-skill. Happy days!



A consistent performer at Hill Climbs and Speed Trials, but very rarely seen in this type of event. Dick Nash and his Frazer-Nash Union Special in the Imperial Trophy Race at the Crystal Palace.

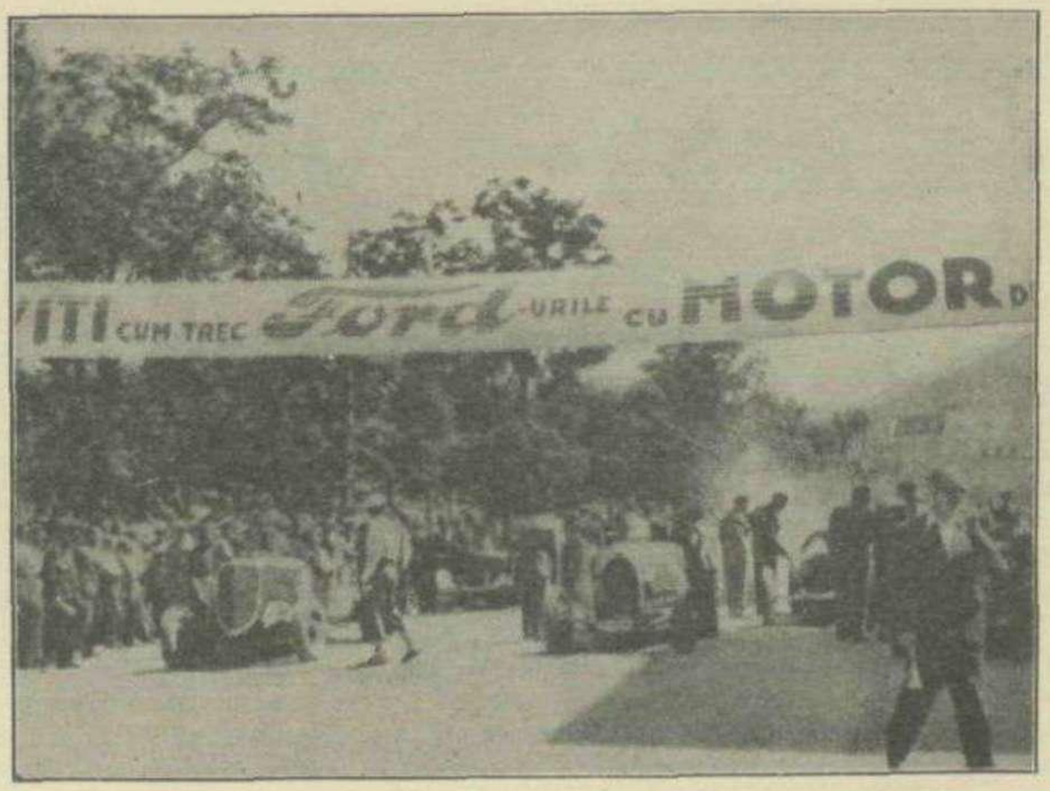
Two Important Events

Regulations are now out for the 1938 Monte Carlo Rally and the next Le Mans race. In the Rally open cars are now barred, as are superchargers, which is a praiseworthy attempt to eliminate freak motors and as such is a step in the right direction, for the great winter run was always intended to encourage touring-car development. Two-seaters run in the small class, four-seaters in the over 1,500 c.c. section, and genuine drop-head coupés are permissible. Athens now has 500 points, Bucharest 498, Tallinn 497, Stavanger 497, Palermo 497, Umea 496, and John o'Groat's 496—so British competitors have every reason to feel pleased with the outlook. From Grenoble to Monaco there are to be four sections over which an average of not less than 50 and not more than 60 k.p.h. must be maintained and the final test has been sensibly modified to obviate as far as possible trick driving tactics and freak equipment. Frames and cylinder heads only will be sealed. Only production cars are eligible, of which twenty-nine chassis much have been produced prior to November 1st, 1937, which will hit some people over here. Seven-seater cars and motor-coaches are not eligible. The entry fees are 1,250 francs for large cars, 1,000 francs for small cars, of which 650 and 500 francs respectively will be returnable to non-starters. The 1938 Rally looks like being a really useful event and certainly it will be as great an adventure as ever. The cost involved in going from John o'Groat's is, roughly, about £150 to £200, and the prizes are substantial. Entries close on December 24th. Competitors arrive on January 29th.

For the classic Le Mans race next year there will be a new cup which can be won on formula without having to qualify in a previous race, in addition to the existing Rudge Cup for which 1938 competitors had to qualify to run, this year. The minimum distance handicap has been revived, all classes being stiffened up, except that for 750 c.c. cars, which have 7 kilometres less to achieve than formerly. Supercharged cars are slightly more heavily handicapped. As before, the race is for sports-type cars and the entry list is now open. It will close by May 1st next, and cars for the new Formula Cup must be nominated by May 20th, together with particulars of the fuel they will use.

The Dirt Outlook

Car dirt-track meetings staged this past season by Car Speedways, Ltd., at Lea Bridge, Brandon, Manchester and Glasgow, had extremely good gates and many lovers of "Doodle Bugging" expect a very fine year during 1938, and Mr. Cecil Kimber has given this branch of the Sport a very nice advertisement recently. However, we believe that new driving talent is desirable to maintain, or to increase, enthusiasm, and quite where it is coming from is obscure, because drivers are expected to provide their own special motors if they do not intend to purchase a Skirrow-Special. The latter costs £175 and we believe that a good deal of luck would be needed to recover this outlay in the course of a season's racing under the terms offered to drivers this season. Few people would drive on the cinders merely as a pastime, especially as by so doing they lose their R.A.C. Competition Licence. And existing Cinder-Kings seem to



The start of the Brasow Grand Prix, Roumania, won by P. Cristea (Ford).

RUMBLINGS—continued

get laid out rather frequently. So, in congratulating Mr. Baxter, of Car Speedways Ltd., on the progress he has achieved, we would remind him to safeguard against a shortage of dicing-gentry next season.

Odd Spots

The S.S. Company announces that the 3½-litre S.S. with which T. H. Wisdom won the First Long Handicap at the closing Brooklands Meeting was standard save for magneto ignition (the battery was not carried) and a compression ratio of 11 to 1, against the standard ratio of 7. to 1. It ran stripped of all equipment, but carried no additional streamlining, and averaged 111.85 m.p.h., lapping at over 117 m.p.h. The standard two-seater costs £445. Racing covers were used on the rear wheels only.

* * *

Mr. Cecil Kimber, Managing Director of the M.G. Car Co., Ltd., has announced his opinion that in a few years' time he expects "Doodle Bug" racing to concentrate all public interest and that it will be far more thrilling to watch than G.P. racing. Well, every man his own opinion . . .

* * *

Rumour has it that E.R.A. propose to use 2-litre cars with modified valve-gear and twin Zoller superchargers for the 1938 Formula races.

* * *

M. Louis Delage visited this country for the Motor Show and was entertained by University Motors, Ltd. In the course of his speech he mentioned the successes attained by Sir Malcolm Campbell and Lord Howe, with 1½-litre G.P. Delage cars, both of whom were present.

* * *

John Cobb's new car to attack the "fastest ever" record will have a Napier motor (or motors). The attempt may be made at the now famous Heidelberg-Frankfurt Autobahn. Hans Stuck is also contemplating an attempt on this record, apart from record-breaking on the water. And at the time of writing Eyston has got within about 10 m.p.h. of Sir Malcolm Campbell's record during trial-runs at Bonneville with the Rolls-Royce engined "Thunderbolt."

* * *

The proposed Scarborough race circuit, to which reference was made last month, has not met with the approval of the ratepayers and will apparently not be proceeded with. On a postcard vote over 8,000 voted against and only 5,478 in favour.

* * *

The total attendance figures for the Motor Show were 241,844, the biggest attendance for nine years and 4,284 more than in 1936. But single-day attendances were not as high as those at Donington on a "big day."

* * *

Forrest Lycett's 8-litre Bentley ran in the Brighton Speed Trials in the racing-class, and had its front brakes removed. Certain additional modifications will be made to this car by Mr. McKenzie before the 1938 season. The 4½-litre which Lycett drove in the sports class can do a standing Brooklands lap at 97 m.p.h., we hear.

* * *

Racing-cars come on the market at this time of year. "Bira" is said to have acquired a 1937 works E.R.A. and to have one E.R.A., the Delage and the Delahaye for disposal. There are any amount of Bugattis, a Q-type M.G. Midget, a 2.9-litre monoposto Ferrari Alfa, and Dr. Roth's 3-litre single-seater Talbot for sale. Bellevue Garage are offering the very attractive, six carburetter single-seater M.G. Magnette at a very reasonable figure, also the M.G. Magic Magnette.

* * *

Robin Jackson is preparing a very fast and secret Alta.

* * *

The Bentley-Jackson-Special is a most imposing, outer-circuit car. The transverse magneto protrudes through the bonnet on the off side and the radiator is isolated. The exhaust note is much more business-like than that of the Barnato-Hassan, which has a truly "wuffle-wuffle" tick-over.

* * *

At Earl's Court a rumour was prevalant associating Freddie Dixon with a racing edition of the Opel. Only a rumour ?

* * *

The E.R.A. driven by N. G. Wilson, which he hopes to race in the South African race, was formerly the car owned by the late Pat Fairfield.

BOOK REVIEW

"The Roads and the Problem of Their Safety." By Sir Malcolm Campbell, M.B.E. (Hutchinson & Co., 3/6).

Road problems are a matter of vital importance and at the present-time, in particular, great attention is being given to this subject by authorities and motoring bodies in this country, largely on account of the excellent road-schemes undertaken of recent years by Germany and Italy. Our new Minister of Transport, Mr. Leslie Burgin, is himself a motorist in a practical sense, which we believe his predecessor, Mr. Hore-Belisha, was not, and this, coupled with the fact that the money for road reconstruction is apparently available, as it should be, may result in a reduction of road accidents and relief of road-congestion in the not too distant future. Mr. Burgin, is, we understand, covering some 1,000 miles per week in the course of investigating our system of trunk roads, which shows his appreciation for the need of practical examination of road problems. Sir Malcolm Campbell's book, "The Roads and The Problem of Their Safety," published by Hutchinson and Co., will interest everyone who is concerned with the great National problem. This book starts from the development of the road since the eighteenth century, with particular reference to the post-war motoring era. Thereafter follow chapters on every aspect of this immensely complex subject. Traffic control, town-planning, congestion, accident education and prevention, the motorist's, cyclist's and pedestrian's responsibilities, traffic police and police courts, signs and sign-posting, Ministry of Transport work and possibilities, highway construction, car construction for safety—these and many other aspects are dealt with by Sir Malcolm—himself a long-distance driver of extremely fast sports-cars—in a fashion so easily readable that what might seem a dry subject becomes so absorbing a study that one puts down one's book with reluctance. Apart from its interest, it contains some excellent reference statements and figures. There are 264 pages and nine Ministry of Transport illustrations. Readers of MOTOR SPORT cover big mileages per annum and find traffic delays more than usually tiresome and perusal of this book will not only be of more than passing interest, but it may hold out distinct hope of more Utopian conditions under Mr. Burgin.

THE S.9 BIANCHI VIAREGGIO SALOON

IMPRESSIONS AFTER A LENGTHY WEEK-END RUN

The name of Bianchi has always been one which sports-car enthusiasts have held in respect ever since this famous Italian firm commenced to manufacture cars in 1909, and we looked forward to a very pleasant run when we took one of the S.9 saloons from the sole concessionaries in this country, Messrs. Burton Osborne & Taylor, Ltd., 1, Southampton Street, London, W.1.

Naturally times have changed since the early Bianchi days, and the Viareggio saloon has but little in common mechanically with its prototypes, but it is a thoroughly road worthy successor to the marque. The car was in our possession for a week-end, and during this time covered 500 miles to and from North Devon. The result of this motoring made us realise that its somewhat sober appearance belied its performance and that it had great possibilities for long-distance motoring with the minimum of fatigue.

The first impression of taking over the car was one of remarkable smoothness and silence, and there is no doubt this is of benefit on a long run, as the engine never appears to be working really hard. It is a four-cylinder unit of normal design, with push-rod valve gear. The bore and stroke is 68 m.m. × 100 m.m., giving a rated horse power of 12, and a capacity of 1,452 c.c.

The springing is by means of semi-elliptic springs, and the road holding above the average. It can be put into a corner really fast, but one has perfect confidence that it will get round. The steering is of the worm and sector pattern, and a fabric universal joint is incorporated in the steering column just above the steering box. The necessity of a run to the South-west of England gave an opportunity of testing its average speed capabilities, and we found that these are greater than the maximum speed would lead one to expect.

The maximum speed on the level does not exceed 65 m.p.h., but, under favourable conditions, a cruising speed of 55 m.p.h. can be maintained indefinitely, while hills call for but little reduction of speed.

The clutch is very light and slight practice is necessary to become used to the gearbox, in order to effect a silent gear change. The gearbox has synchromesh on top, third and second but only just enough to cover up mistakes.

The brakes are extremely powerful and smooth, and very light to operate, which are Lockheed.

The car is well finished in both body and chassis, and should commend itself to the man who wants a useful, sturdy and roomy car with a lively and comfortable performance. The body is the pillowless saloon type but perfect fitting is effected. The facia board is very simple and contains the usual oil, fuel and clock fittings but the ignition switch is unusual. There are five numbers marked on the panel and the ignition key can be turned to any one of these numerals. The numbers indicate what can be done by means of the ignition. For instance, 0 position, all accessories are out of action, key turned to 1, all accessories work. No. 2 position is side lights without accessories, No. 3 side lights with accessories, and No. 4, all lights. The ignition itself is operated by pushing and pulling the same key. The car can be left parked and the key removed, obviating any risk of the electrical equipment or the car being interfered with.

The upholstery is severe, but there is plenty of room to both get in and out. The seat cushions, also the squabs are finished in plain dark blue leather.

One or two special points of the Bianchi saloon is a fly-off type of hand-brake lever on the left-hand side of the gear lever, which seemed to hold the car on the steepest slope, and can be most conveniently reached. There is no sliding roof.

In the tail of the body is fitted the luggage compartment, which can be reached from inside of the car.

Another point of interest is the lubricating system, the base chamber is divided into two parts. The outer part serves as an oil cooler and the inner the oil pump supplies to the various bearings.

In conclusion, it is an exceedingly quiet motor, which is very pleasing to drive after one has become accustomed to one or two smaller obstacles such as the accelerator pedal, etc. It is essentially a top gear car, but second and third gears will climb, as they are intended to, all the most severe gradients.

The car is fairly expensive at £365, but it is the type that can stand up to a great deal of hard work and will last for many years.

* * *

With the completion of next month's issue, another volume of MOTOR SPORT will be obtainable. We would offer thanks to those readers who have borne with us so long, many since No. 1 of the Brooklands Gazette was published thirteen years ago, and welcome those who have started to take MOTOR SPORT regularly since the paper was reorganised at the beginning of this year—the circulation continues on a most encouraging upward trend. We propose to continue the present policy of offering a motoring paper written by enthusiasts for enthusiasts, and of reviewing important happenings in our world in a manner which we hope is fair and impartial. In particular, we shall endeavour to present useful road-test impressions of interesting cars.

BRIEF SPECIFICATION

ENGINE: Four cylinders, o.h.v., 68 m.m. bore, 100 m.m. stroke, capacity 1,452 c.c., R.A.C. rating 11.4 h.p., Weber carburetter, battery distributor, Bosch.

GEARBOX: Four speed and reverse. Central gear lever. Ratios 5.10, 7.70, 12.90 and 20.00 to 1.

SUSPENSION: By flat springs. Hydraulic shock absorbers.

DIMENSIONS: Wheelbase 9′ 1½″. Track 4′ 7⅛″. Weight 14 cwt. (chassis).

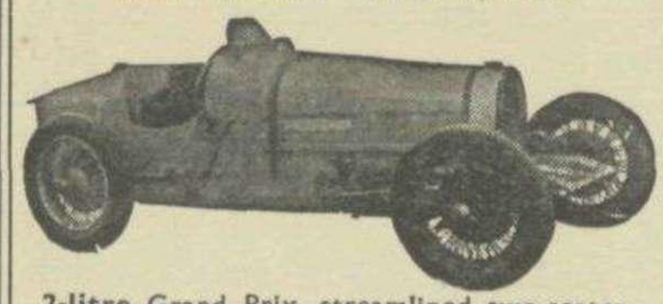
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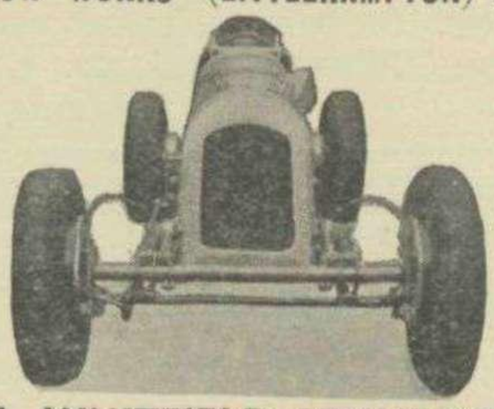
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THAT HAVE APPEARED IN PAST ISSUES

Make of Car	Issue
ALFA-ROMEO 22.90 h.p. 6-cyl. (push-rod) super sports test chassis	April 1927
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 4-cyl., 12.50 h.p., super-sports 2-seater	April 1925
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
Amilcar 4-cyl. 1,100 c.c. "Grand Sports" 2-seater July 1927 & May	1926 & Jan. 1925
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 1935
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
Austin Seven sports 2-seater	July 1930
Austin Seven "Brooklands" 2-seater	Feb. 1925
BENTLEY 3-litre, 4-cyl., 4-seater (1927)	Jan. 1932
Bentley 3½-litre, 6-cyl., Vanden Plas, 4-seater	Nov. 1933
Bentley 4¼-litre, 6-cyl., Park Ward saloon	June 1936
Bentley 4½-litre, 4-cyl., supercharged 4-seater	Jan. 1931
Bentley 6½-litre, 6-cyl., long-chassis saloon (1928)	Dec. 1936
Bugatti 11.9 h.p., Modified Brescia 4-seater	Aug. 1925
Bugatti 1½-litre, 4-cyl., Type 37 G.P. 2-seater	Sept. 1926
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
FRAZER - NASH - B.M.W., 2-litre, Type 45, saloon	Feb. 1937
Frazer-Nash-B.M.W., 2-litre Type 55, 2-seater	Nov. 1935
Frazer-Nash Anzani s.v. super-sports, 4-seater	Feb. 1927
Frazer-Nash 6-cyl., 1½-litre (Black-burn) 2-seater	July 1933
Frazer-Nash 4-cyl., 1½-litre push-rod o.h.v. "Interceptor" 3-4-seater	Jan. 1931
Frazer-Nash 4-cyl., 1½-litre T.T. Replica push-rod o.h.v. 2-3-seater	Nov. 1931
LANCIA AUGUSTA 11.9 h.p., saloon	Sept. 1934
Lancia Astura, 25 h.p., 8-cyl., James Young saloon	Nov. 1932
Lancia Dilambda 31 h.p., 8-cyl., saloon	Dec. 1930
Lea-Francis 1½-litre supercharged T.T. 2-seater (1929)	June 1934
Lea-Francis 1½-litre supercharged special T.T. 2-seater	Sept. 1933
Lea-Francis 1½-litre supercharged "Hyper" 4-seater	Aug. 1930
Lea-Francis 2-litre 6-cyl., "Ace-of-Spades" saloon	Nov 930
MERCEDES-BENZ Type 540K, 5.4-litre, 8-cyl., supercharged 2-str.	April 1937
Mercedes-Benz Type 500, 5-litre, 8-cyl., supercharged, 2-seater	Nov. 1934
Mercedes-Benz 12.40 h.p., super-charged 2-seater	June 1925
Mercedes-Benz 36.220 h.p. super-charged, 2-4-seater	April 1928
Mercedes-Benz 38.250 h.p., super-charged, 2-4-seater	Nov. 1929
Mercedes-Benz 33.180 h.p., super-charged, 4-seater	Aug. 1927
M.G., 6-cyl., Mark I, 4-seater	May 1931
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
O.M. 6-cyl., 2-litre, 4-seater	Oct.-Nov. 1928
RILEY NINE "Gamecock" 2-seater	March 1932
Riley Nine "Monaco-Special," two-carb. saloon	March 1931
Riley Nine, 4-seater	June 1931
Riley Nine "Monaco-Special" saloon	July 1930
Riley Nine "Brooklands" racing 2-seater	July 1930
SALMSON 1,100 c.c. o.h.c., Grand Sports 2-seater	Jan. 1926 & Dec. 1926
Salmson 4-cyl., twin o.h.c. Grand Sports 2-seater (1928)	April 1931
Singer 1½-litre, 6-cyl., Le Mans 2-str.	March 1935
Singer Nine, 4-seater	March 1933
Squire 1½-litre, 4-cyl., 2-seater	Aug. 1935
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
Tracta 1½-litre, f.w.d., 2-seater	March 1930
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
Triumph Nine "Southern Cross" 4-seater	June 1932
Triumph Eight "Gnat" 2-seater	Aug. 1931
Triumph Eight, supercharged 2-str.	Dec. 1929
VALE-SPECIAL 832 c.c. 2-seater	Aug. 1933
Vauxhall 30/98 O.E. 4-seater	Sept. 1925
Vauxhall 30/98 O.E. 4-seater (1925)	Jan. 1936
Vauxhall 30/98 O.E. 4-seater (1924)	Dec. 1930
Vauxhall 20/60 h.p. "Velox" saloon	May 1929
Vauxhall 20/60 h.p. "Hurlingham" 2-seater	Feb. 1930
Vauxhall 17 h.p., 6-cyl., "Cadet" saloon	Sept. 1931
Vauxhall 14 h.p. "Stratford" 4-str.	Sept. 1933
Vernon-Derby 1,100 c.c. (Ruby) 2-seater	March 1928
WINDSOR 4-cyl., 11 h.p. "Special" 2-3-seater	Nov. 1926
Wolseley Hornet Swallow 2-seater (1933)	April 1934
Wolseley Hornet Abbey AS.3 2-4-seater	Jan. 1932
Wolseley Hornet E.W. "Daytona-Special" 4-seater	May 1932
Wolseley Hornet Boyd-Carpenter 2-seater	Jan. 1931
Wolseley Hornet (12.08 h.p.) saloon	Sept. 1930

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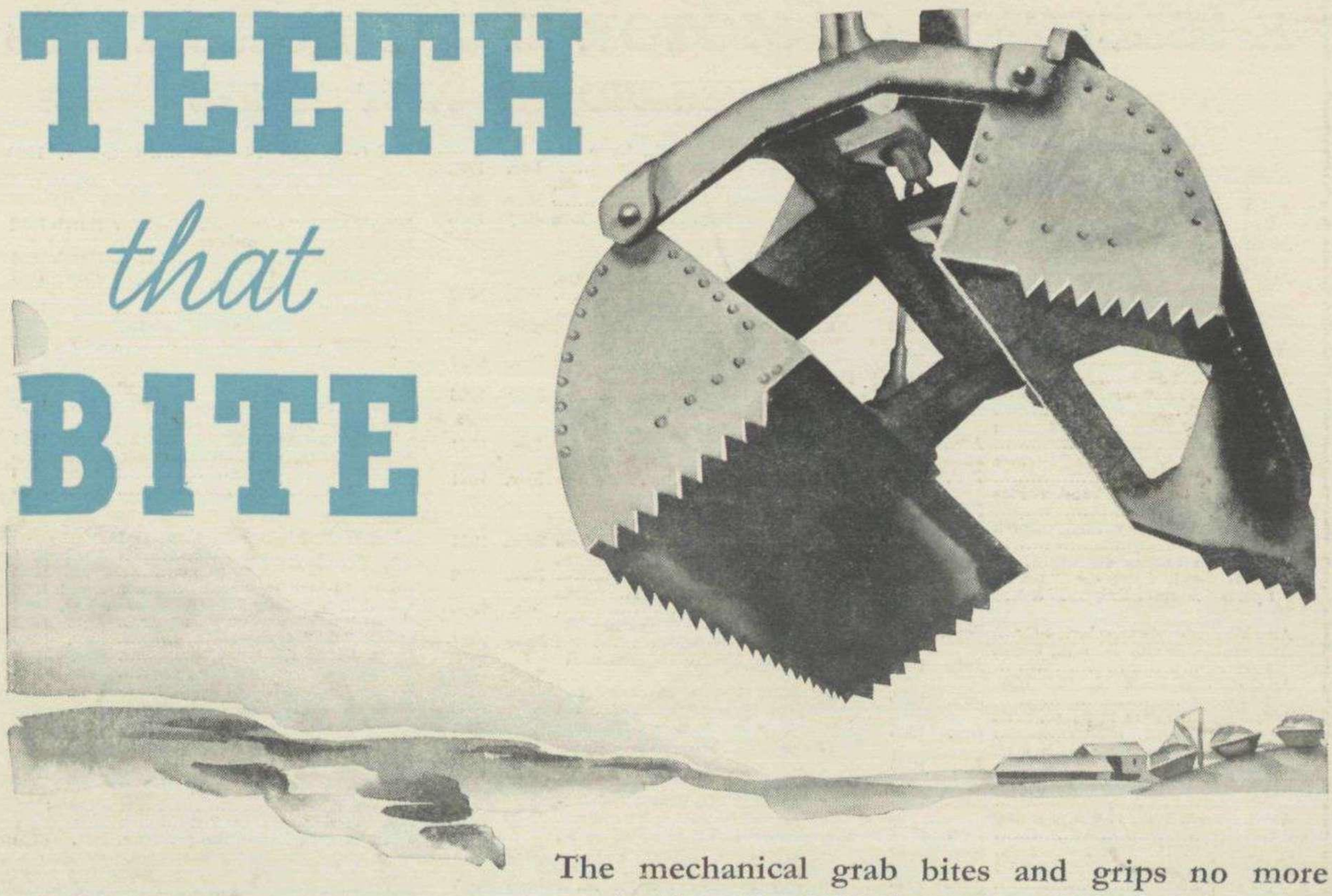
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