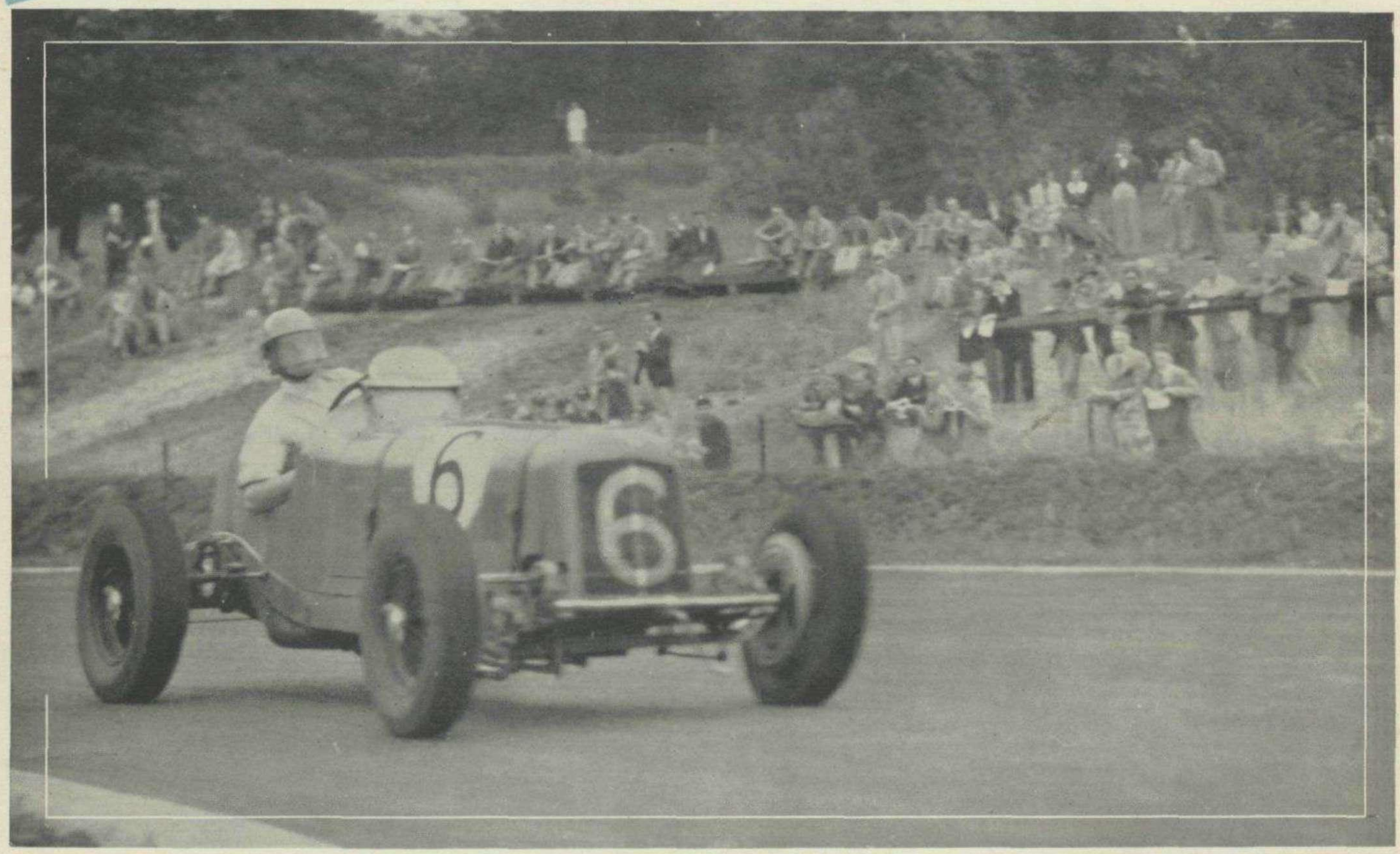
Vol. XIII. No. 9 **German G.P., London G.P., International Trophy, etc.** *August, 1937*

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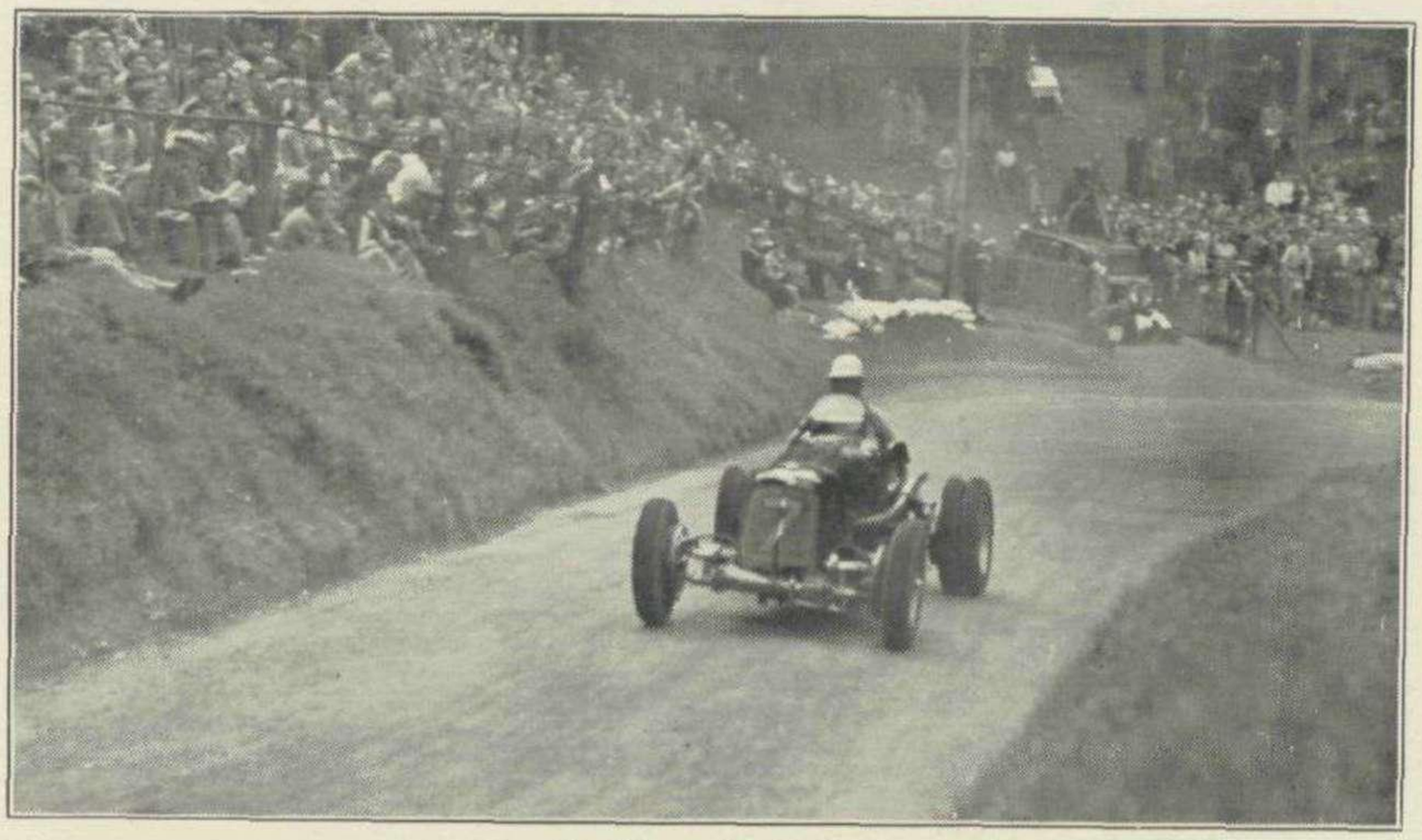
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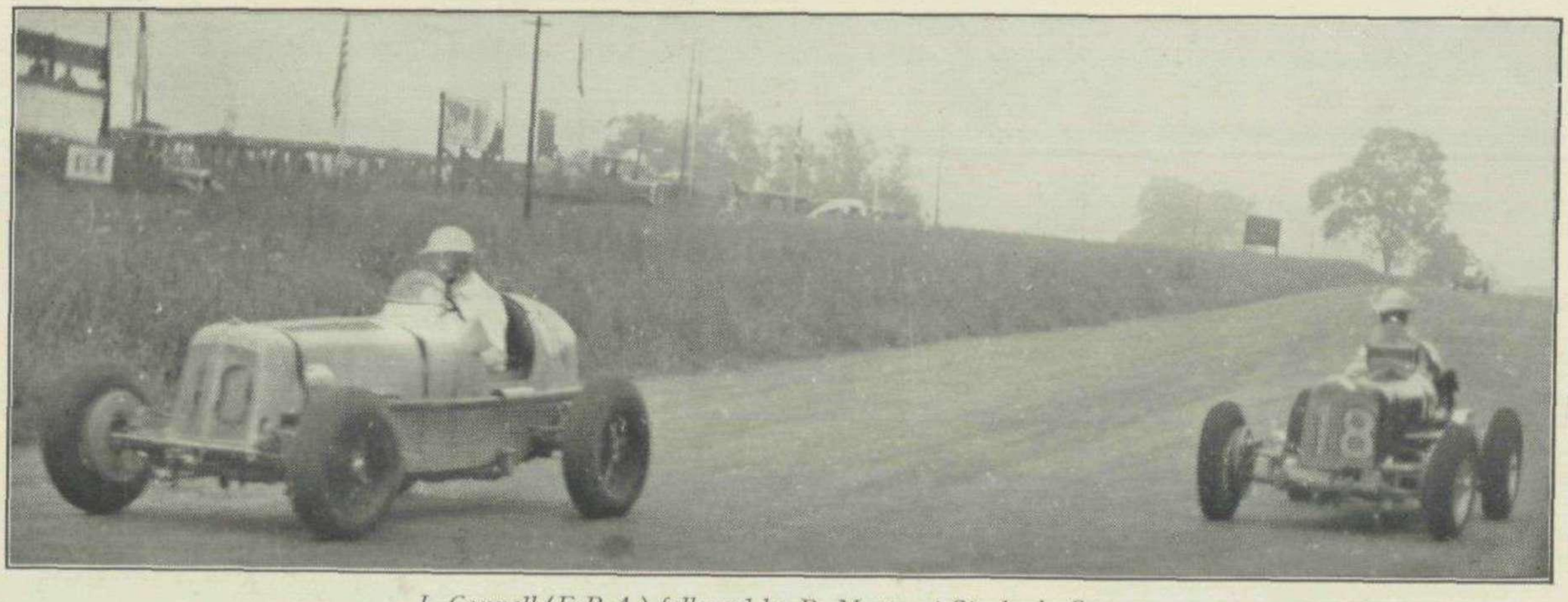
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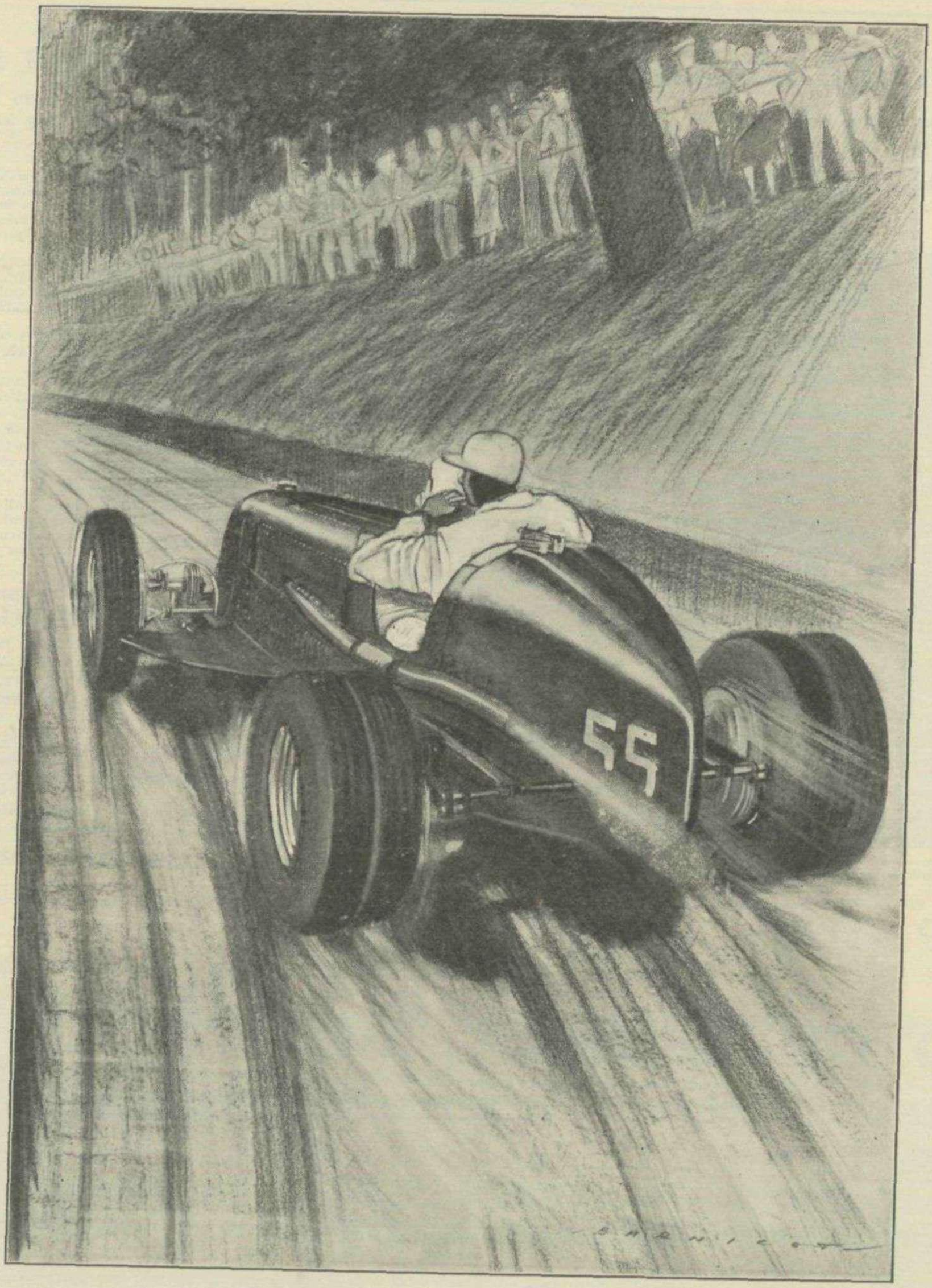


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MONACO G. P.

MANNFRED VON BRAUCHITSCH WINS WONDERFUL RACE FOR MERCEDES AT 63.27 M.P.H.

SUNDAY NIGHT

The ninth Grand Prix of Monaco was run off in the streets of the famous town on Sunday, August 8th. Mercédès-Benz not only repeated their success of last year but made it a real grand slam, all four cars finishing in first, second, third and fifth places, and setting up a staggering new lap record of 1 min. 46½ secs. (12 seconds faster than the previous record set up in 1935) also by Mercédès Benz.

The driving throughout was of an exceedingly high standard, and the duel throughout the race between Caracciola and von Brauchitsch was worth coming a long way to see.

The opening lap was marred by an accident to Hasse (Auto-Union), but fortunately his injuries are not of a serious nature.

Practising took place during the three days preceding the race, and immediately one got an idea of the terrific pace at which the race would be run. On Friday afternoon von Brauchitsch went round in 1 min. 50 secs.—the highest speed mentioned in the speed table of the official programme; while on Saturday morning no fewer than five drivers reduced this time—Caracciola being best of all with 1 min. 47½ secs. (66.168 m.p.h.), so he held the inside front position at the start.

The cars being lined up as follows:—

1st Row:
Rosemeyer (Auto-Union) — von Brauchitsch (Mercedes) — Caracciola (Mercedes)

2nd Row:
Kautz (Mercedes) — Stuck (Auto-Union)

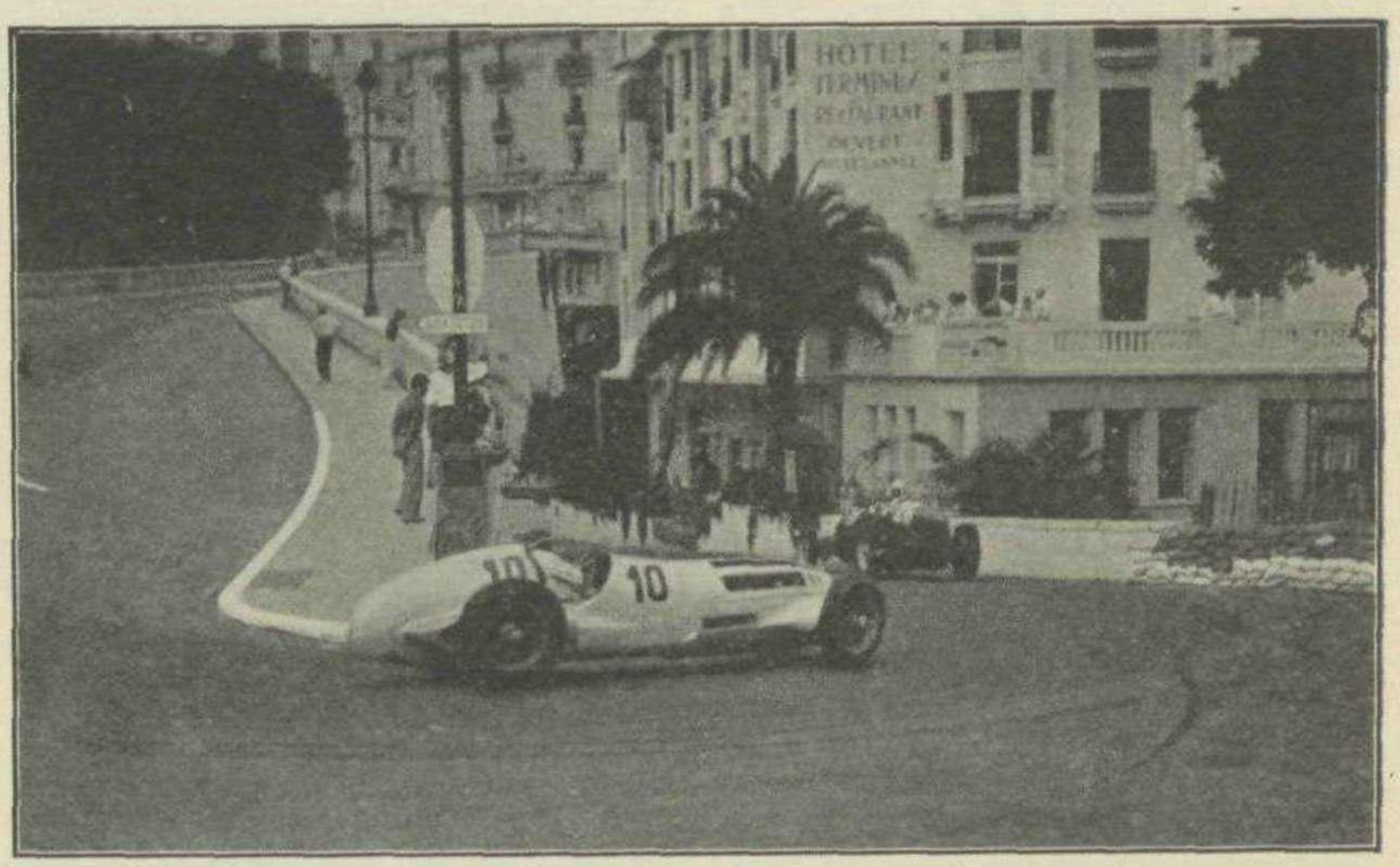
3rd Row:
Farina (Alfa-Romeo) — Zehender (Mercedes) — Hasse (Auto-Union)

4th Row:
Ruesch (Alfa-Romeo) — Pintacuda (Alfa-Romeo)

5th Row:
Hartmann (Maserati) — Sommer (Alfa) — Brivio (Alfa)

6th Row:
Biondetti (Maserati) — Soffietti (Maserati)

Kautz was driving in place of Lang, and Seaman did not appear, still being in Adenau Hospital recovering from his smash in the German G.P., but one was pleased to hear he was almost entirely recovered.



Pintacuda (Alfa-Romeo) closely followed by Von Brauchitsch at the Station Hairpin.

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Nuvolari, too, was an absentee, still being at Monza for the trials of the new Alfa-Romeo, as nothing is being left undone in an effort to have one car ready for the Coppa Acerbo.

The only definite non-starter was Pietsch whose Maserati developed a serious oil leakage, and very rightly, in view of last year's multiple smash, the organisers decided he should not be allowed to start.

A huge crowd had been flocking into Monaco all the morning and every conceivable view point appeared to be occupied on a perfect sunny day. Lord Howe made a ceremonial lap in an open four-seater Lagonda to officially close the road—a great tribute to this fine sportsman, and one to which the crowd showed their appreciation by giving his Lordship a great reception right round the course.

As the flag fell the cars got away to a good start, with a terrific display of acceleration, and at the tricky Sainte Devote corner about 250 yards from the start Caracciola was first, ahead of von

MONACO G. P.—continued

Brauchitsch and Rosemeyer, followed by the pack. Already the first incident had occurred, Hasse coming out of the Tunnel on his first lap skidded right round, crashed and was taken off by the speed-boat ambulance only slightly injured. Soffietti was only able to do two laps with a very sluggish car, and then he gave up.

The pace was terrific, and just as we were all preparing for a titanic Mercédès-Benz-Auto-Union struggle Rosemeyer slowed right down at the gasworks hair-pin and walked back to the pits—the steering having seized after only nine laps. So Mercédès seemed to be in a winning position very early in the race, all their cars running well, while two out of the three Auto-Unions were out of it.

Brakes were giving trouble, and both Pintacuda, and Stuck came in before twenty laps had been run to have theirs adjusted and throughout the race various stops were made for brake adjustments. Brivio came in to retire with a split radiator, apparantly he'd crashed into the back of Hartmann's Maserati on a far part of the course. Brauchitsch was driving superbly, and seeming to be putting more effort into his work than all the others. He clocked 1 min. $49\frac{1}{10}$ secs., for one lap, but soon after this, Caracciola got round in 1 min. 48 secs., holding the lead at thirty laps by $10\frac{2}{5}$ secs. from von Brauchitsch, who in his turn was 2 mins. 35 secs. ahead of Zehender with Farina fourth, Kautz fifth, Sommer sixth, Stuck seventh, Ruesch eighth, and the race was continued at a terrific pace, with the fight between Caracciola and von Brauchitsch for the lead. Then the Auto-Union team decided to let Rosemeyer have the wheel of Stuck's car, losing one minute during the change over. Just before half distance Caracciola came in for a schedule pit-stop. At fifty laps (half-distance) the order was :—

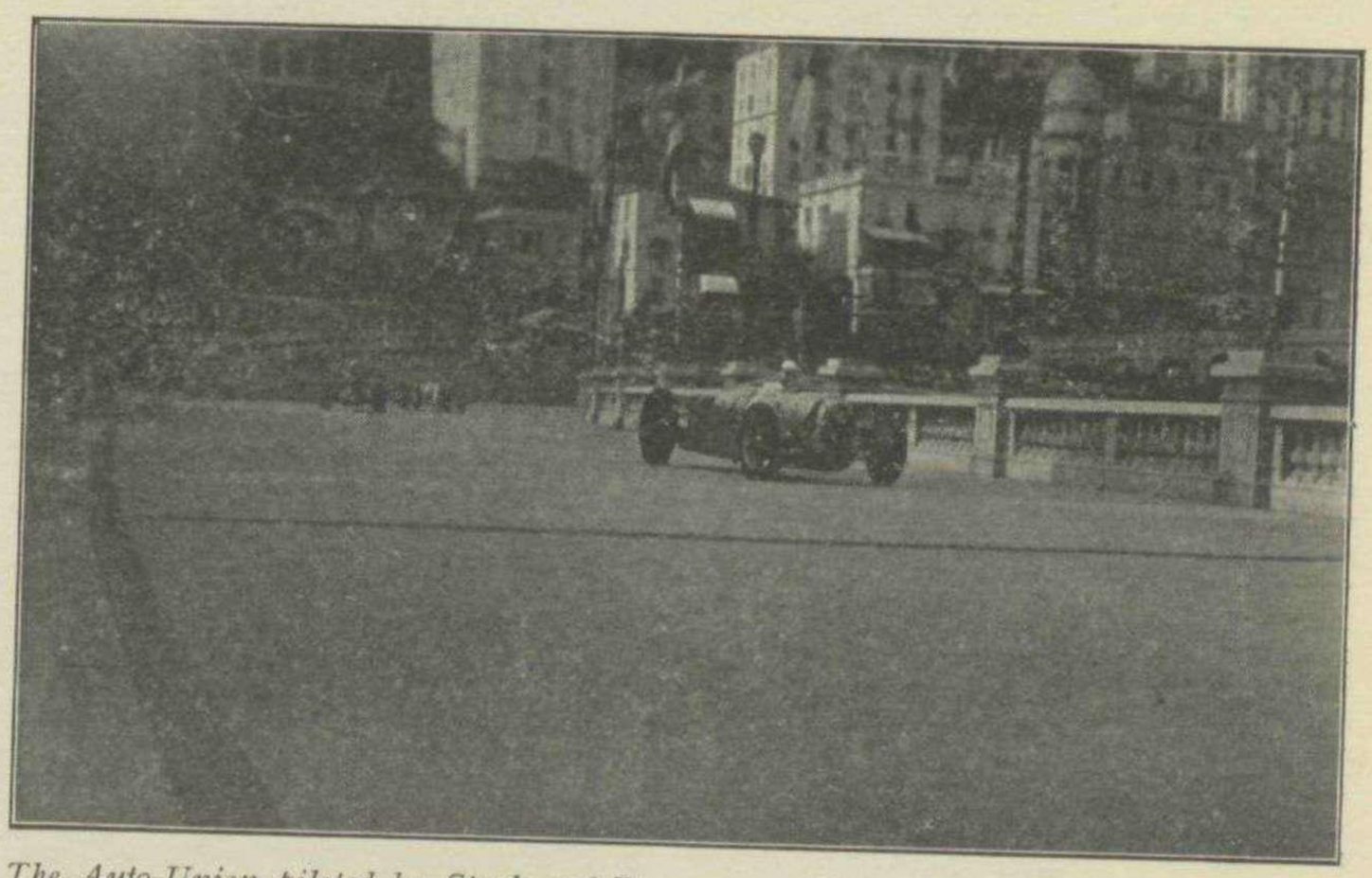
1. Von Brauchitsch (1 h. 33m. 27.1s.).
2. Caracciola (1h. 35m. 26.7s.).
3. Zehender (1h. 36m. 21.9s.).
4. Farina. (1h. 37m. $27\frac{1}{5}$s.)
5. Kautz.
6. Rosemeyer.
7. Sommer.
8. Ruesch.
9. Hartmann.
10. Pintacuda.

Still the struggle went on between "Carrach" and von Brauchitsch. On the sixty-fourth lap Caracciola clocked 1 min. 47.9 secs. and then von Brauchitsch came in to fill up, taking 1 min. 30 secs., whereas Caracciola had already taken 2 mins. 15 secs. for his stop and plug change, so the net gain was 45 secs.

Hartmann could not restart his car after a pit-stop and had to retire. Caracciola was still driving like one possessed and at three-quarter distance put leaning so far out of the car on every corner one often felt he'd fall out—he never made a mistake. Zehender too drove a fine steady race on his first appearance for Mercédès.

Farina as usual put up an astounding performance on a much slower car.

Once again the organisation was a model of superb efficiency. M. Noghes and his helpers again did their jobs as they really should be done—but how few if any, can compare with them.



The Auto-Union piloted by Stuck and Rosemeyer, which went exceedingly well towards the end of race to finish 4th.

in the record lap for the race with 1 min. $46\frac{1}{2}$ secs. (66.75 m.p.h) but even so after eighty laps he was only $\frac{3}{5}$ of a sec. ahead of von Brauchitsch, whom he had just overtaken, and after being in the lead but two laps, again came into the pits, and waved on von Brauchitsch. The end of a wonderful struggle between two wonderful drivers on absolutely equal cars, with von Brauchitsch first home, and the last few laps gave Mercédès a grand victory. Of the others Kautz in particular drove an excellent race,

RESULTS

1. Von Brauchitsch (Mercedes) 3h. 7m. 23.9s. (63.27 m.p.h.).
2. Caracciola (Mercedes) 3h. 8m. 48.2s.
3. Kautz (Mercedes), two laps behind leader.
4. Rosemeyer, driving Stuck's Auto-Union, three laps behind leader.
5. Zehender (Mercedes), three laps behind leader.
6. Farina (Alfa-Romeo), three laps behind leader.
7. Sommer (Alfa-Romeo), five laps behind leader.
8. Ruesch (Alfa-Romeo), eight laps behind leader.
9. Pintacuda (Alfa-Romeo), thirteen laps behind leader.

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THE J.C.C. FIFTH INTERNATIONAL TROPHY RACE

RAYMOND MAYS, WITH THE 2-LITRE E.R.A., WINS AT 82.3 M.P.H. "BIRA" (MASERATI) RETIRES AFTER A GREAT DUEL. ONLY FOUR FINISH WITHIN TIME LIMIT

A VERY classic contest is the Junior Car Club's International Trophy Race, this year the third big race to be held at Brooklands. Ever original, the J.C.C. this time arranged a rolling start, the first ever used in this country, they booked Bank Holiday as the big day, the first time a British long-distance race has been run on a public holiday, and they arranged that the circuit should be the longest ever used at Brooklands, by incorporating the Hill portion of the Campbell road circuit. A very interesting course resulted, with a lap of 3.369 miles, hard on brakes, a fine all-round test of stamina yet allowing speeds upwards of 120 m.p.h. to be held for considerably over a mile. And, of course, the famous Dyer handicap channels, this time three in number, were retained at the Fork, making this the only long-distance race in which various-sized cars can run on an equal footing without the use of time or distance handicaps that no spectator ever really enjoys. The only criticism of the International Trophy system is the great premium placed on the braking qualities of one section of the field, but we cannot have it all ways, and in many other classic races some cars have had to run far greater distances than others, which, on a highly idealistic basis, is even more undesirable. The groupings were as follows :—cars up to 1,100 c.c. blown and 1,700 c.c. unblown ; cars up to 2.6-litres blown and over 1,700 c.c. unblown, and cars over 2.6-litres, blown.

* * *

On the Thursday we learned with regret that the Maseratis of Count Trossi and Gino Rovere, the former's the very formidable four-cylinder 1½-litre, would not be over, although they had ordered fuel. Also that Austin Dobson would not run the *Bimotore* Alfa-Romeo.

In the afternoon "Bira" went out in the beautifully trim Maserati with Prince Chula timing him from the Paddock Stand, "Bira" and Chula having arrived together in "Bira's" blue Type 500 Fiat. After a few laps the road-racing tyres were replaced by track covers, when "Bira" slid more but got through the corners faster. We clocked him at 2 mins. 24 secs. on one lap.

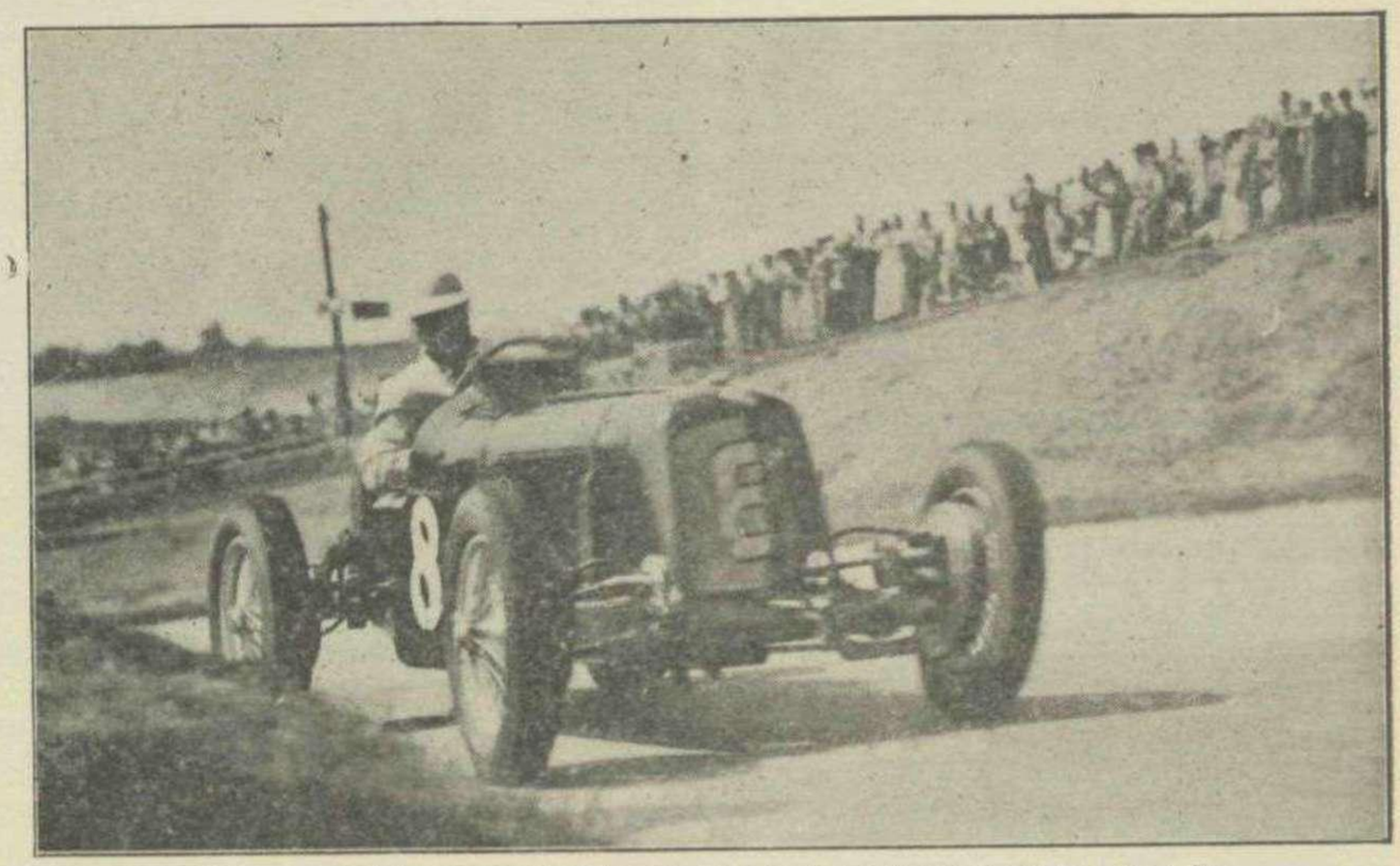
Quite epic was Hughes, whose M.G. turned *left* on the Members' Banking instead of *right*, guiltily turned on the Railway Straight and came back to enquire of Mr. Cann the correct route! R. C. Fleming, who had a puncture in a brand new tyre, took the Monza Alfa round in 2 mins. 40 secs. All night work had been going on fitting twin Arnott blowers to Ian Connell's E.R.A., which had not shown up by 4 p.m. Interest centred on a huge Ford van bearing the imposing inscription : "Alfa-Romeo, Bimotore, Austin-Dobson, Peter Aitken, Brooklands Track, Weybridge." It did not contain the *Bimotore* but was obviously there on some serious errand, so that the discovery was made that Dobson had entered his 1½-litre Maserati as "B. Alder" and would be driving that car in the race, Peter Aitken also running a Maser. Six.

On the Friday it was discovered that Raymond Mays would drive the 2-litre E.R.A., which formerly had been used for sprints, thereby gaining half-a-litre on the Maseratis, while Humphrey Cook would handle the works 1½-litre E.R.A. We heard that Mays had lapped at 2 mins. 18 secs., and ourselves timed him during the afternoon at 2.20⅕ and 2.21⅕. "Bira" was getting the 3-litre Maserati round in 2.23⅗ and 2.23⅘ by our clocking. From the turn off the finishing straight to leaving the Fork channel, the "road" portion of the course, the faster cars took under a minute, "Bira" being clocked at 55 secs. on one circuit. Wakefield's Maserati started very easily and motored at 2.23⅗. but Cook (E.R.A.) was slow and Duller (Riley), Maclure (Riley) and most of the M.G. and Maserati drivers only did intermittant practising. The turn from the "road" course on to the Members' Banking was taken very close in by most drivers, Mays then shooting almost to the lip and diving fiercely down to the Fork, while "Bira" also went well up the banking, occasionally correcting vicious tail-slides.

* * *

The non-starters posted on Monday, numbered twelve. Austin Dobson found the Bimotore Alfa's brakes still quite unsuited to this sort of racing, and instead appeared as "B. Alder" in the 1½-litre Maserati. A. F. Ashby was ill and scratched the big monoposto Alfa-Romeo, Freddie Dixon's Dixon-Special was a non-starter as the car wasn't ready and Charlie Dodson was said to be ill, Rolt's "Dolomite" Triumph was unrecovered from its Ulster blow-up, the Austin Seven had come to pieces so badly in practice that special parts would have been needed to run it, an impossibility in the time, and both Whitehead's E.R.A. and Hanson's 1½-litre Maserati had had serious trouble during practice. E. A. Bradley's fascinating Riley Nine was absent, though it had practised. Powys-Lybbe's Alfa-Romeo and Connell's E.R.A., completed the non-starters, leaving a field of twenty.

Before a really remarkable concourse of spectators, in burning sunshine, these remaining cars drew up opposite the Paddock in the old finishing straight. Drivers took their places, and Cobb's 4-litre Sunbeam took its place ahead of the field. Mechanics and well wishers were shooed from the howling pack, the Sunbeam responded to hand-cranking and away they went on this most curious rolling-start, in which, unlike Indianapolis and Lea Bridge rolling starts, jockeying for positions was allowed. This jockeying did not seem terribly hectic, but as they repassed the Paddock, Mays on the 2-litre E.R.A. shot ahead, closely followed by "Bira," while Smith's M.G. Magnette was left by the accelerating pack.



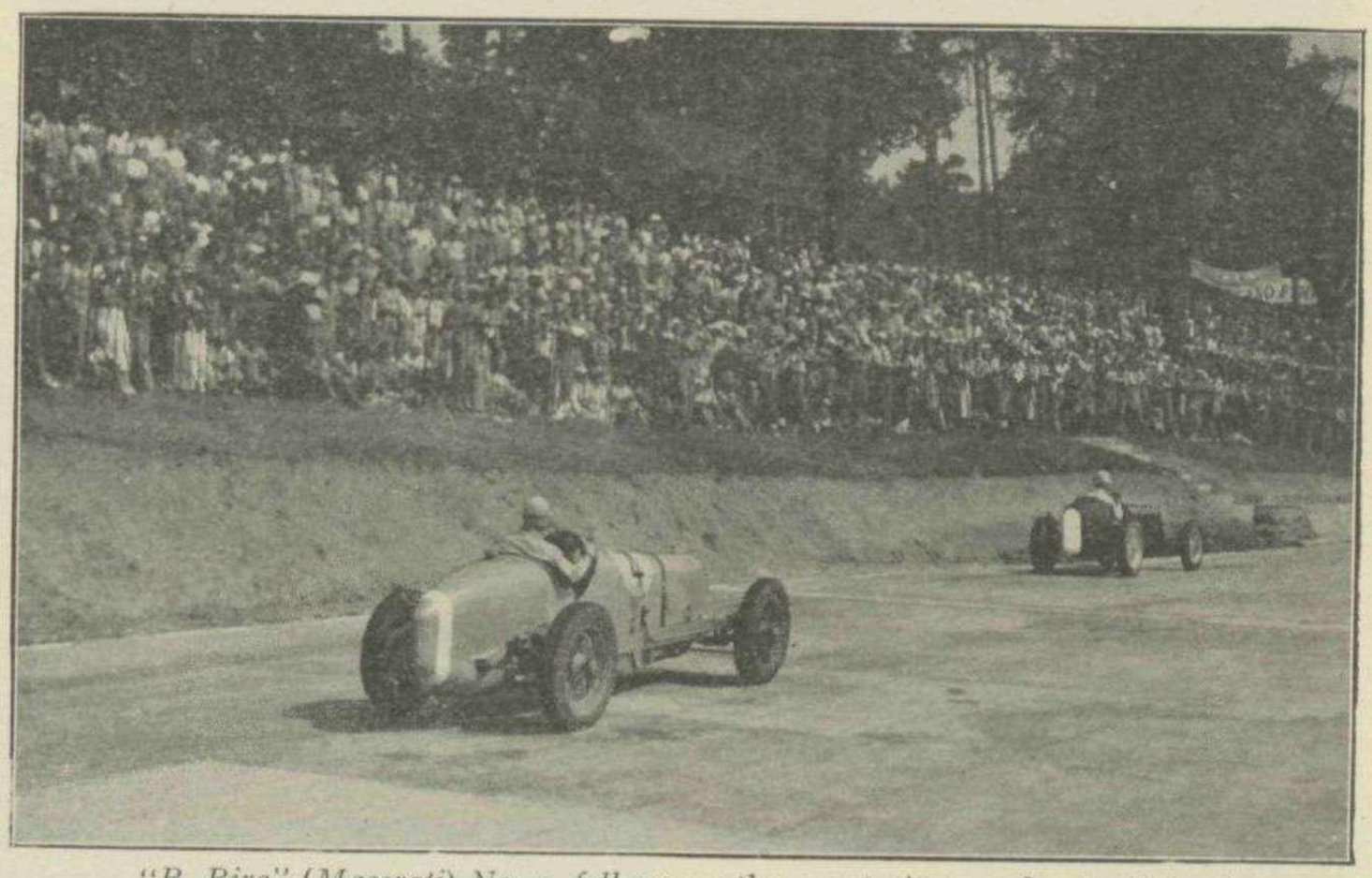
Raymond Mays who lead from start to finish to win at 82.3 m.p.h.

It was "Bira" who led on the road-leg, but Mays passed him on the Railway Straight, and after one lap it was Mays, "Bira" Parnell (M.G.), Wakefield (Maserati), Featherstonhaugh (Maserati), Appleton (Appleton-Special), Wilkinson (M.G.), Dobson (E.R.A.), Maclure (Riley), followed by the stragglers. In the next round Mays still led "Bira" by a narrow margin, with Parnell and Wakefield behind, then Appleton, Featherstonhaugh and Maclure. Maclure had gone very fast in practice on Saturday and his Riley had very big rear tyres to ease matters in the "engine-room."

Two-and-a-half-minutes after the start Smith brought his M.G. in for a new induction gasket, which took 17½ mins. to fit, and Brookes's M.G.-Riley was in at 2.34 p.m., 4 mins. after the start, with a similar trouble, though only two minutes was lost. Appleton soon stopped

THE INTERNATIONAL TROPHY RACE—continued

to cut away the radiator cowling of the Appleton-Special, which was overheating, and then a sensation was caused by the disappearance of Percy Maclure, whose Riley had stopped "out in the country" with piston trouble from which it retired. Arthur Dobson's white E.R.A. came in for brake adjustment and a new carburetter needle, and lost six valuable minutes, and Faulkner lost 2 minutes having his M.G. plugs changed and the front shock-absorbers tightened. Already the new course was proving a very severe one. At ten laps Raymond Mays had a bare $\frac{1}{5}$ sec. lead from "Bira" with Parnell third, Wakefield fourth and Wilkinson fifth. On one lap "Bira" got past the E.R.A. by passing inside at the turn of the finishing straight into the road-circuit, but Mays accelerated fiercely past him again and on the next round, when both were held up by Nickols's M.G. Midget, "Bira" waited and went through right on May's tail. At this corner Wilkinson went very wide, touching the sandy strip between track and sleeper barriers, Austin Dobson came closer in, Cook chose a more normal path, Hamilton (Alfa-Romeo) went through almost centrally, Nickols and Wilson (M.G.s) both chose to go wide and Brooke (M.G.-Riley) came quite close-in. At the turn on to the Members' Banking from the road-section unofficial timing showed Wakefield and Arthur Dobson to be a whole second faster than anyone else, save "Bira" who was $\frac{2}{5}$ secs. slower than these two drivers. Wakefield chose a very good course indeed, though at times he slid a trifle wildly. The narrow strip of track between the two straights seemed rather a dangerous passage for spectators going to and from the pits, nor did we like the parking of retired cars right alongside the course. Austin Dobson's Maserati came in for more than one attack on a broken rear shock-absorber, and Fleming's Alfa was throwing oil badly, which necessitated taking out all the sparking plugs. After twenty laps Mays led at an average of 84¼ m.p.h., with "Bira" a bare 2$\frac{4}{5}$ secs. away and Wakefield a very good third. The pace was now telling, and Featherstonhaugh's old 2½-litre Maserati, ex-Straight car with T & T special gear-shift, retired with supercharger trouble, as did the Appleton-Special. Faulkner (M.G.) had changed 2 more plugs taking one minute per plug and later all plugs in 3 mins., while Arthur Dobson did more work on the E.R.A.'s brakes and put in fresh plugs and Parnell's M.G. lost 2 most important minutes putting in ten gallons of fuel and fitting a new oil-pipe. W. Hughes (M.G.) effected oil-pump repairs, Faulkner again came in worried over plugs, changing a carburetter jet and altering the carb. setting, and Brooke put more water into the M.G.-Riley in a mere 22 secs. Poor Faulkner was truly having a busy day, for after motoring for a further six minutes he came in to have all the oil drained from the Magnette's sump. Nickols came to his pit at 3.35 p.m. for fuel, plugs, oil and water, a well conducted refresher of 4 mins. Came sensation! "Bira" drew in. He was 3 secs. behind Mays, was driving rather better, and had seemed likely to be playing a waiting game. Now he was out of the car, standing in his pit, overalls soaked down the back. The Maserati had sprung a leak in the fuel tank. But worse, the engine was a mass of smoke and steam; clearly something serious was amiss and "Bira" wiping his face in a big handkerchief, went sadly to explain things to Prince Chula in an adjacent pit. Now it was Billy Cotton, taking over from "Wilky," who lay second, with Wakefield third, having taken a minute to refuel, and Cook, whose 1½-litre works E.R.A. was steadily driven, fourth. Mays had averaged 84.55 m.p.h. at half distance, and led by 4 mins. 10$\frac{1}{5}$ secs. from the M.G. E.R.A. supporters looked very contented. Brooke had put in oil, a new plug, and eight gallons of fuel in 2 mins., and both Faulkner's M.G. and J. H. T. Smith's M.G. went out at the same time with supercharger sickness. Dobson's Maserati finally gave in to broken shock-absorber brackets.



"B. Bira" (Maserati) No. 4, follows another competitor on the stretch by the public enclosure.

Wilson's M.G. replenished and mechanics were working on a broken valve-cam-finger on Parnell's fast twin-cam M.G. Naturally Mays could now ease up, and the 2-litre E.R.A. dropped its average towards the end, though by forty laps it had averaged 85.01 m.p.h., when Wakefield was back in second place, driving the race of his career, 6 mins. 6$\frac{1}{5}$ secs. behind, with Cook's E.R.A. now third and Cotton's M.G. fourth, all spread out considerably. Actually the M.G. had stopped for 70 secs. to take on 10 gallons of fuel, oil and water, when Wilkinson changed places with Cotton, who now drove. At 4 p.m. Hamilton's 2.3-litre Alfa-Romeo retired with gearbox maladies and 5 mins. later Hughes's M.G. burst its cylinder block and naturally nothing could be done about that. Just before this Brooke, whose curiously short M.G.-Riley was still going strong, took on more water, which occupied 52 secs., and at 4.7 p.m., he came in for a tyre change, which was rare in this race, changing both rear wheels in 75 secs.

Ten laps from the end Mays had a solid lead of 3 mins. 22 secs. from Wakefield, and his average was down to 82.53 m.p.h. Mays had come in amid fearful excitement on the part of his followers and complete calm in the pit, to take on sixteen gallons of fuel and a gallon of oil in 43 secs., and not losing his lead. The result was a foregone conclusion so far as the winner was concerned. At 4.57 p.m. Mays gained the chequered flag, did a lap of honour, quite loudly clapped by the great British public, and drove onto the grass opposite the pits.

Cotton, after nearly missing his channel on one occasion, had brought the M.G. back to third place, 3 mins. 44 secs. after Mays was flagged, Wakefield finished in second place, and 39$\frac{1}{5}$ secs. later Cotton, well clapped from all the pits, finished third on the M.G. Cook had had a last minute stop with carburetter trouble but having only four laps to do, was sent off with the car very sick. It finally refused to climb the hill corner and retired, Arthur Dobson taking fourth place with the older, white E.R.A. No one else finished within the time limit.

RESULTS

1. Raymond Mays (1,980 c.c. E.R.A.) 82.30 m.p.h. 2h. 27m. 23s.
2. J. P. Wakefield (1,494 c.c. Maserati) 80.32 m.p.h. 2h. 31m. 7s.
3. W. E. Cotton (1,087 c.c. M.G.) 79.91 m.p.h. 2h. 31m. 46$\frac{4}{5}$s.
4. A. C. Dobson (1,488 c.c. E.R.A.), 74.33 m.p.h. 2h. 43m. 11$\frac{3}{5}$s.

Distance, 60 laps (202.14 miles)

Lap Leaders

Ten Laps

1. Raymond Mays (E.R.A.) 83.28 m.p.h.
2. "B. Bira" (Maserati).
3. R. Parnell (M.G.).
4. J. P. Wakefield (Maserati).
5. W. E. Cotton (M.G.).

Thirty Laps

1. Raymond Mays (E.R.A.) 84.55 m.p.h.
2. W. E. Cotton (M.G.).
3. J. P. Wakefield (Maserati).
4. Humphrey Cook (E.R.A.).
5. N. G. Wilson (M.G.).

Fifty Laps

1. Raymond Mays (E.R.A.) 82.53 m.p.h.
2. J. P. Wakefield (Maserati).
3. Humphrey Cook (E.R.A.).
4. W. E. Cotton (M.G.).
5. N. G. Wilson (M.G.).



MORE ABOUT MOTOR-BOATING

By "PROP SHAFT"

IF any of my readers have doubts about the reliability and effectiveness of the modern type of outboard motors, these should be dispelled by the records established in the Outboard Motor Boat Championship which was held on Oulton Broad on Saturday, July 24th. The championship resolved itself into an international event and there was a very strong challenge from the German team, so strong indeed that three of the four German starters finished in the first six places.

In all, some sixteen boats competed and the race was over a triangular course, consisting of thirty one mile laps. The winner, G. Holt, a young Manchester pilot and a member of the O.B.M.B.C., had an average speed of 31.72 m.p.h. This would have been even higher but for trouble in the second heat which lowered his average.

Not only did Holt succeed in staving off the German challenge but he also finished first in each of the three heats, his speeds for these being 32.08, 30.85 and 32.23 m.p.h. It speaks well for the skill of the English pilot and the excellence of his engine that the only time he was passed in any of the three heats was in the second, when G. Kreigeskorte, a twenty-seven-year-old air mechanic and the "baby" of the German team, just got his nose in front for a short spell.

It was a great race and was watched by some thousands of spectators who were thrilled and delighted with the splendid dash and hair-raising turns which contributed so much to the winner's success.

Oulton Broad, where the championship was held, is a favourite resort for motor-boat enthusiasts; here and on the adjacent water ways hundreds of enthusiasts have been enjoying a life afloat during the last few weeks and the demand for motor craft of all kinds for holiday cruising has broken all records. Similar scenes can be witnessed at many of the popular sea-side resorts and while it is true that many of those who have thus been introduced to the joys of motor-boating can only regard it as a holiday pastime, there is also a fair proportion, who, having once been introduced to the sport, will not be content until they have become motor-boat owners themselves.

During the past few months practically every boat yard in the country has been working to full capacity to meet the demand for motor cruisers and the sales possibilities are now so fully recognised that a number of the most important car distributors in London carry agencies for motor cruising craft. These range from the more or less standard type of twenty-footers costing about £200, to the cruisers which represent an outlay of many thousands of pounds.

From the trader's point of view it should be borne in mind that outboard motors and light inexpensive hulls may be regarded as a means to an end. Outfits of this kind are frequently purchased by those who have little or no experience of the water, but who, after a season or so, acquire sufficient knowledge and keenness to desire a more pretentious craft.

As the tyro gains in experience the tendency is for him to seek an increase of speed.

In the case of launches and cabin craft, this implies a substantial rise in power with a corresponding rise in running costs. When outboards are used the same characteristics do not apply, as, with the modern skimmer type of hull, relatively high speed can be obtained with moderate power and at small cost.

This brings us to the question of engines, a subject on which much may be written. One of the first problems which arises is the corresponding advantages

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MORE ABOUT MOTOR-BOATING—continued

of the two-stroke and the four-stroke engine, and as these notes are mainly intended for the beginner, some explanation of the respective types may be given here.

Briefly stated, the difference between a two-stroke and a four-stroke engine is this: in the former, as the piston rises it not only compresses the mixture above it in the cylinder, but also draws by suction a fresh charge from the carburetter into the crank chamber. Just before the top stroke, the mixture is fired and the piston is forced downwards, thus compressing the charge in the crank case, and a little before the bottom of the stroke it uncovers the exhaust port in the cylinder wall; the burnt mixture now escapes into the air through the silencer, thus relieving the cylinder of the remaining pressure.

Just at the bottom of the stroke the piston uncovers another port in the cylinder walls, i.e., the inlet port, and, as by this time the mixture in the crank case has been compressed to about 6 lb. pressure per square inch, it rushes into the cylinder and fills it, driving out all the remainder of the last burnt charge; the piston now ascends, cutting off access to the inlet and exhaust ports, and the cycle is repeated.

The four-stroke engine, being similar to that used on motor-cars, is now so generally well known that it is not necessary to describe it in detail. A point to be noted is that the absence of inlet and exhaust valves and their springs in the two-stroke motor offers an advantage in an open boat where everything is liable to rust up, whilst the working stroke at every revolution enables a cylinder to give out more power. In proof of this it is estimated that the cylinder of a two-stroke motor with two-thirds of the capacity of the cylinder of a four-stroke motor, will give the same power as the latter.

As a slight set-off against these advantages, the two-stroke uses rather more fuel per horse-power, and, moreover, is not so flexible as its rival; that is to say, that, as a rule, it cannot be slowed down quite so much. These drawbacks, however, have no practical weight in the smaller craft, which are practically always run at full speed, for when one's top speed is in the neighbourhood of five knots why should one wish to slow down?

Considered theoretically, the two-cycle engine should be superior to its four-stroke rival for marine work, even allowing for its extravagance in fuel as it is simple, robust, and easily made reversible. In actual practice, however, its want of flexibility already referred to, and, in some cases, uncertainty in starting, are points which must be considered.

Two-stroke engine troubles are almost always due to the difficulty of supplying the cylinders with the proper quantity and quality of explosive mixture. To ensure satisfactory running all joints in the petrol vapour system must be absolutely tight. Should there be the slightest leakage between the two halves of the crank case, or at the crank-shaft journals, trouble is bound to result.

A frequent cause of starting failures is a poor carburetter design, resulting in liquid instead of vaporised petrol being drawn into the crank case, which in turn supplies an unequal mixture to the cylinders.

Continued on page **354**



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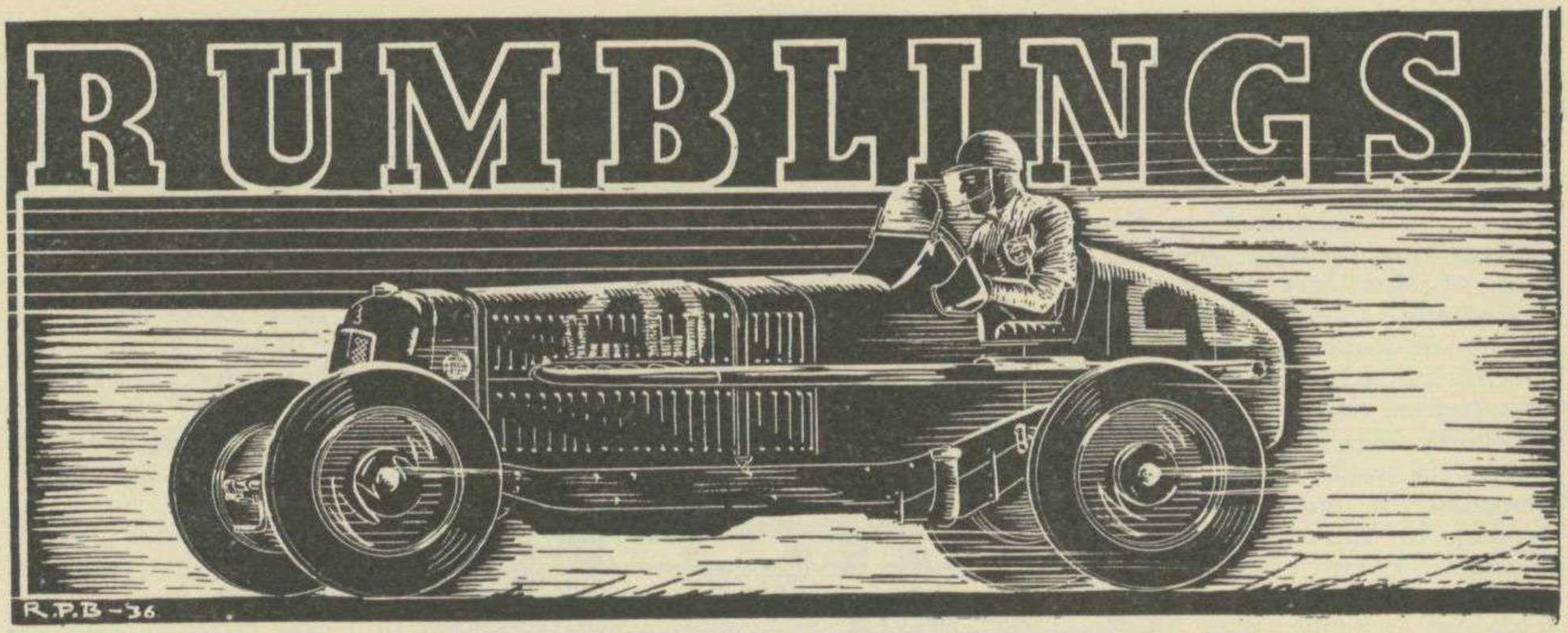
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The Campbell Circuit Lap Record

AT the time of the Campbell Trophy Race, the opening event over the new Brooklands Campbell road-course, there was confusion as to who held the lap record. Actually, the best time, a lap at 72.74 m.p.h. by Peter Walker (1½-litre E.R.A.), was established in practice and not equalled during the race. At the short handicap meeting last month Arthur Dobson (1½-litre E.R.A.) set the record to 73.13 m.p.h. Sir Malcolm Campbell, who designed the course, has offered two cups, one for cars, the other for motor-cycles, for the fastest lap of the year. 73.13 m.p.h. equals 1 min. 51⅗ secs.

Sprint Fun

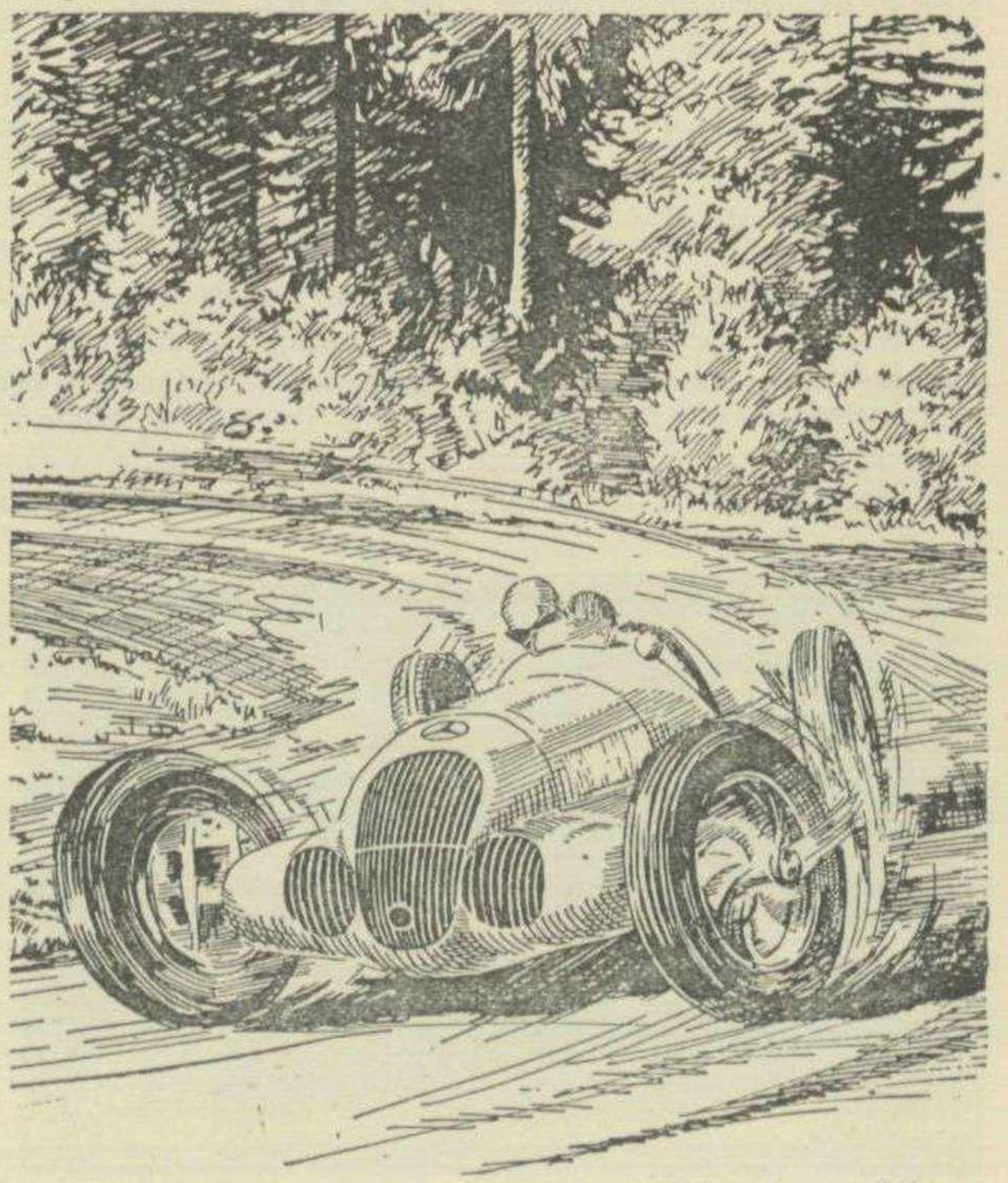
Sprint events are extremely well supported nowadays, even if they have not flourished quite so much this season as the trend of last year's events indicated. There are few aspects of motoring sport so fascinating as going around the country with a really potent sprint motor in tow, particularly if that motor is a very fierce, home-brewed cyclecar. John Bolster must have had endless fun taking course records with "Mary" and I wonder which he has enjoyed most—the seconds-splitting dice up the course, or the long journeys home from such venues as Shelsley, Bristol, Donington and Madresfield? Nowadays, of course, "Mary" is towed, but in the beginning she used to be driven about the countryside. I know, because a friend once rode crouched on the back of the chassis, all the way to Lewes. There was Bleriot-Whippet as well as G.N. in "Mary's" make-up then.

Sans Springs

On the subject of special sprint cars, a prospective builder is anxious to know if anyone has built a racing cyclecar minus rear springs. He foresees thereby a means of conserving avoirdupois, and of making things easier for the transmission if final drive is by chain or of eliminating universals if the drive is by shaft. He doesn't mind the possible discomfort in the least, but wonders if wheel adhesion in a very lightweight vehicle would suffer adversely. Have you any views on the subject? The Gnome cyclecar, *circa* 1927, had no springs of any sort, but it used low-pressure, oversize Dunlops and was flat out at about 45 m.p.h. And they quickly put front springs on Field's Bugatti when it came to this country . . .

Small Car Records

At one time the Class I and Class J records stood at very moderate speeds and as motor-cycle engine technique improved the prospect of some ambitious mortal building a 350 c.c. and 500 c.c. cyclecar to smash these records seemed quite unusually bright. In time special cyclecars were constructed, and the figures for most of the records lifted to less assailable heights. One recalls the little single-cylinder Jappic,



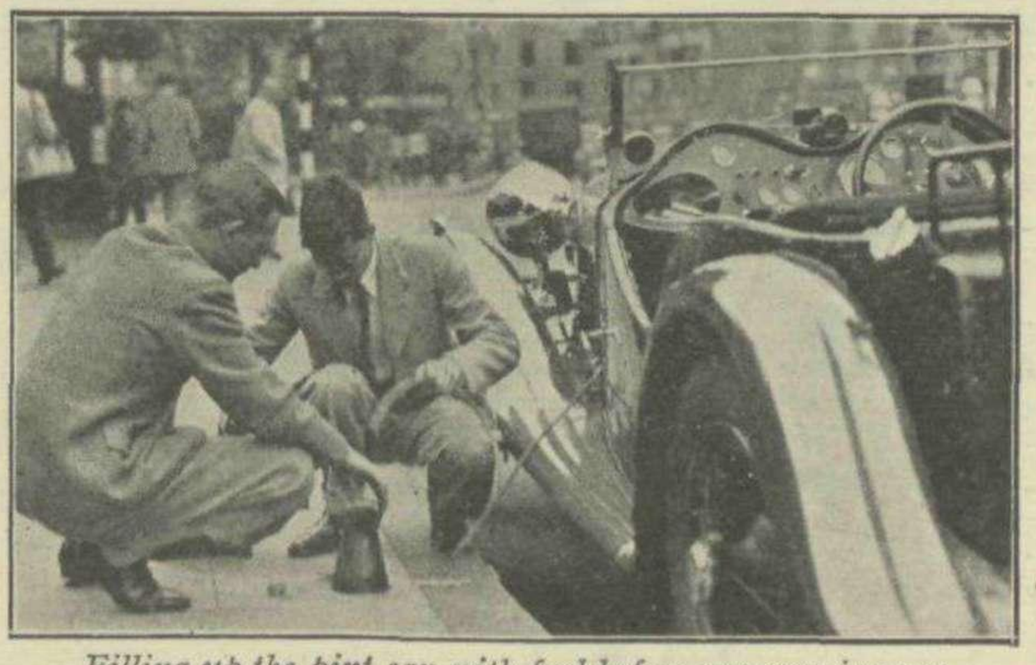
An artist's impression of Rudolph Caracciola, winner of the German G. P., with his Mercedes-Benz.

RUMBLINGS—continued

surely the smallest car to run in a B.A.R.C. handicap race, and the Avon-J.A.P. which Kaye Don drove. To-day two of the records in the 500 c.c. category are held at just above 100 m.p.h., by Count Lurani's tubular-framed Nibbio. Now comes news of another 500 c.c. record-breaker, in the form of M. Lucien Clement's de Couchy, which on May 2nd covered 10 kilos. of Montlhèry at 88 m.p.h. M. Clement will soon attempt to lower the Class I hour record, which is held by de Rovin's de Rovin at 74.44 m.p.h. The de Couchy has a four-cylinder 49.9 x 62.4 m.m. engine with inclined o.h.v., operated by gear-driven twin o.h. camshafts via finger-toppets. A vane-type supercharger is used, driven by epicyclic gearing. The crankshaft is unconventional, of two throw type running in three slightly conical, two-row roller bearings. Pump cooling, pressure lubrication and coil ignition are employed, and about 80 b.h.p. is developed at 8,700 r.p.m., the complete car weighing 7½ cwt.

Arnott Supercharging

Arnott has kept his supercharging developments rather neatly under his hat, as it were, but in the last eighteen months all manner of cars have had applied to them the new Arnott vane-type compressor. There is nothing unduly sensational about this supercharger, but it has rotor spindle proportions, blade dimensions and blade fixings, etc., all calculated on a basis of a high degree of reliability. The drive incorporates special Hoffmann high-speed ball-bearings, and is usually by belts, and lubrication is by pressure from a separate tank, the variation between suction in the blower and manifold pressure maintaining the feed. Not content with turning out considerable numbers of the compressors at the large and pleasant works of Carburetters Ltd., at Willesden, Arnott has launched a new carburetter, no mean accomplishment in these days of standardised equipment. Working like an S.U. on the constant vacuum principle, the Arnott carburetter has a piston working in a ball-mounted slide and a floating jet in which the needle locates itself automatically. The easy starting device works on air-bleed, an auxiliary jet placed by the main jet and increases air-flow over the jets in one operation. The carburetter can be mounted in any position without alterations to the main body and Arnott claims that it increases the speed of a popular small utility car by 8 m.p.h., besides improving its consumption. He tells me that Whitehead's E.R.A. is being fitted with one of his carburetters and that his blower and carburetter is now standardised on the Atalanta and will be used on the car entered for the T.T.

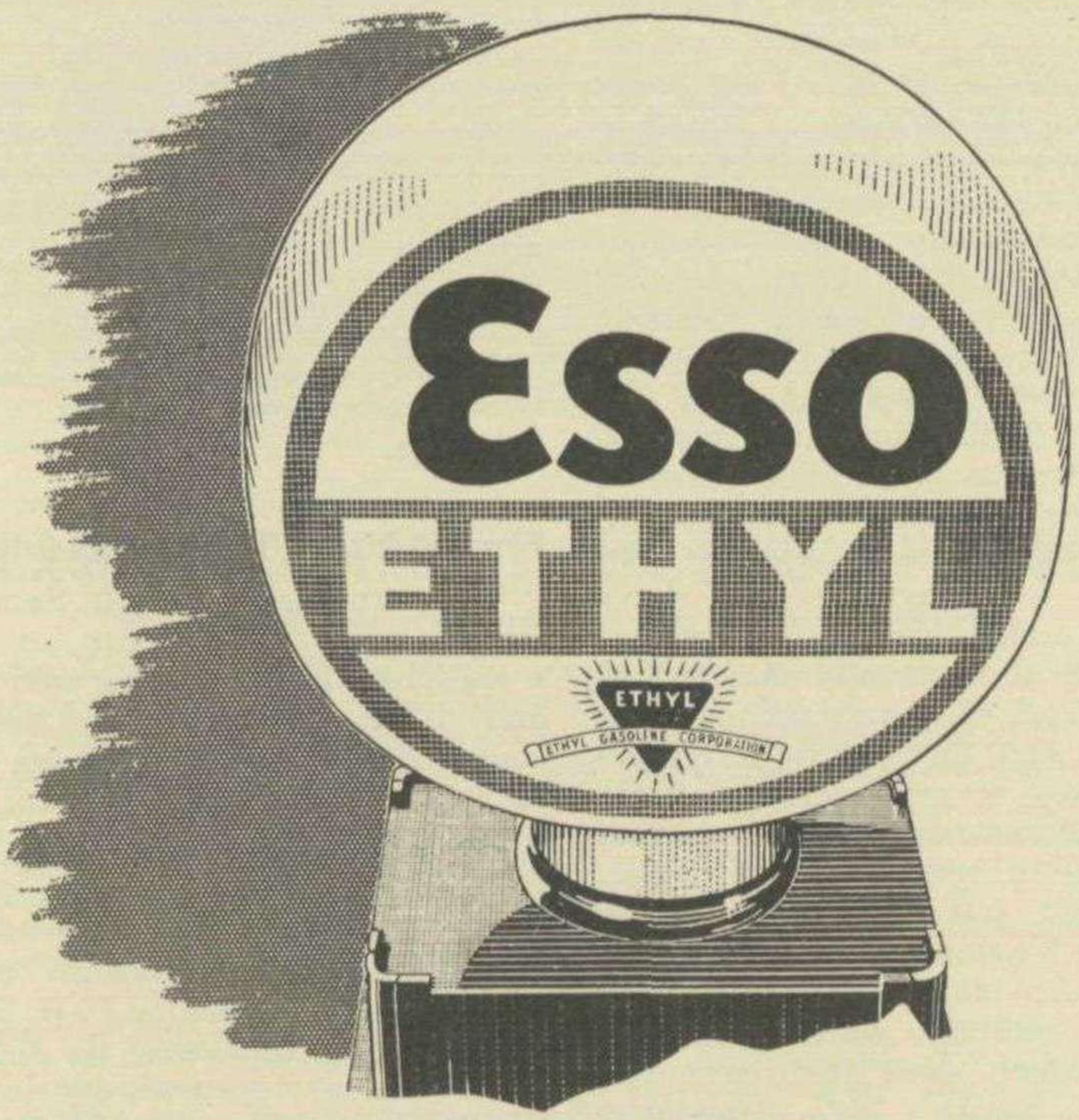


Filling up the pint can with fuel before commencing one of the tests with the Arnott Supercharged A.C. "Ace."

When we were at the works Ian Connell's E.R.A. was being fitted with an Arnott supercharger layout, the blower-pressure going up from 15 to 30 lb. per square inch to bring things more in line with the works E.R.A.s. But Connell was very wary about these changes and shoo'd our camera away, the International Trophy Race being in the nature of an experimental outing. Itching to go out in an Arnott-supercharged car, Arnott produced an A.C. "Ace" for us, which was "treated" for a client four months ago at a cost of about £50. He told me that, although the supercharge is 6 to 7 lb., originally the standard compression-ratio of 7.5 to 1 was retained with excellent results, while no engine parts have been modified. Later the compression ratio was reduced to 6.4 to 1, and Arnott says that the A.C. does 0 to 50 m.p.h. in about 8 secs., 60 to 70 m.p.h. in under 4 secs. and over 100 on the speedometer. Only having time to potter round London town I had no chance to check these figures but I did maliciously respond to Arnott's suggestion that we should conduct a fuel consumption test. The result surprised me, for on three runs on a pint of fuel each, involving use of the indirect gears and traffic stopping and restarting, and using fuel unsuited to the engine through an oversight, we averaged 20.8 m.p.g. The engine was notably silent, tractable and not in the least addicted to pinking, though these are qualities we now take for granted in properly supercharged engines. But fuel consumption is usually not so good, especially at low speeds when the average installation has hardly thought about beginning work.

Kenneth Evans—Conducteur

"Wilky" was in very good fettle when I called in to see him at the Bellevue Garage racing shops, where you always experience the fascination of preparation to the full. He had arrived back that morning—at 5 a.m.—from Nürburg, the Evans family having gone on to spectate at Berne. He told me that he had had a really excellent time in Germany and felt extremely fit. And, of course, he was very pleased that Evans had brought the Alfa-Romeo home ninth in the German Grand Prix, the only independent to finish ahead of him being Hans Ruesch, who was eighth, while Kenneth's Alfa is only a 2.9-litre, against the 6-litres of the Auto-Unions, 5-litres of the Mercs., and 4.5-litres of Nuvolari's Alfa-Romeo. Evans finished comparatively fresh, for the monoposto Alfa has very light steering and a sensibly sprung driving seat, while the Dubonnet independent front suspension and reversed quarter elliptic rear springing ensures a fairly comfortable ride. For all that, the car takes a deal of handling, "Wilky" telling me that he found it quite exciting at 138 m.p.h. on the outer-circuit of Brooklands, which is about 18 m.p.h. down on Kenneth's maximum at Nürburg. Before the race Wilkinson remarked to Evans's father that during the single pit-stop he would have no time to converse



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RUMBLINGS—continued

with the driver. This proved to be true, for fuel, oil and water were put in in 28 secs., and Evans only managed to swallow half his glass of orange juice. He was given signals from the pit and these were repeated from the rear of the pit, where he saw them more easily on the return leg of the course. The Alfa looked remarkably spick and span after its journeyings. The monoposto body strikes one as unduly wide, this being due to formula impositions. Under the circumstances it seems that the twin propeller shaft transmission to provide a low seating position is needlessly complicated, but actually the use of double drives reduces stresses in the rear axle, and another point is that the final drive ratio can be altered by using different pinions behind the gearbox, access to which is gained by removing about a dozen casing bolts and drawing out the axle assembly and propeller shafts complete, leaving the final drive adjustments, etc., quite undisturbed. The central gear-lever is curiously long and actually cranked to bring it near the wheel, and first and second gear positions are forward left and forward right respectively in the visible gate, a rapid change from first to second being very seldom required. The brakes were in excellent condition in spite of hard usage. "Wilky" joyously pointed out that next season formula racing is confined to 3-litre cars, so the Bellevue Alfa should be a factor with which to reckon. Other Bellevue-maintained cars include John Dugdale's N-type M.G. Magnette, which does just over 100 m.p.h. unblown, J. H. T. Smith's M.G. Magnette, Billy Cotton's M.G. Magnette, the wheel of which Wilky shared in the International Trophy Race, Esplen's R-type Midget, and the modified Montlhèry Midget that Denis Evans still exercises to effect at speed trials. Cotton's newly acquired ex-Seaman E.R.A. will be looked after by Bellevue. Cotton is disposing of the ex-Dobbs single-seater Riley but keeping his M.G.

The T.T. is Coming . . .

Less than a month to the T.T. Race at Donington. I wonder how many enthusiasts will devote a week of their holidays to watching the practice and preparation beforehand. Donington Park is situated amongst some very fine English countryside and no doubt there are plenty of charming farm-houses near at hand where those who wish could put up quite cheaply, if they are not hardy enough to live under canvas. And rare fun will doubtless be witnessed in the big hotels at Ashby and Derby, though not, I hope, approaching that which we read of in the new book "Sing Holiday." The entries, if nothing sensational, are sufficient to ensure an interesting race. They do not require much explanation. Undoubtedly the Frazer-Nash-B.M.W.s will be Type 328 cars, with full equipment. Mrs. Dobson's Balilla Fiat must have a very big mileage to its credit, while the Simca Fiats are French built Balillas. Arthur Fox once again enters a 4½-litre Lagonda, which was No. 1 of the Lagonda team last year and will very likely be handled by Charles Brackenbury. But I rather gather that Mr. Fox expects a Continental victory. Eddie Hall is likely to go through non-stop with the 4¼-litre Bentley. See you at Donington on September 4th . . .

Reharnessing the Horses

Dick Nash has had a spot of chest trouble but when I met him at Brooklands recently he was much better, and talking of reharnessing the horses of the Frazer-Nash-Union-Special—which is dismantled between events—for more sprint work. He told me the Lorraine was only firing on one as it finished its recent Lewes run in 18·29 secs. Nash's collection of antique motor-cars is certainly not confined to pre-1905 models, for I noticed two excellent model T Fords, one with the square radiator and much beautiful brass-work, and his small cars include a 1915 Morris-Oxford and a 1913 two-cylinder Swift cyclecar. The T Fords do about 15 m.p.g.

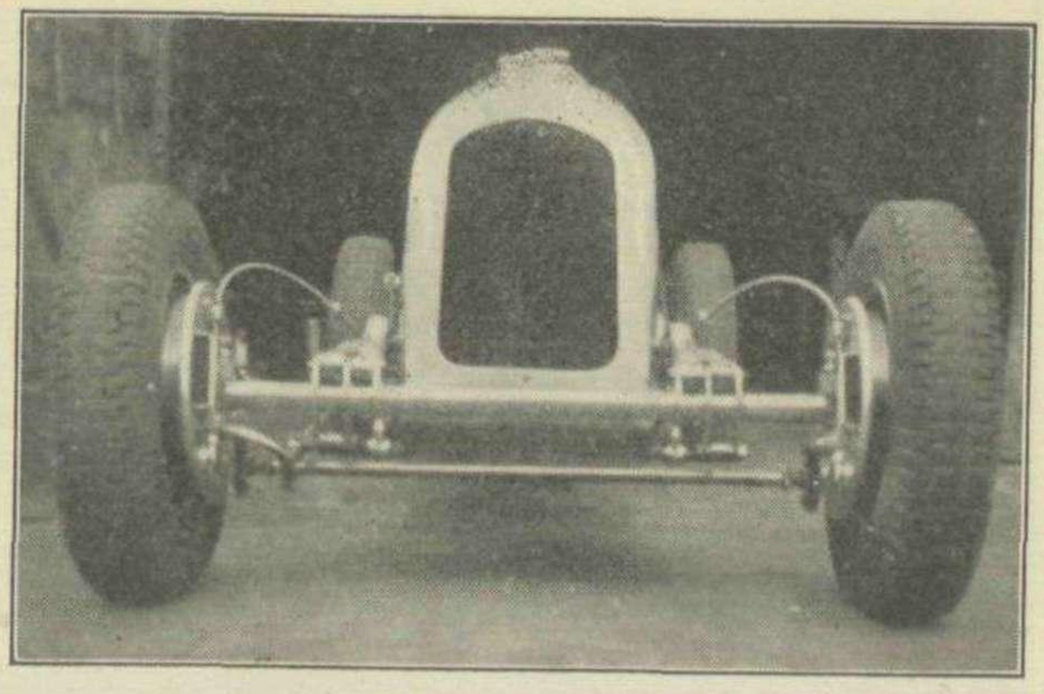
Frazer-Nash Tuning Business

We learn that Whitfield Semmence, who in the past few months has built up an enviable reputation as a specialist in the tuning and service of Frazer-Nash and other thoroughbreds, has owing to his health been compelled to give up his business in Maida Vale in order to be nearer the sea.

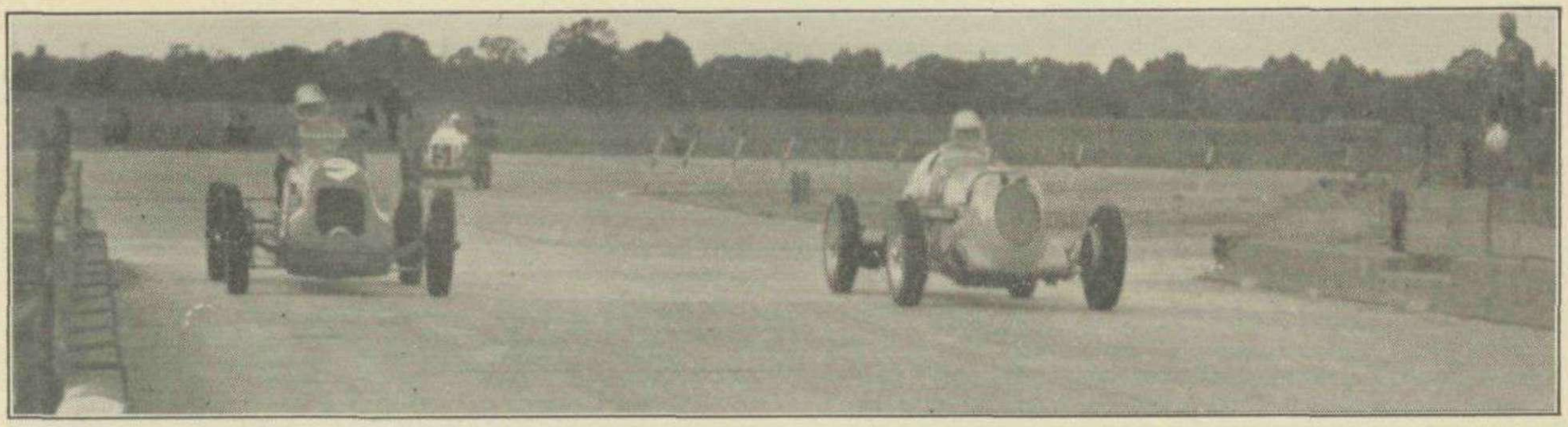
He has, however, joined the Progress Motor Works (Littlehampton) Ltd., in the capacity of director and works manager, where he will continue his work, catering for the enthusiast and his car. Together with his fellow directors, P. H. Sarvis and D. N. Stowers, both keen enthusiasts, we feel that another tuning establishment specialising in Sports-Cars on the South Coast will soon make its presence felt. Incidentally, Semmence possesses a really magnificent collection of precision instruments and tuning equipment which would be difficult to equal. Many of our readers already know, without being told, that he knows how to use them. We wish him the best of luck in his new venture.

The Donington T.T.

I have received a letter from a lady, lately arrived in this country from Ireland, who wishes to join any party of young folk who may be going up to Donington for the T.T. Week. Letters will be forwarded.



The car owned by Whitfield Semmence, from which he hopes to do great things in speed trials.



R. W. J. Appleton (Appleton Special) and R. Parnell (M.G.) race side by side, followed by A. C. Dobson (E.R.A.) at Vickers Bridge Corner.

THE CAMPBELL CIRCUIT MEETING AT BROOKLANDS

H. HADLEY WINS THE BIG RACE FOR AUSTIN

THE first of the long-awaited short-handicap B.A.R.C. meetings over the Campbell circuit road-course was held at Brooklands on July 10th.

In spite of big prize-money the entries were not quite so good as expected and the assembly of spectators was definitely below par, although the fullness of the Fixture List in general and heavy rain in the morning doubtless had a bearing on the matter.

The impression of this meeting is that racing over the new circuit is very interesting and very easy to watch, and most people's worry is the healthy one that there is no further meeting of the same nature in the Fixture this year, unless the closing B.A.R.C. meeting is to include some Campbell circuit races.

It will be interesting to see whether this glut of road-racing will drive outer-circuit exponents to concentrate on the 300-Mile Race, with direct benefit to the B.R.D.C.

Naturally this short handicap meeting draws attention to the Campbell circuit Lap Record, for which Sir Malcolm Campbell has presented a special cup. After the Campbell Trophy Race no announcements were made as to the lap speeds, but it now transpires that in practice for that race Walker did the best lap in Whitehead's 1½-litre E.R.A. at 72.74 m.p.h. This was unbeaten during the race. On July 10th, Arthur Dobson, whose driving is drawing increasingly favourable comment, established the record at 1 min. 51.6 secs., equal to an average speed of 73.13 m.p.h. He drove the now almost elderly white 1½-litre normally sprung E.R.A. This establishes the Brooklands road-course as a fast circuit.

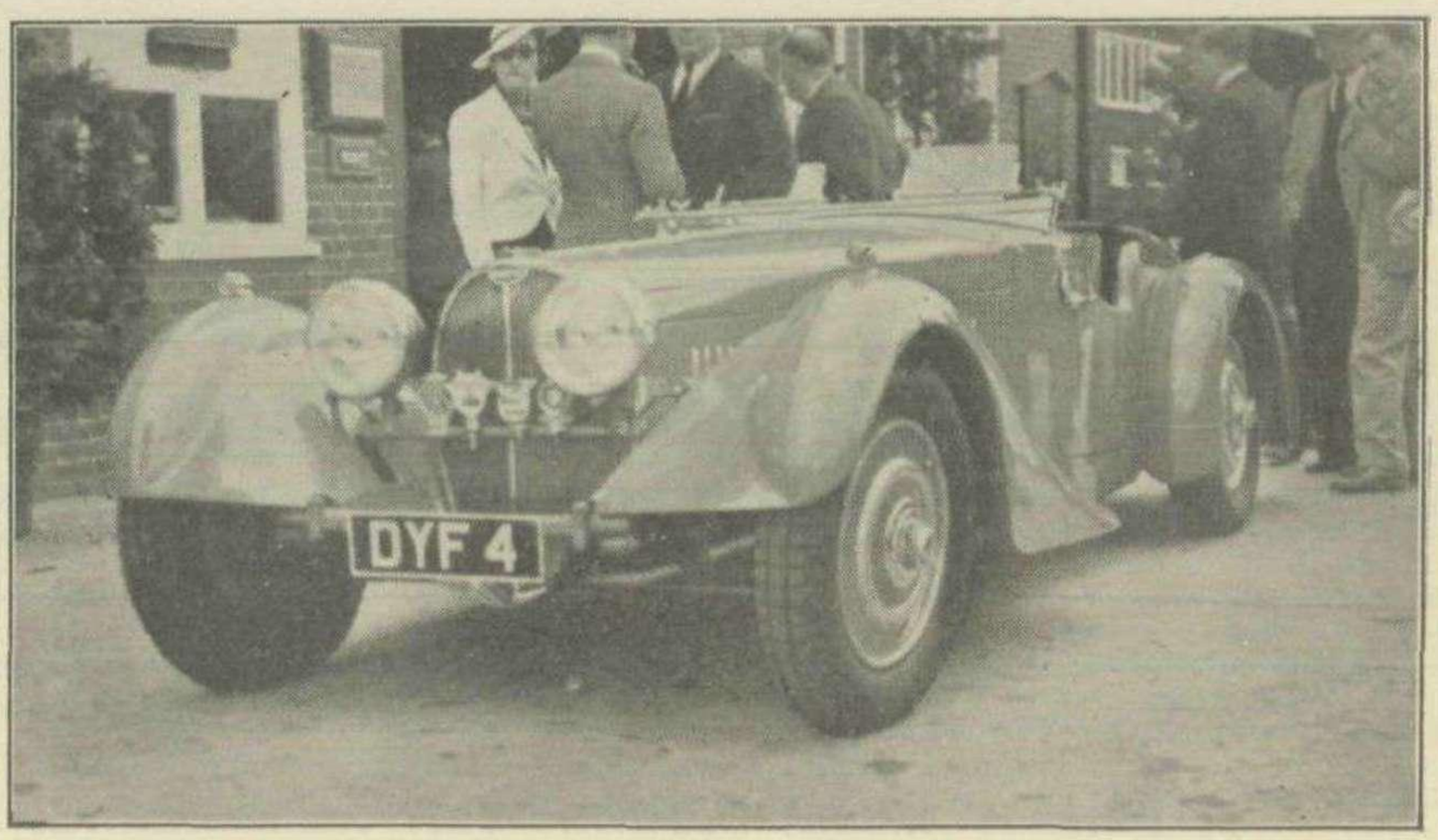
In the Paddock cars and humans of fashionable interest assembled. Earl Howe came in his M.G. coupé, Sir Malcolm Campbell in his new 3.3-litre Type 57 Bugatti, "Bira" in a 500 c.c. baby Fiat and Mr. and Mrs. Phipps, over from Denver, in a new Cord. Fane and his wife wore their new Heidelberg student hats and the atmosphere was one of joy and merriment.

The first race was a three-lap, seven-mile short handicap, in which Tuson's Balilla Fiat led until the final lap. Parnell's M.G., with yet another new body and a Jamieson blower, got past with Michael Couper's well-known Talbot on his tail. Then, approaching the Vickers-Bridge corner the M.G. left the course, and rejoined it in a fashion that caused the Talbot to get wrongly positioned for the corner so that Couper struck the bridge parapet and broke his back axle, limping to the finish in fourth place. Clayton's Amilcar-Six took second place and Tuson was third. Parnell's win at 65.71 m.p.h. was allowed to stand, but he was fined £5 for dangerous driving. The bend where Couper crashed is probably the most difficult to judge of any on the circuit and Lord Howe showed great nerve in officially observing it so soon after his serious accident at this spot last May.

The next three-lap handicap was a victory for Tuson's game little Fiat, now driven as limit car by C. H. Masters, at 58.79 m.p.h. From scratch Cholmondeley-Tapper came strongly up to second place with the 3-litre Maserati, duelling with Wakefield's little Maserati Six, lapping at over 70 m.p.h. S. Mond's 1½-litre G.P. Bugatti was third.

Next we had the National six-lap race, handicapped on a class basis. Hadley and Goodacre in the popular baby Austins struggled together, Hadley drawing away to win at 68.7 m.p.h. after a very well-judged drive. Arthur Dobson came rapidly up with the E.R.A., establishing the lap record at 73.13 m.p.h. as already detailed, and on lap five he caught Goodacre by the pits and went into second place. He just failed to catch Hadley by ⅘ of a second. Hanson was doing good work with Mrs. Hall-Smith's Maserati and Taylor's Alta and Parnell's M.G. were notably rapid, winning their respective classes, but it was Tapper on the big Maserati, taking the Banking Bend very high indeed, who got third place from scratch.

The following three-lap handicap saw Michael May's famous old 2-litre "Silver Eagle" Alvis win happily at 61.27 m.p.h. with Baker-Carr's short 4½-litre Bentley second on the last lap and to the finish and J. P. Wakefield's 1½-litre Maserati third. Maseratis are flavouring Brooklands these days. Miss Joan Richmond drove the new Cross-Rotary H.R.G. *monoposto* for E. A. Halford, Gordon Brettell returned to the fray with the little Austin which took him over the Members' Banking at Whitsun,

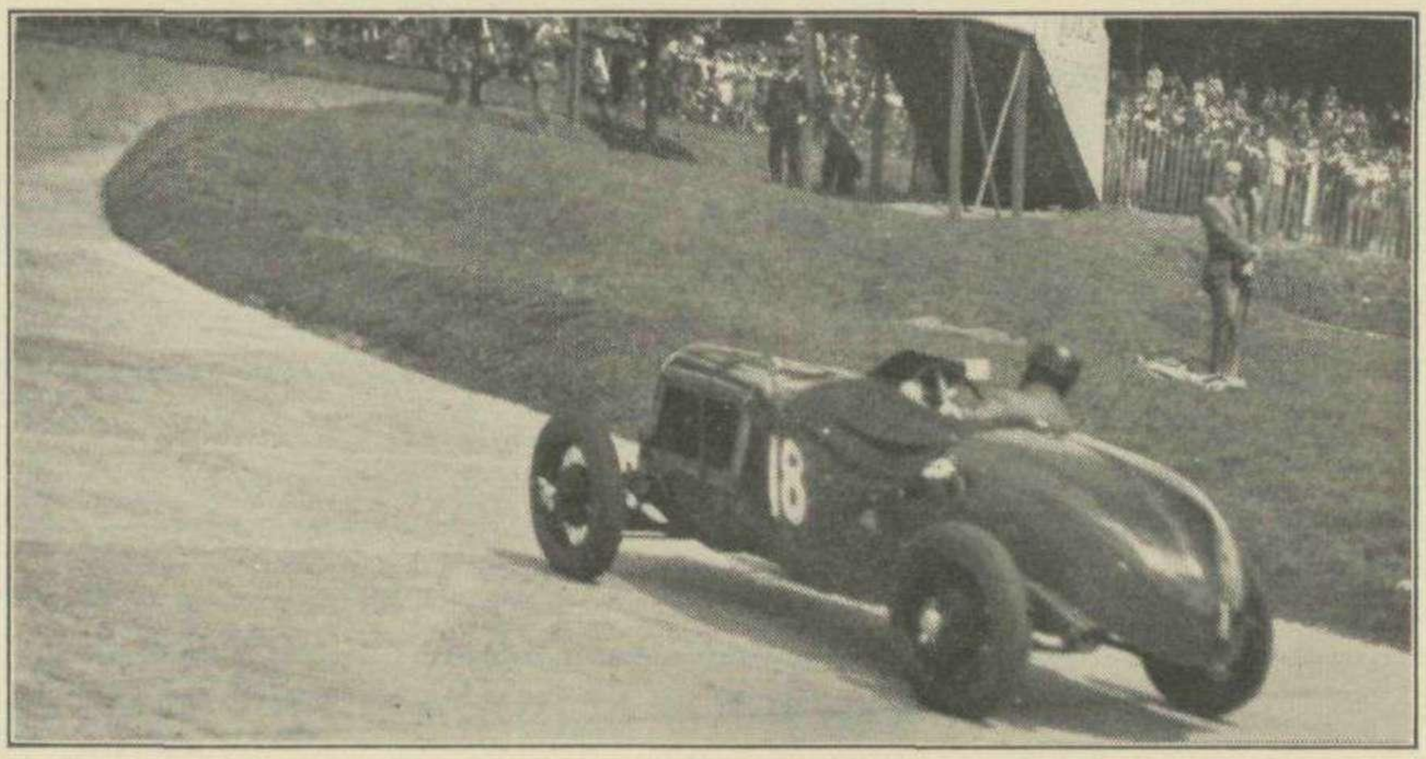


In the paddock—Sir Malcolm Campbell's new 3.3-litre Type 57 Bugatti.

THE CAMPBELL CIRCUIT MEETING AT BROOKLANDS—continued

and the sick cars now numbered Aston-Rigby's old M.G. Magnette with overheating, J. H. T. Smith's M.G. with engine trouble, likewise Mrs. Roy Eccles's Rapier-Special that was a non-starter for that reason, and Mrs. Hawkes's Derby, a non-starter with engine trouble.

The final race was over six laps. Miss Dorothy Stanley-Turner's M.G. led for two rounds, then Wilson's M.G passed, but overheated and lost speed. In the meantime Fane had come up rapidly with a new and not fully-run-in Type 328 Frazer-Nash-B.M.W., fully equipped. He cornered very rapidly, the brake-light showing before the corners. He was beaten only by Dobson's E.R.A. Robin Hanson on the Maserati was third, with Hadley's Austin behind him. Couper's Talbot was unable to run. Dobson's average was the highest of the afternoon—71.09 m.p.h. So it is that the revving of racing engines before corners and the hiss of brakes replaces the continuous yowl of cars hard at it around the outer circuit. Altogether this was an extremely enjoyable meeting, and the small attendance and limited entry was in no wise the fault of the B.A.R.C.



V. H. Tuson (Fiat) at the Test Hill Hairpin. He finished third in the First July Short Handicap.

RESULTS

FIRST JULY SHORT HANDICAP
Three laps (about 7 miles)

1. R. Parnell (1,087 c.c. M.G.), 24s. start. Won by 3⅘s. at 65.71 m.p.h.
2. C. T. H. Clayton (1,097 c.c. Amilcar), 31s. start.
3. V. H. Tuson (995 c.c. Fiat), 5⅘s. behind winner; 1m. 23s. start (limit man).

Betting: 4 to 1, 8 to 1 and 4 to 1 respectively. Fourteen ran.

FIRST JULY LONG HANDICAP
Six laps (about 14 miles)

1. C. H. Masters (995 c.c. Fiat), 2m. 40s. start. Limit man. Won by 27⅘s at 58.79 m.p.h.
2. T. P. Cholmondeley Tapper (2.9 Maserati), scratch.
3. S. Mond (1,496 c.c. Bugatti), 2m. 3s. start 30s. behind winner.

Betting: 5 to 1, 5 to 1 and 6 to 1 respectively. Ten ran.

NATIONAL RACE
On Class Handicap. Six laps (about 14 miles)
General Category

1. H. L. Hadley (744 o.h.c. Austin), 30s. start. Won by ⅘s. at 68.70 m.p.h.
2. A. C. Dobson (E.R.A.), 6s. start.
3. T. P. Cholmondeley Tapper (2.9 Maserati), scratch; 16s. behind winner.

Betting: 4 to 6, 4 to 1 and 10 to 1 respectively. Twelve ran.

Class Winners.—Unlimited: Cholmondeley Tapper (Maserati). 2-litres: G. Taylor (Alta). 1,500 c.c.: A. C. Dobson (E.R.A.). 1,100 c.c.: R. Parnell (M.G.). 750 c.c.: H. L. Hadley (Austin).

Handicapping.—Unlimited c.c., scratch; 2-litres, 3s.; 1,500 c.c., 6s.; 1,100 c.c., 18s.; 750 c.c., 30s.

SECOND JULY SHORT HANDICAP
Three laps (about 7 miles)

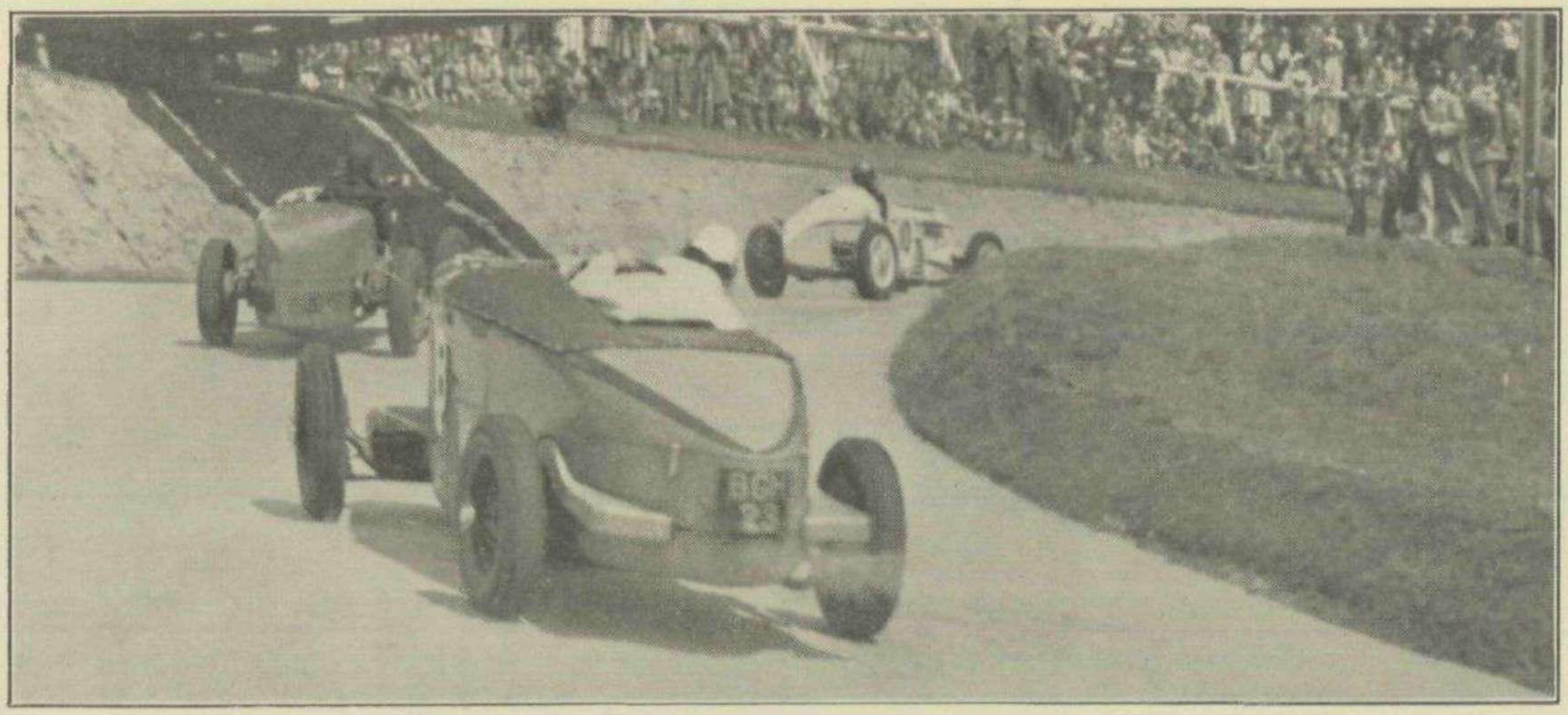
1. M. W. B. May (1,991 Alvis), 52s. start. Won by 3⅘s. at 61.27 m.p.h.
2. C. T. Baker-Carr (4½-litre Bentley), 45s. start.
3. J. P. Wakefield (1½-litre Maserati), scratch; 7⅘s. behind winner.

Betting: 3 to 1, 6 to 1 and 5 to 1 respectively. Thirteen ran.

SECOND JULY LONG HANDICAP
Six laps (about 14 miles)

1. A. C. Dobson (E.R.A.), scratch. Won by 16⅘s. at 71.09 m.p.h.
2. A. F. P. Fane (2-litre Frazer-Nash-B.M.W.), 1m. 25s. start.
3. R. Hanson (1½-litre Maserati), 26s. start; 17⅘s. behind winner.

Betting: 4 to 6, 6 to 1 and 8 to 1 respectively. Twelve ran.



Another photograph at the Test Hill Hairpin J. B. Wilson (M.G.), Mrs. K. Petre (Austin), and W. M. Couper (Talbot).

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TURN TO OUR CLASSIFIED ADVERTISEMENT SECTION
A 2 inch Single Column will cost you only £1 per insertion.

Letters from Readers

THE LONDON G.P.

Sir,

As a spectator at last month's meeting at Crystal Palace, I should like to utter an extremely strong protest at what I consider the exorbitant charges for car parking.

I do feel, and I am sure that very many will agree with me, that the charge of 5s. for parking one's car outside the grounds was exorbitant, especially in view of the fact that it costs only 3s. to go in and see the racing. There must be very many besides myself who feel the same way, and who feel equally indignant about it, and will think twice before patronising another meeting of the Road Racing Club.

While I wish the club every success and am grateful for what they are doing for road racing in this country, I would respectfully suggest to them that, at least in respect of car parking charges, they are defeating their own object.

I am, Yours etc.,

E. L. V. HAYLOCK.

London, S.W.9.

* * *

Sir,

With reference to the paragraph appearing in the July issue of MOTOR SPORT under the heading "Odd Spots," I wish to point out that I am not in partnership with Mr. Marcus Chambers.

There is absolutely no question of our being in partnership as I merely share the premises and we combine on the score of economy in advertising under the same heading.

You will appreciate that your action may have very serious consequences unless steps are taken to remedy the error.

I am, Yours etc.,

JOHN E. SWAINSON.

[We offer our apologies to Mr. Swainson and Mr. Chambers for thus linking them in partnership. But in view of the fact that they have been using an identical business address, same business telephone number, and have issued joint advertising "copy," we plead that such an error is not altogether inexcusable. —ED.]

* * *

THE L.C.C. RELAY RACE

Sir,

As I know how keen your paper is on printing the full truth, may I venture to make two observations upon your Relay Race article?

You say that Samuel's Nash ". . . did not seem too happy and after twenty laps retired. . . ." Now this car was lapping steadily at about 94 m.p.h. (best 96 odd), which is *not* bad for an unblown 1657 c.c. and was in fact *quite* happy till the tyre trouble, and it retired because we thought that there was some bevel box trouble as a result of the other.

The second point is this. You state that Mr. Whiddington's Nash was Marcus Chambers tuned. While this is no doubt true we must give praise where due, and the fact is that this car was practically rebuilt by Samuel's mechanic on the Friday. I was a member of the Samuel equipe.

I have enjoyed your paper for some years both in India and now at home.

I am, Yours etc.,

G. B. S. GILBEY.

London, S.W.11.

[This is just the sort of letter we welcome. A motor-scribe cannot be everywhere at once, or get to the rock-bottom of every incident, and we gladly publish this enlargement of a fairly comprehensive Relay Race report.—Ed.]

* * *

Sir,

On page 309, July MOTOR SPORT, was it not C. J. P. Dodson who was burned at Donington during the Empire Trophy Race?

I am, Yours etc.,

A. H. DICKINSON.

Sunderland.

[Quite correct! An error crept in and we are grateful to have so many well-informed readers to lay it to rest; one of whose letters is published.—ED.]

* * *

Sir,

With reference to the article on the French G.P. in the July issue of MOTOR SPORT, may we point out that there is no question of the B.M.W. factory deciding to neglect the French Grand Prix this year as stated by you.

In 1936 the French Grand Prix was run on an entirely different basis with the result that competing cars could content themselves with keeping in front of their immediate class rivals with the idea of winning their class, or if they had sufficient speed go all out with the sporting chance of coming home high up in the final classification. The prestige of a class win was, therefore, sufficient to attract some entrants, and there was no loss of prestige on the other hand if they chose only to go for the class win and not attempt an outright win which in any case would not be expected of the smaller capacity cars as opposed to the very powerful French cars entered.

We ourselves informed the French club this year when the new regulations were published that if they would consider throwing open the Coupe de la Commission Sportive for cars up to 2-litres, or alternatively giving a class award in the Grand Prix itself, we would definitely enter a team of cars. This suggestion met with no response from the A.C.F. and so we could not enter for this race, and frankly we were not at all interested in the expense of competing in a race which was only a curtain-raiser to the Grand Prix itself.

As regards Le Mans, it is worth mention that the Frazer-Nash-B.M.W. driven by H. J. Aldington and A. F. P. Fane retired with ignition trouble which after the race was found to be of a very minor nature. Secondly, the three cars of this marque entered did not emanate from the German factory. The Frazer-Nash-B.M.W. driven by H. J. Aldington and A. F. P. Fane was entered by ourselves, while the other Frazer-Nash-B.M.W. was privately entered and the personal property of Mr. David Murray.

Regarding the Relay Race, while it is possible that you do not know the reason, as we did not know ourselves until after the race, it is interesting that Miss McOstrich was forced to retire owing to a most unusual cause after she had been going extremely well and maintaining her scheduled speed. The engine itself was perfect, and the reason for her abandoning the car, which put this team right out of the running, was the shearing of the clamp bolt holding the Simms magneto coupling.

As you state, Mr. D. A. Aldington, who was driving Mr. Alan Marshall's Frazer-Nash, then took over, but from that point your other remarks must be described as purely imaginary. There was actually no point in his carrying on except as a sporting gesture and an endeavour to get the team home. He covered 62 laps, not 55, at an average speed of well over 90 m.p.h., putting in a number of laps at 96 m.p.h. There was definitely no worry over such a thing as dropping oil pressure as you state, and this would appear to have been culled from other reports which made the same mistake, apparently due to a marshal standing near who presumably happened to hear the word pressure when the driver came in. The pressure that was worrying the driver, however, was not oil pressure but the hand pump petrol pressure feed—rather a different matter.

Actually the car finished in perfect condition, and there could not be much wrong with the oil pressure of a car, which incidentally is a 1932 model, that was lapping at the above speed for almost 200 miles. The "queer" exhaust note was not due to anything being wrong as inferred by your report—actually this rather metallic exhaust note is typical.

Regarding your J.C.C. report, Viscount Curzon, whose car was new and had completed under 1,000 miles on the road, was taking things quite easily, and your correspondent's glimpse of Viscount Curzon stopping by the paddock and your further remark that the car "subsequently got going again" was due to nothing more serious than a punctured

LETTERS FROM READERS—continued

tyre. It is rather surprising that your report does not actually mention that Mr. Fane on a 1½-litre unsupercharged Six made the fastest time in the first one-hour High Speed Trial and that Mr. H. J. Aldington on the Frazer-Nash-B.M.W. not only made the fastest time in the second High Speed Trial, but easily the fastest time of the day and also the fastest climb of the Test Hill.

I am, Yours etc.,
W. H. ALDINGTON.

Frazer Nash Cars,
Falcon Works,
London Road, Isleworth.

[Concerning the last paragraph, our report was in the nature of a stop-press effort and the J.C.C. did not issue full results on the day of the event.—ED.]

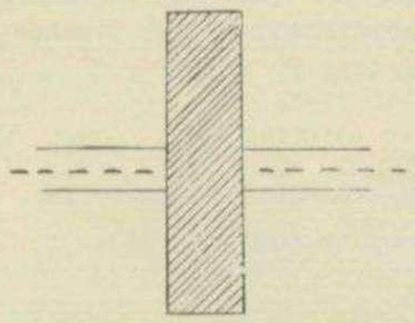
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BALANCING OF CRANKSHAFTS

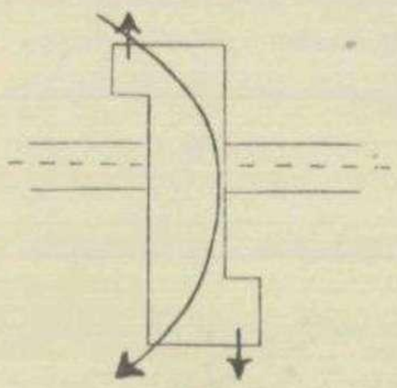
Sir,

In reply to Mr. H. M. Nerriere's query in your June issue, on the subject of dynamic balancing, a brief explanation of the necessity for this is as follows.

Dynamic balance only follows from static balance in the case of a rotating body made of homogeneous material and symmetrical in shape about the plane passing through its centre of gravity at right angles to its axis of rotation. Consider a simple flywheel of regular uniform section like this.



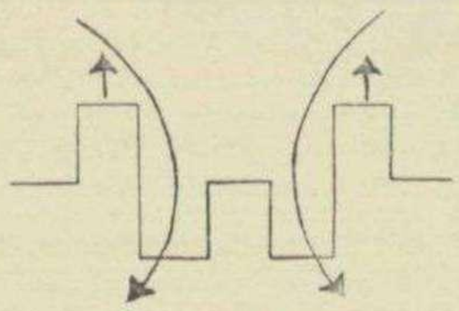
If statically balanced and if made of material which is of unvarying specific gravity throughout (cast iron does not always fulfil this condition), then this wheel will also be in dynamic balance. Now consider the effect of attaching two equal weights to it, one on each side, at equal distances from the axis of rotation, and diametrically opposite each other.



The wheel remains in static balance, but when rotating the centrifugal forces due to the weights would set up an unbalanced rotating couple causing unbalanced rotating reactions at the shaft bearings, and rough running.

I trust that this short explanation will enable Mr. Nerriere to apply similar reasoning to the various portions of a four, six or eight throw crankshaft, and to understand why dynamic balancing is the only alternative to such scrupulous care in manufacture, e.g., by machining the crank all over to close limits, that the necessary symmetry is obtained which renders static balancing sufficient by itself.

It might be desirable to add that in a plain four throw crank like this there



are two couples which should cancel each other in their external effects on the engine as a whole, although of course they must cause crankshaft deflection or "whip" to a degree controlled by the stiffness of the shaft; but if one pair of cranks is heavier than the other pair, although the shaft may still be in static balance it will not be in dynamic balance as the two opposing couples will be unequal.

I am, Yours etc.,
H. L. MOSCARDI.

Gillingham,
Kent.

* * *

Sir,

I would be glad to know your opinion on the following performance, made by me on the 19th July, together with two passengers, in a J1 model M.G. (1933).

Left Rhyl 5 o'clock, via :—Rhuddlan, St. Asaph, Mold, Wrexham, Ellesmere, Shrewsbury, Wolverhampton, (via New Road) to Smethwick. Arrived 7.15. The journey was made in pouring rain from Wrexham onwards, and also a thunderstorm.

My speedometer is out of order, and I cannot therefore give you the mileage covered, but I think it is in the region of 108. It seems to me to be an excellent time, and that is why I am writing to you.

I am, Yours etc.,
A. BOWEN GOTHAM.

Birmingham, 7.

TOURIST TROPHY

Sir,

An analysis of this year's handicap for the Tourist Trophy Race, as recently published, produces some startling reflections on the efficiency of various sizes of engine, as assessed by the handicappers.

For instance, an increase of engine size of 100 c.c. (from 1,000 c.c. to 1,100 c.c.) demands an increase of speed of 5.4 m.p.h.

On this basis, one would expect a further increase of 100 c.c. (to 1,200 c.c.) to put up the speed of a car by more than 0.4 m.p.h. (about $\frac{1}{14}$ of the previous amount).

The increase from 1,200 to 1,300 c.c. is allotted a similar low value.

What, then, are the magical properties of these next 100 c.c., after the 1-litre engine size, that they are expected to improve an engine so very much more than equal subsequent increases?

There are similar, but not so striking, variations further up the scale.

The next 200 c.c. after 1,300 appear to be considered more efficient (though not approaching the aforesaid magical properties) as they are expected to bring about an increase of 1.4 m.p.h.; the next 500, however (from 1½ to 2-litres), seem, in the opinion of the handicappers, to be almost useless, as they can only make the car go 0.4 m.p.h. faster.

One is compelled to the conclusion that the handicappers want to make it as difficult as possible for a manufacturer specialising in engine sizes of 1,100 and 1,500 c.c. to win the race.

(A 1,100, which is expected to concede 5.4 m.p.h. to its neighbour of 1-litre, will only receive 3.7 m.p.h. from cars of *over* 2-litres, while the allowance by the 2-litre to the 1½-litre is ridiculously low in comparison with the allowance conceded by the 1½-litre to smaller cars.)

So, let it be recorded, here and now, that any fair-minded observer will regard a win by such a manufacturer as very much more deserving of praise than a win by one whose cars fall into the *very* leniently treated 1-litres or the comparatively easily treated 2-litres.

I am, Sir, Yours etc.,
A PROSPECTIVE T.T. SPECTATOR.

Bedford.

* * *

Sir,

I am in complete agreement with Mr. Ronald Prince over his request for a road test of the Austin Nippy Sports Two-Seater. It is, I think, seven years, and not three years, since this car was last tested, and surely now is the appropriate time for a road test of one of these models, especially when the new Austin racing cars are so much in the limelight.

I am, Yours etc.,
J. S. DICKSON.

Baden,
Germany.

[We understand that this Austin model in question is no longer in regular production.—ED.]

* * *

STEAM CARS

Sir,

I was delighted to see an article in your Editorial of the June issue of MOTOR SPORT devoted to steam-cars. But I disagree over some of the points mentioned.

Generally speaking the direct way of doing a job is the best and most efficient way; but not so with a motor vehicle's internal combustion engine. It certainly burns its fuel in the cylinders, where the work is to be done, and has a high thermal efficiency thereby; but what an unsuitable power plant it really is for its job!

It exerts no starting torque, gains its maximum torque at 2,000–3,000 r.p.m., delivers little or no useful power at three or four hundred r.p.m., while it may have to turn over at 4,000 r.p.m. to give its maximum output. Moreover, three of every four strokes are not power strokes; and the fact that combustion takes place in the cylinders precludes satisfactory lubrication, and necessitates efficient

'There's a MILEAGE BONUS in every gallon'



Benzole is not only a natural anti-knock fuel in itself, but also the most powerful fuel known. When blended with high-grade petrol, as it is in National Benzole Mixture, it gives your engine extra power and presents you with a bonus—of more miles per gallon—free!

NATIONAL BENZOLE MIXTURE

NATIONAL
BENZOLE MIXTURE

BENZOLE MAKES GOOD PETROL BETTER!

LETTERS FROM READERS—continued

cooling to prevent total failure of the engine.

The presence of those crudities, the clutch and gearbox, on every motor-car, and the fact that decoking is necessary after 10,000 miles, and reboring after 30,000 miles, is solid proof that the I.C. engine's drawbacks for motor-vehicle use are no mere theoretical ones. By using steam, however, which, as you pointed out, is the less direct method of making fuel drive you along, you get many enormous advantages.

The Roble Steam-Car, which was built to order in California up till 1932, was typical of the best steam motor practice.

The last model—the model "F"—had 11' 8" wheelbase and 4' 10" track; it weighed complete 38 cwts., and was rated (R.A.C.) at 26 h.p. Everything in the chassis was of the best, and the cost was consequently high—about £1,500, I think. The engine was a 4-cylinder compound, built as a unit with the back axle, which it drove through plain spurs, giving a reduction of 1.5:1. Of course, there was no clutch or gearbox. The engine made 900 r.p.m. at 60 m.p.h. The steam generator was under the bonnet and was of the "once-through" monotube type. Its output and working was entirely automatically controlled by a system thermo-electric, and pressure-electric regulators. The burner was on top of the generator, and quite accessible; a turbo-electric blower feeding air through a venturi tube aspirated a carburetter which in turn supplied a paraffin air mist to the combustion chamber, where a sparking-plug ignited it. The exhaust from the engine, having passed through a small turbine driving the fan, was led into a radiator or condenser at the front of the car.

The performance was very remarkable. It had a maximum speed of 90–95 m.p.h., and it could accelerate from 5–25 m.p.h. in 2.3 secs., and from 0–40 m.p.h. in 7.0 secs., while owing to the power output characteristics of a steam-engine acceleration of this order would be maintained up to approaching its maximum speed. The fuel consumption was 14 m.p.g. of paraffin, and the water consumption was about 120 m.p.g. in temperate climates.

It is an interesting sidelight on the durability of steam-engines that a Model "F" engine was put on a dynamometer after 46,000 miles and gave 119 h.p. (at 937 r.p.m.); and when tested after 75,000 miles, it gave 123 b.h.p. Of course, no attention is ever required on the engine, beyond giving the gland-nuts a turn up every 10,000 miles or so; the boiler requires only very infrequent cleaning. The whole plant is practically everlasting.

The case for a steam-car, at any rate in the larger sizes, say from 12 h.p. upwards, is a very strong one from the engineering point of view; though a tremendous amount of prejudice would have to be overcome before it could ever become popular.

As regards giving a MOTOR SPORT representative a run in a steam-car, I am afraid I cannot yet oblige, though I have nearly finished a simple "Special" Steam-Car. And I should be delighted to give him a run, if it should ever give a performance at all up to that which a good steam-car *can* give.

I am, Yours etc.,
A. E. MOULTON.

Wilts.

[We would still appreciate an opportunity of getting normal performance figures on Brooklands.—ED.]

* * *

THE PALLADIUM CAR

Sir,

I read your paragraph on "Vintage" under the heading "Rumblings" in your June issue, and would state that undoubtedly the Palladium referred to is one that was built and delivered in 1923, whilst I was Manager for the Palladium Autocar Company, where I played my part in the production of this model.

The car referred to (then four years old) is one which won a gold medal in the London-Lands End in 1927.

The Palladium Autocar Company were not only the first people to advertise a standard 12 h.p. Sports Model which would do a mile a minute, but I believe were the first people to exhibit at the Olympia a 12 h.p. British car with front wheel brakes.

It was advertised as the Palladium 4-speed, 4-seater, 4-wheel brake standard Touring "Victory" Model and was listed at what was then the modest sum of £395, giving 60 m.p.h. with a petrol consumption of 35 miles per gallon.

The same model gained a gold medal in the London-Exeter, 1921, London-Lands End, 1922, London-Edinburgh, 1922, was first amongst the 4-seaters in the 6 days Scottish Reliability Trial in 1922, and with a standard 4-seater body won the Handicap Light Car Race open to any car in 1922.

Two Palladiums got gold medals in the London-Exeter, 1922, and were the only 4-cylinder, 4-seater cars in the 1,500 c.c. class, which carried four passengers apiece. Something which was laughed at at the time.

Another remarkable performance was Simms Hill, Chudleigh, Devon; this was reputed as being one of the steepest in England at that time, having a gradient of 1 in 2.8. Out of 36 attempts only 6 were successful. The Palladium was the only successful 4-seater car.

They also gained two gold medals in the London-Lands End Trials in 1925, again the only cars to carry four passengers apiece.

I am, Yours etc.,
Putney, S.W. W. E. CASTELLO.

[An interesting piece of information. And a breath of the "good old days" when gradient really did defeat most engines.—ED.]

Book Review

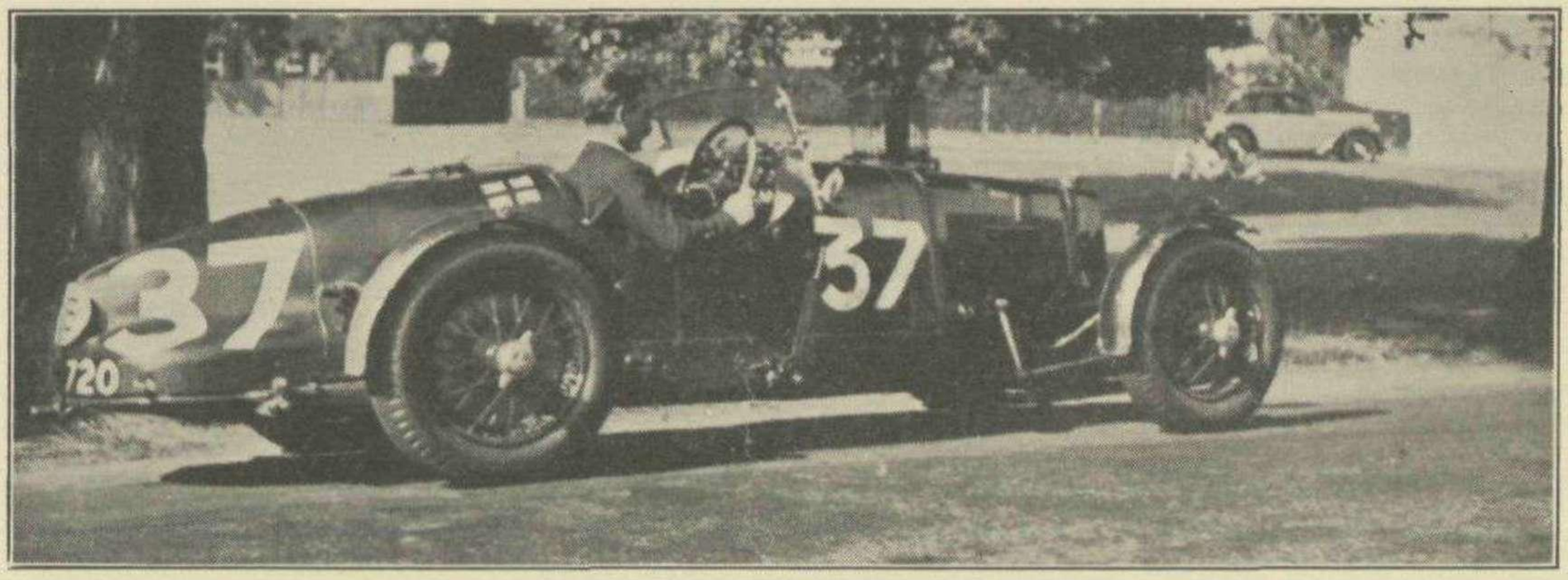
"SING HOLIDAY"

By PETER CHAMBERLAIN

(A. Barker, 7/6)

THE motoring bookshelf now occupies a very respectable space, if not amounting to that needed for aeronautical literature. Nevertheless, we have not reviewed all the works of fiction which have appeared of recent years, with a bearing on motor-racing matters, deeming the majority of our readers to be above most of this sort of writing. However, Peter Chamberlain's "Sing Holiday" is an exception, for which the rule may be broken. Our attention was drawn to it by Tommy Wisdom's comments in the *Daily Herald*, in which he portrayed the book as a spirited reflection on the behaviour of racing motorists and their associates. Accordingly we applied for a review copy and have now got through its 431 pages. This novel concerns a Mr. Matthews, who spends a holiday in the I.O.M. and finds that the extremely boisterous motor-racing folk with whom he gets entangled are not altogether repulsive, though very puzzling, to his "Victorian" outlook. We doubt whether less "Victorian" readers will feel the same sympathy for this behaviour that is so admirably and racily described. This is a glorious satire on motor-racing in general, "boni," preparation, press-reports, prize-giving and private lives inclusive. The writer obviously knows the game thoroughly and has given a stirring and technically accurate description of a real Grand Prix race in the I.O.M., organised by the "British Automobile Federation," who are credited with the foresight of organising such a contest, and won by what would clearly be Auto-Union if the makes competing were not disguised. For motor-racing readers an excellent emphasis is placed on the apathy of the British Trade towards racing. "Sing Holiday" may be written down as an up-to-the-minute, amusing novel, ideal as part of a holiday tonic, and containing breathless expressions and slang quotations to delight any youngster of the requisite age.

So far as the behaviour of racing folk is concerned, a lot of people seem inclined to agree that at least some of Peter Chamberlain's pen-pictures are true to life. Fortunately the generally light treatment and fantastic vein of the book will not permit it to be taken very seriously. If H. G. Wells or John Galsworthy had seen fit to portray a night or two in a Manx hotel on the eve of a big motor-race we might not feel so complaisant. Or might we? At all events, "Sing Holiday" should be read, as much for what is between the lines as for what the author intends to be a good-seller amongst a wide variety of not very high-brow readers.



R. Murton-Neale at the wheel of the Aston-Martin, winner of the Rudge-Whitworth Cup, 1935, first British car to finish at Le Mans, 1937.

TWICE TIMES TWENTY-FOUR

A TEST OF THE ASTON-MARTIN, FIRST BRITISH CAR TO FINISH AT LE MANS

WHAT does twice times twenty-four make? There is no catch. It makes forty-eight. But when that forty-eight means forty-eight hours of strenuous racing, the sum of two hard fought contests at Le Mans, one expects it to make some considerable inroad upon the life of a car. One is not always correct, for some cars seem to keep on going for ever. They are real old soldiers, veterans who can last out a battle better than many of the young recruits.

The Ulster model Aston-Martin which was kindly placed at the disposal of MOTOR SPORT by Speed Models, Ltd., the sports car specialists of 6a, Pembridge Mews, London, W.11, is a veteran, however, only in the light of its performances. In 1935, as one of the "official" works cars, it was driven at Le Mans by the two Charles's, Martin and Brackenbury, and, having covered 1804·1 miles, ran out a worthy winner of the Rudge-Whitworth Cup with a figure of merit, on the handicap formula, of 1.31.

In 1936 there was no race at Le Mans, owing to industrial troubles, but in 1937 the Aston-Martin, which in the meanwhile had been in use as an ordinary road car, returned to the fray. Now it had changed hands, and had become the property of the Hon. J. M. W. Skeffington. It was entered in the race jointly by Skeffington and R. C. Murton-Neale, director of Speed Models, Ltd., and thus lost its qualification for the Biennial Rudge-Whitworth Cup, in which contest it is the entrant's previous qualification, and not the car's, which counts.

This left the car with two objects, first, to compete in the race for the longest distance—a stiff task, as it is only 1½-litres in engine capacity—and secondly, to qualify for the 1938 Biennial Cup. Both these aims were nobly fulfilled. In the Grand Prix d'Endurance, for the longest distance, the 1½-litre Aston-Martin, competing against the fast foreigners, with engines more than double the size, not to mention a number of larger British cars, actually finished fifth. It covered 1,719 miles, against the winning Bugatti's 2,041 miles, and was the first British car to finish. The Aston-Martin's average speed was 71.6 m.p.h. It won the 1,500 c.c. class easily, and was also faster than any of the 2-litre cars which finished.

Naturally this fine feat also ensured a qualification for the next Biennial Cup, while in the annual contest on the formula basis, the car was placed third. The performance was particularly creditable, for whereas in 1935 Martin and Brackenbury, both drivers of great experience, covered a slightly greater mileage, the recent race was Skeffington's first effort at the wheel, and it is no discredit to him to record that his laps were necessarily slower than those of the experienced Murton-Neale.

The low, bright red car looked so wickedly impressive when I first saw it that I insisted upon Murton-Neale driving it out of the mêlée of London traffic, a precaution which subsequently was proved to have been quite needless. It still bore proudly its Le Mans numbers, and, Murton-Neale told me, was in the exact condition in which it had finished the race.

"Preparing for the race" he said "we fitted new pistons, valves, and springs, and assembled everything very carefully. 'Chick' Fowler, Sir Malcolm Campbell's old mechanic, did most of the tuning, but practically all the running in that was possible was the run down to the coast and then across France.

"In the race itself the car was steadily running itself in till eventually we were getting 5,500 r.p.m. in top, or perhaps a maximum of 5,600 r.p.m., if we wanted it. That would be about 111 m.p.h."

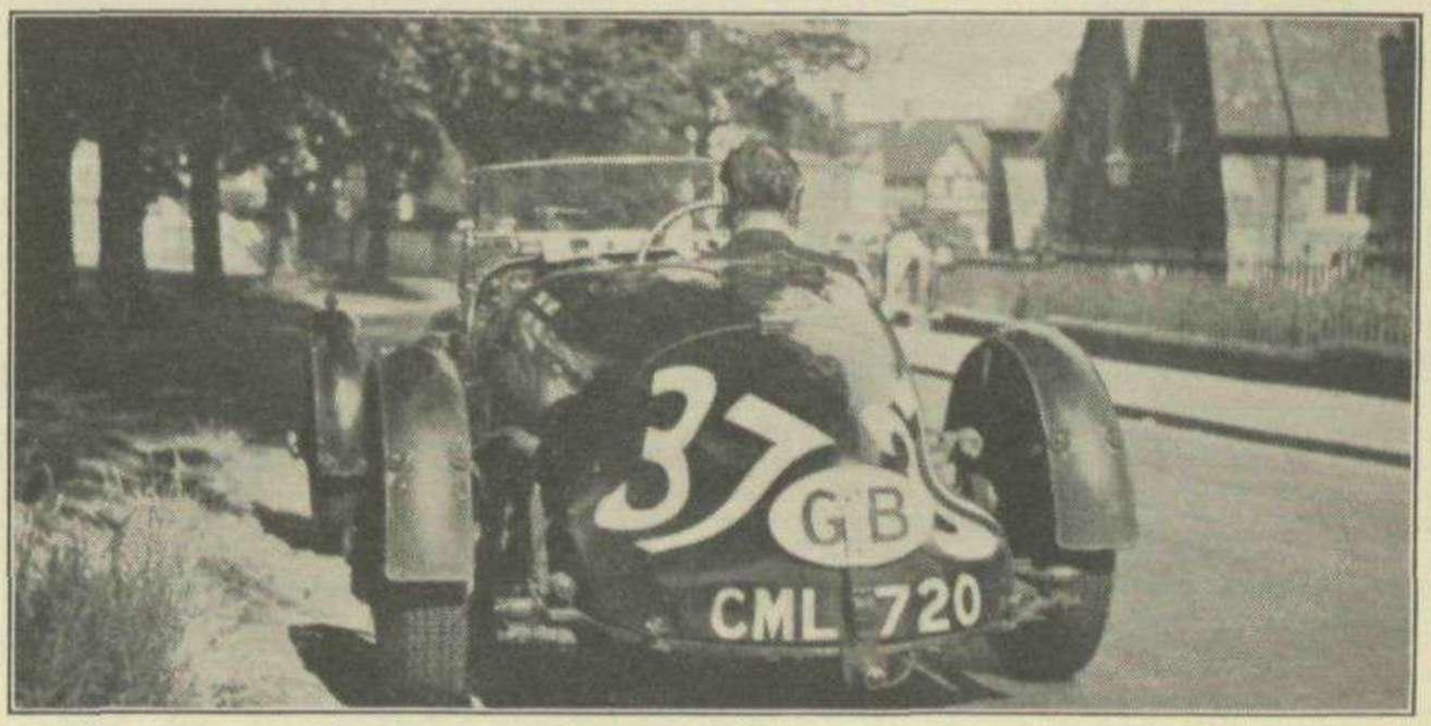
"Did you have much in hand?" I asked, as we negotiated the traffic.

"Lots" he said. "If we had used all our speed we might have picked up several places. One can always say that after a race, though!"

He was at the wheel, he told me, when the multiple crash occurred, and was held up for a few moments while the debris was removed. We were both silent for a short time, thinking of the tragic consequence for poor Pat Fairfield.

We were making for Brooklands track, of course, and at last on the Kingston By-pass could open up a little. Watching the rev. counter mount, and admiring the steady cornering, I asked what the car's best lap at Le Mans was.

"About 83 m.p.h." returned the driver. This was certainly shifting, for an unblown 1½-litre car.



The rear view of the Aston-Martin. The spare wheel is mounted horizontally and concealed in the tail.

TWICE TIMES TWENTY-FOUR—continued

When I took over the wheel, I found that the handling of the car in traffic was delightful. Owing to the high gears, it was necessary to give the engine quite a lot of revs. when starting off, but this was only to be expected. The clutch, which had not been adjusted since before the race, was still perfectly smooth, though there was some slight bother in getting into first gear quietly with the car stationary. The gear change itself was swift and easy, and with the high gears one could really get a kick out of frequent use of the lever.

Another remarkable fact to place on record is that the brakes never needed any adjustment throughout the race. As the car was when I drove it, the brakes had been taken up a little, more or less "for luck," after the finish of the event. An extremely rapid stop when another car turned suddenly in front of us proved their efficiency.

The same set of tyres that had been used ever since the race started was still fitted, and the Dunlop racing treads were still bold and hardly marked.

"Did you have any mechanical trouble at all during the race?" I asked Murton-Neale.

"Not a bit" he replied. "We used the same set of K.L.G. 341 plugs throughout, and without wanting to 'puff' them, I must say they stood up splendidly. Our only untoward stop was for one single broken lamp bulb."

We were using "soft" plugs for the run on the road down to the track, but in spite of an 8½ to 1 compression ratio there were no signs of pre-ignition or misfiring even when we went up to 4,500 r.p.m. on the gears.

"What type of fuel did you use for the race?" I asked.

"We used pure benzole at Le Mans" said Murton-Neale "but we are running on a fifty-fifty mixture now. Our fuel consumption in the race worked out at 18.5 m.p.g. Both fuel and oil were supplied by the Esso people, and the oil consumption was about 1,000 m.p.g. in the actual race."

When one considers that average speed of 71.6 m.p.h. for the twenty-four hours, these figures are remarkable. Anyone who has checked his fuel consumption at high speeds on an ordinary car knows how startling is the increase.

At the track we fitted the racing plugs again, and, having tightened up the André Telecontrol shock-absorbers, I set out to try the car's paces. Now that one could really let the car have its head, 5,000 r.p.m. appeared on the rev. counter with astonishingly little fuss on all the gears, and the swift change up made only a slight break in the beautiful snarl from the engine.

Brooklands, as everyone knows, is by no means smooth at speeds of over 100 m.p.h., but the Aston-Martin held the track unfalteringly, and really gave me a remarkably comfortable ride. After a few warming-up laps I settled my foot against the floor-boards, and the speed rose till the rev. counter showed 5,300 r.p.m. (about 106 m.p.h.), while the car held 5,000 r.p.m. all round the track, even up the slope to the Members' Banking.

Murton-Neale was disappointed when I came in and reported this figure.

"The oil is running very cool" I told him. "Look, even now it is only 37°. Still that is a good fault."

"That is where we are losing the extra few revs." said he. "Even at Le Mans the oil temperature did not rise above a maximum of 55°, after speed sustained for all those hours. During the night the oil temperature fell as low as 35°, or even less. The water ran at about 70°."

I dipped my finger in the oil tank—the car has dry-sump lubrication, with the oil tank mounted between the front dumb-irons—and indeed the oil had barely "got the chill off it." Such cool running, though it may not help maximum speeds in a short burst, owing to the extra drag set up, certainly makes for reliability in a long race.

The car was not built for sprints, but to stand up for long distances, so I did not try any acceleration figures. The extremely high gears, useful enough in a road race, would not have been suited for some such figure as 0-30 m.p.h. !

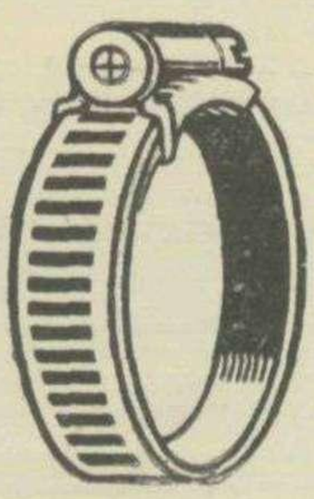
The speeds that we had attained were, of course, reached with full road equipment of wings, headlamps, side-lamps, horn, screen, etc. So all we had to do to return to London was to replace the "soft" plugs.

When we reached the London traffic again, I found the car very tractable indeed. Naturally one relied chiefly on bottom and second gears, and for a long period near Hammersmith, where the evening traffic was at its worst, I never got out of bottom gear at all. In spite of this slow running, the car did not soot up a plug, and was quite content to amble along behind huge buses and lorries. Then we turned into a deserted side road, and were able to accelerate once more. The engine note rose, clear and faultless.

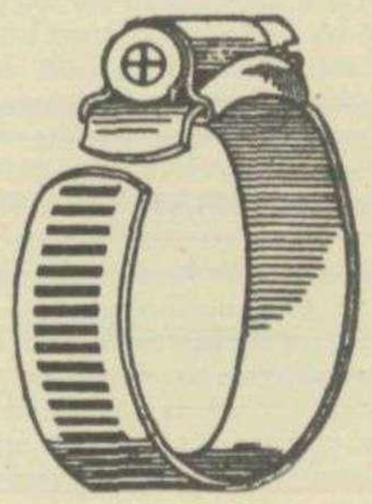
The Aston-Martin is a "real racer," but is not temperamental, as some such cars are. It is a fine credit, both to its manufacturers and to Speed Models, for their preparation of the car for the world's longest race.

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ANOTHER CLUB MEETING AT DONINGTON

C. W. P. HAMPTON IN THE LIMELIGHT AT BUGATTI AND VINTAGE CLUBS' JOINT MEETING

CLUB gatherings at Donington, with races contested over the manufacturer's circuit with its two tricky corners and series of curves, are very instructive, and excellent training for sterner stuff, and have our full approval.

On July 10th the Bugatti O.C. and Vintage S.C.C. ran a joint meeting. Much of the success of the meeting was due to the hard work put in by Cecil Clutton as official starter and helper in general. He operated the starting Union Jack from the running board of his new Bentley coupé, a 3-litre model capable of 90 m.p.h. and 15 m.p.g., *vide* a letter since received from him.

Harry Bowler was Clerk of the Course and Anthony Heal was broadblaster.

The first three-lap scratch race for sports cars up to 1½-litres resulted in a win for C. L. Clark's G.P. Bugatti, Hampton's 1922 Targa Mercédès-Benz was second and W. I. Miller, just home from Egypt, third in H. J. D. Burn's G.P. Bugatti. Denyer's Lea-Francis had bad rear-axle pother.

In the three-lap 1½–3-litre sports car scratch race Col. G. M. Giles was a disappointed non-starter, his Type 57 Bugatti having broken a chassis ball-race on the run up. Hampton won very easily in his fully equipped 2.3-litre Type 55 Bugatti from Crozier's Type 43 "2.3" Bugatti and Potter's S.S.90, the last-named seeming to approach and partially round Starkey's in neutral. Clark Kennedy drove carefully in his 1914 3-litre S.A.V.A., newly acquired from the Phœnix Green Garage. The three-lap scratch race for sports cars boasting of more than 3½-literage was a 4½-litre Bentley gathering, Mrs. Fee Carson on Marcus Chambers's "Double Twelve" car winning from Swainson and Day.

Event 4, three-lap scratch race for racing cars up to 1½-litres, was a victory for D. W. Jackson's white single-seater Riley 9, followed by Clark's Bugatti and Hampton's Mercédès. The next three-lap scratch races were run jointly. Hampton won the first class with his sports Type 55 Bugatti at the fastest speed of the day, against Mrs. Darbishire's 2-litre G.P. Bugatti, G. K. Burness's smart 1922 4-cyl. G.P. Sunbeam, K. W. Bear's special 3-litre Bugatti, that had valve-gear trouble, and a blown "2.3" G.P. Bugatti. The next class went to Marcus Chambers's Bentley, as Tim Carson's 4.3-litre Carson-Special was slow and Sumner's big Delage regrettably a non-starter.

Followed a four-lap Bugatti Club handicap race, Hampton now failing to start, allowing W. I. Miller, the limit-man, an easy win on Burn's G.P. Bugatti.

A rather dull relay-race followed, Carson's team winning. Then heat one of a four-lap open handicap race with a strong field. Swain drove a special 1½-litre Alvis reminiscent of a 16-valve Aston-Martin, Kennedy grappled with the rear-braked S.A.V.A. and J. L. Crisp stopped before Starkey's to repair his remarkable Lea-Francis Special, an exceedingly low hung motor with seats actually lower than its massive rear axle, discs on three out of four of its wheels, and an engine displaying much exposed shafting, and a small sloping "Leaf" radiator. In action, it snaked rather horribly. In the second heat M. Rook's interesting 1913 8-valve Bugatti was a non-starter owing to gear-selector trouble. Tomkinson ran a stripped chassis Austin 7 with central bucket-seat and L.M.B. front axle, cornering with remarkable steadiness to win comfortably. T. B. Mills's Mills-Special appeared to be a special M.G. Magnette. The final resulted in a win for Clark's fleet Bugatti with Jackson's Riley second and Swain's Alvis third. Most of these cars came out again for the heats of the ten-lap Handicap. Morris-Goodall's sports 1½-litre Aston-Martin won from Jackson's very consistent Riley, with the gallant old G.P. Sunbeam third.

The meeting was voted a great success, in spite of a dull, cold day. The driving was of a notably high order, the representative of MOTOR SPORT, who stood exposed at Starkey's to wave flags, finding that there was just nothing to do—when people did get mixed up they did so all in a bunch! Another amateur Donington Meeting is due from the United Hospitals and U.L.M.C. in September. The winners, place men and average speeds of the present meeting are as follows :—

Sports Car Races (three laps each, no handicaps). Up to 1,500 c.c. : 1, C. L. Clark (1,496 c.c. Bugatti), 60.8 m.p.h.; 2, C. W. P. Hampton (1,496 c.c. Mercedes-Benz S); 3, W. I Miller (1,496 c.c. Bugatti).

1,500 c.c. to 3,500 c.c. : 1, C. W. P. Hampton (2,270 c.c. Bugatti S), 62.5 m.p.h.; 2, G. M. Crozier (2,261 c.c. Bugatti S.); 3, W. C. Potter (2,664 c.c. S890).

Over 3,500 c.c. : 1, Marcus Chambers (4,478 c.c. Bentley), 62 m.p.h.; 2, J. E. Swainson (4,463 c.c. Bentley); 3, J. H. Day (4,487 c.c. Bentley).

Racing Cars (three laps, scratch) up to 1,500 c.c. : 1, D. W. Jackson (1,087 c.c. Riley), 65 m.p.h.; C. L. Clark (1,496 c.c. Bugatti); C. W. P. Hampton (1,496 c.c. Mercedes-Benz S.).

1,500 c.c. to 3,500 c.c. : 1, C. W. P. Hampton (2,270 c.c. Bugatti S.), 66.1 m.p.h.; 2, K. W. Bear (2,996 c.c. Bugatti); 3, G. K. Burness (1,991 c.c. Sunbeam).

Over 3,500 c.c. : Marcus Chambers (4,478 c.c. Bentley), 64.8 m.p.h.; only two starters.

Bugatti O.C. Four-lap Handicap : 1, W. I. Miller (1,496 c.c Bugatti), handicap 2m. 13s., at 60.3 m.p.h.; 2, C. L. Clark (1,496 c.c. Bugatti), 41s.; 3, K. W. Bear (2,996 c.c. Bugatti), 9s.

Vintage Sports C.C. Relay Race : Winners—Tim Carson (Carson Special), J. W. Swainson (4,487 c.c. Bentley) and C. Windsor-Richards (4,487 c.c. Bentley).

Four-Lap Handicap for sports and racing-cars: 1, C. L. Clark (1,496 c.c. Bugatti), handicap 1m. 5s., at 61.7 m.p.h.; 2, D. W. Jackson (1,087 c.c. Riley), 1m. 5s.; 3, G. Swain (1,498 c.c. Alvis), 3m. 5s.

Ten-lap Handicap (unlimited): 1, M. H. Morris-Goodall (1,494 c.c. Aston Martin), handicap 5m. 12s., at 60.8 m.p.h. by 60 yards; 2, D. W. Jackson (1,087 c.c. Riley), 2m. 30s.; 3, G. K. Burness (1,991 c.c. Sunbeam), 1m. 12s.

THE B.R.D.C. 300 - MILE RACE

As we feared, the classic 500-mile outer-circuit race is no more. This year the B.R.D.C. "500" will be run over 500 kilometres, or 112 complete laps, 69 laps fewer than previously. Moreover, only the scratch cars will cover this distance, as the handicapping is now based on a system of credit laps, whereby the smallest cars, for instance, are only required to do 96 laps. There is no reason why this should make the race any more difficult to follow than formerly, and it will allow of a massed start.

We still cannot see how lopping down the distance is going to attract more entries, for the race will still be a money-absorbing undertaking, hard on cars, and calling for very high lap speeds. But we sincerely hope that all the outer-circuit cars—Napier-Railton, Barnato-Hassan, Pacey-Hassan-Special, Derby-Miller, Bentley-Jackson, Duesenberg, Bowler-Hofman, M.G. Magic Magnette, and so on—will turn out, accompanied by many road-racing jobs. Here we humbly suggest that the latter will nearly always benefit by the removal of front brakes, a comfortable cockpit, additional fairing and an unrestricted flow of cooling air to radiator and sump.

The first prize is the Wakefield Trophy and £250, second prize £100, third prize £50, fourth £25, and there are many others. The race starts at 2.30 p.m. and will be stopped at 5.45 p.m. Single fee entries close on August 18th at £16 per car and the race takes place at Brooklands on September 18th. Churns, gravity or pressure-feed may be used for replenishment of cars.

The decline in entries in past "500" races has been due to the shortage of true outer-circuit cars and the consequent risk of retirement from expensive troubles on the part of competing cars not entirely suited to the conditions. Speed is a greater killer than distance in motor racing and the substitution of kilometres for miles must surely put up the speed at which the race will be run—indeed, the handicappers appear to agree, for the required averages are greater for every class, compared with last year's, with one exception, and in general by as much as 3–6 m.p.h. If a 750 c.c. supercharged car laps at just below 115 m.p.h., which is a probability, everything over 1,100 c.c. blown or 1½-litres unblown will have to lap at over 121 m.p.h. All the same we hope the B.R.D.C. will receive a really good entry and fine weather, for we still enjoy a classic outer circuit contest. The handicapping is as follows (last year's average speeds in brackets) :—

1,100 c.c. Unsupercharged, 108.74 m.p.h., 96 laps (107.10).

1,500 c.c. Uns., 113.32 m.p.h., 100 laps (113.19).

750 c.c. Supercharged, 114.49 m.p.h., 101 laps (107.10).

1,100 c.c. S., 115.55 m.p.h., 102 laps (133.19).

1,500 c.c. S., 2,000 c.c. S. and Uns., 2,500 c.c. S. and Uns., 121.18 m.p.h., 107 laps (115.82, 117.19, 115.82, 117.19 and 117.19 respectively).

3,500 c.c. Uns., 122,37 m.p.h., 108 laps (117.19).

3,500 c.c. S. and 5,000 c.c. Uns., 123.43 m.p.h., 109 laps (121.47 and 118.58).

5,000 c.c. S. and 8,000 c.c. Uns., 124.66 m.p.h., 110 laps (124.51 and 121.47).

8,000 c.c. S., 125.77 m.p.h., 111 laps (124.51).

Over 8,000 c.c. S. and Uns., 126.89 m.p.h., 112 laps (124.51).

Full details are available from the B.R.D.C., 2, Queen's Gate Terrace, London, S.W.7.

MERE MALE WINS

N. V. TERRY (FRAZER-NASH B.M.W.) SUCCESSFUL IN WOMEN'S A. & S. A. COTSWOLD TRIAL

As a general rule the annual Wakefield Trophy series of trials, run by the Women's Automobile and Sports Association, is open only to women drivers, but in recent years the women have been " at home " to a few invited clubs in one of the events. This year the invitation event, in which men drivers could compete, was in the Cotswold district on July 17th. N. V. Terry, driving his 2-litre Frazer-Nash-B.M.W., was successful in winning both the Isabel Sander Trophy, for the best performance in the trial, and the Association Trophy, for the best performance by a visitor.

The contest for the Wakefield Trophy, which is virtually the women trials drivers' championship, had come to an abrupt end for 1937, for earlier in the year the Maid of Kent Trial had proved so stiff that none of the W.A.S.A. drivers was able to keep a 100 per cent. performance. The rules of the Wakefield Trophy lay down that competitors must win a first-class award in each of the three events in order to remain eligible (for the Wakefield Trophy, of course !).

Not discouraged by the fact that the Trophy must lie in abeyance till next year, the W.A.S.A. members had mustered in good force, and, to counteract Terry's success, W.A.S.A. Team No. 1, composed of Miss Watson (Frazer-Nash-B.M.W.), Miss Wilby (Frazer-Nash), and Miss K. Taylor (M.G.), carried off the Countess Howe Team Trophy

Competition tyres and non-standard solid axles were banned, and a fair, yet difficult, course had been chosen. The secretary, down at Cheltenham, where the start was to take place, was somewhat perturbed at receiving a telegram from the club's headquarters at Hamilton Place, W.1, which read " Police say Mutton Must Not be Used." The secretary had already discovered that " Ham was impossible." These untoward events, however, did not betoken a crisis in the club's kitchen, which is becoming famous, but that the hill, Mutton, near Chalford, was no longer allowed, while Ham Mill, another hill in the route, had been overwhelmed by the terrific storm which had burst on the previous day.

In consequence, Stancombe and Quarhouse, two hills once famous on the " Gloucester," which were included in the route but which were merely to be taken in competitors' stride, were elevated to the status of observed sections, though, as expected, no one, as it turned out, failed on either.



K. Hutchison (Ford V8 Special) storms up Nailsworth Ladder. The car had sandbags at the rear to keep the tail down.



N. V. Terry, winner of the principal award, with his Frazer-Nash B.M.W., on Nailsworth Ladder.

The start was in the excellent garage of Messrs. Reed and Patterson, and after the easy climb of Stancombe, the first real difficulty was presented by the restart test on Bismore, where twenty yards had to be covered in 7 secs. The surface here, too, had not been improved by the storm, and eight competitors could not manage the necessary time. Most notable amongst these, perhaps, was H. W. Inderwick, with his Batten Special V8, which unfortunately developed severe clutch slip owing to oil finding its way through a porous engine casting. The best times were those of K. Hutchison's special two-seater Ford V8, with 4.82 secs., N. V. Terry's Frazer-Nash-B.M.W., which took 5 secs., and Miss K. Taylor's supercharged " PB " M.G., which took 5.48 secs. Only slightly slower was Mrs. Moss's Frazer-Nash-B.M.W. cabriolet with 5.52 secs.

Rain had been falling gently, but it stopped in time for the picnic lunch on Rodborough Common, which was very pleasant and quite in keeping with the informal atmosphere of the trial. Then came Old Hollow, which caused four failures. Mrs. Stanion's Rover saloon was one of these, and there was some difficulty in getting the car going again. Mrs. Vaughan (who in professional life is a well known London doctor) had at last managed to get away from her duties to start in this event, with her Standard, and as it happened she took a wrong turning just before Old Hollow, so that the Rover was first at the hill. Mrs. Vaughan was held up for about forty minutes.

Her troubles continued at the next hill, Holwell Farm, where no one failed, but it was thought that a car was descending the hill, whereas in fact it had gone on at the top ! Mrs. Vaughan had to wait until it was certain that the hill was clear, and this further delay put her so far behind that all subsequent marshals had given her up and departed before she arrived.

After Holwell Farm came a special test, to decide ties for the principal awards. The test was held on an almost level stretch of ground, and cars had to accelerate, stop astride a line, and accelerate over a third line. Several competitors overran the middle line, amongst them Mount and Montgomery

MERE MALE WINS—continued

of the North-West London M.C. team, a slip which eventually gave the team trophy to the W.A.S.A. Best time was made by Terry's Frazer-Nash-B.M.W. in 8.31 secs., while Hutchison with his Ford was adjudged only 3/100th sec. behind, which raises the question of the advisability of timing by hand to 1/100th sec. Third was Miss Watson's Frazer-Nash-B.M.W., taking 8.47 secs.

The final time check came just before Nailsworth Ladder, the last hill, so that competitors could stop and watch their friends make the ascent. It says much for the standard of driving that only five cars failed on the 1 in 2½ gradient. Hutchison spurned huge stones behind him as the Ford stormed up, and Terry made a very neat climb. Miss Taylor's M.G. was also fast, but Mrs. Moss had very bad luck with her Frazer-Nash-B.M.W., stopping when well past the difficulties owing to fuel shortage.

Inderwick's Batten Special made no mistake this time, and Miss Shillitoe deserves credit for keeping her Alvis going despite violent wheelspin. Mrs. Wood, however, kept a little too far to the left with her Singer, and stopped for a moment, restarting unassisted. Miss Marshall's old Anzani-G.N. was clapped for a good climb.

The event, enjoyable as all the W.A.S.A. trials are, finished at the Bear Hotel, Rodborough.

RESULTS

Isabel Sander Trophy : N. V. Terry (Frazer-Nash-B.M.W.).

Association Trophy : N. V. Terry (Frazer-Nash-B.M.W.).

Lady Iris Capell Trophy : Miss E. V. Watson (Frazer-Nash-B.M.W.).

Countess Howe Team Trophy : Miss E. V. Watson (Frazer-Nash-B.M.W.), Miss K. Taylor (M.G.), Miss M. Wilby (Frazer-Nash).

First-Class Awards : N. V. Terry, Miss E. V. Watson (Frazer-Nash-B.M.W.s), K. Hutchison (Ford V8), Miss K. Taylor, D. R. Mount, J. F. Montgomery (M.G.s), Miss B. Marshall (Anzani-G.N.), Miss M. Wilby (Frazer-Nash).

Second-Class Awards : Mrs. K. R. Lysley, Mrs. K. Hague (Rileys), Miss E. M. Dobson (O.M.), Mrs. H. Wood, R. Hield, Miss M. V. Milne (Singers), H. W. Inderwick (Batten Special V8), Mrs. A. E. Moss (Frazer-Nash-B.M.W.).

Third-Class Awards : Mrs. Vaughan (Standard), Mrs. G. Stanion (Rover), Miss J. Shillitoe (Alvis), I. D. Struthers (Ford).

M.C.C. TORQUAY RALLY

TEAM PRIZE WON BY SINGERS

SAY what you will about Rallies, they are a very natural form of competition, testing cars under touring conditions, and when the M.C.C. are handling the organisation a good entry is assured. This year, with the trials course eliminated, no fewer than eighty-two cars set out from starting points at London, Exeter, and Stratford-on-Avon, to converge on Torquay.

Checking in after a stiff road section from Taunton onwards, two competitors were found to be outside the time limit. During the night period Bateman's Singer had lost a blade from its cooling fan.

The first special test at Torquay was a timed climb of Babbacombe Beach Road, with two stops and restarts *en route*. The M.G.s in general, and especially the Cream Cracker team, were very good at restarting, as were the Singers. Barker's Terraplane and Harris's M.G. Magnette elected to climb without stopping. The fastest times in the various classes were :—Macdermid (M.G.) 40 secs. ; Eadon (Ford Ten) 53.4 secs. ; Johnson (Frazer-Nash-B.M.W. Type 55) 37 secs. ; H. G. Symmons (closed Frazer-Nash-B.M.W. Type 45) 41.8 secs. ; Silcock (Jensen) 39.8 secs. and Walter Norton (1933 Ford V8 cabriolet) 40 secs. Mrs. Imhof having released the hand-brake of her husband's M.G., it escaped into a hard wall and was rendered *hors de combat*. A. B. Langley's M.G. would not pull away at the second restart, Cole's Morgan 4/4 seemed to have clutch slip, Haesendonck's M.G. broke its crown wheel, Kinsey-Morgan's Ford ran back over the line, and May and Bastock seemed to have oiled their M.G.s' candles on the way down. The blown Austins and Ford V8s were outstanding, but L.G. Johnson's Frazer-Nash-B.M.W. was easily the fastest performer. The next test involved driving to a bay, reversing into it, driving to another bay, reversing into that, accelerate to the finish, and stop in a 30 ft. area. Another similar test concluded the Rally. Viscount Chetwynd's 22 h.p. Ford V8 and W. C. N. Norton's Beechholme-tuned 30 h.p. Ford V8 were especially snappy. G. L. Boughton (Singer), F. S. Barnes (Singer), Goodenough, Jones, Toulmin and May's M.G. Midgets were well handled and rapid, likewise Buckley's Austin and Tett's Singer. Johnson (Frazer-Nash-B.M.W.) made good showing in both tests. Moss (blown M.G. Magnette), J. D. Barnes (Singer) and Bateman's Singer had transmission troubles. H. G. Symmons gave a nice display of controlled sliding with his Frazer-Nash-B.M.W. and Derek Loader's big Delahaye was well handled. Only sixteen people gained "Premiers." The 1½-litre Singers won the Team Prize with a total of 311.6 secs., against a total time of 312.4 secs. taken by the team of Model T M.G. Midgets.

This enjoyable and well supported Rally concluded with a dance at the Town Hall in the evening, attended by the Mayor and Mayoress of Torquay.

RESULTS

(The figures give, in seconds, the total times taken in all the tests)

Open cars taxed at £7 10s. : 1, J. M. Toulmin (M.G. Midget), 102.8 ; 2, J. E. S. Jones (M.G. Midget), 105.2.

Closed cars, £7 10s. tax : 1, S. G. E. Tett (Singer Nine), 135.

Open cars, £12 tax : 1, L. G. Johnson (Frazer-Nash-B.M.W.), 99.2 ; 2, G. L. Boughton (1½-litre Singer), 100.2.

Closed cars, £12 tax : H. G. Symmonds (Frazer-Nash-B.M.W.), 108.

Open cars over £12 tax : F. E. Elgood (Bentley), 155.4.

Closed cars over £12 tax : W. C. N. Norton (Ford V8), 113.6.

Team Award : 1, D. E. Harris, W. C. Butler and G. L. Boughton (1½-litre Singers), 311.6 ; 2, J. M. Toulmin, H. K. Crawford and J. E. S. Jones (M.G. Midgets), 312.4.

Premier Awards

E. H. Goodenough (M.G. Midget), C. A. N. May (M.G. Midget), J. M. Toulmin (M.G. Midget), J. E. S. Jones (M.G. Midget), J. W. Appleby (M.G. Midget), R. W. G. Collins (M.G. Magnette), F. E. Elgood (Bentley), L. H. Coney (Morgan), J. G. Orford (Austin Seven), C. D. Buckley (Austin Seven), W. C. Butler (1½-litre Singer), G. L. Boughton (1½-litre Singer), A. H. Langley (1½-litre Singer), S. G. E. Tett (Singer Nine), L. G. Johnson (Frazer-Nash-B.M.W.).

Second-Class Awards

D. S. Scobey, R. A. Macdermid, J. A. Bastock, H. K. Crawford (M.G. Midgets), W. H. Scriven (Austin Seven), D. W. Biddle (Singer Nine), A. F. Eadon, G. Kinsey Morgan (Ford Tens), H. W. Johnson (500 Fiat), G. K. Collier (Wolseley Wasp), D. E. Harris, J. D. Barnes, F. S. Barnes (1½-litre Singers), P. C. T. Clark (H.R.G.), A. S. Whiddington, H. G. Symmonds (Frazer-Nash-B.M.W.s), R. S. Mantle (Standard), A. C. Westwood (Talbot Ten), A. D. C. Gordon, D. J. H. Currie (30 h.p. Ford V8s), Viscount Chetwynd (22 h.p. Ford V8).

CONTINENTAL TOURING

A Word on Litres, Metres and Miles

This year promises to prove a notable one for Continental touring, and already with summer only half over, record numbers of motorists have arranged to take their cars abroad.

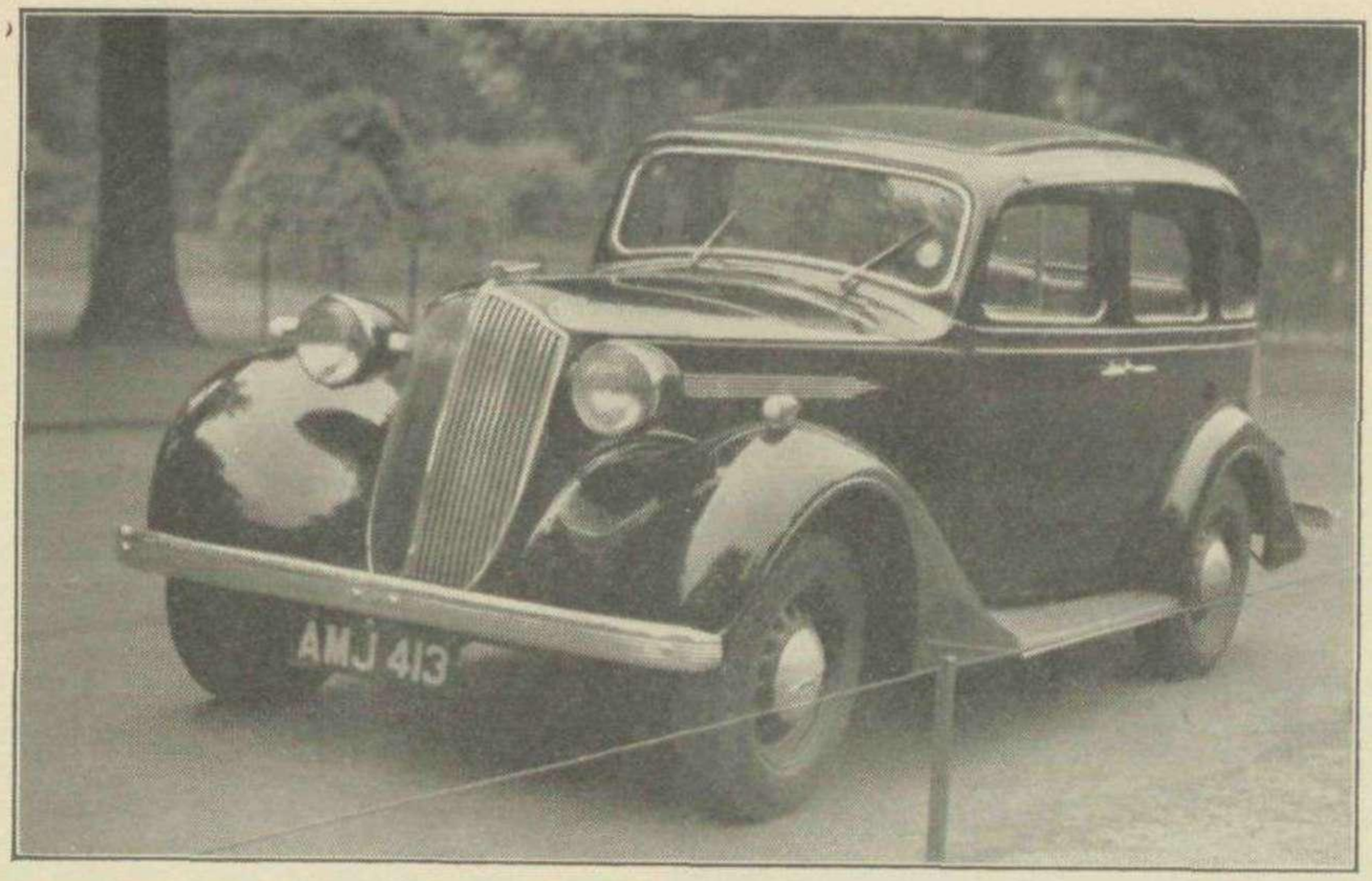
Of the many thousands of British tourists, however, who will be leaving this country during the next month or so, comparatively few will adapt themselves immediately to thinking in terms of metres and litres, and coinage based of decimal calculation.

It is, therefore, of some interest to recall that the litre approximates to .22 of a gallon, that is, when ordering petrol a gallon represents approximately five litres in Continental measure. In the same way, the relation between miles and kilometres should be noted. For this purpose it is sufficiently accurate to calculate ten kilometres as equivalent to six miles.

A worth-while move before departing on a Continental tour is to compile a brief calculating table to suit all necessary requirements. With the aid of a ready-reckoner, this is quite a simple matter and would be found invaluable if kept in some accessible spot in the car.

BUGATTI O.C. HALF-DAY TRIAL

In the Afternoon Trial of July 11th, organised from Milford to Dorking by the Bugatti Owners' Club, all ten competitors climbed three out of the four hills, and only G. E. Mayo-Smith's British-Salmson failed on the fourth hill. This would have proved costly to the club, had not matters been singled out by an acceleration and brake and a stop and restart test. In the former J. K. W. Baines (Vauxhall 14) and R. M. Blomfield (4½-litre Invicta) lost a mark each, Mayo-Smith's British-Salmson lost two marks and K. Gormly's 4½-litre Invicta four marks. Best performance was made by Donald Monro's Invicta 4½-litre, for which performance figures were published last month, in 9 secs., with J. G. Crowther's 3-litre Lancia Astoria runner-up in 9.4 secs. In the stop and restart test Baines, L. J. Leapman (A.C.), and G. F. Foxlee (12-50 Alvis) lost a mark each and Gormly lost five marks. Best time was made by C. W. P. Hampton's closed 3.3-litre Type 49 Bugatti in 9.8 secs., runner-up being A. F. Walsham's blown 2.3-litre Type 43 Bugatti, in 11 secs.



TRULY REMARKABLE VALUE, EXTREMELY COMFORTABLE SEATING AND A VERY USEFUL TOP GEAR PERFORMANCE.

IMPRESSIONS OF THE VAUXHALL "25" SALOON

ALTHOUGH the Vauxhall "25" is by no manner of means a sports-car, we make no excuse for including these impressions of its performance, gleaned during a drive of nearly 270 miles, because recent correspondence has indicated that a large number of readers of MOTOR SPORT are interested in the behaviour of utility type cars. This Vauxhall "25" will be of especial interest to those readers—and their number is considerable—who reside in America, Canada and the Dominions.

One's first impression relates to the size of this Vauxhall. It seems a large, even unwieldy car at close quarters on early acquaintance, although subsequent observation of other people's "25's" on the road has shown that the lines are, in reality, very nicely proportioned. But from the driving seat this Vauxhall impresses one as a compact car, very easy to put through congested streets, probably because it is not "modern" to the extent of low seating and invisible wings. Both wing lamps can be seen, and seat and steering column are adjustable. Essentially the car is simple to handle. The starter is operated by depression of the clutch pedal, engine suction putting the switch out of action at all times when the engine is running. The Vauxhall engineers were thinking of novice drivers stalling in traffic, of course, possibly on a hill that would keep their right foot glued to the brake-pedal until the engine re-started, but this arrangement also effectively fools those friends and garage hands who move fuelless cars electrically! There is no oil-gauge and no thermometer to watch and the wheel centre carries only the horn-button and control for the self-cancelling direction indicators. The carburation is weakened or enriched quite automatically, the hot-spotting and intake temperature is thermostatically governed, cooling water temperature likewise, and ignition timing is automatically varied by both suction and engine speed, with no hand control,

BRIEF SPECIFICATION

Engine : Six cylinders 81.9 x 101.6 m.m. (3,215 c.c.) 24.97 h.p. Tax £18 15s. Push-rod o.h. valves. Coil ignition, automatically controlled. Pump cooling, thermostatically controlled.

Gearbox : Four speed and reverse. Synchromesh on second, third and top. Central lever. Ratios : 4.44, 6.66, 9.85 and 14.20 to 1.

Suspension : Independent at front by coil springs and torsion bars. Half-elliptic at rear. Luvax hydraulic shock-absorbers.

Brakes : Hydraulic brakes on all four wheels, with safety hook-up.

Fuel Range : 12 gallons, approximately 204 miles.

Dimensions : Wheelbase : 9 ft. 3 in.
Track : 4 ft. 9½ in.
Turning circle : Right 43 ft.
Left 46 ft. 3 in.
Ground Clearance : 6¼ in.
Weight (unladen) : 1 ton 11 cwt. 0 qr. 16 lb.

Price : Four-door, six light saloon : **£298.**

Makers : Messrs. Vauxhall Motors Ltd., Luton, Beds.

although there is an under-bonnet micrometer-distributor-adjustment for varying the timing-limits positively, to suit high or low quality fuels. The instrument panel is likewise of simple conception, containing two big cubby-holes, and a fuel-gauge (accurate in its functioning), clock, speedometer, and ammeter as square-dialled instruments, the only other controls being the switch for all lights and two-stage dynamo charge, ignition key, and combined choke and throttle control. Normally one starts from rest in second gear, and the synchro-mesh works really well, quite fast if desired, and permitting of double-declutching. The hand-brake worked fairly effectively. So that this big Vauxhall is a very easy car to drive. The clutch action is very positive, but the pedal movement is rather considerable and some practice is needed to obviate a jerky get-away. Some of the bother in this connection was due to momentary engine hesitation, but it is not really a troublesome matter.

In traffic, as on clearer roads, this Vauxhall has a very masterly performance for a mass-production car. Acceleration in second gear is very brisk up to about 30 m.p.h. and is continued to 50 m.p.h. in third, while the top-gear performance is of the order usually associated with a big-engined American. This ability to make very good use of gaps in the traffic is pleasantly allied to the ability to swing smoothly through congested places with an admirable verve. The steering is light, almost finger-light, and acts smoothly, and it has rapid castor action, although by sports-car standards it is low-geared, asking 3⅓ turns, lock to lock. Nevertheless, it is generally very good steering, and return action is only evident when the front wheels are working abnormally over bad surfaces. The steering column is telescopic, but did not appear to lock positively. We had no opportunity to check the speedometer, or to take acceleration figures, but this Vauxhall cruises happily at a speedometer speed of 70 m.p.h., will hold 80 when you are in a hurry, and reached a maximum of 85 m.p.h. (probably 81) when we "took on," and beat, a 2.3-litre Bugatti. The makers claim 0 to 50 m.p.h. in 16¾ secs.; thereafter the acceleration tends to tail off. The suspension, while not of sports-car characteristics, is not as soft as the style of car would lead one to expect. At the front it is independent, and provided one is prepared to really "drive," the Vauxhall can be cornered impressively fast. Another aspect of the suspension is the very comfortable ride it provides. For instance, on the decidedly bad stretch of road between Hockcliffe and Stony Stratford, on A5, we held 50 and 60 m.p.h. unconcernedly, and wondered why other vehicles went so slowly, until we recollected how our previous conveyance to Donington had behaved at this locality. The front suspension works admirably, with only a slight indication

THE VAUXHALL "25" SALOON—continued

of movement when in reality the wheels are being deflected excessively. Our only criticism of it concerns a tendency to wheel judder or tramp on full lock, possibly the penalty of having such a generous steering lock. Independent suspension we deemed well worth while on this moderately priced car. The brakes, too, are very good indeed, being extremely effective in slowing the car from high speeds, progressive in action, and making no sound save a slight rubbing noise. There was some return movement through the pedal. From the foregoing remarks it will be perceived that the Vauxhall "25" is no sluggard. In confirmation of this we may mention that, strange to the car, we took exactly three hours from Finchley Road, London, to the Competitors' Enclosure, Donington Park, going via St. Albans, Dunstable, Towcester, Weeden Beck, and along B 584 to Ashby-de-la-Zouch, a distance of approximately 116 miles. Much of the time heavy rain fell, and we cruised at 45 to 50 m.p.h. while a level-crossing near High Cross delayed us for about ten minutes, in company with some sporting occupants of an open Ford Ten. Particularly impressive, in view of its ability to cover the ground, is the smooth, completely unobtrusive functioning of the engine at all speeds, while third gear is as silent as top and second gear emits only a low hum.

The screen-wiper could have been a trifle more effective, and the scuttle-top ventilator leaked rain onto the driver's left leg during a torrential downpour. But generally the body appointments are good, with excellent sliding roof, really substantial, separately adjustable bucket seats, and an exceedingly roomy rear seat with folding central arm-rest. The windows have swivelling half-panes for ventilation purposes. The screen-wiper, incidentally, is engine-driven. The luggage-locker is of very generous area and when the doors of the rear compartment are opened the interior lights will function automatically. The wheels are of pressed-steel type, particularly easy to clean and, indeed, the whole exterior of the Vauxhall "25" is of such a nature as to cheer considerably the person whose job it is to keep the car pristine. There is a foot-operated head-lamp dimmer that worked effectively, but we would have liked a more strident horn-note. A rough check showed the fuel consumption to be about 16 to 17 m.p.g., under conditions of hard driving. The pedals are well spread and the hinged, treddle-type accelerator is comfortable to use. The screen-wipers are controlled from a tiny lever on the screen-base and the rear-view mirror is adequate. This Vauxhall offers truly astonishing value for money at the low price of £298 and is of direct interest to all who have reason to journey hastily with four passengers aboard and who appreciate modern conveniences and easy performance. Personally, we should not, however, refer to it as the successor to the immortal 30/98 Vauxhall. Salmons and Sons, The Grosvenor Carriage Co. Ltd., Connaught Coachwork Ltd., and Martin Walter Ltd. list special bodywork on the "25" chassis. The equipment includes Firestone tyres, Triplex safety glass, A.C. plugs, and Belco finish. The makers are Messrs. Vauxhall Motors Ltd., Luton, Beds. Seldom have we felt so enthusiastic over the value and performance of a non-sports type of car.

A CORRECTION

In the May issue, commenting upon the remarkably fine performance of the Type 328 Frazer-Nash-B.M.W., which had covered over 100 miles in one hour under R.A.C. observation, driven by S. C. H. Davis and running fully equipped, we were led to remark that it seemed very probable that one of those cars would cover the greatest distance during the M.C.C. One-Hour High-Speed Trial next September, at Brooklands, to win a prize offered by Mr. Percy Bradley. It still seems highly probable that a Frazer-Nash-B.M.W. will gain the honours of making fastest time of the day, but definitely it will not win such a prize as we suggested, because Mr. Bradley has not offered any form of award in connection with this event, and we were in error in suggesting that he had.

Last year the magic average of 100 m.p.h. was missed by a mere matter of 1.48 m.p.h. by H. J. Aldington's 2-litre Frazer-Nash-B.M.W., and eight other cars averaged over 85 m.p.h. Afterwards it was a freely expressed opinion that several drivers intended to exceed 100 m.p.h. in the 1937 event. However, it must not be overlooked that the M.C.C. sets definite schedule speeds for this event and that often as much credit is due to those who only just achieve special awards as to those who set up sensational averages. Moreover, look at it how you will, there is a certain element of danger in driving at over 100 m.p.h. in a sports car when the track is largely occupied by novice drivers, mainly in much slower cars.

Consequently, while the exploits of the 100 m.p.h. men will be followed with interest and admiration, naturally Mr. Bradley, the Clerk of the Course at Brooklands, is very anxious that we should make it clear that his prize was a pure figment of the Editorial imagination. We offer him our apologies.

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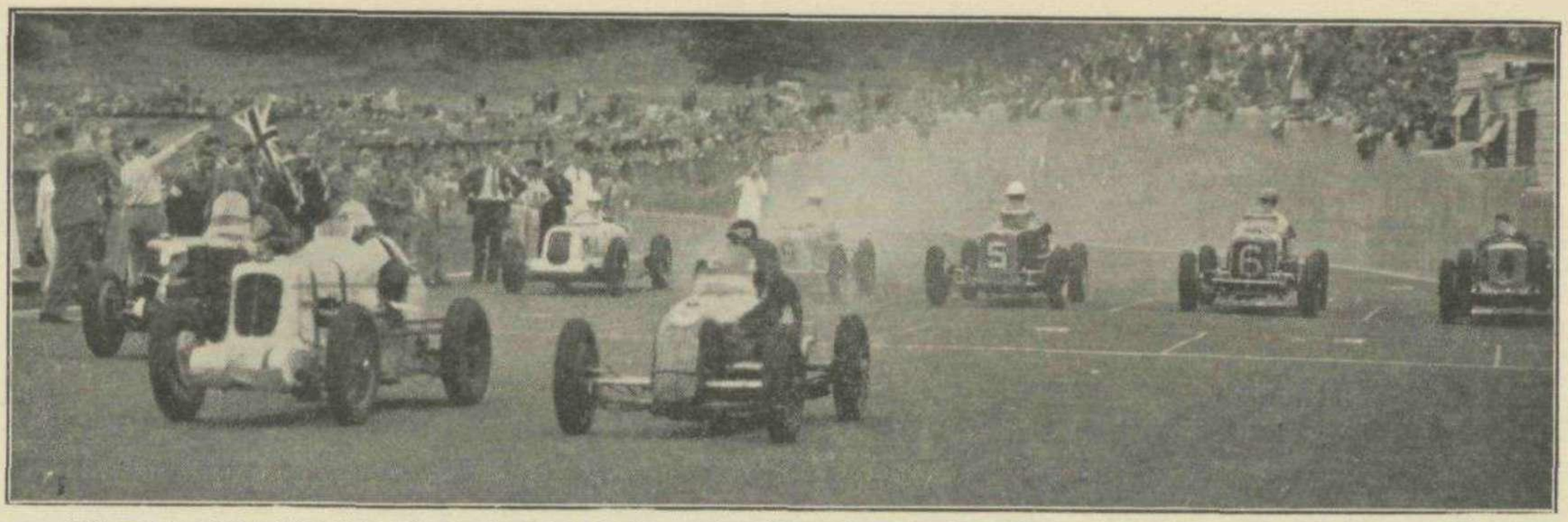
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MOTOR RACING MAGAZINE
AIR—AUTO—BOAT—MOTORCYCLE
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The start of the first heat for the London G.P. H. Edwards, with C. Follett behind him, has the starting flag raised, prior to despatching the second row.

E.R.A. WINS THE LONDON GRAND PRIX

"B. BIRA'S" VICTORY AT CRYSTAL PALACE AT 54.36 m.p.h.

THE second car meeting at the new Crystal Palace road course, held on July 17th, was generally a considerable success. Short races, with almost all the cars on the same lap up to the end, and really famous drivers duelling closely throughout, with no pit-stops to vary the issue, cannot fail to be attractive. And once again E.R.A., four cars strong, supported the Road Racing Club. We found these short heats and a final excellent and hope for many more of them, although fifty or a hundred mile races would be an interesting variation, and possible now that pits, albeit as yet open to the elements and crudely constructed, border the circuit. But perhaps the short twenty and thirty mile races are better, especially as the Palace attracts many spectators who do not appreciate good pit-work and would not see a great deal of the pits in any case. It was sheer bad luck that Dobson's crash and Mays's axle trouble happened in such a manner in both instances as to detract from what was very close and exciting racing.

Practice on the Thursday was pretty devastating, reminiscent of that before the great opening meeting last April.

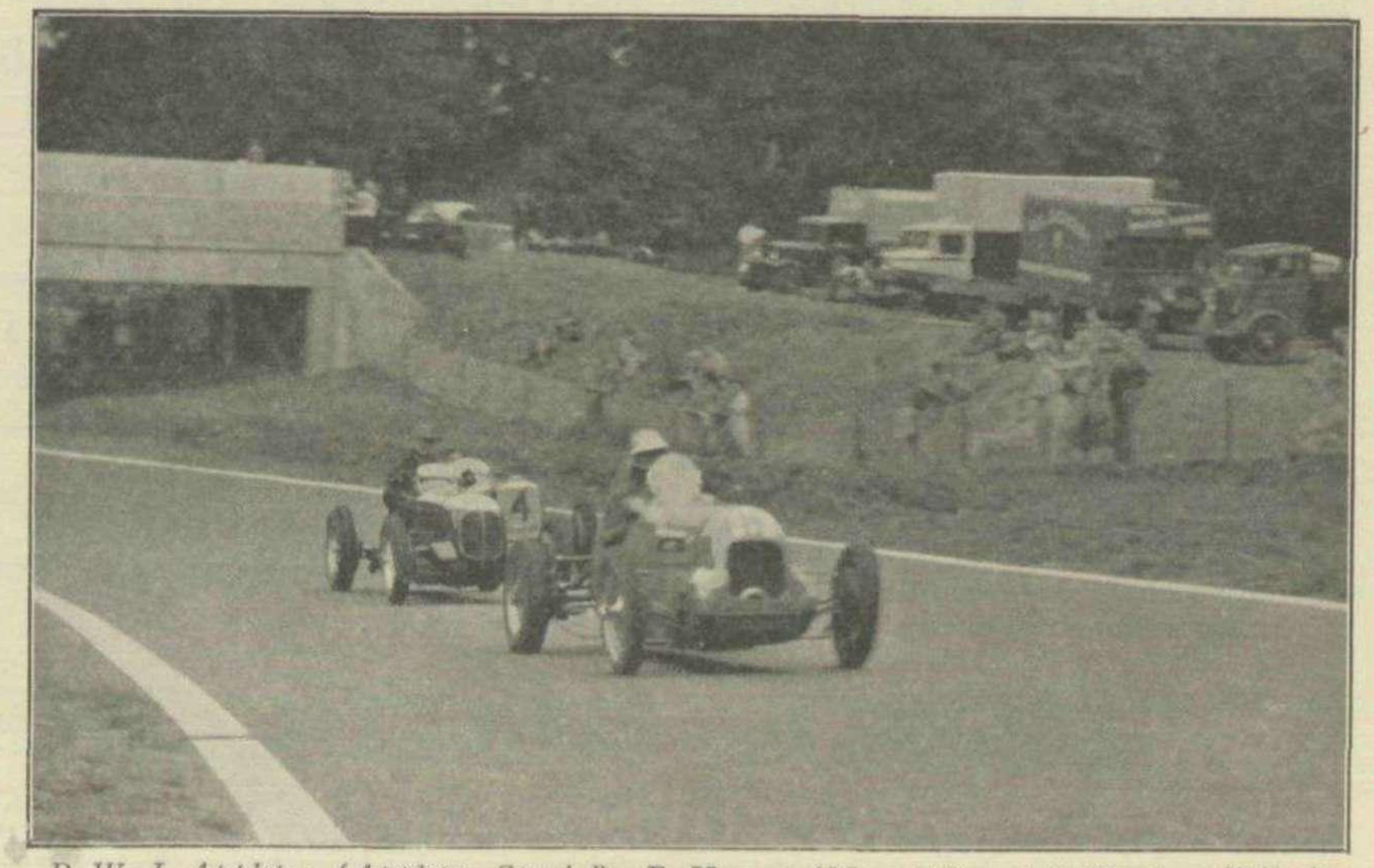
Fifteen out of seventeen competitors got into some sort of trouble during the torrential rain and Edwards must have prayed fervently for a fine day on the occasion of the actual racing. Particularly unlucky were Brooke's series of gyrations with the V-radiator 1,100 c.c. M.G.-Riley, and the slap into the earth bank at Stadium Dip could not have done the forward-mounted supercharger any sort of good at all. But the daily-Press camera men just loved it! A. C. Dobson with the white 1½-litre E.R.A. was cornering like a master, several times smashing the late Pat Fairfield's lap record, finally setting a new record in 2 mins. 7.6 secs., or 56.43 m.p.h.—4.3 secs. and 1.84 m.p.h. better than Fairfield's record with a similar E.R.A.

The blowing-up of the remains of the Palace ruins, unannounced and coinciding with a fierce thunderstorm, added a grim touch to this practice period. Mrs. Petre came to watch Goodacre on the Austin, and subsequently attended on race-day. Major Gardner was there, and W. E. Wilkinson was with Fleming, who crashed mildly in the Monza Alfa-Romeo at Stadium Dip, complaining of a stone in a brake-drum.

* * *

The race day weather fluctuated between sun and cloud, with, fortunately, no rain. The crowd was not as large as previously but was still considerable, although we cannot understand why so many people whose cars are seen in the parks at Brooklands miss the Palace meetings, unless it is that they come by train. In the car parks were some impressive vehicles, including several special Austin Sevens, an early Austin Seven Chummy rejoicing in the title of "Abdul-the-Damned," a Le Mans 4½-litre Lagonda and the three resplendent 4¼-litre Bentleys of the "Bira"-Mays equipes.

For the first heat of ten laps Goodacre's Austin, H. L. Brooke's M.G.-Riley and I. H. Nickols's 750 c.c. blown M.G. were drawn up in the front row with Maclure's Riley outside in row two and Connell's E.R.A., Mays's E.R.A., Aitken's Shelsley Frazer-Nash, now with a stronger rear axle, and Bartlett's 2-litre Alta beside him in that order. J. P. Wakefield was a non-starter with the Maserati. In the initial rush as the flag dropped Connell was a trifle ahead of Mays and Goodacre led everyone, while Mays drew right over to get clear. At the close of the first lap Goodacre (Austin) led from Mays (E.R.A.), Connell (E.R.A.), Aitken (Frazer-Nash), Nickols (M.G.), Maclure (Riley), Bartlett (Alta) and Brooke (M.G.-Riley). Maclure thereupon overhauled Nickols. After another lap Raymond Mays led from Goodacre, Connell, Aitken and Maclure and Connell took second place just before commencing the third lap, with Maclure very close to him. Mays pulled away from Connell to the extent of 8, 10, 12, 14 and finally 16 secs. He lapped Brooke by about lap eight. On the very last lap, just as Brooke was flagged to give Connell a clear run at Stadium Dip, the black E.R.A.'s rear axle gave out, but Mays coasted in to win at 52.53 m.p.h. Connell made a great effort and was only .5 of a second behind, the cars appearing to dead-heat. Mays did one lap at 2 mins.



R. W. J. Appleton (Appleton Special), R. Hanson (Maserati) and P. Maclure (Riley) passing the Competitors' Paddock.

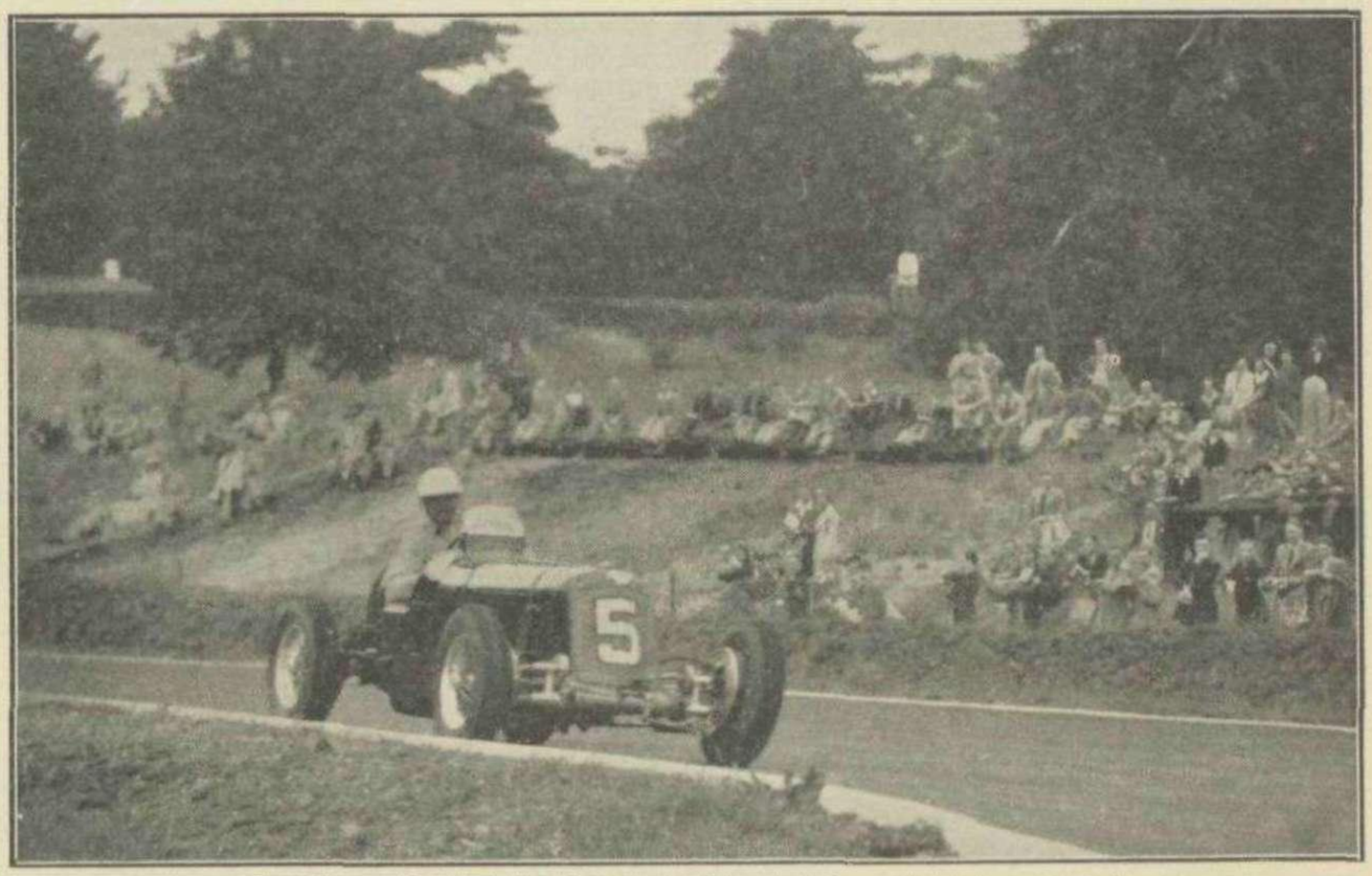
THE LONDON GRAND PRIX—continued

12.3 secs., equal to 54.3 m.p.h. The astonishing Maclure in the Riley, which the programme credited with a 1½-litre engine, but which did not emphasise as unblown, had lapped at 2 mins. 12½ secs., and he finished third, 1.1 secs. after Connell. Aitken, whose Frazer-Nash mis-fired about two laps from the end, was fourth, Goodacre, who had engine fluffiness, was fifth, Bartlett sixth and Brooke seventh, these drivers qualifying for the final.

While Heat 2 was in progress E.R.A. mechanics, with apparent unconcern and great calm, removed the half-shafts from Mays's axle, thrust about in the bevel-housing with a jack-handle and walking stick and had the car running again before Heat 2 was over. Those privileged to enter the area that serves as a Paddock only tore themselves away with reluctance to watch the racing. The immense Zoller compressor in the cock-pit, fed by horizontal twin S.U. carburetters of immense dimensions, each with its piston casing wired up for safety's sake, is a source of undying interest to technicians.

John Bolster was another centre of attraction with the Bolster-Special "Mary." We have the greatest respect for Bolster, who is proving that his quite unadorned, truly stark home-built cyclecar is as suited to road-racing as to straight sprints. John's tennis-shoes were even dirtier than those effected by the writer, while his flannels—well, they would never be tolerated at Weybridge. But then, we doubt whether "Mary" would be tolerated, either, though we should dearly love to see her in a Mountain race. Incidentally, how did Bolster get on over Supplementary Regulation 7c, calling for "an effective bulkhead between the driver's seat and the engine"? "Mary" has nothing like that; indeed, John still bandages his left elbow as protection from pipes and chains! Arthur Dobson, thought a possible winner, warmed the E.R.A.'s transmission on the jack, beforehand. They were lined up with Appleton's Appleton-Riley outside in the front row with Parnell's M.G., Mrs. Eccles's Rapier-Special, and Sinclair's 1,100 c.c. Alta next to him in that order. In row two, Dobson (E.R.A.) was outside and next to him were "Bira" (E.R.A.), Hanson (Maserati), and Bolster (Bolster-Special). Behind stood Fleming's 2.6-litre Alfa-Romeo. A small class handicap was in force for all races and this time Mrs. Eccles jumped Edwards's Union-Jack and the other front-liners went off after her. They were flagged in, Parnell coasting neatly to his square, and after the Alta's bonnet had been lifted and replaced and engines allowed to cool, the race began. Mrs. Eccles and Sinclair led group one and Bolster and "Bira" group two, with Hanson very close. Coming into Stadium Dip after one lap Parnell's M.G. led, followed by "Bira," Mrs. Eccles, Appleton, Dobson, Sinclair, Hanson and Bolster. Fleming had left the course. By lap two "Bira" led, followed by Parnell, Dobson, Appleton, Hanson, Bolster, Mrs. Eccles and Sinclair. The last two duelled strongly until Mrs. Eccles overturned the Rapier-Special on lap four after a skid. She was brought in in Charles Follett's Alvis, suffering from a dislocated shoulder. "Bira" held his lead comfortably with his blue E.R.A., but Dobson was driving magnificently, holding the white E.R.A. in slides reminiscent of Seaman's tactics, and recording the best lap of the day so far, at 56 m.p.h. He closed on "Bira" at the end, finishing second 1.9 secs. to the bad, "Bira's" time being 22 mins. 4.2 secs. Parnell was third, after a good drive, 1 min. 3½ secs. behind Dobson. Hanson, whose handling of the six-cylinder Maserati has much improved, was fourth and Appleton fifth. Bolster pleased the crowd, sliding vigorously on the corners, but a magneto went duff and he withdrew. Incidentally, he used Dunlop Sports covers on the rear wheels.

Between the heats Major A. T. Gardner did a demonstration lap in the very well-streamlined, very smart 140 m.p.h. M.G. Magnette, and had told us via the microphone that he had found it difficult to get round. We now had a motor-cycle combination race, notable for thrilling cornering, but a straggly finish.



R. Mays (E.R.A.) who won the first heat at 52.53 m.p.h.

So to the final of the London Grand Prix. Everyone was delighted that Bolster was invited to run, as otherwise there would have been thirteen runners. The start was held up while he changed a magneto. The start was most impressive, Bolster, from row two, actually being bulked on initial acceleration by the E.R.A.s, amid much arm-waving on John's part. Lap one saw Parnell, on J. H. T. Smith's M.G., in the lead, followed by "Bira," Appleton, Dobson, Sinclair, Connell, Hanson, Goodacre, Maclure, Bolster, Bartlett, Aitken and Brooke. The handicap did not affect the closeness of the runners. Mays was missing and came coasting in, the axle having failed on the get-away. Soon "Bira" led, with Dobson cornering like one possessed and closing visibly. "Bira" responded by breaking the lap record on his third circuit. The new figure is 2 mins. 7½ secs.—56.47 m.p.h. —the Palace is still a very slow circuit. This gave the blue E.R.A. an 8 secs. lead. Sinclair's Alta broke an oil-pipe and, with oil on the pedals, Sinclair hit the safety sleepers and retired. Goodacre's engine was still unwell and the Austin came in after only one lap. However, all eyes were on the leading E.R.A.s. Dobson was closer now; now right on "Bira's" tail. Then he passed! But in the excitement of doing so he overdid the loud-pedal stuff and spun round at Big Tree Bend on lap eleven, that on which he had taken the lead, to smash his tail against the wall of the lily-pond. Fuel gushed out and, though he restarted, Dobson had to come in and retire. He took it smilingly, and few men could smile as naturally under the circumstances. So "Bira" won easily, over a minute ahead of Connell's E.R.A., and Maclure's unblown Riley was third from the thirteenth (out of fifteen) laps, after a very tough scrap with Parnell's M.G. and Hanson's Maserati. The Frazer-Nash had had plugs changed in the line, but still had misfiring trouble. "Bira," Hanson, Appleton, Parnell, and Dobson wore helmets and visors, Bolster crash hat and goggles, Sinclair and Maclure drove bare-headed. This Crystal Palace racing is excellent and the short races ensure some very exciting duels, much of the success of which is dependent upon the E.R.A. drivers appearing. Longer races with bigger fields would be an interesting development but one the success of which it would be difficult to assess beforehand. The result of the London Grand Prix reads as follows:—

RESULTS

1. "B. Bira" (1½-litre E.R.A.) 33m. 3.7s. 54.36 m.p.h.
2. I. F. Connell (1½-litre E.R.A.) 34m. 3.9s 53.02 m.p.h.
3. P. Maclure (1½-litre Riley unsupercharged) 34m. 33.5s. 52.26 m.p.h.
4. R. Parnell (1½-litre M.G.) 34m. 38.9s.
5. R. Hanson (1½-litre Maserati) 34m. 39.7s.

Distance: 15 laps (30 miles).

Record Lap: "B. Bira" on his third lap, in 2m. 7.5s. 56.47 m.p.h.

Handicapping

Heats 1 & 2: 750 c.c. receive 10s. start; 1,100 c.c. receive 5s. Over 1,100 c.c. scratch.

Final: 750 c.c. receive 15s.; 1,100 c.c. 8s. Over 1,100 c.c. scratch.

Club News

MIDLAND A.C.

The Madresfield Speed Trials had to be cancelled due to lack of entries—another reflection on the unfixedness of the fixtures. But that will not happen in the case of the next Shelsley-Walsh Hill-climb on September 11th.

J.C.C.

In connection with the Brooklands Members' Day of July 3rd, F. N. Crane (M.G.) gains a standard award, and Miss P. McOstrich (Frazer-Nash) a special award. 70 members are going on the Budapest Rally from September 3rd–19th. The next event is the 200-Mile Race at Donington on August 28th.

B.A.R.C.

After August 2nd membership at half-price, to the end of this season, came into force. Particulars from the Secretary, B.A.R.C., Brooklands Motor Course, Weybridge, Surrey.

YORKSHIRE S.C.C.

Speed trials were again staged at the pleasant half-mile course at Wetherby last month. H. J. Williams, driving a blown M.G. Magnette, established a new course record in 30.13 secs., beating S. E. Cummings's old record with the Vauxhall Villiers by .07 of a second. His subsequent runs were slower, but he gains the Gunter Trophy for fastest run of the year. H. B. Prestwich (M.G.) loaned Williams his large tyres for his record run. Mrs. Darbishire, handling a G.P. Bugatti, took the Ladies' Record, beating the former record held by Mrs. G. Stone (Railton) by 2.34 secs., her time being 33.1 secs. The event lasted five hours, with an entry of 57. The course has two corners and demands skilful driving and Williams crossed the line at a speed estimated at over 90 m.p.h.

G. A. Mangoletsi's blown Lea-Francis used parts of the countryside bordering the course on occasion, while Lemon-Burton had a very lucky escape when the off-side front wheel left his Bugatti as he braked for the second bend, the car going into a hedge and turning over on its side. The Wetherby speed trials should receive the continued attention of sprint exponents next year.

RESULTS

Sports Cars, 1,000 c.c. unblown : 1, E. N. R. Hewitt (M.G.), 40.67s.; 2, R. M. Harkness (M.G.), 45.19s.

1,000 c.c. blown and 1,500 c.c. unblown : 1, C. L. Clark (Bugatti), 36.72s.; 2, Miss K. Taylor (M.G. S.), 36.95s.; 3, W. Bailey (Riley), 37.77s.

1,500 c.c. blown and 3,000 c.c. unblown : 1, G. A. Mangoletsi (Lea-Francis S.), 34.67s.; 2, H. Bolton (SS 100), 36.28s.; 3, W. L. Woodcock (Frazer-Nash-B.M.W.), 37.78s.

3,000 c.c. blown and 5,000 c.c. unblown : 1, F. H. Hambling (Bugatti S.), 37.92s.

Racing Cars, 850 c.c. blown and 1,500 c.c. unblown : 1, J. N. C. Watson (M.G. S.), 31.50s.; 2, E. J. Moor (Wasp), 33.32s.; 3, R. S. Steavenson (Steavenson Special), 36.50s.

1,500 c.c. blown and 2,000 c.c. unblown : 1, H. J. Williams (M.G. Magnette S.), 30.13s.; 2, H. B. Prestwich (M.G. Magnette S.), 30.25s.

Up to 5,000 c.c. blown and unblown : 1, J. L. Hanson (Bugatti-Vauxhall S.), 32.36s.; 2, J. Kingston-Whittaker (Railton), 32.86s.

BUGATTI OWNERS' CLUB

As reported elsewhere, a very successful Donington meeting was held last month in conjunction with the Vintage S.C.C. The next event is speed trials at Lewes on September 4th, and a social run will be held on September 11th. The July issue of " Bugantics " contains an article on " Bugatti Types I Have Owned " by Arthur Baron and technical notes on the supercharged 4.9-litre Type 50 Bugatti. The latter develops 200 b.h.p. at 4,000 r.p.m. and the car does 85.5 m.p.h. on 2nd and 119.5 m.p.h. on top at a rev. limit of 4,500. Besides Col. Giles's car, K. W. Bear and J. G. Crowther now own Type 50s, purchased from J. Lemon-Burton. Bear's car has a Bugatti drop-head coupé body and Crowther's is one of the works team that ran at Le Mans in 1931. New members include R. D. Ropner and H. L. Benn. Hon. Sec., E. L. Giles, 2, Queen Street, Mayfair, W.1.

VINTAGE S.C.C.

A Rally for Edwardian cars will probably be held shortly, in conjunction with the Veteran Car Club. The very excellent Bulletin, now in print and picture, continues to appear at intervals. The recent Donington meeting in conjunction with the Bugatti Owners' Club was very successful and further speed-trials at Littlestone will be held in September. Cecil Clutton has a new and improved formula for the pre-1915 class. Prominent members of the club performed actively at Le Mans in the H.R.G. and Aston-Martin pits. Another trophy has been presented, to go annually to the runner-up of the annual aggregate award. Jointly, these awards are known as the Lycett Trophies. The following, from the last Bulletin, might well become the Club's signature song :—

> Changed at twenty, down to first ;
> Wondered why the motor burst ?
> Gave him quite a nasty turn ;
> Buzz-Box owners live and learn.

Hon. Sec. : Tim Carson, " The Phœnix," Hartley Wintney, Hants. 'Phone : Hartley Wintney 84.

KENTISH BORDER C.C.

This club is still going strongly. On July 17th it held a series of driving tests and a gymkhana with the usual balloon-bursting, bun-eating and towing races at a field in Surrey. The event was attended by Ford V8, M.G. Midget, M.G. Magnette, 12/50 Alvis, A.C., Frazer-Nash, Wolseley, Singer and a blue-label 3-litre Bentley with cut-down chassis and twin downdraught Stromberg carburetters, amongst others. A summer trial, with comp. tyres barred, was scheduled for July 26th, and further hill-climbs will in future be held at Knatt's Valley.

FORD ENTHUSIASTS' CLUB

This club has been formed to cater for family Ford owners by way of social and sporting gatherings and competition enthusiasts by way of trials and other competitive events. It is open to non-Ford owners who are genuine enthusiasts for the " marque " and has no association with the Ford Motor Co., Ltd. The committee consists of S. H. Allard and K. N. Hutchison, well-known Ford drivers, L. M. Ballamy, R. J. Canham, H. G. Symmons and W. Boddy.

The twelvemonth subscription is £1, or 10s. for social membership, with an entrance fee of 2s. 6d. Membership of the Millbrooke Dining Club and bar is inclusive. These premises, at Putney, London, S.W., will be available for meetings and film shows and may be used at all times by members and friends. The club badge is based on the V8 engine seen in cross-section, finished in Coronation colours. The club expects to be represented in all the important open events by an Allard-Hutchison-Symmons team of Allard-Special-Fords of the kind described in MOTOR SPORT last month. Full particulars are available from either of the joint secretaries : S. H. Allard, 15, Millbrooke Court, Putney, S.W.15, or K. N. Hutchison, 23, Albemarle, Parkside, Wimbledon Common, S.W.20. 'Phone : Mitcham 4023.

R.R.C.

The Road Racing Club will stage a combined meeting for cycles, motorcycles, sidecar machines and cars, at the Crystal Palace circuit on August 14th. The car race is a 30-mile handicap starting at 4.50 p.m., and if another " Bira "-A. C. Dobson duel materialises it will be a classic. The club uses a Leroy-Brille £350 timing apparatus, capable of recording lap-timings of seven cars in one second, accurate to $\frac{1}{10}$ of a second, recording on printed tapes. Operation is by a Morse key, only one operator being required. The apparatus is portable and can be erected in ten minutes. It may be hired with its official timekeeper by any clubs interested. The Road Racing Club, 12, Queen's Gate Terrace S.W.7.

CLUB NEWS—continued

SALTBURN SAND-RACES

With natural grandstands formed by the sandhills, the racing at Saltburn—where speed events were held in the "good old days"—was run off under very good conditions. W. I. Miller, home from Egypt and full of Bugatti fever, was outstanding with a 1½-litre G.P. Bugatti.

In the Twenty-Mile Handicap Race Hodgson (Riley) took the lead when Miller's Bugatti retired, but he mistook the last-lap flag for the finishing signal and stopped, letting J. W. Burnand's Riley-engined J.W.B. Special in to win. But note their average speeds! A good crowd attended and the weather was complimentary.

RESULTS

One-mile Events.—Up to 850 c.c. blown and 1,500 c.c. unblown : 1, J. W. Burnand (1,123 c.c. J.W.B.), 55.55 m.p.h.; 2, W. I. Miller (1,496 c.c. Bugatti), 54.88 m.p.h.; 3, H. Hodgson (1,087 c.c. Riley), 54.71 m.p.h.

Up to 1,500 c.c. blown, and 2,500 c.c. unblown : 1, R. U. H. Robinson (1,096 c.c. Riley), 54.54 m.p.h.; 2, W. I. Miller (1,496 c.c. Bugatti), 52.47 m.p.h.; 3, R. M. Harkness (874 c.c. M.G.), 52.17 m.p.h.

Up to 5,000 c.c. blown or unblown : 1, C. W. Cook (2,120 c.c. Cook Special), 52.63 m.p.h.; 2, W. I. Miller (1,496 c.c. Bugatti), 51.43 m.p.h.; 3, R. M. Harkness (847 c.c. M.G.), 50.99 m.p.h.

Twenty-mile Handicap : 1, J. W. Burnand (1,123 c.c. J.W.B. Special), 56.33 m.p.h.; 2, H. Hodgson (1,087 c.c. Riley), 63.77 m.p.h.; 3, R. M. Harkness (847 c.c. M.G.), 50.96 m.p.h.

SPEED TRIALS AT SOUTHALL

Some clubs seek to attract good entries for a speed event by choosing a venue actually in London, at the A.E.C. works at Southall. Actually the grounds here only provide a limited course, with rather "circus" tendencies in consequence, and perhaps the big grounds of a certain motor-driving tuition school at Croydon, where we believe the Alvis C.C. recently held speed trials, may prove a better venue in time to come. At Southall, on the occasion of the W. Middlesex Amateur M.C.C. speed event, E. Winterbottom made best time in 45 secs., driving the Emeryson, which has a Gwynne foundation and somehow contrives to run as a sports-car, perhaps because it is licensed for road use.

RESULTS

850 c.c. Sports : G. Pentony (M.G.), 47.6s.
1,100 c.c. Sports : E. Winterbottom (Emeryson) 46.2s.
Racing : W. J. Green (M.G., S.), 46.6s.
1,500 c.c. Sports : E. Winterbottom, 45s.
Racing : W. J. Green, 46.4s.
Unlimited Sports : E. Winterbottom, 47.4s.
Racing : E. Winterbottom, 45.8s.
W.M.A.M.C.C. Cup : D. S. Dow-Wood.
B. and D. M.C.C. Cup : E. Winterbottom.

GENERAL NOTES

Let us try to refrain for a while from idle reminiscence and at least partially restore these columns to something bearing on club activities.

A pretty problem faces those secretaries who are brave enough to put over summer trials. Hills are much easier as a rule during fine weather and they are accordingly tempted to ban competition tyres—this is quite apart from making distinctions between the wheel-wear permissible for different classes of car, which is a separate problem of more winter-time moment. This banning of comps. in summer seems quite all right until you realise that entries, never very easy to get anyway, at this time of year, are being jeopardised because people wish to use up semi-worn comps. now, before buying new, really knobbly ones for winter use, and that they very decidedly do not like the idea of cutting up ordinary tyres while old comps., almost useless for winter trials, hang rotting in the garage. I think you had better allow any sort of tyres in your summer trials and make up for the easier conditions by including plenty of special tests with a minimum time, or standard time, penalty imposed for each.

* * *

Concours have relatively little interest, except that some years ago the true Continental ones attracted very beautiful cars, frequently attended by very beautiful ladies—and that invariably these cars were sports marques such as Delage, Hispano, Isotta, Bugatti, Panhard, Voisin and so on.

In this country we have allowed Concours d'Elégance to become less and less contests of elegance and more and ever more competitions, widely classified, of convenience and freakishness, standard cars, or standard cars *with antimacassars and polished engines*, nevertheless scoring heavily. Now Capt. E. L. Short, at a dinner at the conclusion of the recent Eastbourne Concours, has made a strong appeal for a return to the car-beauty contests pure and simple. We feel there is a lot to be said for this suggestion and even an English seaside resort, given waving palm-trees, lovely ladies and the sun, could stage quite a good show, with those "3.3" Type 57 Bugattis, special-bodied Alfas and Mercs. competing against our own varied-bodied Bentley and Phantom Rolls-Royce cars. Bored with tennis, riding and bathing after a month of idleness we might even apply for Press-passes and ourselves drop in for a while.

* * *

After penning these two paragraphs I feel the reminiscent mood returning, but before letting it have its way, have any readers undertaken queer journeys in unusual cars these holiday months? If so, I should like to hear from them.

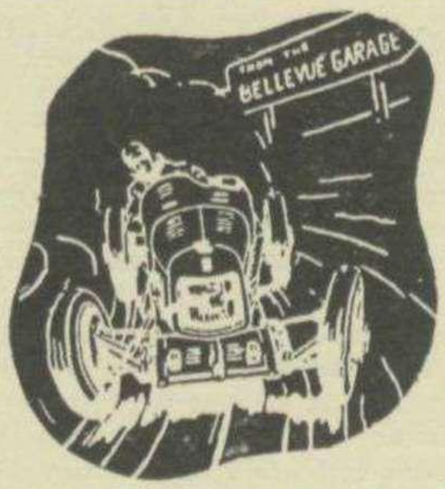
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An old Armstrong-Siddeley Twenty, used for an unexpected journey to Brooklands, accelerated so imperceptibly that we were persuaded to put the watch on it. But, as the driver remarked, the watch would be almost run down by the time the speedo-needle had shown any perceptible movement. Even so, as proof of our insanity we committed brief lappery of the Track (untimed) in this lethargic carriage, atoning for this behaviour the next day by doing the same journey in a most imposing, open touring Big Six Bentley, a beautiful possession, which accelerated powerfully with the traditional "plop" from the gas-works, thoroughly satisfying until one observed the very rapid decline of the column of red liquid in the petrol gauge—also traditional, we believe.

There followed practice and participation in the J.C.C. Members' Day at Brooklands, when the little Fiat and the Aprilia Lancia, running line ahead to the Track, might well have called forth much respectful Fascist saluting, though the only attention paid to us was from cyclists who mistrusted the driver's judgment—and they made signs which would *not* have pleased Mussolini or Sir Oswald.

A week later there was a fine fast drive alone to Donington and back in a Vauxhall "25," instructive as to the average and cruising speeds possible with quite inexpensive, mass produced machinery. And then a journey, ordinary enough in

Continued on page 353



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APPOINTED GARAGE

MERCÉDÈS BREAK NÜRBURG RECORD

CARACCIOLA AND VON BRAUCHITSCH FIRST AND SECOND IN GERMAN GRAND PRIX

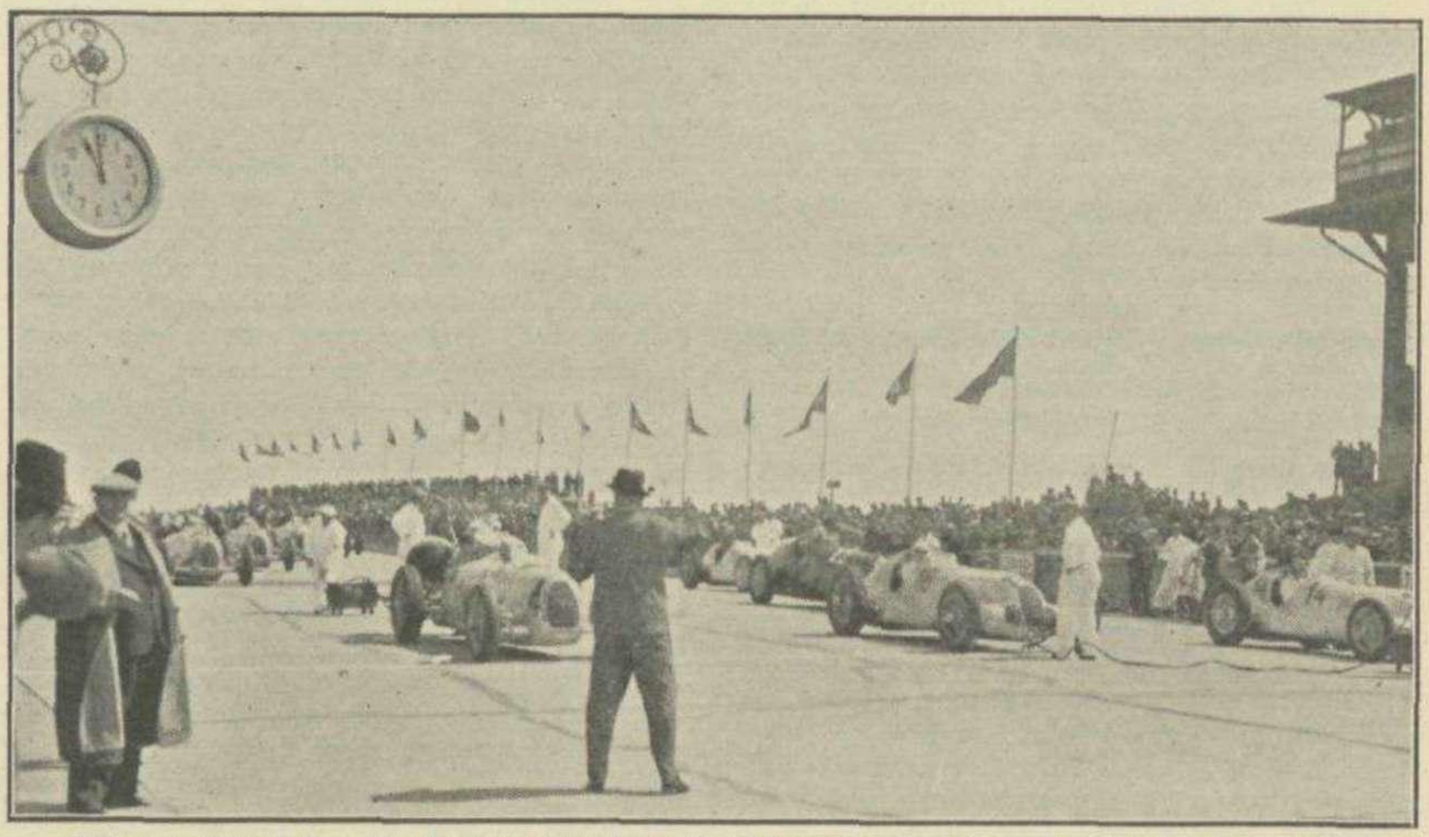
TO the victors the spoils! After a lapse of six years, Mercédès-Benz carried off the honours in the Grand Prix of Germany, defeating the rival Auto-Unions and winning first and second places. The race, held at the Nürburg Ring on July 25th, was remarkable for the number of crashes. The most serious was that in which von Delius and the British driver, Seaman, were involved, and, as a result, von Delius unfortunately died in hospital next day. Seaman was not badly hurt.

The weather was fine throughout, and Caracciola in the winning Mercédès-Benz put up a record average for the twenty-two laps of the race. Rosemeyer's Auto-Union was third, after many adventures, and that greatest of drivers, Nuvolari, secured fourth place for Alfa-Romeo. The British driver, Kenneth Evans, was placed ninth.

* * *

The biggest race of the 1937 Grand Prix season is about to commence. The cream of the European drivers are lined up before the crowded grandstand at the Nürburg Ring. Both the great German firms, Mercédès-Benz and Auto-Union, have five cars in the field, and though sixteen Italian cars, including the three Ferrari Alfa-Romeos, also face the starter, it is long odds this year against the trophy, presented by Herr Hitler himself, leaving the home country. There is one British entrant, Kenneth Evans with his Alfa-Romeo, a solitary green car amongst the white and scarlet of the Germans and Italians.

The practice period has left Rosemeyer, the Auto-Union first string, with fastest carburetter and the engine—a system actually tried out in the recent races at the Roosevelt Raceway, U.S.A., and at Spa. The Mercédès are reputed to be faster and to have better road holding than ever before. But there is always Rosemeyer to reckon with!



Eleven o'clock! Neubauer signals to the Mercedes-Benz mechanics to start their engines. In the front row, Rosemeyer, Lang and von Brauchitsch.

Von Brauchitsch and Lang, with Mercédès, and Rosemeyer (Auto-Union) are in the front rank. In the second rank are Nuvolari (Alfa-Romeo) and Caracciola (Mercédès). Behind are Seaman (Mercédès), Müller (Auto-Union), and Hasse (Auto-Union). Behind them again, the brave array of cars stretches, drivers sitting tense at the wheel, all eyes on the starting signal, while a muttering thunder of exhaust rises and falls.



Farina (Alfa-Romeo) at the Poststrasse bridge, about to begin the headlong descent of the Fuchsrohre.

Bang goes the maroon! Wave upon wave of cars sweep forward, red and white intermingled, but with a solid bunch of white in the van. Lang and von Brauchitsch head the field, with Rosemeyer close on their heels. Twenty-six cars scream past the stands, past the crowded terraces, into the South Curve, and back past the opposite side of the pits. One is left gasping and breathless at the spectacle. The long thread of cars, for already the leaders are well ahead, snakes rapidly down the valley to the Hatzenbach turn, where they go out of sight amid the dark green pine trees.

Announcers dotted round the course in high observation towers take up the tale. We hear of a wild dash down the Fuchsröhre, a steep hill leading to an abrupt rise and the "sky-line" corner of Adenauer-Forst. Through more wicked corners Lang leads the field to the Breidscheid, at the foot of the steep descent to Adenau. Up goes the winding course again into the mountains, up to the famous Karussell banked hairpin. Here Lang still leads, but Rosemeyer is second! Now they dash down to Brunnchen, and rapidly up again to the sweeping curve of the Swallow Tail. Another announcer tells us that Caracciola is now third! Now they enter the two-mile straight, and speeds go up to nearly 170 m.p.h.!

Here they are at the end of a breathless first lap! Lang goes by in a blur of speed. Rosemeyer — Caracciola — von Brauchitsch — Müller — Delius (Auto-Union) — Hasse — here's Nuvolari, holding his own manfully, though outmatched for speed!

Rosemeyer gets round at 85.6 m.p.h. on the second lap, and takes the lead! He has won the last three races at the Nürburg Ring, and is all out for a fourth victory. Now he leads Lang by 9 secs. and the Mercédès trio are closely bunched behind. The order otherwise does not change, but both Kautz and Seaman with their Mercédès manage to pass Nuvolari.

Fiercely as he drives, Rosemeyer cannot get clear of the pursuing Mercédès, which he can see in his mirror pressing

THE GERMAN GRAND PRIX—continued

behind. Anxiously we await the arrival of the cars at the end of the fourth lap. Sensation! "*Zwolf*! (Twelve!)" A great shout goes up as Caracciola tears by the stands. Rosemeyer has disappeared. Fifteen seconds pass. Two more Mercédès! Lang and von Brauchitsch are second and third.

All eyes are turned towards the long straight. Here comes the Auto-Union. Rosemeyer's near-side rear tyre is in ribbons, and he stops at his pit! Flying seconds go by, lengthen into minutes. They cannot get one of the rear hub nuts off! Rosemeyer, we hear, has taken one risk too many, and has skidded into a ditch, clouting a wheel badly, so that the thread of the hub cap is damaged. He is wild with disappointment. He dances up and down, then jumps right over his car in his excitement, while the mechanics fumble desperately. At last the nut is off, new wheels are rammed on, and Rosemeyer departs. He has lost no less than 2 mins. 26 secs. on the stop!

Auto-Union fortunes ebb, for Stuck glides slowly past the pits, and enters the retired bay. Supercharger trouble is the cause. However, Delius is fourth, followed at less than a second's interval by Seaman's Mercédès, which has passed Hasse's Auto-Union during this lap, and is picking up rapidly after a slow start.

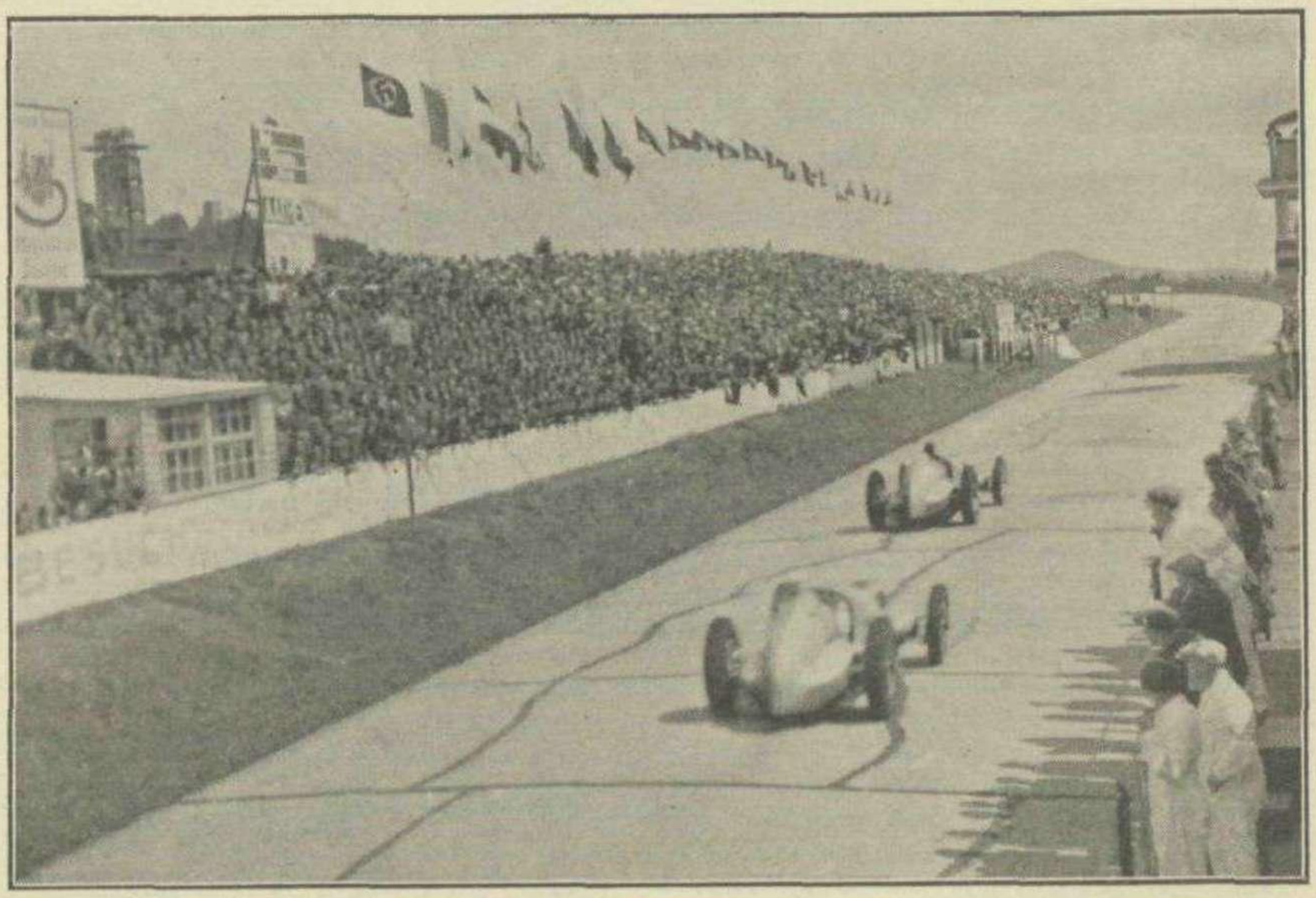
Caracciola holds his lead next lap, while von Brauchitsch moves up to second, in front of Lang. Here is Seaman, a second ahead of Delius, instead of just behind him! News comes through that Müller's Auto-Union has crashed at the Breidscheid, hitting the stone parapet of the bridge where the entry road from Adenau passes under the track. The driver is not hurt. This leaves Mercédès in the first four places, with only Delius and Hasse, fifth and sixth, to challenge them, for Rosemeyer is far behind, and Nuvolari, lying eighth behind Kautz's Mercédès, is outmatched at present for sheer speed.

The sixth lap sees no material change, though Kautz moves up a place, to consolidate the Mercédès position. But here is the seventh lap and here is Caracciola making for his pit! Scarcely have his wheels come to rest before von Brauchitsch comes in too! It is merely a routine stop for change of rear wheels and refuelling. But what a sight! The skilled Mercédès mechanics leap to the work. Nuts are spun off, wheels slide on, and the cars go off almost together, "Caratsch" having stopped for 39 secs., and von Brauchitsch for only 31 secs. Then Kautz comes in, and his stop takes 46 secs., while Hasse, at the Auto-Union pit, takes 5 secs. less for the wheel change and refuel.

Excitement crowds on excitement! Watching the pit stops, we have missed Seaman and Delius. Have they come through? Excited spectators turn to one another. Some say "yes," some say "no." The order goes up on the board. They are both missing! Then the announcer, his voice lower than usual, gives out the news. On the long straight, Delius has managed to get by Seaman, but, jumping at the Dottinger Höhe bridge, has landed sideways, and skidded in front of the Mercédès! Seaman, on the narrow road, cannot get through. He has hit the skidding Auto-Union, which has leapt clean over the hedge, breaking only the topmost branches, to turn over and over on the grass outside the track! Delius is badly injured, Seaman has a broken arm and cuts on the face, but is able to walk about.

Lang leads the race, and with all these momentous events occurring, Nuvolari is actually second for a brief space of time! But at the end of the eighth lap Caracciola and von Brauchitsch, in spite of their stop, are back in second and third places, with the Italian *maestro* fourth.

The tension holds! There is something going on down in the valley at the Hatzenbach! Figures are seen running—yes, there are two red cars in the ditch. Some, peering through field-glasses, say



Von Brauchitsch and Lang lead the field with their Mercedes past the crowded Terrassenplatz.

that one bears Number 22. That is Nuvolari! But two white-overalled drivers appear, and Nuvolari is clad in his customary yellow jersey, and so cannot be involved. The cars are the Maseratis of Cortese and Severi.

On the ninth round Caracciola regains the lead, having lapped at 84.4 m.p.h., and on the tenth lap Lang, whose tyres have so far lasted marvellously, comes in at last. At the same time, in comes Nuvolari, who has just put in a lap at 83.5 m.p.h., only 6 secs. slower than Caracciola! Another duel for the pit mechanics. A fountain of fuel springs up from Nuvolari's filler cap as the pressure is released. But Nuvolari has to change all four wheels, and whereas Lang gets away in 30 secs., the Italian's stop occupies a clear minute.

This allows Rosemeyer, who has been coming up again fast, to enter the picture once more, and he arrives fifth, behind the three Mercédès and Nuvolari, on the eleventh lap. But see! Rosemeyer's rear tyre is again in ribbons, and it is said that again in his desperate efforts he has run off the road. This time, however, his stop takes only 34 secs. At half distance the order is :—

1. Caracciola (Mercedes-Benz), 83.3 m.p.h.
2. Von Brauchitsch (Mercedes-Benz), 30s. behind.
3. Lang (Mercedes-Benz), 1m. 44s. behind.
4. Nuvolari (Alfa-Romeo), 2m. 20s. behind.
5. Rosemeyer (Auto-Union), 2m. 39s. behind.
6. Hasse (Auto-Union), 2m. 47s. behind.

Already the retiring bay is full of cars, in addition to those which have crashed. Eight cars stand sadly in double file, amongst them Trossi's Ferrari Alfa, with a broken differential. Kenneth Evans, whom we have forgotten in the excitement, is actually tenth, and going well, and after eleven laps makes his first pit stop for an orderly refuel.

The Mercédès team, running to orders, slow down a little, and the ever-watchful Nuvolari snatches back 10 secs. of his arrears behind Lang. At thirteen laps Caracciola makes his second routine stop, and von Brauchitsch takes the lead. Next lap, he too comes in, and only just in time! His rear tyre tread has stripped, but he has not lost the lead. A great cheer goes up for the Mercédès pitwork, for only 31 secs. is taken for a change of both rear tyres and a refuel. Caracciola regains first place, and Lang passes von Brauchitsch just as he accelerates away from his pit toward the South Curve. Nuvolari is still fourth, but Rosemeyer has caught up a lot, and as the cars go out of sight on the Hatzenbach, down in the valley, the silver Auto-Union is close behind the scarlet Alfa.

By the Karussell, Rosemeyer has got by the dogged Nuvolari. When the cars reach the stands after sixteen laps, the Mercédès trio are running easily, 25 secs. covering the three. Rosemeyer is 57 secs. behind, and Nuvolari only 8 secs. behind the Auto-Union. Six laps remain. Can Rosemeyer by his daring make up that lost time behind the leaders?

Continued at foot of next page

THE T.T. ENTRIES

In spite of the Donington venue for this year's T.T. saving entrants endless expense and worry in connection with the shipping of cars and personnel, entries for the race on September 4th are four down on those for last year. This time they total twenty-nine cars, of twelve different makes, representing Britain, France, Italy, and Germany—fifteen foreign and fourteen British.

In Class 3—3 to 5 litres—we have three l'Ecurie Blue Delahayes, Prince Chula's Delahaye to be driven by "B. Bira" and, incidentally, the personal property of the Siamese stable, and Count Heyden's Delahaye, three works Talbot-Darracqs entered by M. A. F. Lago, Arthur Fox's entry of a 4½-litre Lagonda, and E. R. Hall's 4¼-litre Bentley. Obviously the Delahayes will start warm favourites, after their last year's lap record and "Bira's" victory in the recent 12-Hour Donington race, and it will be extremely interesting to see how the Talbot-Darracqs, which won the French Grand Prix, oppose them. Once again we are due to witness the great Bentley-Lagonda battle and this time there will only be one example of each marque, where previously the lone Bentley has fought, and beaten, a Lagonda team. In Class 5—1½ to 2-litres—H. J. Aldington enters four Frazer-Nash-B.M.W.s, which will undoubtedly be the Type 328 2-litre cars which have so rapidly built up an unassailable reputation in sports-car racing. They are opposed only by P. N. Whitehead's Atalanta, running in its first race. In Class 6—1,100 to 1,500 c.c.—Victor Riley officially enters two Rileys, remarkably potent T.T. cars, A. F. Gee and F. R. Gerard have privately-entered Rileys, A. C. Scott will drive his H.R.G., and H. F. S. Morgan, no doubt heartened by Morgan 4/4 successes in Irish races, enters a Morgan.

Class 7—750 c.c. to 1,100 c.c.—is composed of A. Gordini's two Simca Fiats, Mrs. A. C. Dobson's Balilla Fiat, and F. S. Barnes, Norman Black and H. M. Emery with Singers. Class 8—up to 750 c.c.—will see a battle between A. R. Kennedy's M.G. Midget and C. J. P. Dodson running a Le Mans Austin as a private entry. This field will ensure an excellent race, with interest focused on the bigger cars. Nevertheless, one regrets that Bugatti—winner at Le Mans and Marne—will not be coming over, while for the first time for years the Aston-Martin marque is absent, which is especially disappointing after the fine showing of the new 2-litre and veteran 1½-litre at Le Mans. The Frazer-Nash is another make we shall miss and a team of T-type M.G. Midgets would have been distinctly interesting, following the winning of the Team Prize by these cars in the 12-Hour Sports-Car Race.

Probably part of the trouble is that entry-lists for big races have to close early, and the 12-Hour contest had not, in fact, been run when the T.T. late-fee list closed.

Undoubtedly the Tourist Trophy Race carries greater prestige than any other sports-car race and this will be especially the case this year, when very large crowds are likely to gather at Donington on September 4th. We hope to get a report of the race in the next issue. Drivers have yet to be nominated, at the time of writing, for most cars, but Dreyfus, Schell, Carriere and Mongin will handle the Delahaye team.

BRISTOL BACKWELL HOUSE HILL-CLIMB

John Bolster's "Mary" Makes Fastest Time

This year the go-ahead Bristol M.C. and L.C.C. was lucky in that no accident marred its hill-climb at Backwell House, where Mr. Garnett has very sportingly spent £700 on improving the course.

Amongst the merely sporting cars Miss Joan Richmond made best unblown time in 29.7 secs., although her H.R.G. was not in the very finest fettle. The Halford-Cross-Rotary appeared in the racing class, but was not yet on form. The C.A.P.A. Austin Sevens put up a generally good show for exceedingly inexpensive cars. Their place in the scheme of things was explained in a letter published last month. Two of them had h.c. heads and double carburetters.

John Bolster, after an epic drive, made best time of the day in "Mary" in 23.3 secs. D. Fry's Freikaiserwagen upheld the "Shelsley Specials" with a fine run in 24.7 secs., and Denis Evans's Montlhéry M.G. won the 750 c.c. and 1½-litre racing classes in 25½ secs. R. A. Macdermid's T-type M.G. Midget, with blower, was the most rapid sports-car, in 26.6 secs. This hill-climb is the real thing, in the very best tradition, and should receive the support of all true sprint exponents next year.

RESULTS

Sports Classes

Up to 850 c.c. blown : 1, W. W. E. Walker (747 c.c. Austin), 35s.; 2, R. A. Barnwell (1,089 c.c. Riley), 35.7s.

Up to 1,500 c.c. blown : 1, T. H. Lewin (1,408 c.c. M.G.), 29.8s.; 2, C. H. Richardson (939 c.c. M.G.), 32.4s.

Up to 1,500 c.c. unblown : 1, Miss Joan Richmond (1,497 c.c. H.R.G.), 29.7s.: 2, C. D. Claridge (1,496 c.c. Frazer-Nash), 30.6s.

Up to 4,500 c.c. unblown : 1, E. A. Halford (1,497 c.c. H.R.G.), 30s.; 2, C. D. Claridge (1,496 c.c. Frazer-Nash), 30.6s.

Racing Classes

Up to 850 c.c. blown : 1, D. G. Evans (746 c.c. M.G.), 25.5s.; 2, J. Kinnersley (747 c.c. C.A.P.A. Special), 34.2s.

Up to 1,100 c.c. blown : 1, D. Fry (1,100 c.c. Freikaiserwagen), 24.7s.; 2, D. G. Evans (746 c.c. M.G.), 25.5s.

Up to 1,500 c.c. unblown : 1, D. G. Evans (746 c.c. M.G.), 25.5s.; 2, T. B. O'Reilly (1,496 c.c. Red Biddy), 28.5s.

Up to 3,000 c.c. unblown : 1, G. Hartwell (1,287 c.c. M.G.), 25.2s.; 2, D. G. Evans (746 c.c. M.G.), 25.5s.

Best Time of the Day : J. V. Bolster (1,962 c.c. Bolster Special), 23.3s.

Bolster broke the course record, established by himself with the same car last year, by 6.9 secs.

PUBLIC ADDRESS

Messrs. Grampion Re-producers, Ltd., Kew, Surrey, are in a position to undertake loud-speaker installation at motoring events at very reasonable fees. Apart from extensive broadcasting equipment accommodated in Austin and Bedford vans, they have a Morris Eight saloon equipped with a loud-speaker that is excellent for the smaller club meetings and which was in use at the recent Standard Car Owners' Club Hill-Climb and the Invicta C.C. Gymkhana. Club secretaries should get in touch with Mr. D. Robinson, himself a motoring enthusiast, at Richmond 1175.

THE GERMAN GRAND PRIX—continued from page 351

Caracciola and von Brauchitsch duly arrive. Lang is due. No, it is Rosemeyer who appears, and he is making for his pit. All four wheels are changed in 52 secs., and the Auto-Union roars off. Nuvolari has gone by, but where is Lang? Here is Hasse—ah, the Mercédès at last. Slowly it limps in, with a rear tyre not only stripped but flat! The tyre has burst just after the Karussell, and Lang has done well to get here at all. The bonnet is opened, too, and plugs are changed. The stop costs over 3 mins., and now it is one Auto-Union against two Mercédès, with Nuvolari holding an outside chance.

At eighteen laps Nuvolari holds his place, but at nineteen laps he has to stop for tyres, and Rosemeyer resumes the third position. Caracciola stops on this lap too, and a really miraculous change of both rear wheels is seen, the stop taking only 23 secs.! Hühnlein himself, leader of German motor sport, is moved to admiration, and claps his hands. Nuvolari's stop has not improved his chances, but Farina with the remaining Ferrari Alfa has succeeded in passing Hasse's Auto-Union to take fifth place.

Next lap, however, Farina disappears, so Nuvolari fights his usual lone battle. With only two laps to go, only some fearful calamity can weaken the Mercédès supremacy. They have speed in hand, and Rosemeyer cannot make up his lost time.

The twenty-second lap runs its course, and Neubauer, the Mercédès manager, casts his flag beneath the wheels of his two drivers as they cross the line amid frantic applause. Mercédès have won the Grand Prix of Germany at last! Nuvolari gets a great reception, everyone rising to clap the Italian's fine drive, and Hasse is fifth. Mercédès have lost only one car, in Seaman's crash, for Kautz and Lang finish sixth and seventh.

RESULT

1. Caracciola (Mercedes-Benz), 82.7 m.p.h.
2. Von Brauchitsch (Mercedes-Benz), 46s. behind.
3. Rosemeyer (Auto-Union), 1m. 2s. behind.
4. Nuvolari (Alfa-Romeo), 4m. 4s. behind.
5. Hasse (Auto-Union), 5m. 25s. behind.
6. Kautz (Mercedes-Benz), 6m. 10s. behind.
7. Lang (Mercedes-Benz), 1 lap behind.
8. Ruesch (Alfa-Romeo), 1 lap behind.
9. Evans (Alfa-Romeo), 3 laps behind.
10. Festetics (Maserati), 3 laps behind.
11. Marinoni (Alfa-Romeo), 4 laps behind.

MORGAN 4/4 WINS ANOTHER BIG RACE

D. McCRACKEN, THE WINNER OF LEINSTER TROPHY RACE AT 61.95 M.P.H.

These excellent Irish Road Races invariably draw a very good field of distinctly varied cars, which is effectively dealt with by an obviously necessary system of handicapping.

The Leinster Trophy Race was a contest of considerable uncertainty and no little incident. Ivo Peters, who suffered rather more hurt when he crashed his Alfa-Romeo at Cork than was at first realised, was a non-starter, leaving the honour of scratch position to Adrian Conan Doyle with the blown, double-cam 1½-litre Bugatti, A. P. Rolt with his Triumph "Dolomite" straight-eight and Sir Alastair MacRobert's M.G. Magnette.

O'Riordan, the limit man, for a long while looked like keeping his lead with the Riley. Manders (Adler) had started a lap behind him and on the eighteenth circuit O'Riordan was passing him when Manders lost control. To avoid a worse crash O'Riordan put his Riley up the bank, but it overturned and finished up on the bonnet of the Adler and O'Riordan went out with arm injuries, Manders suffering only a few scratches. McCracken's Morgan 4/4 now led, with R. Campbell's sister car—winner of the recent Ulster Trophy Race—second, while another Morgan 4/4, driven by F. D. Smyth, was running third, followed by R. D. Cox's 1.3-litre M.G. and with David Yule's Morris-engined C.M.Y.-Special picking up rapidly to fifth place. Then, two laps from the finish, Campbell stopped with lubrication trouble and a few miles from the finish Smyth crashed. Consequently, while McCracken ran on to win for Morgan at 61.95 m.p.h., Cox's M.G. came in second at 64.42 m.p.h. and Yule's C.M.Y.-Special was third at 63.95 m.p.h. Of the faster cars Conan Doyle and Rolt had soon left Sir MacRobert's M.G. and for seven laps the Triumph Dolomite—that interesting eight-cylinder Alfa-like twin o.h. camshaft car that Triumphs intended as a production model—was close up to the Bugatti. Then Rolt got ahead and on lap eight Doyle came into his pit. Both cars had set the lap record at 72 m.p.h. On lap ten the Triumph passed Mitchell's U.S.R. and lapped at 73.45 m.p.h. The Bugatti was now out again and going very well, a lap to the bad. Rolt lost time in coming into his pit in response to signals to close his petrol-tank filler cap. Then both Mitchell and Rolt retired, E. N. Avant (850 c.c. M.G.) took fourth place, Campbell's Morgan managed to get in fifth. A. Hutchinson's PB blown M.G. Midget was sixth, after a delay to secure a loose number-plate, T. Black's Balilla Fiat was seventh, W. McDowell's Riley Nine was eighth, T. Donnelly's Ford Eight ninth, Conan Doyle's Bugatti finished tenth and Michael Barrington, delayed by overheating, got his Lagonda Rapier in eleventh. D. C. Leechman's Ford Eight finished outside the time limit. A. P. Rolt's Triumph set a final lap record at 75.53 m.p.h. The class winners were:—E. N. Avant (M.G.) in the 850 c.c. section, A. Hutchinson (M.G.) in the 1,100 c.c. section, and Conan Doyle (Bugatti) in the 1½-litre section.

These Irish road races are an admirable training ground but unfortunately the fullness of our own Calendar prevents many eminent drivers from supporting them—unfortunately, that is, from the organisers' and spectators' points of view.

RESULT

1. D. C. McCracken (1,122 c.c. Morgan), 5 laps 2 mins. start, 2h. 2m. 15s. 61.95 m.p.h.
2. R. D. Cox (1,355 c.c. M.G.), 4 laps start, 2h. 5m. 11s. 64.42 m.p.h.
3. D. Yule (972 c.c. C.M.V. Special, S.), 4 laps start, 2h. 6m. 4s. 63.95 m.p.h.

A MERCEDES-BENZ CHANGE

The design of Grand Prix racing-cars is by no means nearing stagnation, as we shall endeavour to show when we again discuss the trend of design at the end of the year. In the meantime, Mercédès-Benz have made an important change that merits discussion, namely, they now suck mixture from the carburetter instead of blowing through the carburetter. A new, very special carburetter of Mercédès-Benz design is used.

Mercédès-Benz, as everyone knows, pioneered supercharging for production model cars and we believe that they introduced a blown touring model even before they exploited forced-induction for racing. For ordinary use they decided that the supercharger would be best arranged to be largely out of action and accordingly they devised the classic clutch-operated system, whereby the blower was only engaged at wide throttle-openings, a system that enabled the blower to increase both acceleration and speed, yet to operate only under conditions that were least likely to impair economy or to result in over-stressing, or prolonged over-filling at inopportune piston velocities. The supercharger was arranged to suck from the carburetter, as being the best way of arranging for the change over from atmospheric to forced induction, and this layout is still used to this day for the Type 540 K Mercédès-Benz, in conjunction with the clutch engagement, after figuring on all production blown Mercédès models, four, six and eight cylinder. The same layout was used, logically, on the blown Bearcat Stutz with clutch-engaged blower, although in this case the forced induction could be introduced at any throttle opening. Blowing through the carburetter, according to a Sunbeam engineer years ago, resulted in the greatest possible improvement in acceleration; it also obviated fuel deposition bothers. But, obviously, Mercédès-Benz and Stutz both used this layout primarily because, although it involved complicated pressure-balancing of fuel-tank and float-chamber, it was the better arrangement for use with clutch control. To-day, of course, Atalanta makes use of the more conventional layout, sucking from the carburetter, in conjunction with clutch control, the blower engagement being possible at all throttle positions. This entails a duplicated arrangement of intake manifolding with automatic change-over valves incorporated therein. Incidentally an Arnott compressor and carburetter are now used by Atalanta. For racing purposes Mercédès-Benz had always blown through the carburetter, even in the case of the modern G.P. cars with the blower permanently in action. Now comes news that they have changed over to the universal, from-the-carburetter method. No doubt the greater simplicity, resulting from elimination of pressure-balancing, has something to do with this change, while for racing work, of course, mixture inter-cooling presents no counter problems affecting distribution. There is no indication that the famous clutch-controlled, air-through-the-carburetter system, which many eminent engineers regard as the most practical means of applying forced-induction to a touring-type car, will be abandoned by Mercédès-Benz for their production models.

CLUB NEWS—continued from page 349

CAR SPEEDWAYS, LTD.

Lured by a Complimentary Ticket, we attended a meeting at Lea Bridge Speedway, London, haunt of the "Doodle Bugs." The racing is quite interesting and the little cars are being driven the whole time. Three minor crashes occurred, and, together with the yowl of the Elto Quads and the dirt and dust that is liberally sprayed over front-seaters in the grandstands, the crowd certainly gets its money's worth. Personally, we thought that two hours racing an evening would suffice. The loud-speakers are excellent, likewise the view all round the course. The cars are allowed to pass surprisingly near to the public, and old clothes are desirable. The Skirrow-Specials, described in MOTOR SPORT last January, usually, but not always, have the legs of the Eltos and the lone-hand Specials. We suggest to Mr. Baxter that the programme contain the makes of car, although not in accordance with Speedway practice, as those who do not know the drivers can then yell for and urge on their favourite cars. The drivers keep notably cleaner than their two-wheeler brethren. We cannot see any "standing" and certainly no value in "doodle-bugging," but as a spectacle it will draw us again. Racing at Lea Bridge commences every Wednesday at 8.15 p.m. and admission costs 1s. 3d. and 2s. 6d.

MORE ABOUT MOTOR-BOATING—continued

The carburetter should have the shortest possible induction pipe, and be fully adjustable as to jet, choke tube, air intake, and extra air control. The hand-starting gear must admit of the motor being turned rapidly in order to create strong suction through the carburetter, crank case and transfer pipe.

If a two-stroke motor is already installed it may be given a season's trial, but a four-stroke motor, even if it costs twice as much, is far better value.

As the crank case of a four-stroke motor is not used as a pump, there can be no reason except cheap production for providing this type of unit with a cramped and inaccessible connecting rod and unadjustable brass bushes for the main bearings.

The crank case should have doors large enough for the withdrawal of the connecting rod and piston together and the best class engines are so arranged. Similarly, the valve tappets, camshaft and pumps should all be easily accessible separately without disturbing other components. Beware of those designs which are labelled "compact" and "clean" as these terms are very often synonymous with "skimped" and "cramped."

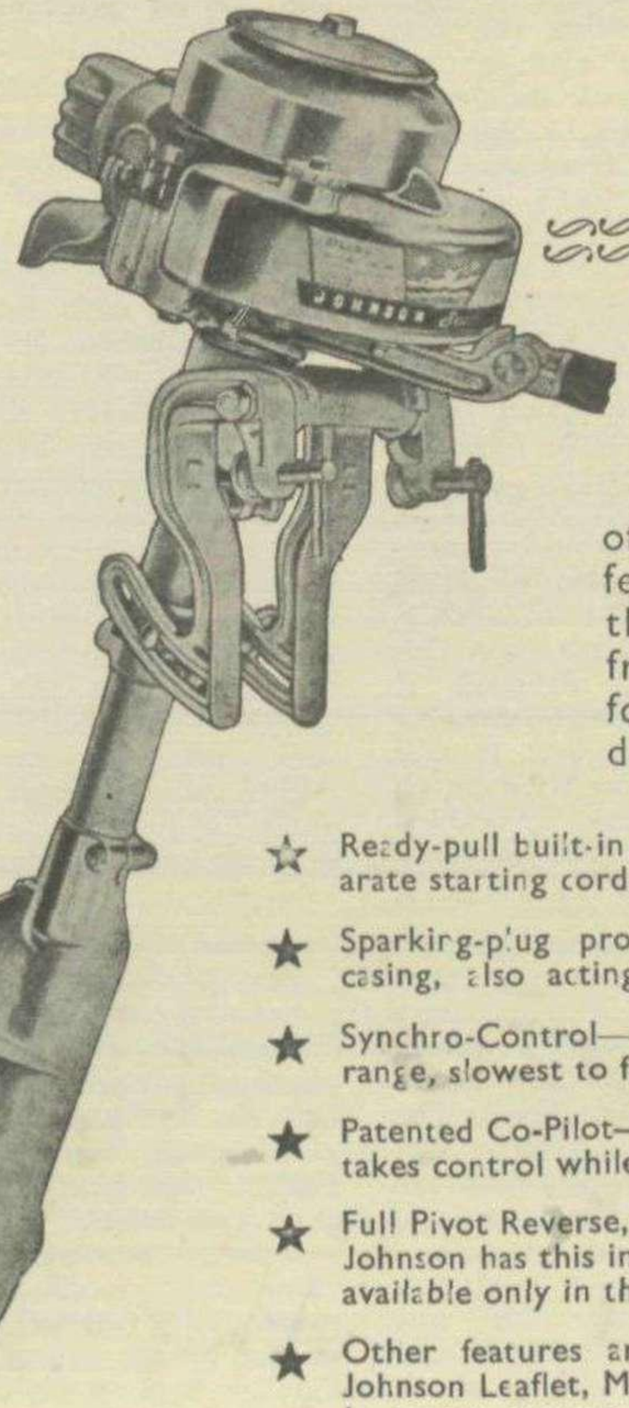
A notable addition to the fleet of British owned motor cruisers was recently launched at Gosport. The new boat is the *Malahne*, built by Camper and Nicholson to the order of Mr. W. L. Stephenson, chairman and managing director of Woolworth's Ltd. Mr. Stephenson is a keen yachtsman and a few years ago built the *Velsheda* racing cutter which has scored many successes in the J class races round the coast.

The new boat is a beautiful example of the latest trend in motor yacht design. It has an overall length of 165 feet with a 26 feet beam and the Thames measurement is 456.6 tons. When completed the *Malahne* will spend a few weeks cruising in home waters but it is Mr. Stephenson's intention to undertake extended foreign voyages next year, for which purpose the new yacht is admirably adapted.

THE MOTOR SHOW

IN VIEW OF THE MANY SPECIAL FEATURES IN THE OCTOBER ISSUE OF MOTOR SPORT, THE PUBLISHING DATE WILL BE ALTERED FROM THE 12th OF THE MONTH TO THE 9th.

Model "L.S." 2.1 h.p. Price £19. Eight other models from £16 . 10



JOHNSON

Sea-Horse

OUTBOARD MOTORS

NEW MODELS

offer many interesting features that will more than ever maintain their front-rank reputation for easy operation and dependable service.

☆ Ready-pull built-in starter. Eliminates the separate starting cord. Gives automatic rewind.

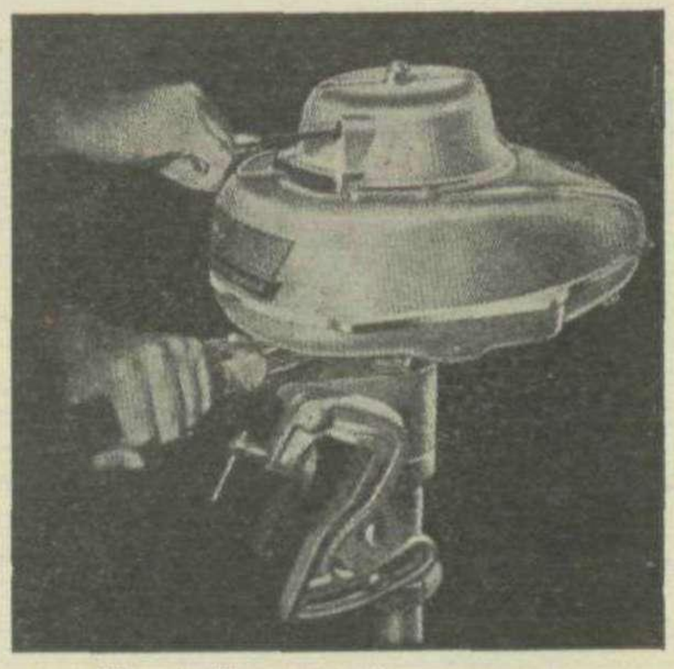
★ Sparking-plug protection within streamline casing, also acting as carburetter silencer.

★ Synchro-Control—concentrates the full speed range, slowest to fastest, in one lever.

★ Patented Co-Pilot—The "unseen hand" that takes control while you relax.

★ Full Pivot Reverse, with under-water exhaust. Johnson has this in six 1937 models, hitherto available only in the more costly motors.

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TWELVE-HOUR RACE ANALYSIS

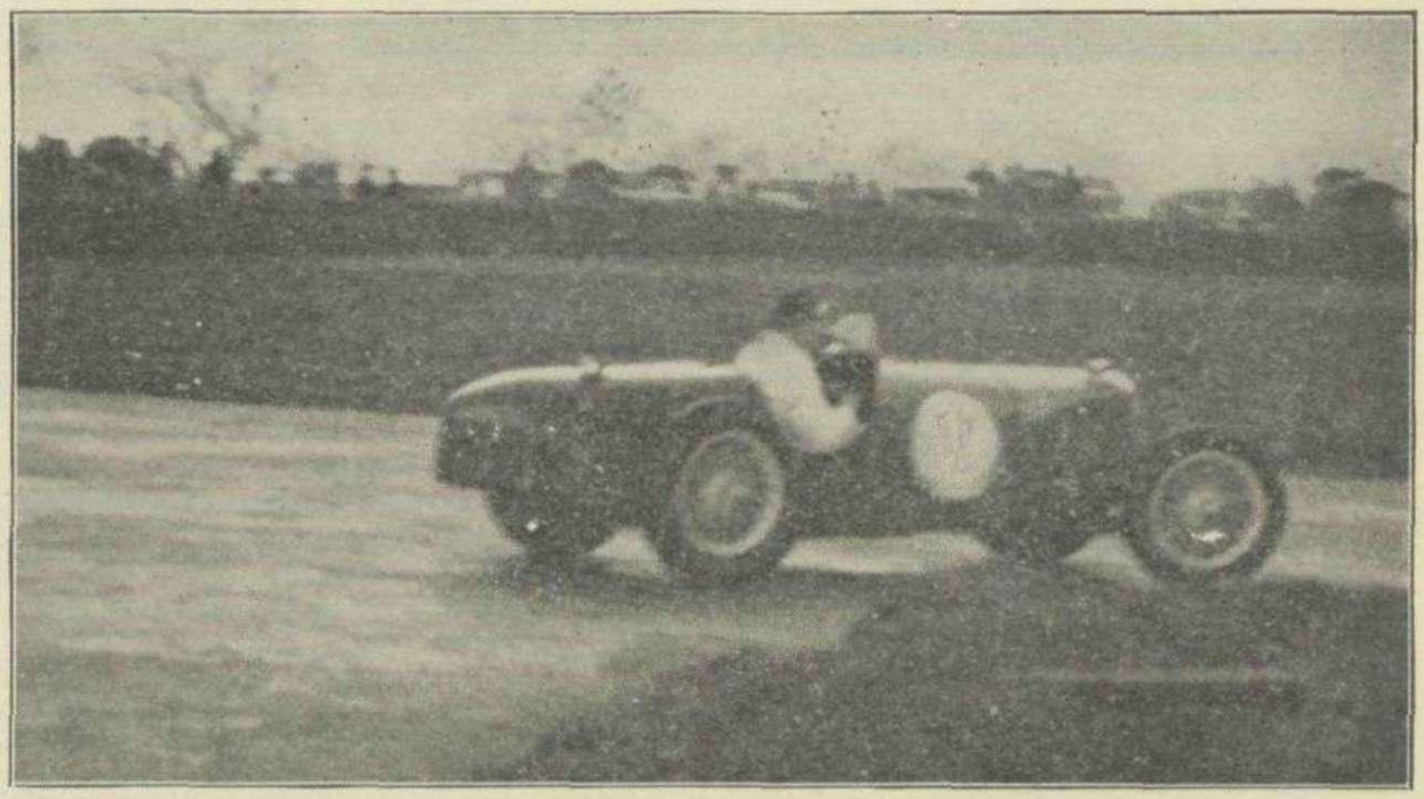
DONINGTON SPORTS - CAR RACE WON BY DELAHAYE. M.G. TAKES TEAM PRIZE

THE ambitious Twelve-Hour Sports-Car Race organised at Donington by the Derby and District M.C. under Mr. Craner was not by any means devoid of incident or excitement. But, judging by the number of spectators, it seems that most followers of racing preferred to await the detailed results of this instructive contest rather than to follow the changing fortunes of the thirty-five starters in the flesh.

The race was confined to sports-type cars, although alterations from standard could be quite extensive, greater, indeed, than those permitted for the R.A.C. T.T., for which it was known that several entrants were using this race as a preliminary. Road equipment was not necessary, although quite a few competitors ran with wings, etc., in place, notably the Frazer-Nash-B.M.W.s and one of the M.G.s. Engines had to be restarted only on the starting motor, pump fuels used, and chassis had to be of a type built in reasonable quantities prior to July 1st, 1937 and carrying two-seater bodywork with a minimum interior width of 80 cms. There was no handicap of any sort, the race being subdivided into classes for 1-litre, 1½-litre, 2-litre, 3-litre and 5-litre cars. Superchargers were barred. No entries were forthcoming in the 2.3-litre class. It is now a matter of history that the race was won by a 3,550 c.c. Delahaye driven in turn by "B. Bira" and H. G. Dobbs. The Delahaye aroused great admiration during the last T.T. race and its victory at Donington should seal its reputation with British sportsmen. The car is "Bira's" own property. It covered 691.59 miles at 57.63 m.p.h. in spite of losing 7 mins. at the start and stopping with misfiring for a short period towards the close of the race. The car handled beautifully and led easily from just before 1 p.m., when it had averaged over 59 m.p.h. High gear-ratios, high-geared steering and a modern, push-rod o.h.v. multi-carburetter six-cylinder engine characterise this fine French car.

Second place went to Charles Brackenbury and Cyril Paul on the 1½-litre T.T. Riley, who did 678.83 miles at 56.56 m.p.h.—another example of Riley's well-established blending of reliability and speed. Third place was taken by another 1½-litre Riley, driven by Gerard and Bateman for 648.2 miles. Fourth place was taken by a lone H.R.G. handled in turn by A. E. Curtis, Michael May and A. Hess, which is a most creditable show for a car costing under £400 and one which lends great interest to the entry of one of these cars in the T.T. F. Monkhouse's 1½-litre Aston-Martin upheld the Feltham marque's tradition of finishing well up in long-duration sports-car races by coming in fifth, with a distance a few miles less than the H.R.G. J. D. Barnes and A. Langley were sixth in the first of the Auto-Sports Singer Nines with 627.69 miles to their credit. Turning to class results the "baby" class went to the Singer, with the works Austins as runners-up.

The 1½-litre division was a Riley affair, with the H.R.G. a gallant third, although covering 46.9 miles less than the winning Riley. The 2-litre category was something of a surprise, as S. E. Whitelock and S. J. Newton kept their 1,604 c.c. Wolseley-Hornet going for 597.16 miles at 49.76 m.p.h., to win by just 7.65 miles from J. O. C. Samuel's Frazer-Nash Six. Everyone had expected H. J. Aldington's Frazer-Nash-B.M.W. to win this class. Aldington led the race after three hours at 60.4 m.p.h. with a lap lead over the Delahaye. Handing over to Fane, the car led its class by twenty laps after six hours and it was extremely unfortunate that at about three-quarters distance the gearbox developed defects that made it necessary to withdraw the car, when it was second in the race and very comfortably at the head of its class, with everything else working perfectly. Then, in this class also, poor Bilney had a serious accident with the A.C., receiving injuries from which he succumbed. In entering Holly Wood corner alongside Robinson's Riley, Bilney got into a sideways skid and the cars locked together and the A.C. was crushed between the Riley and a wall. The race had to be stopped while the drivers were removed by ambulance, Robinson suffering a broken thigh as he was flung from his car. Previously Miss Joan Richmond had been second behind the Frazer-Nash-B.M.W. in her class, handling the A.C. with no apparent difficulty. In class E the "Bira"-Dobbs Delahaye was naturally at the head of affairs, and R. Wilcox and D. M. Steele may feel justly proud of



A most consistent performer this season. P. Maclure with his Riley.



Cars entering Coppice Wood.

12 *HOUR RACE ANALYSIS—continued*

getting their old school 4½-litre Bentley home second, even though they covered 130 miles fewer than the Delahaye and were placed only twenty-third in general classification. The team of stripped, Model T M.G. Midgets, driven by Macdermid and Toulmin, Langley and Jones and Bastock and Crawford, finished eighth, ninth and seventh respectively, to win, most creditably, the Team Prize. The following analysis of class winners shows plainly where the biggest laurels are due——

CLASS	CAR AND DRIVERS	MILES COVERED	GENERAL POSITION	SPEED
A.	972 c.c. Singer: J. D. Barnes and A. H. Langley	672.69	6th	52.31 m.p.h.
B.	1,496 c.c. Riley: C. Paul and C. Brackenbury	678.83	2nd	56.56 m.p.h.
C.	1,604 c.c. Wolseley: S. E. Whitelock and S. J. Newton ...	597.16	18th	49.76 m.p.h.
E.	3,550 c.c. Delahaye: "B. Bira" and H. G. Dobbs	691.59	1st	57.63 m.p.h.

Very naturally there was plenty of trouble one way and another and of actual retirements there were eleven. H. C. Browlow (972 c.c. Singer) went out with big-end trouble after about an hour's running, J. W. Beaumont's 1,087 c.c. Riley had the same trouble after about three hours, T. H. Blackburn's 747 c.c. M.G. lasted about four and a half hours and then retired with a broken oil-pipe, and Sinclair's 1½-litre Frazer-Nash-B.M.W. suffered big-end trouble after almost six hours' fast motoring. Robinson's Riley and the A.C. went out through the crash, and Elliot's 1½-litre Triumph had engine bothers after six hours or so, while, rather surprisingly, Maclure's Riley retired for unannounced reasons and A. P. Watson's 1½-litre Aston-Martin on account of oil-pump trouble. Finally, Aldington's Frazer-Nash-B.M.W., which had been hit by the Delahaye in the early stages, had gearbox trouble. Many of the cars had three different drivers, so that lots of happy beginners seem to have had the chance of their lifetime.

The rather low averages, where not explained by lack of class competition, are due to showers of heavy rain, the frequent refuelling often necessary, and the duration of the race, together with the enforced stop after Bilney's sad accident.

Obviously the Delahaye was master of the whole situation, and was matched only by the 2-litre Frazer-Nash-B.M.W. Rileys again gave a really polished exhibition of good racing, and Aston-Martin, Singer, and H.R.G., all showed up most meritoriously. The Austins were runners-up for the Team Prize, by the winning of which the T-type 1,292 c.c. M.G. Midgets have given a most convincing display of high speed endurance. These M.G.s ran with rear wings and front-wing stays in place and had uncowled dumb-irons and external radiator overflow pipes.

The Paul-Brackenbury Riley was in racing rig, with cowled dumb-irons, covered mechanic's seat, long tail and external exhaust system. The Delahaye and Auto-Sports Singers ran fully stripped.

F. G. Craner must be congratulated on obtaining such a good entry for this race, which was in the nature of an experiment, with only modest prizes. We hope that the Twelve-Hour Sports-Car Race at Donington may become an annual fixture, and that if it does the bigger British sports-cars, such as Bentley and Lagonda, will compete next year against foreign marques. Our sympathies are extended to Bilney's relatives and friends and to Craner, over this sad fatality. The results in full read as follows :—

RESULTS

President's Trophy : "B. Bira" and H. G. Dobbs (3,550 c.c. Delahaye), 271 laps (691.59 miles at 57.63 m.p.h.).
2. C. Paul and C. Brackenbury (1,496 c.c. Riley), 266 laps (678.83 miles, 56.56 m.p.h.).
3. F. R. Gerard and A. D. Bateman (1,496 c.c. Riley), 254 laps (648.20 miles).
4. A. E. Curtis, M. W. May and Alan Hess (1,497 c.c. H.R.G.), 248 laps (631.89 miles).
5. F. Monkhouse, J. R. Weir and M. T. Clayton (1,500 c.c. Aston-Martin).
6. J. D. Barnes and A. H. Langley (972 c.c. Singer).
7. C. J. P. Dodson and H. L. Hadley (747 c.c. (Austin).
8. R. A. Macdermid and J. M. Toulmin (1,292 c.c. M.G.).
9. A. B. Langley and J. E. S. Jones (1,292 c.c. M.G.).
10. A. C. Scott and E. A. Halford (1,495 c.c. H.R.G.).
11. C. L. Goodacre and C. D. Buckley (747 c.c. Austin).
12. P. A. Richards and E. Winterbottom (1,292 c.c. M.G.).
13. M. T. Collier and F. H. Scarf (1,495 c.c. Aston-Martin).
14. G. L. Boughton and F. H. Lye (972 c.c. Singer).
15. E. C. Stapleton and M. H. M. Goodall (1,498 c.c. Aston-Martin).
16. Mrs. Petre and P. Stephenson (747 c.c. Austin).
17. J. A. Bastock and H. K. Crawford (1,292 c.c. M.G.).
18. S. E. Whitelock and R. J. Newton (1,604 c.c. Wolseley).
19. J. O. C. Samuel (1,657 c.c. Frazer-Nash).
20. A. R. Williams, M. H. Smith and C. H. Head (939 c.c. M.G.).
21. B. W. Fursdon, C. Chard and B. Stacey (972 c.c. Singer).
22. D. Powell and J. R. Atkins (847 c.c. M.G.).
23. R. Wilcox and D. M. Steele (4,398 c.c. Bentley).
24. G. Hartwell and G. Summer (972 c.c. Singer).

AN INEXPENSIVE ANTIDOTE FOR CYLINDER WEAR AND COMPRESSION LOSS

CYLINDER wear is one of the biggest bogies of the present automobile age and countless reasons are advanced as to why modern power-units require a re-bore after a comparatively short mileage, and do not appear to last for a consistent period or mileage type by type or even make by make. Personally, we believe that modern traffic conditions, calling for constant rapid re-starting, vigorous acceleration on the indirect gears and very high-speed cruising for miles without respite on arterial roads, to be the primary causes. It is, to say the least, disconcerting to find that one's cheap family car requires an expensive re-bore after only 20,000 miles or less, which to plenty of busy owners represents a mere twelve month's usage. New piston rings will effect a temporary cure, but only a temporary one, so that their cost has ultimately to be added to the cost of the re-bore, which can easily run to £10 or £20. Sports-car enthusiasts are as likely to be troubled by early cylinder wear as anyone, while the problem is an acute one in the case of the man who purchases a veteran very cheaply only to find it down on performance on account of lost compression and worn cylinders, for in these cases a re-bore is frequently more expensive than the purchase price of the car.

In view of the foregoing, interest attaches to the Ovrhaul method of curing these maladies. Introduced into this country by Mr. Douglas Holt, "Ovrhaul" is of American origin. It consists of a Vermiculite, which, it is claimed, does not contain graphite, mica, acid or camphor. The internal heat of an i.c. engine expands it thirty times and it only burns at a temperature of 3,500°. It functions by forming a pliable cushion between the pistons and cylinder walls, filling scores in the cylinders, sealing loose piston rings, easing sticking valve-guides and acting as a permanent, high-quality lubricant between cylinders and pistons. Consequently, "Ovrhaul" reduces oil consumption and restores lost compression and banishes fuel waste. The base of "Ovrhaul" is a mineral called Vermiculite, and the preparation is patented in all the foremost countries of the world. The procedure is to insert the contents of a tube through the sparking plug holes while the engine is warm, turn it over by hand, and run for about twenty minutes at idling speed. It is claimed that after 200 miles performance improves, piston-slap decreases, and oil consumption becomes greatly reduced, and that the maximum benefit is reached after 400 miles and retained until at least 10,000 miles has been covered. A tube of "Ovrhaul," of sufficient size to treat engines up to 30 h.p., or to treat an 8 h.p. engine twice, costs 25/-, and no dismantling is, of course, necessary to insert it. The makers say that "Ovrhaul" has no injurious effect on lubricating oil or the materials with which it comes in contact. It can be used in a new car with good results as it acts as an excellent running-in lubricant. We have examined reliable reports of the effect of "Ovrhaul" on badly-worn engines of varying sizes, which confirm all that the makers claim. One point that should be mentioned is that as the preparation is inserted *above* the pistons it naturally cannot cure excessive oil consumption caused by faulty oil-pipe joints or worn bearings, but can only lower oil consumption arising, as it commonly does, because of the pumping action of worn piston rings, and worn cylinder walls, passing oil into the combustion chambers. "Ovrhaul" is sold with a thirty days money-back guarantee of satisfaction and would seem an excellent remedy for owners who wish to forgo the expense of a re-bore and to improve the performance of aged sports and utility cars. It is handled in this country by Ovrhaul Products, Ltd., of 9, Little Turnstile, Holborn, London, W.C.1 (Hol. 4891-2), who will send full particulars on mention of MOTOR SPORT.

200 - MILE RACE PROSPECTS

The J.C.C. 200-Mile Race at Donington on August 28th should be an extremely well fought and instructive race, easy for spectators to follow. The entry list, originally to have closed on July 31st, was extended until August 8th.

As we close for press we have heard of the following entries :—Charlie Martin, Arthur Dobson, Ian Connell, Reggie Tongue and Peter Whitehead (1½-litre E.R.A.s), two works E.R.A.s, " B. Bira's " 3-litre Maserati which retired from the International Trophy Race, Steve Chiappini (S. African) with a 2.5-litre Maserati, Robin Hanson, Wakefield and Austin Dobson with 1½-litre Maseratis, A. F. Ashby's Ferarri Alfa-Romeo 3.2-litre, Kenneth Evans's 2.9-litre Alfa-Romeo that finished ninth in the German G.P., Rolt's " Dolomite " Triumph, Parnell's well known M.G., Percy Maclure's Riley and Hans Ruesch's 3.8-litre Alfa-Romeo. The Riley is a 2,004 c.c. unblown car.

The race is a scratch contest, with special prizes for 1½-litre cars.

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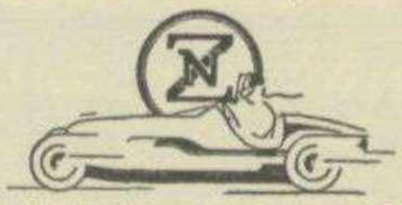
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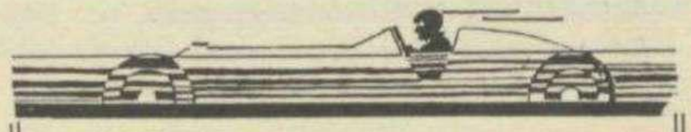
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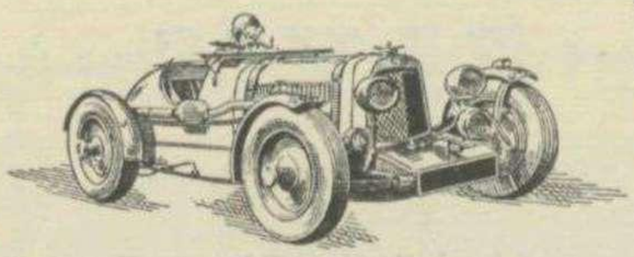
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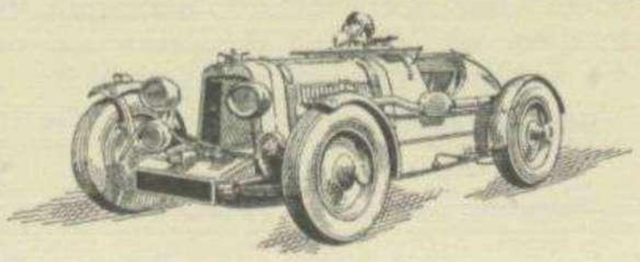
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Make of Car	Issue
ALFA-ROMEO 22.90 h.p. 6-cyl. (push-rod) super sports test chassis	April 1927
Alfa-Romeo 1½-litre supercharged 6-cyl. Charles 2-seater (1929)	March 1934
Alfa-Romeo 1¾-litre supercharged 8-cyl. "Zagato" 2-seater (1932)	July 1934
Alfa-Romeo 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., speed-model, 4-seater	July 1924
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
Bentley 6½-litre, 6-cyl., special 2-str. (1934)	May 1935
Bentley 6½-litre, 6-cyl. speed-model 4-seater	March 1930
Bugatti 11.9 h.p., Modified Brescia 4-seater	Aug. 1925
Bugatti 1¼-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. 1930
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. 2-litre, 6-cyl., 4-seater	Aug. 1926
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
Riley Nine "Brooklands" Speed model 2-seater	June 1929
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
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