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MOTOR SPORT

INCORPORATING THE BROOKLANDS GAZETTE

JOINT EDITORS { *GRENVILLE G. O. MANTON.*
W. S. BRAIDWOOD, B.A. (Mech. Sc.) Cantab.

Editorial, Publishing & Advertising Offices
39, VICTORIA STREET, LONDON, S.W.1
Telephone: Victoria 5218.

The Way of Things

IN the German Grand Prix, which was held last month at the famous Nurburg Ring, we had another ready-made argument against those people who maintain that road racing can never hold public interest sufficiently to make the staging of such events a profitable undertaking for their promoters.

This race was held during the greatest financial crisis in history, when attendance might be expected to suffer badly, and when people are hardly likely to spend money on entertainment. In spite of this over 100,000 spectators paid for admission, and the gate money was well in excess of £15,000.

This is probably the finest example of an artificial course in the world, as natural surroundings were such as to make it possible to introduce every variation of gradient and corners. The cost of such an undertaking is, of course, very high, but it would seem that we have facilities in this country which could be developed in a similar way, and that a road-racing circuit on private ground, if combined with other amenities, should prove to be a commercial success, as well as being of great benefit to the motor industry of this country.

It is essential to have a fast course, and also one of considerable difficulty, as then the continental star drivers would be encouraged to compete, and the public of this country might begin to appreciate motor racing as a fine art. At present the average man, assisted by the ridiculous motor race accounts in the daily press, has no real idea of the sport, as he has no opportunity of seeing it.

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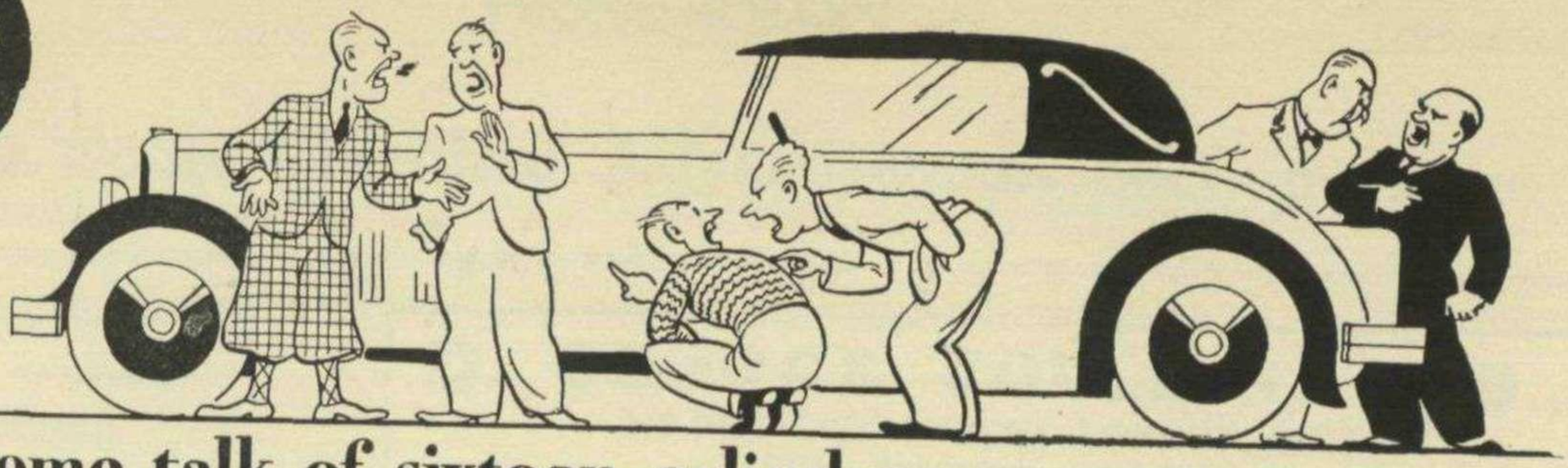
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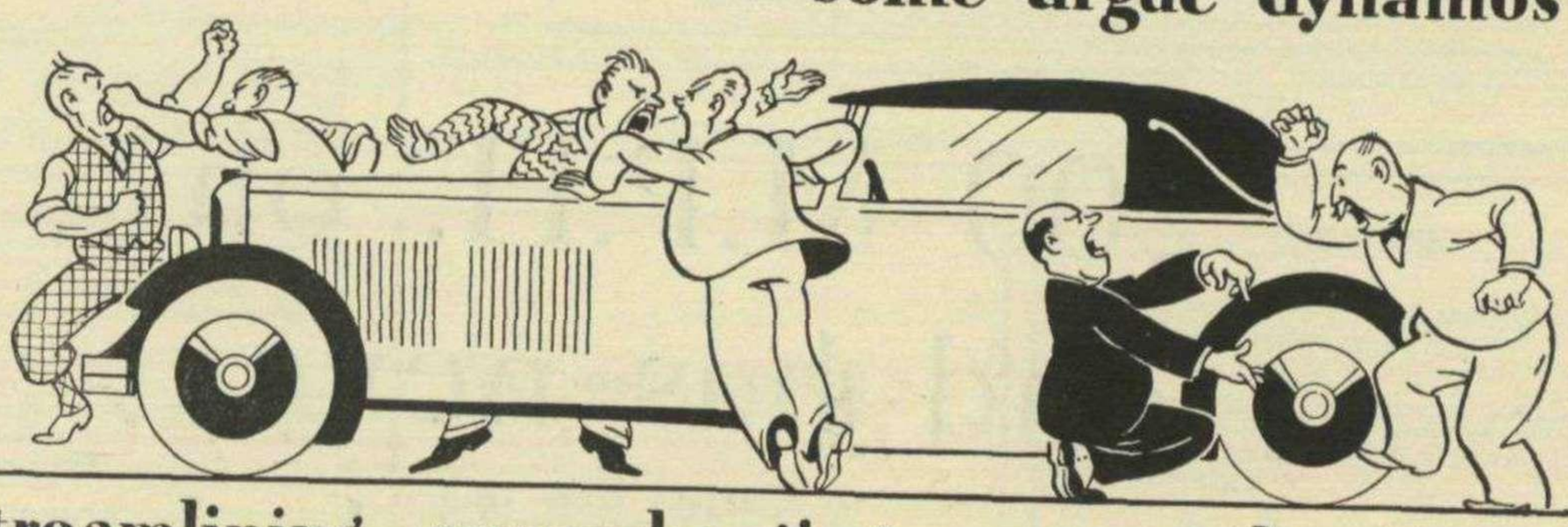
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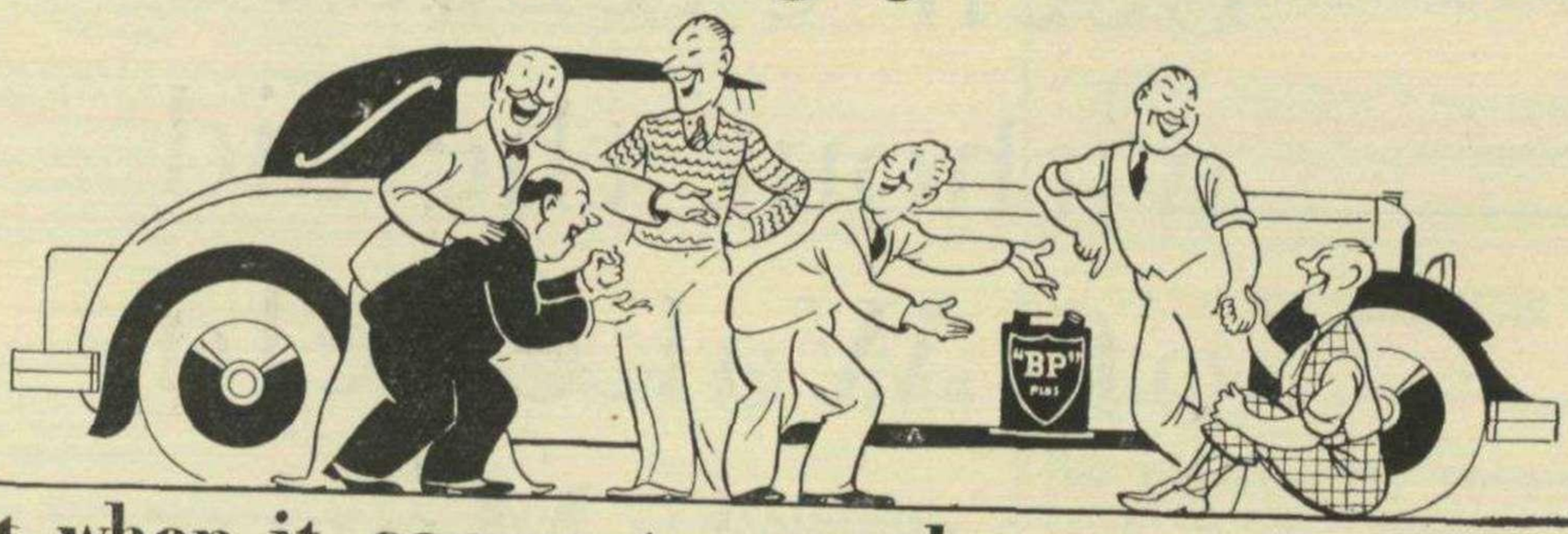
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Shelsley Walsh



ONCE more the wooded slopes of the famous Worcestershire hill were bathed in sunshine for the annual open event of the Midland Automobile Club on July 11th, and a larger crowd than ever came to see the fine exhibition of driving which was given by nearly all the competitors.

The fact that the good driving produced less applause than the few instances of wild skidding is a pity, but can only be expected when road events are so rare and the general public has not learnt to appreciate the finer points of the game.

An added attraction was the appearance of the two Spanish Nacional Pescara cars, which are at present leading the racing class of the European Mountain Championship. These sportsmen only arrived at the hill on the morning of the climb, and after a practice run decided that their back axle ratios were wrong, and proceeded to change them on the spot. They had a complete outfit of vans and spares with them, and effected the change of crown wheel and pinions with dispatch. A second change was made later before Zanelli and Tort were satisfied.

The paddock contained the usual assortment of very skeleton motors, which reminded one of the days when a sprint event was a weekly affair; but now so rare as to be almost unique.

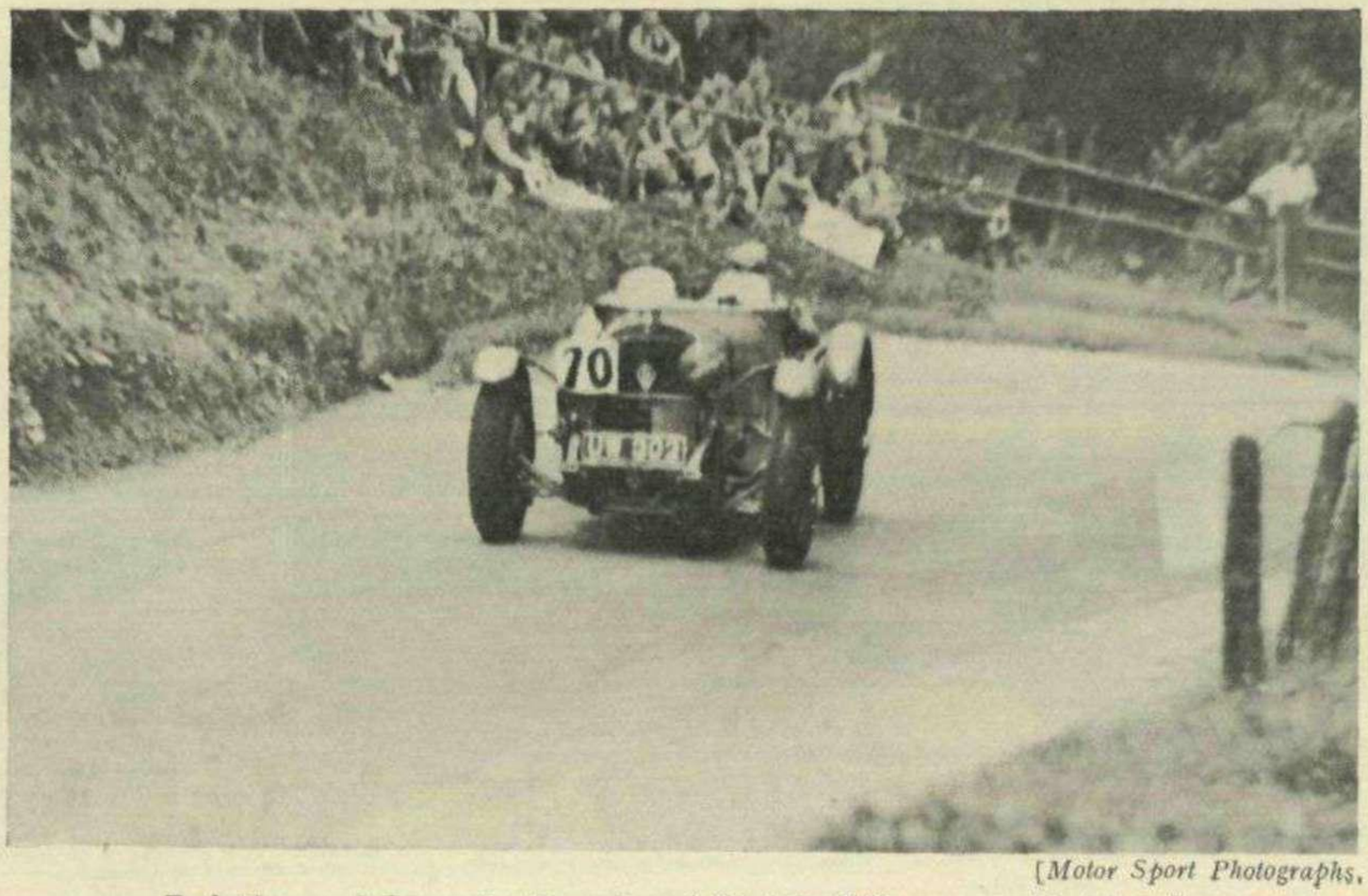
The majority of the home-made cars showed signs of Frazer-Nash or G.N. ancestry, this type of chassis being one of the most suitable possible for such an event, owing to its light weight and great controllability.

The climb opened with a curtain-raising act by E. R. Hall and G. E. T. Eyston, who came up together in supercharged M.G. Midgets. These were very snappy and close together, though it is to be feared that the more sophisticated spectators found difficulty in taking this "turn" really seriously.

The first actual climb was that of Elwes on a supercharged Austin Seven, which was very fast, though inclined to bounce about rather on the first turn of the S-bend. His time was 52 2/5th secs. Philips and Bailey followed somewhat slower (61s. and 61 3/5s.), and were followed by A. P. Glenny on a peculiar but very ingenious device, consisting of a home-brewed 750 c.c. 2-stroke in a Frazer-Nash chassis. Space forbids a full description here, but in essentials it is a 4-cylinder, 2 combustion-chamber supercharged engine with an unconventional crankshaft, in which one cylinder of each pair has a few degrees lead on its partner. On this occasion it had only been assembled the night before, and was in no mood to function correctly. The crowd were merely amused, but the engine (which ought, of course, to be in a smaller chassis for such an event) is a very interesting and original effort.

The last climb in this class was the fastest, as W. E. Harker, on an Austin with a Villiers blower, came up in 48 4/5th secs., making a most "un-Austin-like" exhaust roar.

The 1,100 c.c. class was opened by Derich Burcher, in a very well tuned but extremely badly driven 4-seater Riley. He went into the bend too fast, hit first one bank, then the other, turned round, nearly turned over, and finally returned whence he came. Loud cheers from the crowd, though why we can't think. R. T. Horton, with a J.A.P. engined Frazer-Nash, made a fast and neat climb in the excell-



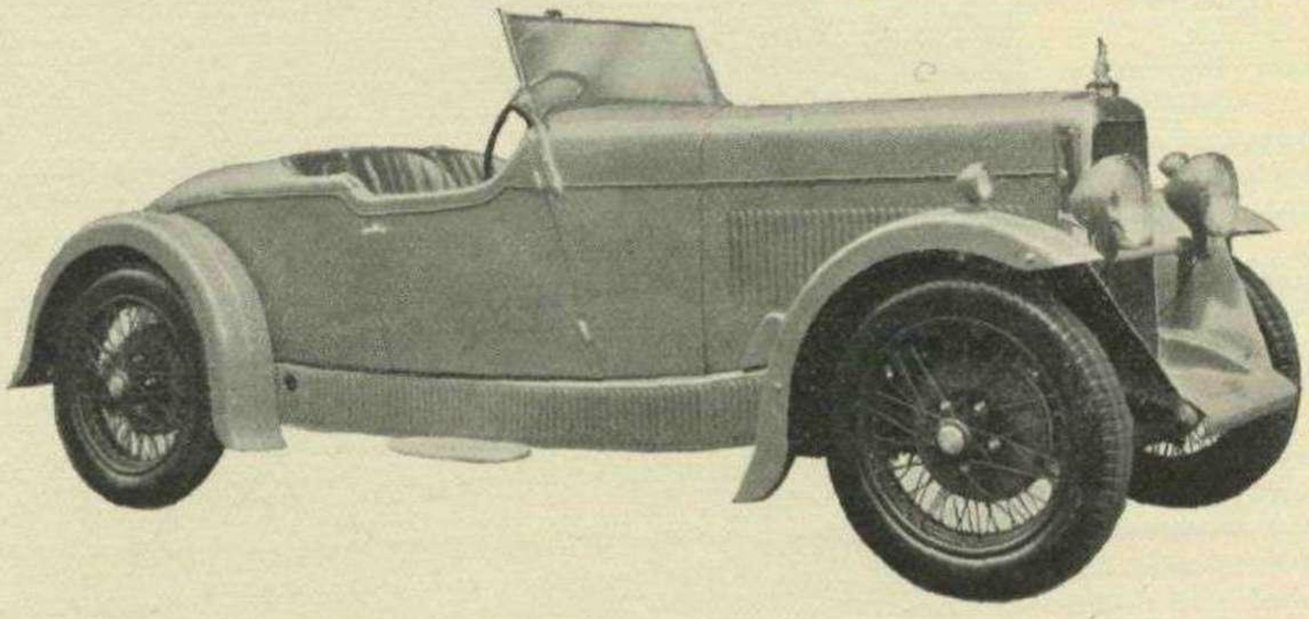
[*Motor Sport Photographs.*

Earl Howe, who won the Carragh and M.A.C. T.T. cups on his Mercedes.

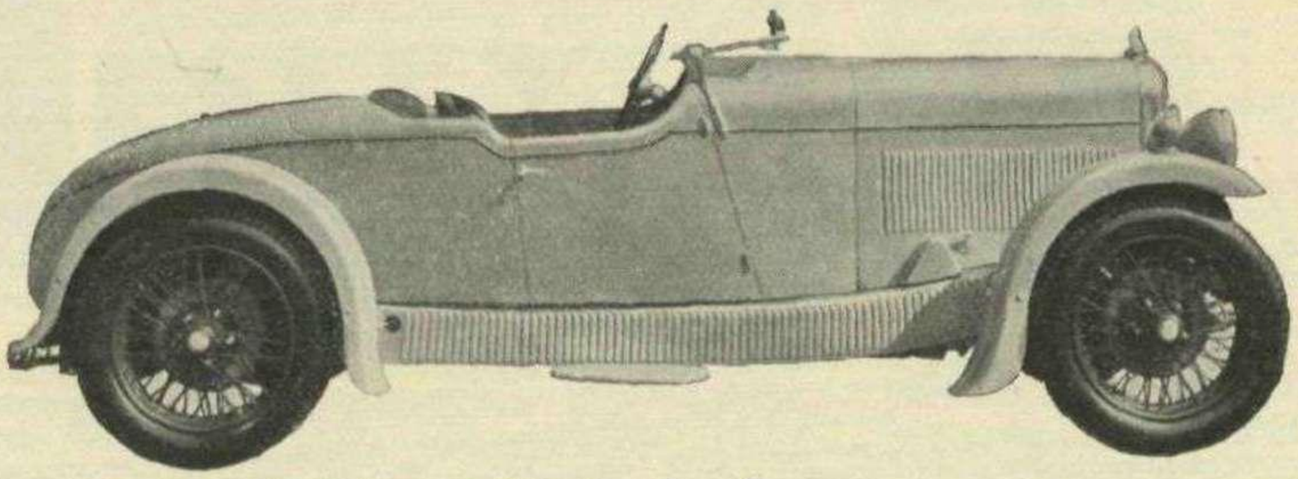
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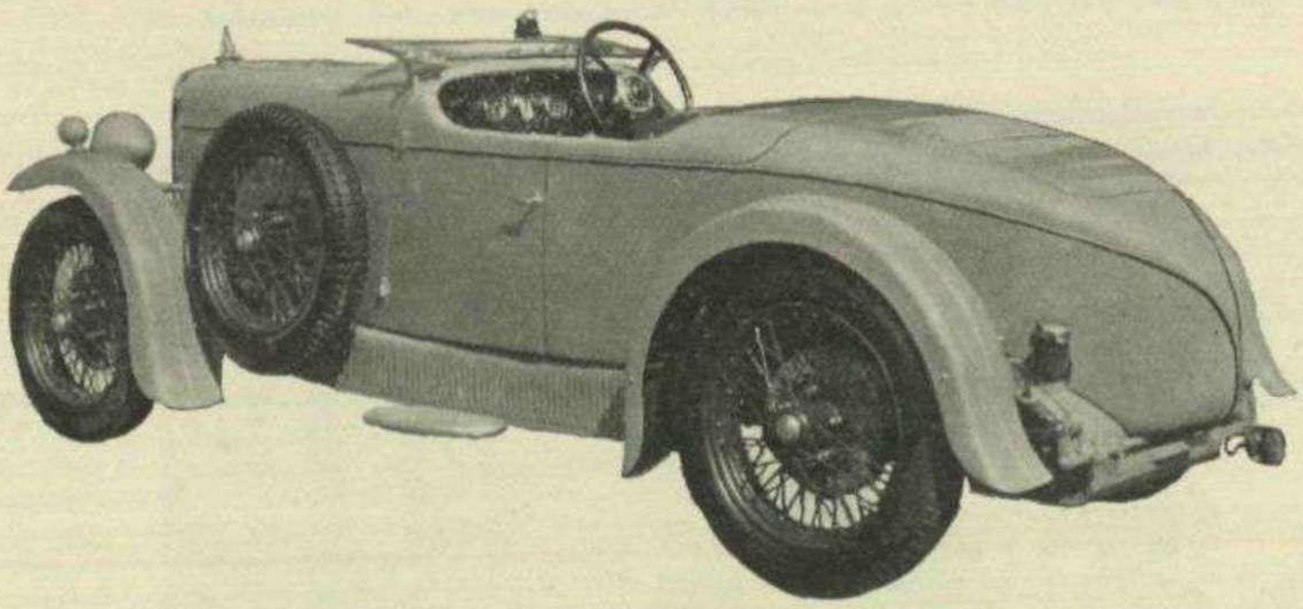
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SHELSLEY WALSH—continued.

ent time of 48 3/5th secs. This proved to be the fastest time in this class by a fairly substantial margin. Various other spidery vehicles of similar origin were slower than expected, the twin cylinder engines of some of them seeming bashful among so much modern machinery.

The best Riley was T. B. Woods', which took 56 3/5th secs., and so won the sports car division of this class.

Things were now beginning to warm up in earnest, and shortly the clear voice of Mr. F. L. M. Harris announced over the loud speakers that B. H. Davenport, an ex-holder of the Shelsley record, was on the line.

This year the famous Spider has undergone a few modifications, including front wheel brakes, but the familiar machine gun bark of the old twin cylinder was still there to bring back memories of the days when this car was almost invincible. He made a good getaway and roared up the lower slopes with a wonderful gait. On the corner he was very neat indeed, and, using the brakes well, slid much less than usual. His time was 46 1/5th secs., a wonderful climb, but slower than he has managed in the past by several seconds. In spite of F. W. B., he did not seem as happy as usual at the wheel of his veteran, though there are not many ten-year-old motors which can perform like this one.

Earl Howe followed, the high-pitched note of his car contrasting strangely with the Spider's crackle. In braking heavily for the corner he locked wheels and slewed round almost broadside, but held the car easily and shot off to the summit in 47 4/5th secs.

The twin tyre idea is beginning to spread, and Jevons' Bugatti had the rear wheels so equipped This car, less bonnet looked quite unlike a Bug, but the terrific roar of its exhaust was very Bugatti indeed.

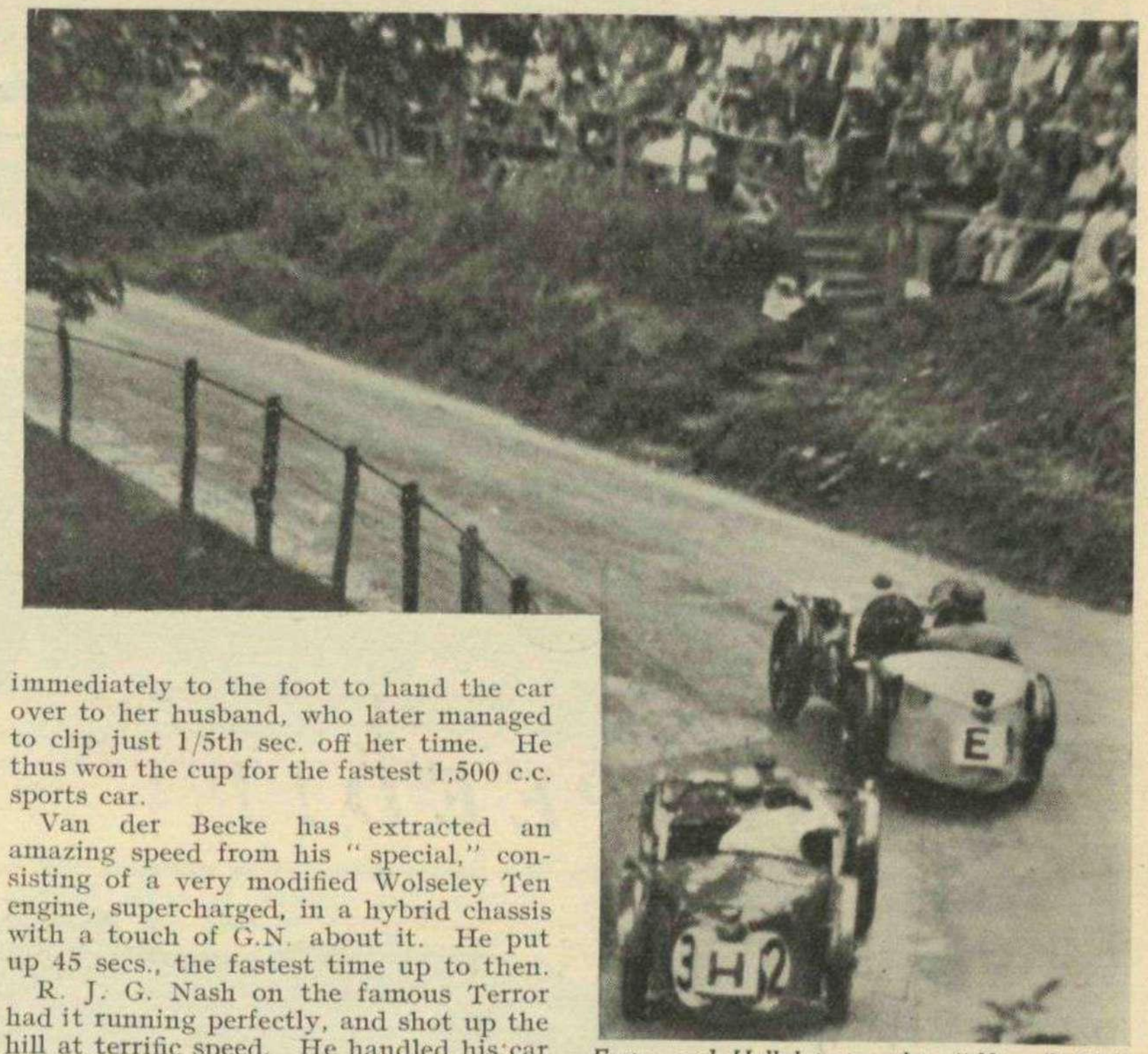
Mrs. Wisdom brought her Frazer-Nash up beautifully in 50 secs. thus breaking the ladies' record for the hill, and returned immediately to the foot to hand the car over to her husband, who later managed to clip just 1/5th sec. off her time. He thus won the cup for the fastest 1,500 c.c. sports car.

Van der Becke has extracted an amazing speed from his "special," consisting of a very modified Wolseley Ten engine, supercharged, in a hybrid chassis with a touch of G.N. about it. He put up 45 secs., the fastest time up to then.

R. J. G. Nash on the famous Terror had it running perfectly, and shot up the hill at terrific speed. He handled his car beautifully, and reduced the best time so far to 44 secs. His acceleration, aided by his twin rear tyres, was incredible, and the car was very steady.

Rather wild exhibitions by Gold (Bugatti) and Cavendish (Aston-Martin), and good climbs by T. H. Wisdom (Frazer-Nash) and Newsome (Lea-Francis) brought us to the 2-litre class.

Earl Howe led off with his Alfa, followed by some very fast Bugattis, of which Carr was the quickest. Spottiswoode and Fothringham were also good.



Eyston and Hall bringing their "blown" M.G Midgets up the hill together.

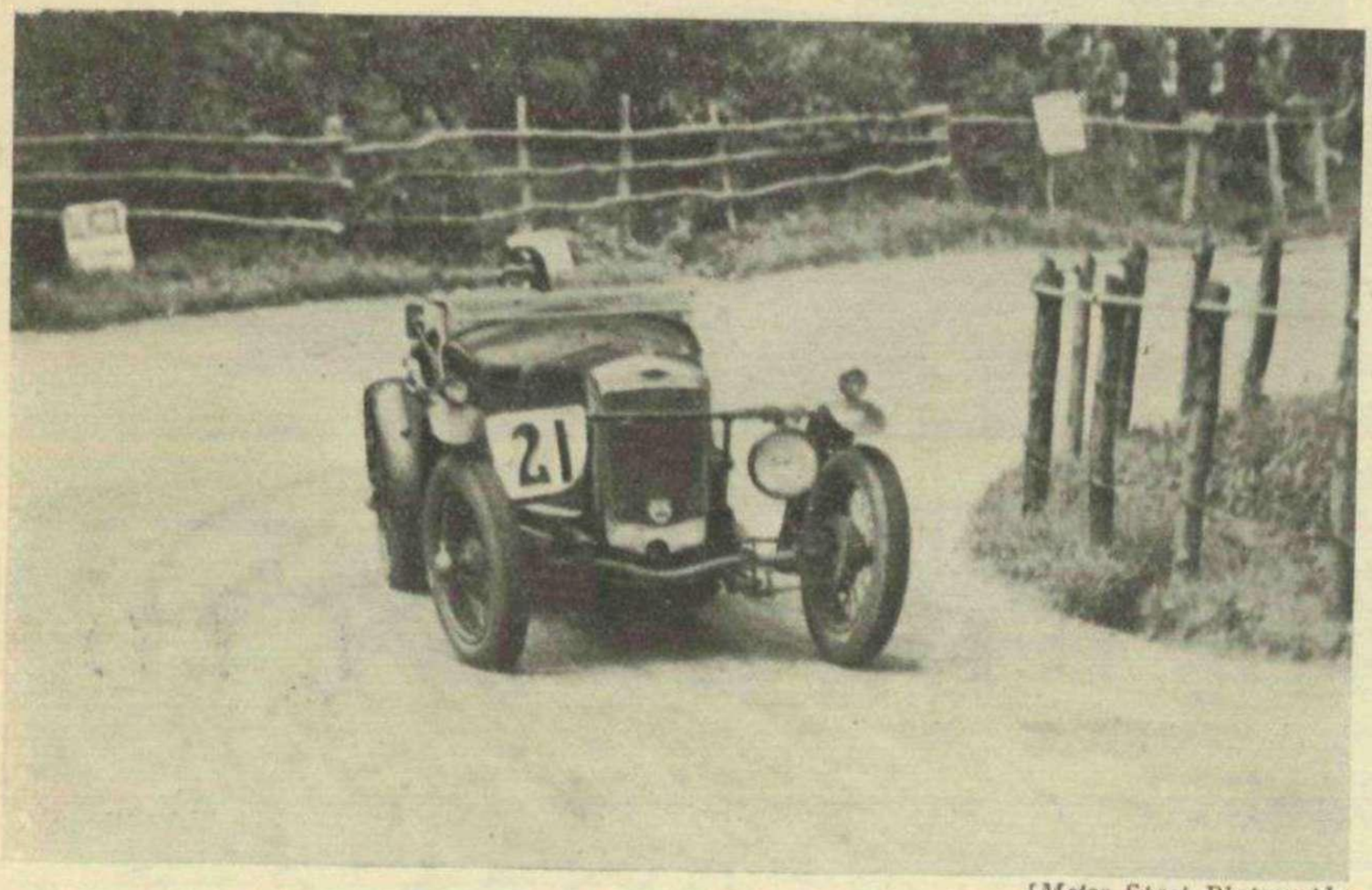
Zanelli and Tort, in their 3-litre Pescaras, were very impressive indeed. Very fast, they were wonderfully steady and their speed on the corner most deceptive, as they skidded hardly at all, and yet were at the absolute limit. Zanelli returned 45 secs. and Tort 45 3/5th secs.

Among the later climbs one of the most competent was that of Brig.-Gen. L. W. de V. Sadlier-Jackson, who drove as if the whole affair was the most ordinary show in the world, and his Bugatti's time was 53 4/5th secs on his best run, very good for a 4-seater model.

Raymond Mays was not ready—he seldom is—so his climb was held over, and the bigger classes produced the usual polished performance from E. R. Hall on his "4½" Bentley, and some astonishing times by Whalley and Needham on Fords with O.H.V. engines. On his climb with a blown "4½" which belched smoke and stopped, Hall reversed down to the bottom of the hill at a rousing speed with such calmness as to make this extremely ticklish evolution appear simple.

The Invictas were all good and steady, and Raymond Mays was the fastest in 49 4/5th secs., which won the 4½-litre class.

Earl Howe was the star turn of the big cars, and his great Mercédès flew up to the corner at a terrific speed, the powerful brakes checking it at the last possible moment. His climb in 46 4/5th secs. was the fastest sports car of the day, and the



[*Motor Sport Photographs.*

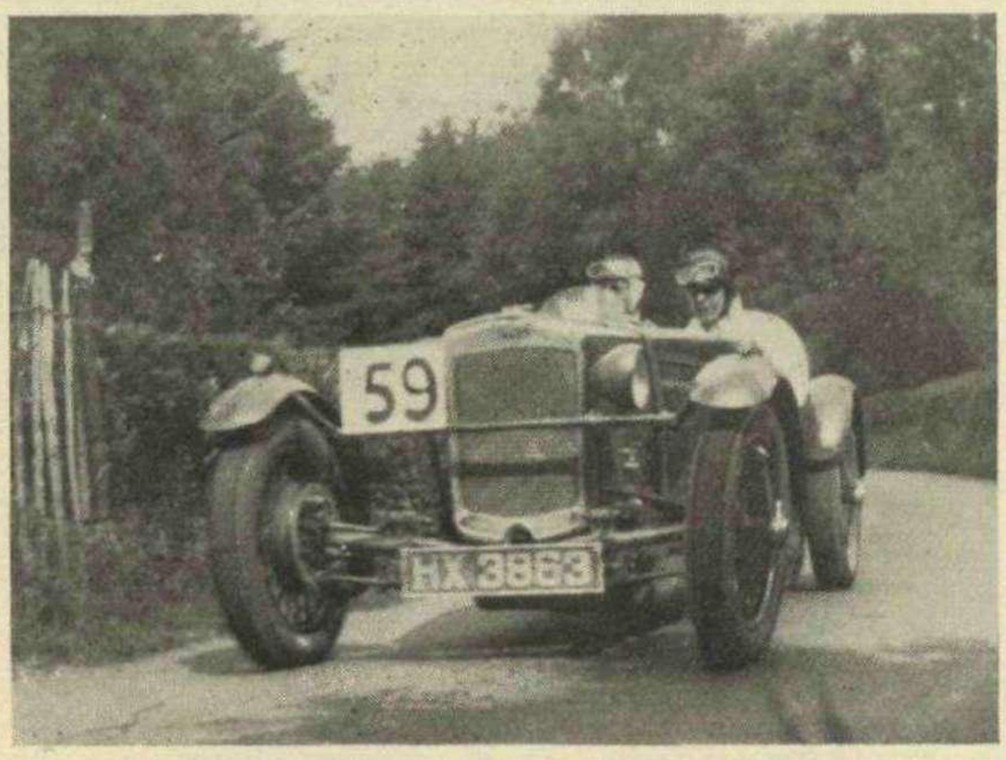
Mrs. Wisdom (Frazer-Nash) who established a new ladies' record for the hill.

BUY ON PERFORMANCE

not on "publicity slogans"!

"Shelsley" is always rather liable to show up the steering and road-holding deficiencies of any motor car, and last Saturday the presence of front-wheel flop and dither and the necessity for vigorous wheel winding—which usually took too long to catch up with the skid—was very noticeable on several sports models.

By way of contrast, I think a feature of the meeting was the AMAZING STEADINESS OF THE FRAZER-NASHES. Mrs. Wisdom's car slid just the right amount and straightened itself by a slight turn of the steering wheel. There was no counter skid at all.—"*The Light Car & Cyclecar,*" July 17, 1931.



We should like to put on record our appreciation of the successes gained at Shelsley by our private owners, Mrs. T. H. Wisdom and Messrs. R. G. J. Nash and T. H. Wisdom. Shelsley International Championship Cup. Fastest time of the day. 1,500 c.c. Racing Class.—Mr. R. G. Nash.

New Ladies' Record for the hill.—Mrs. T. H. Wisdom.

C.P. Type Challenge Cup, Fastest Amateur Sports Car Award ... 1,500 c.c. Sports class. } Mr. T. H. Wisdom.

M.A.C. British Championship Cup. (Mr. Wisdom tied with Raymond Mays (Invicta) for this award).

SHELSLEY WALSH

Fastest Time of the Day!

"Shelsley" is only one more instance of the outstanding success of the Frazer Nash in all spheres of motoring sport, and the events of the last few weeks have again afforded definite proof of this superiority.

"The Light Car and Cyclecar" (July 17) remarked under the heading "*A Light Car Triumph,*" "*Big car enthusiasts have been complaining that in open speed events light cars get too much benefit from the handicap. Last Saturday at Shelsley every competitor started from scratch, and a Frazer Nash made fastest time of the day, beating thirty-four over-1,500 c.c. cars!*"

"THE MOTOR," a few weeks ago, published a road-test report of the "Boulogne II." Frazer Nash, and the extraordinary enthusiasm of all Frazer Nash owners is easily understood, when unbiassed critics of the motoring press describe the car in such glowing terms of praise.

"*. . . one has only to drive the car to know that it is cheap at the price and HAS A PERFORMANCE WHICH IT IS ALMOST IMPOSSIBLE TO EQUAL EXCEPT BY SPENDING VERY MUCH MORE MONEY.*"

"*To say that the car handles delightfully is to give a poor idea of THE SHEER JOY THAT ONE DERIVES FROM DRIVING IT. Responsive to the slighest touch, always under complete control and possessed of an acceleration which is as thrilling as it is rapid, THIS CAR IS SUCH AS WILL SATISFY THE MOST FASTIDIOUS AND EXPERIENCED MOTORIST.*"

"*THE BRAKES ARE DEFINITELY AMONG THE BEST WE HAVE EVER TRIED, and the general road-holding qualities of the car were excellent. IT IS SELDOM THAT WE HAVE FELT SO SAFE AT THE WHEEL OF ANY AUTOMOBILE, while THE COMFORT ALSO WAS MOST MARKED, and was as good at low as at high speeds. The exhilaration of driving a Frazer Nash must be experienced to be believed.*"

While there is nothing to equal the road performance of the Frazer Nash, the latest models are also definitely attractive in appearance' extremely comfortable, and their general equipment leaves nothing to be desired.

BROOKLANDS. B.A.R.C. Inter-Club Meeting, June 20. The Five Lap Handicap Event was won by a non-supercharged Frazer Nash at an AVERAGE SPEED of 88.92 m.p.h. (Flying Lap 91.72 m.p.h.). LEWES Speed Trials. NEW RECORD for the course, and fastest time for the day at both recent meetings.

M.C.C. London-Edinburgh Trial. Five Gold Medals.

"ROUND THE MOUNTAIN," Brooklands, Whit-Monday. Second Speed Handicap won by the non-supercharged Frazer Nash at an average speed of 61.40 m.p.h.

J.C.C. MEMBERS' DAY, BROOKLANDS, July 4.
HIGH SPEED TRIAL. FIRST TO FINISH, and out of FIVE Gold Medals awarded in the 1,500 c.c. class, THREE were awarded to Frazer Nash cars. Also Three Silver Medals.

TO AND FRO RACE. 1st, (Frazer Nash), 2nd (Frazer Nash).

ACCELERATION, STOP AND RESTART TEST. Class 3 (1,500 c.c.), 1st (Frazer Nash). Class 4 (2,000 c.c.), 1st (Frazer Nash S). Fastest time of the day, irrespective of class, gained by a non-supercharged Frazer Nash.

ONE LAP HANDICAP RACE. 1st (Frazer Nash) and 3rd (Frazer Nash).

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SHELSLEY WALSH—continued.

fastest car entered for one of this year's international sports car races.

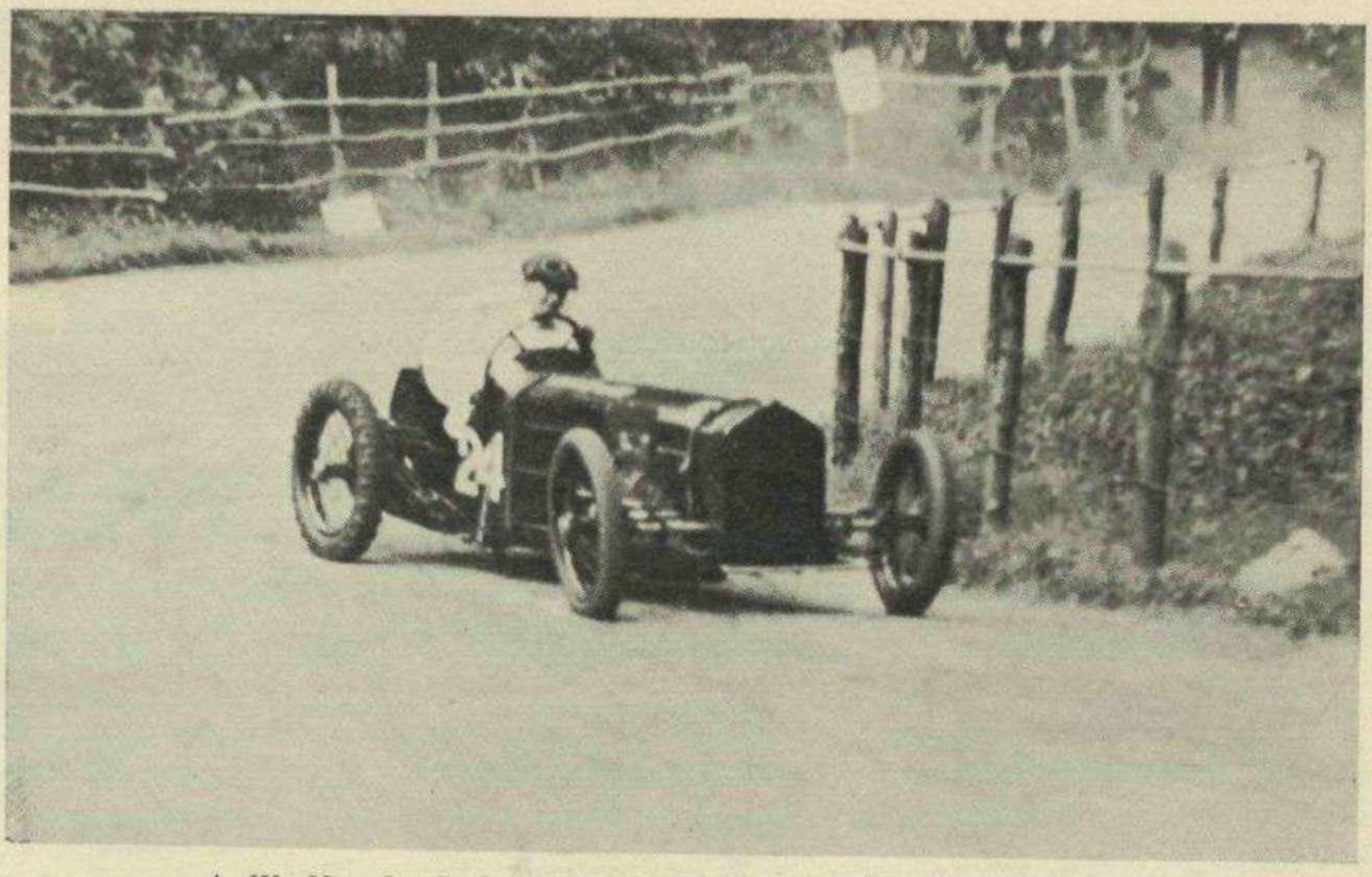
Second runs were allowed those whose first was better than 1 minute, except in the "850's," where 65 secs. qualified.

Nash made another wonderful climb and cut his time down to 43 2/5th secs., only 1 sec. outside Von Stuck's record of last year. Raymond Mays got the Vauxhall Villiers supercharged special, etc., etc., to function at last, and made a very fine climb to the tune of the noisiest exhaust we have ever heard! His time was 43 3/5th secs., only 1/5th off fastest time of the day.

The crowd waited breathless while he tried on his second run to beat his first effort, but without avail, and so Nash and his wonderful little 1½-litre were left victorious.

Davenport's second run was another example of neat and determined driving, but he could not improve his time, and the second runs, with the exception of R. J. G. Nash, produced little incident or improvement.

The organisation was perfect, in the usual M.A.C. tradition, and favoured by perfect weather the event was a 100% success.



A. W. Van der Becke (Becke-Special)—a very fast home-made racer.

RESULTS.

CARS UP TO 850 C.C.—Racing Cars—1, W. E. Harker (Austin-Villiers), 48 4/5th secs.; 2. E. F. Phillips (B.C. Special), 61 secs. Sports Cars—1, J. C. Elwes (Austin), 52 2/5th secs.; 2, B. G. Bailey (Austin), 61 3/5 secs.; 3, A. P. Glenny (Two-stroke Special), 95 secs.

851 TO 1,100 C.C.—Racing Cars—1, R. T. Horton (Horton Special), 48 3/5th secs; 2, H. C. Lones (Frazer Nash), 51 2/5th secs.; 3, W. Straight (Riley), 60 2/5th secs. Sports Cars—1, T. B. Wood (Riley), 56 3/5th secs.; 2, D. Burcher (Riley), 57 secs.; 3, W. Straight (Riley), 60 2/5th secs.

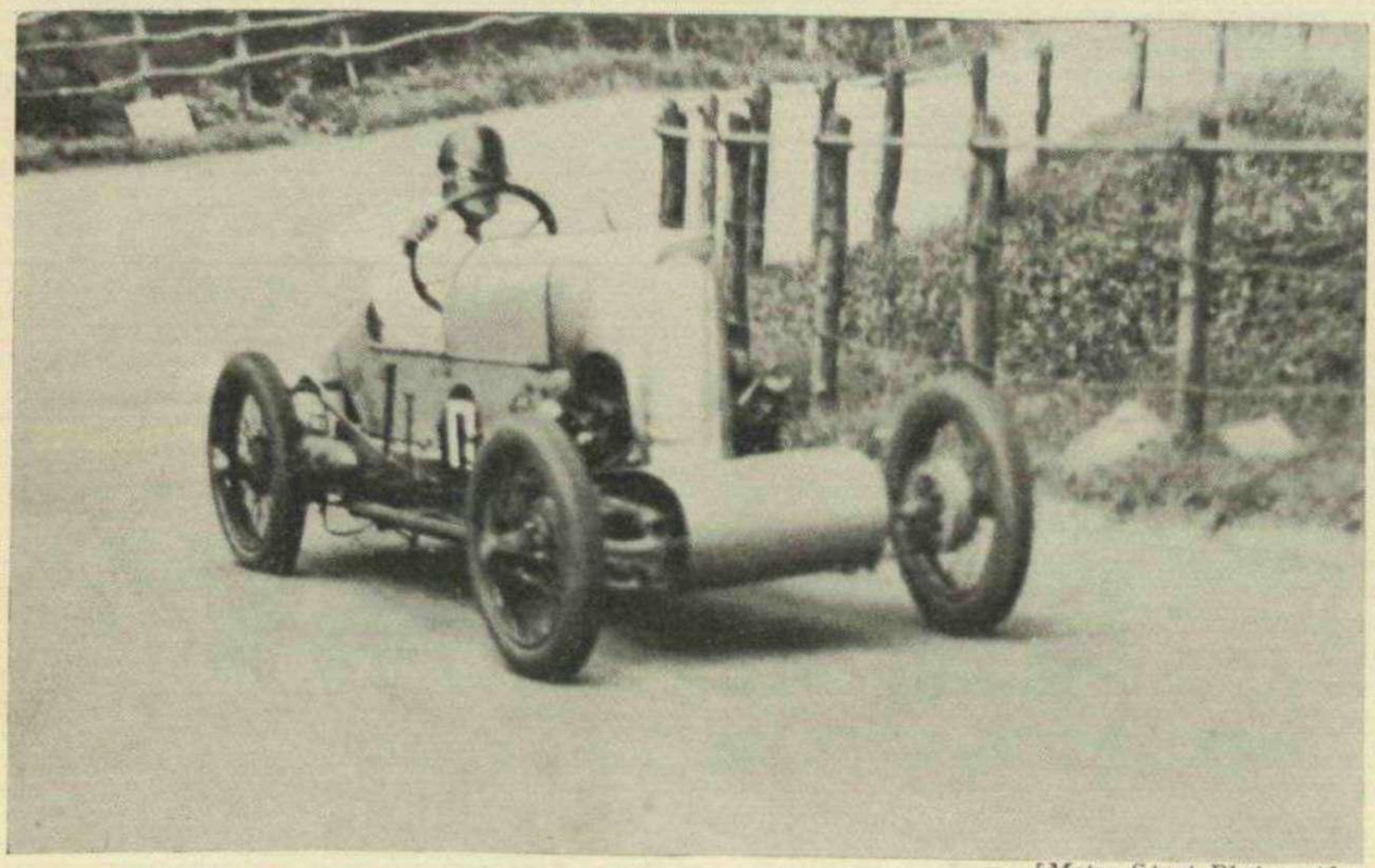
1,101 TO 1,500 C.C.—Racing Cars—1, R. G. J. Nash (Frazer-Nash), 43 2/5th secs.; 2, A. W. Van der Becke (Becke Special), 45 secs.; 3, B. H. Davenport Spider), 46 1/5th secs. Sports Cars—1, T. H. Wisdom (Frazer-Nash), 49 4/5th secs; 2, S. H. Newsome (Lea-Francis), 54 2/5th secs.; 3, T. N. Gold (Bugatti), 58 3/5th secs.

1,501 TO 2,000 C.C.—Racing Cars—1, N. A. Carr (Bugatti), 44 secs.; 2, A. N. Spottiswoode (Bugatti), 47 2/5th secs.; 3, T. S. Fothringham (Bugatti), 51 4/5th secs. Sports Cars—1, The Earl Howe (Alfa-Romeo), 52 secs.; 2, F. Hallam (Lagonda), 57 3/5th secs.

2,001 TO 3,000 C.C.—Racing Cars—1, R. Mays (Villiers Supercharge), 43 3/5th secs.; 2, J. Zanelli (Nacional Pescara), 44 2/7th secs.; 3, E. Tort (Nacional Pescara), 45 3/5th secs. Sports Cars—1, R. Way (Rover), 61 3/5th secs.; 2, N. S. Robbins (M.G.), 66 3/5th secs.; 3, G. Warburton (M.G.), 85 2/5th secs.

3,001 TO 4,500 C.C.—Racing Cars—1, R. Mays (Invicta), 49 4/5th secs.; 2, E. R. Hall (Bentley), 50 2/5th secs.; 3, A. H. L. Eccles (Invicta), 53 4/5th secs. Sports Cars—1, R. Mays (Invicta), 49 4/5th secs.; 2, E. R. Hall (Bentley) and J. Chilton (Invicta), 50 2/5th secs.; 4, H. A. L. Eccles (Invicta), 53 4/5th secs.

4,501 C.C. AND OVER.—Racing Cars—1, The Earl Howe (Mercédès-Benz), 46 4/5th secs. Sports Cars—The Earl Howe (Mercédès-Benz), 46 4/5th secs.; 2, E. E. Marsh (Mercédès-Benz), 55 secs.



[*Motor Sport Photographs.*

Out again. Davenport's veteran Frazer-Nash ("The Spider") on the first bend.

AWARDS.

THE SHELSLEY INTERNATIONAL CHAMPIONSHIP CUP AND £105 (for the fastest time of day).—R. G. J. Nash (Frazer-Nash).

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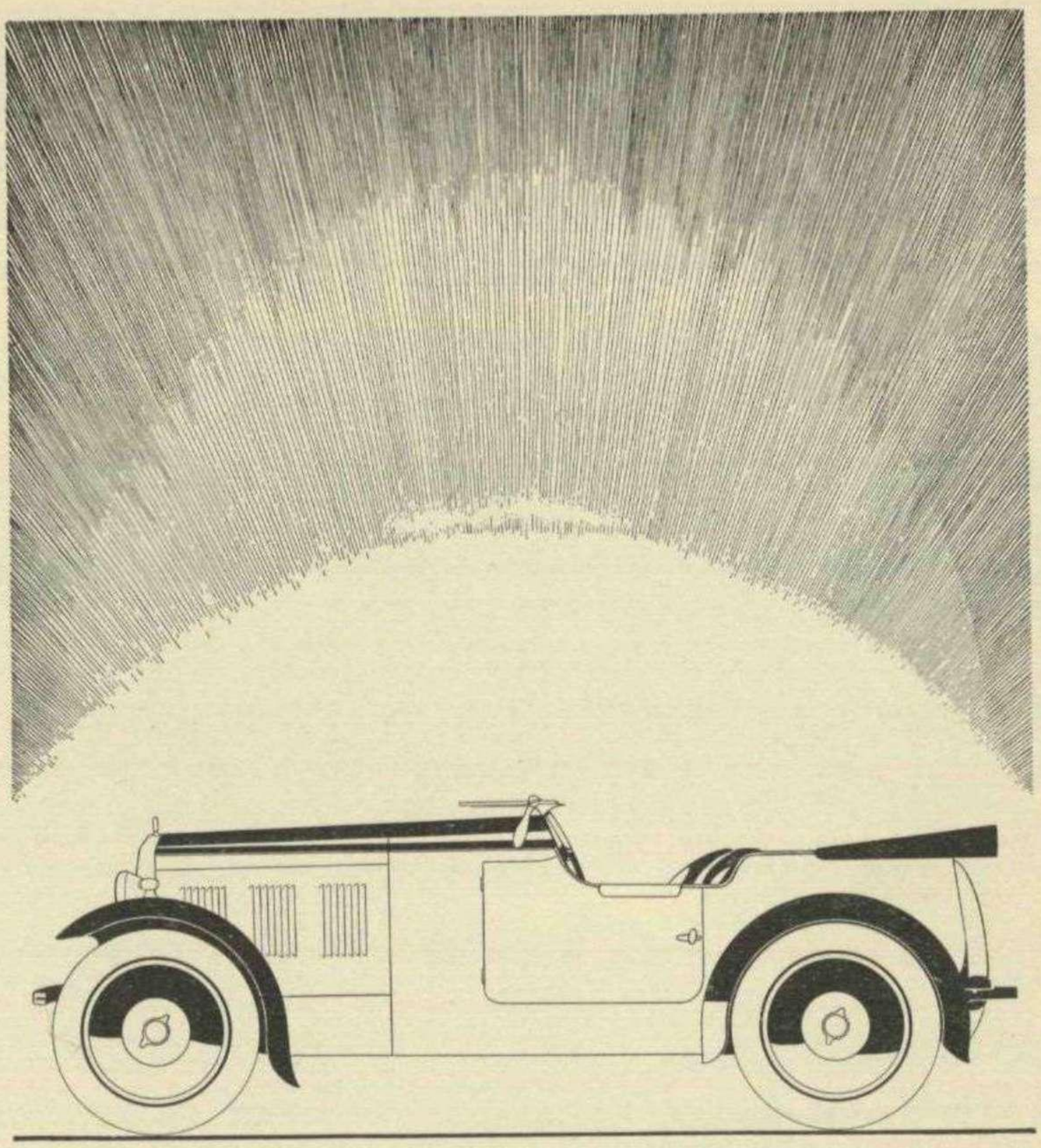
THE M.A.C. "T.T." CUP (for the fastest time by a car and driver, driven or entered in any of the events on the 1931 International Calendar).—The Earl Howe (Mercédès-Benz).

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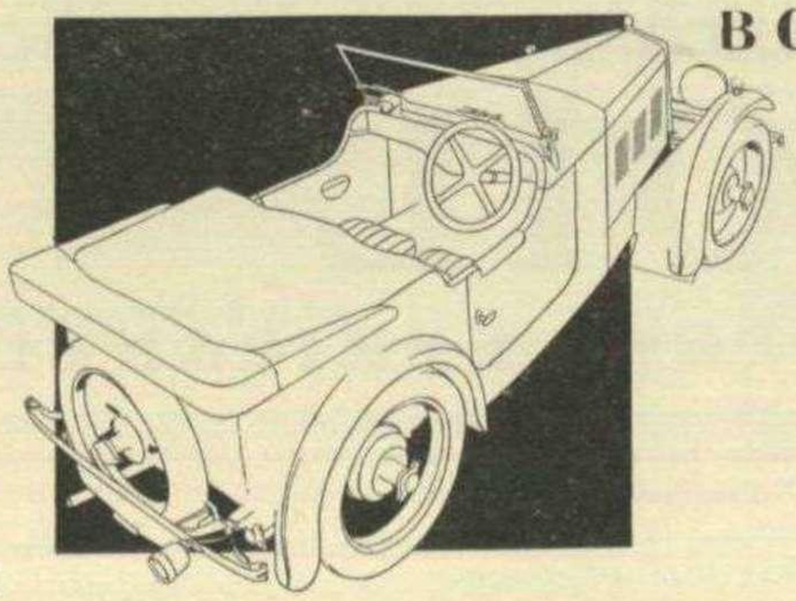
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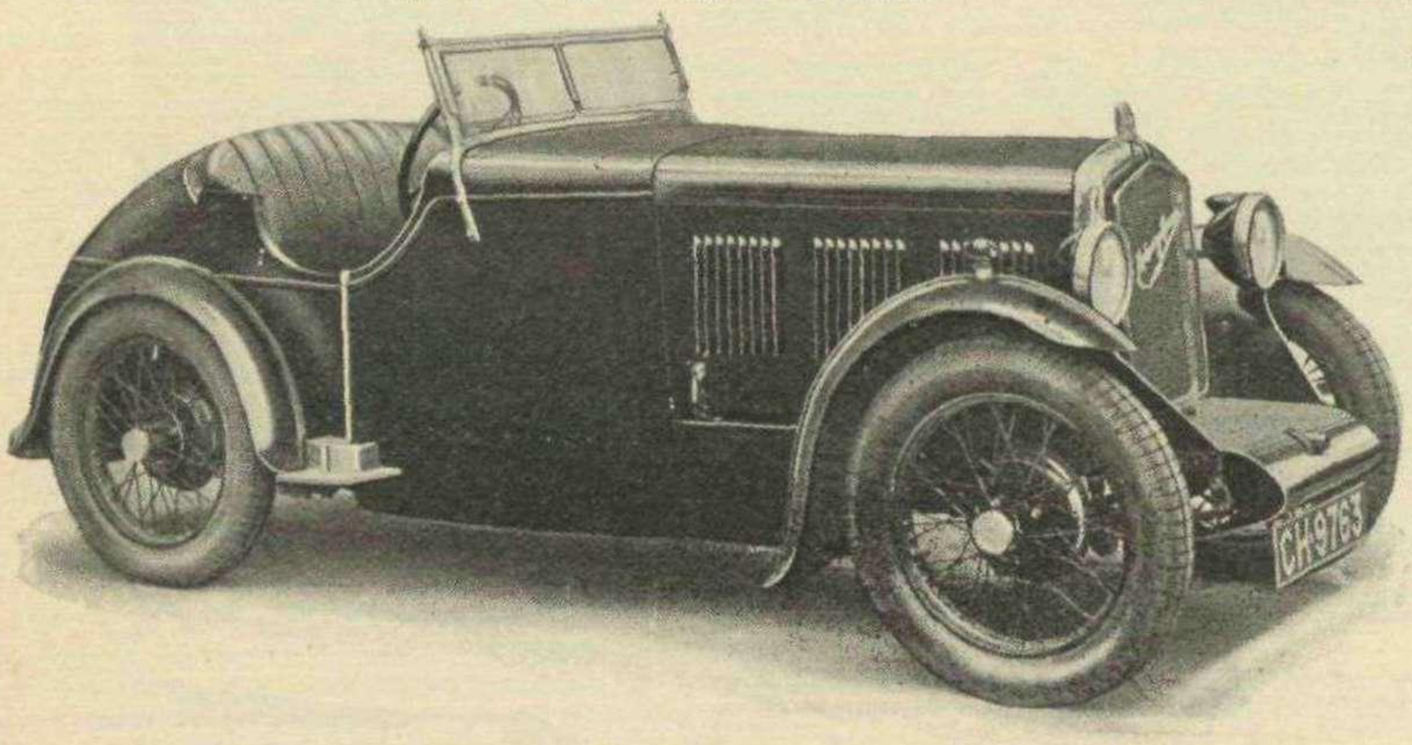
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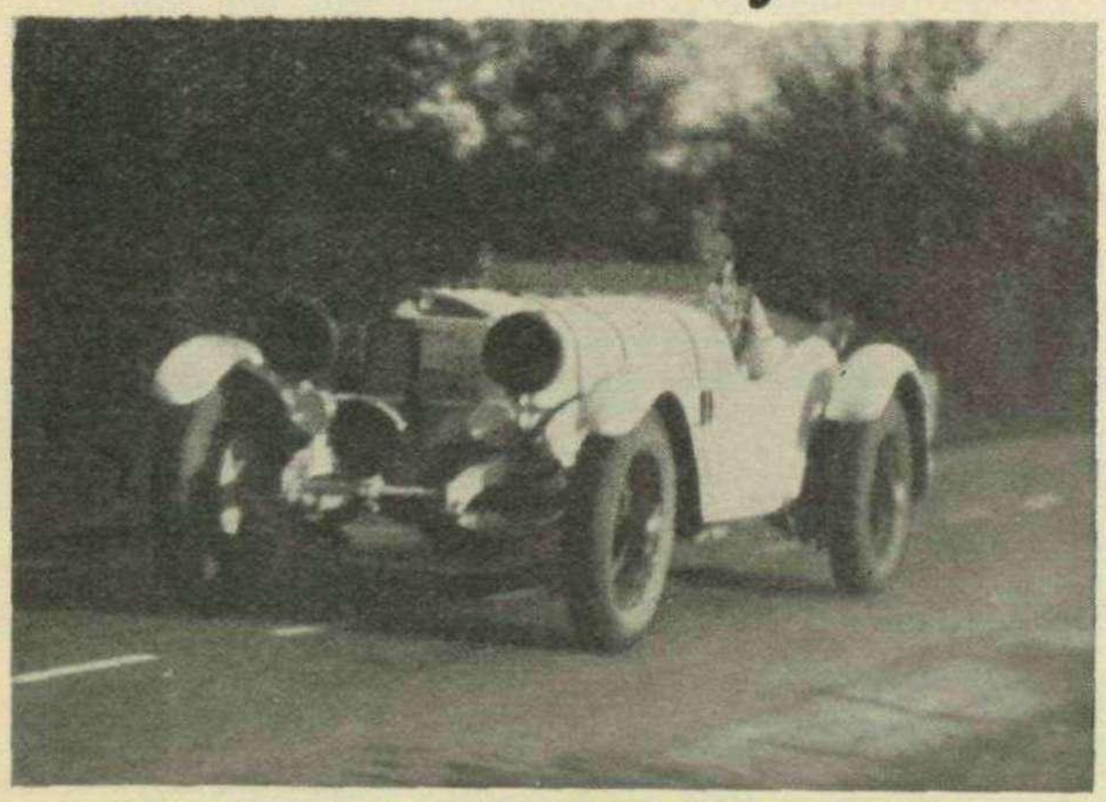
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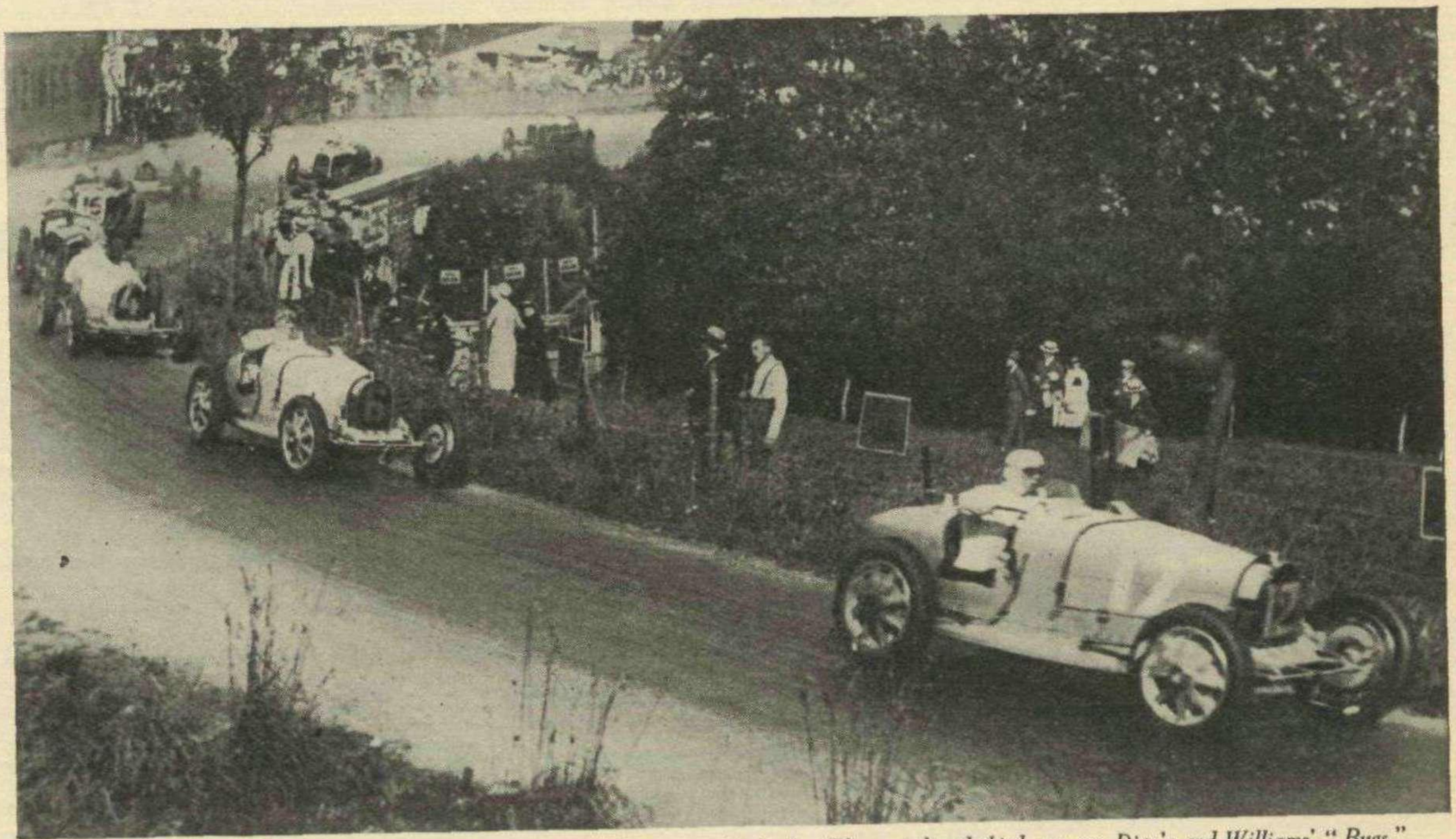
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THE BELGIAN GRAND PRIX

Victory for Bugatti in the race and in the Championship of Europe; Alfa-Romeos occupy next three places.



Competitors rounding L'eau corner en masse with Chiron's Bugatti in the lead. The second and third cars are Divo's and Williams' "Bugs," and the fourth, Campari's Alfa.

THE Belgian Grand Prix, which was run for the usual 10-hour period over the Spa circuit on Sunday, 12th July, represented the final race for the 1931 Championship of Europe, which, as the result of the cancellation of the Spanish event, was to be decided on the results of the Italian, French and Belgian Grands Prix. In the absence of the Maserati team, which had decided to conserve its resources for the German Grand Prix to be run a week later, it was obvious that the race was to be in effect a straight duel between Alfa-Romeo and Bugatti; the former had won at Monza, the latter at Montlhery, and the Spa race was to decide which was to be the victor in the final round of the combat. Bugatti might claim that the Monza race had been lost solely on tyres, and for the Belgian event he had fitted Dunlops; while the Alfa-Romeo firm might reply that since their defeat at Montlhery they had altered their back-axle ratio and in consequence had gained a considerable degree of speed.

Keenly-matched entry.

The issue, therefore, was in great doubt not only at the start of the race, but until the very end. The drivers of the two important teams were for Bugatti, Louis Chiron and Achille Varzi, Albert Divo and Guy Bouriat, Count Conelli and Williams; for Alfa Romeo, Guiseppe Campari and Zehender, Tazio Nuvolari and Borzacchini, Minoïa and Minozzi. In addition starters comprised half a dozen more or less amateur entries, consisting of another Bugatti driven by Wimille and Gaupillat, two more Alfa-Romeos, one of which was driven by Sir Henry Birkin and Lewis, and the other by Pesato and Felix, Stoffel and Ivanowski on their big Mercédès and Montier father and son on two of their famous Montier Fords.

"Bug" and Alfa Rivalry.

Achille Varzi and Tazio Nuvolari, always the keenest of rivals, had been chosen to represent the van of the Bugatti and Alfa-Romeo teams respectively. As their cars stood side by side on the road awaiting the signal to start, it was obvious that each driver was determined to beat the other or burst his car in the attempt. The starting flag dropped, and the whole field got away well together; then in less time than the record for a lap of the circuit set up by the late Antonio Ascari, in 6 minutes, 49 seconds, in spite of his standing start, Varzi reappeared, his Bugatti leading Nuvolari's Alfa-Romeo by some 150 yards. By the end of the second lap Nuvolari had cut his adversary's lead in half, and on the third round after a terrific battle he managed to pass the Bugatti and gain the lead. On the fourth lap however, Varzi managed to get ahead again. The two cars were, in fact, going round almost wheel to wheel, and Ascari's record for the circuit was lowered again and again. First Nuvolari cut it down to 6 minutes 33 seconds, then Varzi replied successively with 6 minutes 31 seconds and 6 minutes 29 seconds, only to be again outshone by Nuvolari with 6 minutes 25 seconds. Then on the same lap Varzi, Nuvolari and Williams all three went round in 6 minutes 24 seconds. It was obvious that this race, in spite of the comparatively small number of competitors, was going to be one of the hardest fought of any ever staged on the Spa Circuit. On the sixth lap Nuvolari had caught up considerably on Varzi, and on the tenth lap he once more succeeded in passing him and taking the lead. At the end of the first hour the order was as follows:—

1. Nuvolari and Borzacchini (Alfa-Romeo), 135 km. 900.
2. Varzi and Chiron (Bugatti), 135 km. 880.
3. Williams and Conelli (Bugatti), 132 km. 800.
4. Minoïa and Minozzi (Alfa-Romeo), 130 km. 500.
5. Wimille and Gaupillat (Bugatti).
6. Divo and Bouriat (Bugatti).

THE BELGIAN GRAND PRIX—continued.

7. Birkin and Lewis (Alfa-Romeo).
8. Campari and Zehender (Alfa-Romeo).
9. Stoffel and Ivanowski (Mercédes).
10. Montier junior (Montier).
11. Montier senior (Montier).
12. Pesato and Felix (Alfa-Romeo).

During the second hour there was little change in the order, except that Birkin managed to pass Divo and Montier junior slowed somewhat, so that he was passed by both his father and Pesato. The two leading cars, however, continued their wheel to wheel struggle, and after two hours' running Nuvolari had still a lead of but 50 yards or so over Varzi. At this point most of the cars came in to refuel and to change drivers, Nuvolari handing over the leading Alfa to Borzacchini, while Louis Chiron took Varzi's place at the wheel of the first Bugatti. With a car whose engine had been nicely warmed up for him, Chiron then proceeded to give a taste of his real ability.

The record goes again.

Then the joint record set up by Nuvolari Varzi and Williams in 6 minutes 24 seconds was lowered by Chiron to 6 minutes 22 seconds, and he then proceeded to improve on his own performance by going round in 6 minutes 21 seconds, 6 minutes 19 seconds, and finally in 6 minutes 18 3/5 seconds! Chiron still looked as if he could do better, but this fast driving had already put the Bugatti ahead of the Alfa-Romeo, and at the end of the third hour the order was as follows :

1. Varzi and Chiron (Bugatti), 404 km. 400.
2. Nuvolari and Borzacchini (Alfa-Romeo), 403 km. 700.
3. Williams and Conelli (Bugatti), 398 km. 500.
4. Minoïa and Minozzi (Alfa-Romeo), 387 km. 350.
5. Divo and Bouriat (Bugatti), 387 km. 300.
6. Wimille and Gaupillat (Bugatti), 381 km 900.
7. Campari and Zehender (Alfa-Romeo), 380 km. 900.
8. Birkin and Lewis (Alfa-Romeo), 373 km. 700.
9. Stoffel and Ivanowski (Mercédes), 362 km. 600.
10. Montier senior (Montier), 319 km. 600.
11. Pesato and Felix (Alfa-Romeo), 318 km. 800.
12. Montier junior (Montier), 299 km. 050.

During the fourth hour the leading Bugatti gradually drew away from the Alfa-Romeo, but the privately owned Bugatti driven by Wimille and Gaupillat fell back somewhat and was passed by both the third Alfa of the official team and the one with English drivers, while Pesato and Felix's car got ahead of the Montier which had previously been in front of them. No change of major importance occurred however, until nearly the end of the fifth hour, which marked half distance of the race, when suddenly drama stepped in. Chiron by this time had a lead of about four minutes over Borzacchini, and then suddenly it was realised that he was overdue. The Alfa-Romeo, in fact, flashed past the grandstands, and still there was no sign of the Bugatti. At last from down the road on our left there appeared a man running, and Chiron arrived from the direction of Eau Rouge at top speed—but on foot. Although he had sprinted for about 2½ miles, he did not appear particularly blown, and explained that his car's magneto drive had sheared. He promptly collected some spare parts from the Bugatti pit and set off again, still at top speed, to try and effect a roadside repair. By this time, however, the Alfa-Romeo was far ahead, and halfway through the race the order was therefore as follows :—

1. Nuvolari and Borzacchini (Alfa-Romeo), 679 km. 300.
2. Williams and Conelli (Bugatti), 667 km. 600.
3. Varzi and Chiron (Bugatti), 660 k.m.
4. Minoïa and Minozzi (Alfa-Romeo), 655 km. 400.
5. Divo and Bouriat (Bugatti), 637 km. 500.
6. Birkin and Lewis (Alfa-Romeo), 626 km. 900.
7. Stoffel and Ivanowski (Mercéd.s), 611 km. 800.
8. Campari and Zehender (Alfa-Romeo) 604 km.
9. Wimille and Gaupillat (Bugatti), 587 km. 300.
10. Pesato and Felix (Alfa-Romeo), 546 km. 500.
11. Montier senior (Montier), 531 km. 700.
12. Montier junior (Montier), 504 km. 100.

Thus in spite of the fast pace set by the leaders half the race was over and none of the competitors had definitely retired from the contest. The Alfa-Romeo driven by Campari and Zehender, however, was obviously not going as well as the others of the official team, and shortly afterwards, its withdrawal was announced. There was no further sign of Chiron, however, and the position of the leading Alfa-Romeo now looked particularly secure, as it had a lead of over seven miles on the Bugatti driven by Williams and Conelli. There seemed nothing surprising, therefore, in the fact that Nuvolari should reduce speed somewhat, but gradually we realised that his lap times had risen to nearly seven minutes and that slowly but surley Conelli on the Bugatti was creeping up.

Chiron's retirement.

Towards the end of the sixth hour it was finally announced that Chiron had retired, having been unable to effect the necessary repairs to his Bugatti, and about half an hour later it was announced that the car driven by Divo and Bouriat had also been withdrawn from the race. The Bugatti hopes were now therefore centred on the Williams-Conelli team, and their car was certainly still running as well as at the start. At the appointed time Conelli brought it into the Bugatti pits, filled up and changed all four wheels and brake-drums, as is possible with the Bugatti design, in 2 minutes 2 seconds, a truly remarkable performance. At the same time Nuvolari also came in, filled up an handed over to Borzacchini, and when Williams got away on the Bugatti, as the result of the efficient pit-work, the Alfa-Romeo had a lead of less than two minutes.

Williams catches up.

Williams now had a car which was going as well as ever with fresh brakes, and he proceeded to make good use of it behind Borzacchini. He was catching up rapidly now, and the Alfa-Romeo lead was cut down to 1 minute 51 seconds, 1 minute 42 seconds, 1 minute 36 seconds, 1 minute 30 seconds, and then at last Williams passed Borzacchini and took the lead. Almost immediately the Alfa-Romeo driver came in to his pit and leapt out of the car, explaining that he could not get the petrol through properly. For a minute or two they worked on the car, and then Nuvolari, losing patience, jumped into the car and shot off amid enormous applause. Violent misfiring as he dashed up the hill towards Eau Rouge however, suggested that all his efforts were likely to be in vain. Had he not reduced speed so drastically when he saw that he was safe from the attacks of Chiron his lead might have been sufficiently substantial to deal with the situation, but as it was, it seemed hopeless. Nevertheless, he actually succeeded in catching and passing Williams, but the Bugatti had a lead of a lap, and it was never really seriously threatened until 7 o'clock came and the race was over. The final result was as follows :—

1. Williams and Conelli (Bugatti), 1,320 km. Average speed, 82.7 m.p.h.
2. Nuvolari and Borzacchini (Alfa-Romeo), 1,309 km.
3. Minoïa and Minozzi (Alfa-Romeo), 1,274 km.
4. Birkin and Lewis (Alfa-Romeo), 1,240 km.
5. Ivanowski and Stoffel (Mercéd.s), 1,206 km.
6. Pesato and Felix (Alfa-Romeo), 1,088 km.
7. Wimille and Gaupillat (Bugatti), 968 km.
8. Montier senior (Montier), 864 km.
9. Divo and Bouriat (Bugatti), 759 km. 900.
10. Varzi and Chiron (Bugatti), 655 km. 600.
11. Campari and Zehender (Alfa-Romeo), 596 km.

The International Driver's Championship, 1931, was won by Minoïa, the classification being decided on the results of the Italian, French and Belgian Grand Prix. Minoïa finished second at Monza, sixth at Montlh ry, and third at Spa.

Rumblings



Lewes Speed Trials.

ALTHOUGH sprint events, either speed trials or hill climbs are now rare indeed, there are still a few surviving events held on private roads, and among these the affairs held at Race Hill, Lewes, by the Kent and Sussex club, is a very cheery affair.

The last event held here was on June 27th, when the most perfect weather favoured those who went up to the Downs to watch and take part in it.

The hill as such is of no great length or gradient, and the 500 yard course contains nothing to worry anybody. On the other hand, the good surface gives fine opportunities for real practice in the art of getting off the mark, and the faster cars can raise a very useful speed in the distance.

The single seater Frazer-Nash, the "Terror," with its supercharged Anzani engine and absolutely minimum avoirdupois holds the course record in 20 secs. from a standing start, an average of over 51 m.p.h., which gives a probable maximum over the finish of something near the 90 m.p.h. mark.

The "Terror" was here on this occasion, together with many other habitués of this venue, with the Conan Doyle brothers much in evidence with the "Slug," and the special Frazer-Nash with an O.H.V. "blown" engine which used to function at the track in the hands of Frazer-Nash himself in the past. It was resplendent in a new coat of white and looked really neat and went well, putting up, on its best run, 22 2/5 secs. for the course, which proved to be the fastest time of the day.

It is a great pity that we do not see more of this fine little car in other events, especially in something with corners, where the well known stability of this type of car could be used to advantage. The "Slug" on the Mountain circuit should do well.

Other interesting vehicles at Lewes were Bertram's old Indianapolis Sunbeam which went very well, and also A. M. Leitch's "Poppet 10," this being an ultra skeleton G.N. of the push-rod O.H.V. conversion variety.

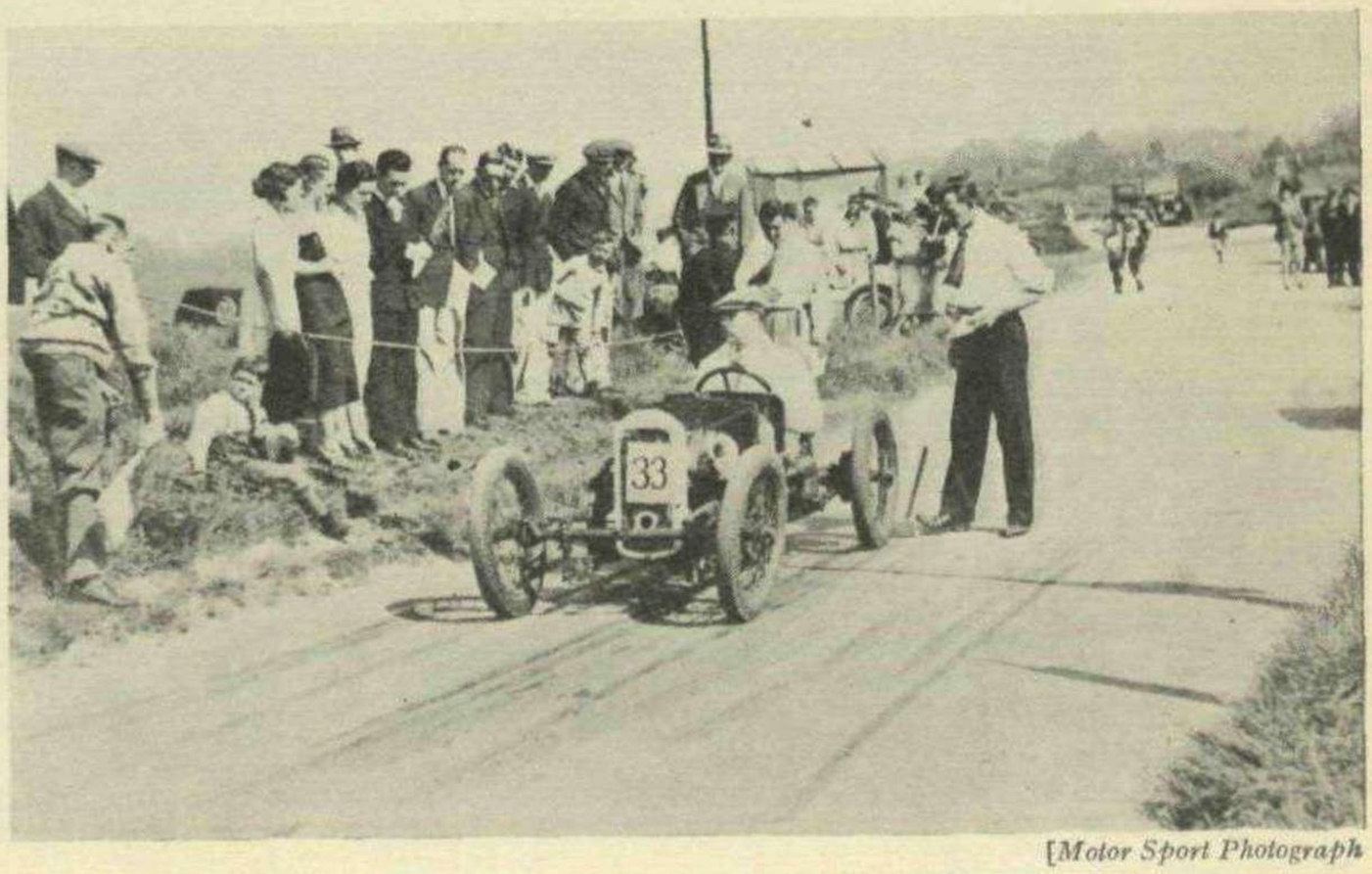
In actual running it was not quite as "Davenport" as it looked, but it went up the course in 29 secs. odd many times, which is no mean feat in itself. One of the best shows of the day was that of Baker's Salmson which displayed terrific acceleration and won the 1100 c.c. supersports and racing classes.

The "Terror" was somewhat fractious on this occasion and the very hot weather did not seem to agree with the carburation. He got going a bit better after some adjustments, but never went more than half way up the course on all cylinders, though its acceleration for the first portion of the course was better than anything we have ever seen.

Road-racing Surfaces.

Rumours are abroad that the Royal Automobile Club may move the car Tourist Trophy Race from Belfast to the Isle of Man in 1932.

If this change of venue should be adopted, certain alterations and improvements to the Motorcycle T.T. course (if used) would be necessary to make it suitable for cars at modern racing speeds and it is to be hoped that, profiting from recent experience in road races, a non-skid surface dressing would be employed similar to that used this year in Phoenix Park, and which



[*Motor Sport Photograph*

A relic of the cyclecar era. Leitch's old G.N. at the Lewes Speed Trials.

RUMBLINGS—continued.

evoked such unstinting praise from Capt. Sir Malcolm Campbell, Earl Howe and other competitors.

In the first Phoenix Park race, two years ago, a tar dressing was used and the race took place beneath a sweltering sun. The result was that the surface soon started to " bleed," particularly on the corners where brakes were employed. Consequently, after a very short time the course became extremely dangerous and the cars cavorted in all directions, despite all the efforts of their highly-skilled drivers to control them.

Subsequently, the course was resurfaced with bitumen mixed with chippings, and this year was ideally non-skid, although the race was run throughout in a downpour of rain.

In an article from the pen of Sir Malcolm Campbell the question is asked : " Why is it not possible for all our roads to be built of the same material ? "

Private motorists throughout this country who, after all, are the *providers* of our highways, may well echo Sir Malcolm's query—particularly so because the slight additional initial cost of this road-dressing is proved to be more than compensated by the fact that it lasts considerably longer than any other type of surface.

* * *

The Brooklands lap record is something which never gets left alone for long, as some preparations are always being made to attack it. The fact that attempts are only successful at rare intervals goes to show the extreme difficulty of the task, though Bank Holiday this month may see something being done about it. Mrs. Stewart is busy getting her Miller ready for an attempt, and it is hoped this will be over for the Brooklands event. The engine blew up considerably in the process of getting the 100 kilometre record recently at Montlhéry, but the damage should be repaired in time.

The present lap record, by Kaye Don on the 4-litre Sunbeam " Tiger," stands at 137.58 m.p.h. As this was taken from Sir Henry Birkin, he is very anxious to retrieve it, and will also be out for blood.

We are appreciated.

. . . I have very great pleasure in enclosing my " sub " for another year. " Motor Sport " is one of those few papers to which one always looks forward with pleasurable anticipation, and which always delivers the goods.

Best of good luck to you.

Surrey. *Lionel Martin.*

The single-seater Bentley has now got a bigger blower, so we shall all go to Brooklands with the hope of seeing the record go once more.

* * *

The next great road race in these islands is only a few weeks away now, and entries have finally closed with the fine total of 51 entries for the Ulster Race.

A big Merc will be handled by Davis and Wilson, who will be the sole representatives of the over 5-litre class. Under this limit will be two Invictas and a team of the Le Mans type 4,900 c.c. Bugattis.

The terrific speed of these cars should make them very formidable competitors. In fact, they should be absolutely the fastest cars in the race, and with the drivers Bugatti can command they stand a good chance of clearing up the whole affair. In the racing car world they have once again won the championship of Europe for 1931 with their fine victory in the hard-fought Belgian Grand Prix, and they will certainly be out to add the sports car laurels to their bag.

In the smaller classes, however, there are many entries which can be depended on to make good use of their handicap. Earl Howe and Sir Henry Birkin are on Alfas, together with an official Alfa team, and these with two Maseratis will make the 3-litre class a marvellous race in itself. It must not be forgotten that as these are blown, they may not have an easy task in keeping ahead of the unblown Talbots. A team of " 105's " are running as well as the " 90 " which Esplen handled so well at Phœnix Park. The Arrol Asters can hardly be expected to hold the newer cars, but are a very sporting entry. As Birkin and Couper Ltd. have been working on these, they will at least be well and faithfully prepared.

The Aston-Martins and Frazer-Nashes will represent this country in the 1½-litre class, with Bertelli, Cook, and Harvey on the Astons, and H. J. Aldington, Penn-Hughes and T. G. Moore on the Nashes. The unblown Nashes are very fast these days, and while expecting Bugattis to win, one is tempted to tip " Aldy " as a likely dark horse. A British win would be certainly very welcome.

CURRENT AND FORTHCOMING EVENTS

INTERNATIONAL FIXTURES—1931

AUGUST.

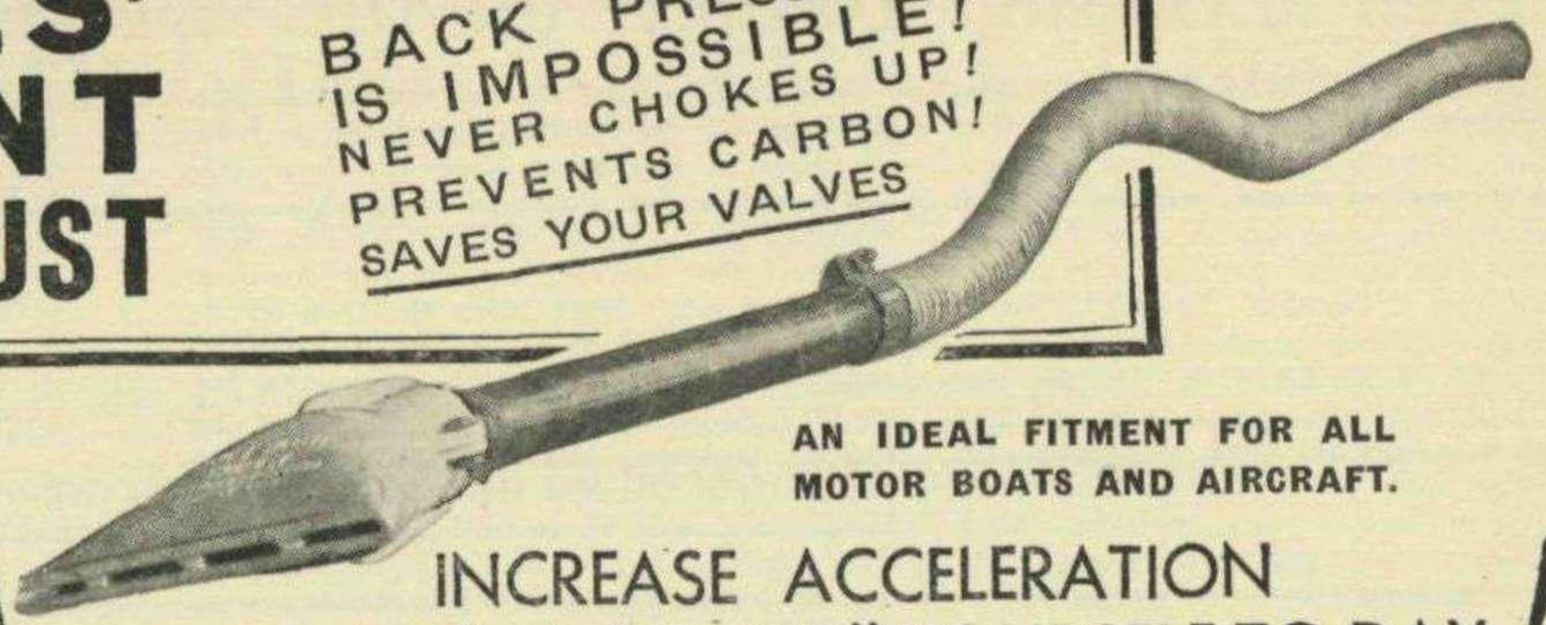
2nd. *Italy—Coupe Ciano.*
3rd. *Great Britain—B.A.R.C. Open Meeting.*
9th. *Austria—Gaisberg Hill Climb.*
9-16th. *France—A.C. du Midi Grand Prix.*
16th. *Italy—Coupe Acerbo.*
16th. *Poland—Tatra Hill Climb.*
17-23rd. *Switzerland—St. Moritz Automobile Week.*
22nd. *Great Britain—R.A.C. International Tourist Trophy Race.*
23rd. *Switzerland—La Bernina Hill Climb.*
30th. *France—Mont-Ventoux Hill Climb.*

SEPTEMBER.

6th. *Italy—Italian Grand Prix.*
12th. *Great Britain—B.A.R.C. Open Meeting.*
13th. *Austria—Semmering Hill Climb.*
13th. *France—A.C. du Nord Race.*
19th. *Italy—Record Meeting at Cremona.*
19th.-20th. *France—Circuit de Pau.*
20th. *Hungary—Svab Hill Climb.*

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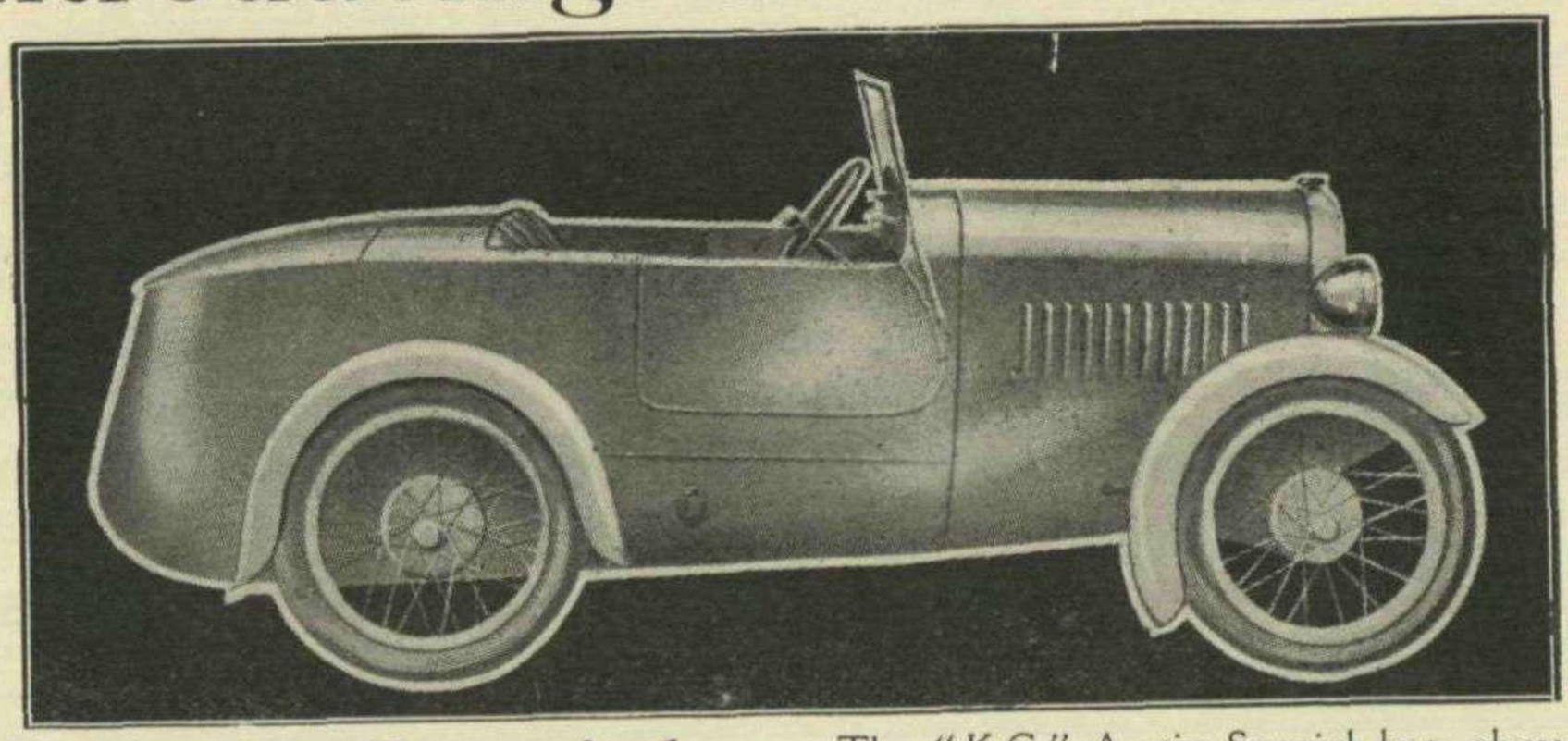
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THE PRIX ROYAL OF ROME.

GRAND SLAM FOR MASERATI ON THE NEW LITTORIO TRACK.

ERNESTO MASERATI, the younger brother of the manufacturer, won the "Reale Premio" (an untranslateable phrase) of Rome, which was run on Sunday, 7th June, on the new Littorio track near the Italian capital, which was described in "MOTOR SPORT" some months ago. The day was a great one for Maserati, for Réné Dreyfus, driving one of the 2½-litre straight-eight racers of this marque, was second, and Biondetti, on one of the new 1,750 c.c. models, was third. The new track proved itself exceptionally fast for one comprising "road" characteristics, and permitted of lap speed in excess of 100 m.p.h.

In spite of the counter attraction of the Grand Prix of Geneva, which was run on the same day, the race attracted quite a good field. The contest consisted of a series of eliminating races for cars up to 1,100 c.c., 2 litres, 3 litres and over that limit, and a final to decide the ultimate winner. The fastest cars entered included Ernesto Maserati's 4-litre 16-cylinder racer, the two official 2½-litre Maseratis, driven by Fagioli and Dreyfus, and the new 1,750 c.c. racer of the same make handled by Biondetti, which had as their chief rival the great Achille Varzi on one of the new 2,300 c.c. Bugattis. In addition the 1,100 c.c. class had attracted Jean Scaron on his Amilcar, Camotte and de Caroli on Salmsons, and Ardizzone on a car more or less of his own construction; Sair was driving one of the older 2-litre Maseratis, and Cerami one of the later 2½-litre models from the same factory; Castelbarco and Minozzi had 2-litre Bugattis, and Tazio Nuvolari himself drove a 2,300 c.c. Bug. "en amateur"; Ruggeri and Balestrero had their 1927 Grand Prix 1,500 c.c. Talbot racer; and finally, di Vecchio was brave enough to appear with the old 1925 Targa Florio Itala, powered with one half of a Hispano-Suiza aero engine which was built by the late Emilio Materassi.

The eliminating races were run over 25 laps of the circuit, making a total distance of 100 kilometres, or about 62½ miles. The first heat for 1,100 c.c. cars resulted in an easy win for Scaron, who covered the fastest lap on his Amilcar at 96.6 m.p.h. Then came the turn of the 2-litre cars, and Minozzi on the Bugatti rapidly got the lead and covered a lap at 96.7 m.p.h. Thereafter, however, he found trouble, and victory went to Biondetti on the new Maserati, which had been going well in second place. The 3-litre class provided the thrill of the opening races in the form of a Bugatti-Maserati duel, not to mention the fact that it provided a meeting between the great rivals, Achille Varzi and Tazio Nuvolari, both on Bugattis. The latter's car, however, was of the older single camshaft type, and Varzi, after covering a lap at 101.6 m.p.h., just managed to get home in front of Fagioli's Maserati by the narrow margin of 5 seconds. Finally, Ernesto Maserati set off against a single adversary in the form of the Itala-Hispano, and after showing what he could do by covering a lap at exactly the same speed as Varzi, toured home to win comfortably by more than 6 minutes. The results of the various classes in the eliminating races were as follows:—

1,100 C.C. CLASS.

1. J. Scaron (Amilcar), 45m. 53 3/5s. Average, 81.7 m.p.h.
2. de Caroli (Salmson), 49m. 12s.
3. Ardizzone (Ardizzone), 50m. 59s.
4. Camotte (Salmson).

2-LITRE CLASS.

1. Biondetti (Maserati), 41m. 23s. Average, 90.6 m.p.h.
2. Sair (Maserati), 42m. 40s.
3. Castelbarco (Bugatti), 42m. 51s.
4. Minozzi (Bugatti).
5. Balestrero (Talbot).

3-LITRE CLASS.

1. A. Varzi (Bugatti), 37m. 47 1/5s. Average, 99.3 m.p.h.
2. Fagioli (Maserati), 37m. 52s.
3. Dreyfus (Maserati), 38m. 5s.
4. Cerami (Maserati).
5. Nuvolari (Bugatti).

OVER 3-LITRE CLASS.

1. E. Maserati (Maserati), 40m. 14 3/5s. Average, 92.5 m.p.h.
2. di Vecchio (Itala-Hispano-Suiza), 46m. 52s.

All those who had qualified in the eliminating races were then drawn up for the final, which was run over 60 laps of the circuit, or rather over 150 miles. Achille Varzi with the Bugatti took the lead at the outset, hotly pursued by the Maserati team in the order, Ernesto Maserati, Dreyfus and Fagioli. Then Varzi burst a tyre and dropped back considerably while he stopped to change the wheel. He got going again, however, and by the 30th lap had regained third place, after covering one round at 101.9 m.p.h. Soon afterwards the Bugatti driver was again in at his pit, and after working on his engine for a few moments, finally retired from the race. Fagioli in the meantime had also had trouble, but got going again, and Sair, the amateur driver of a Maserati, retired on the 53rd lap, to be followed a couple of laps later by Castelbarco's Bugatti. The official Maseratis, however, now had the race well in hand, and the 16-cylinder machine finally came home the winner by about a minute from its stable companion driven by Dreyfus. The final order was as follows:—

1. Maserati (Maserati), 1h. 34m. 32 1/5s. Average, 95.2 m.p.h.
2. Dreyfus (Maserati), 1h. 35m. 36s.
3. Biondetti (Maserati), 1h. 39m. 26 3/5s.
4. Ruggeri (Talbot), 1h. 39m. 49s.
5. Cerami (Maserati), 1h. 41m. 10s.
6. Fagioli (Maserati), 1h. 50m. 2s.

ELEKTRON WELDING.

ALUMINIUM alloys were first introduced into commercial use about 25 years ago and since the War they have been employed to an ever increasing extent for many motor vehicle parts such as, crankcases, gearboxes, chain cases, axle casings, and differential casings, and also for motor cycle engine parts. But it seems probable that in the same way as aluminium took the place to a large extent, of cast iron, because of the great reduction in weight, the time is not far distant when aluminium alloys will themselves be superseded because magnesium alloys have now been developed which are much lighter in weight than any aluminium alloy and much stronger than most aluminium alloys. Elektron is a magnesium alloy 40% lighter than the average aluminium alloy, that is now being used by a number of leading manufacturers of motor vehicles, in this country and on the continent, in place of aluminium alloys for crankcases, etc., and also, instead of mild steel, for road wheels.

It is, however, important to know whether an alloy like Elektron can readily be repaired, because for one reason or another every part of a motor vehicle is vulnerable to fracture. Cast iron and aluminium alloys can be perfectly repaired by skilled welders, and it is reassuring to hear that Elektron also can be welded with complete success, provided the right methods are employed. Messrs. Barimar Ltd., of 18, Lamb's Conduit Street, London, W.C.1. (and branches) have just sent us a specimen of Elektron welded by them by special methods and fluxes which have been devised after careful experimentation.

In sending this specimen Messrs. Barimar point out that the mere fact that Elektron contains 90% magnesium—which is highly inflammable under certain conditions—shows that success in welding the material was not easily achieved. They state, however, that the methods have now been so perfected, that any component made of this material can be successfully welded by them.

THE SPORT ABROAD.

The Belgian 24-Hour Race

VICTORY FOR MERCÉDÈS ON THE SPA CIRCUIT

ZEHENDER, the well-known Alfa-Romeo driver, and the Russian Djordjadze, driving together on a big Mercédès won the Belgian 24-hour race for sports cars which was run over the difficult Spa circuit on Saturday and Sunday, 4th and 5th July. Pesato and Felix on a 1,750 c.c. Alfa-Romeo were second in the general classification and Sommer and Delmer on a Chrysler were third. For a long time the lead was held by Sir Henry Birkin and G. E. T. Eyston driving an Alfa-Romeo, but they were forced to retire during the night.

The entries were divided into two groups, one for sports cars and the other for the new " dominant type " machines which were further subdivided into classes of over and under 3-litres, under 2-litres and under 1,100 c.c. In the sports division the starters consisted of Ivanowski and Stoffel and Zehender and Djordjaze on Mercédès, a 2,300 c.c. Alfa-Romeo driven by Birkin and Eyston, a 1,750 c.c. machine of the same make with Pesato and Felix as its drivers, and an old 3-litre 6-cylinder model driven by the Ronleau brothers, three Bugattis driven by Ninime and Ano, Reinartz and André and Zigraud and Thein, a Chenard-Walcker, driven by Dumonlin and Gama, and an 1,100 c.c B.N.C. with Charlier and Duray as its drivers.

In the " dominant type " category there were seven cars of more than 3-litres capacity, consisting of a trio of 8-cylinder Delages, driven by Ogez and Etourneau, Jacques and Rock, and Fietit and Retz ; a 5-litre Bugatti driven by Thirion and Delzaert ; Narishkine and Ledure on a Graham-Paige ; Nothomb and Boby on a de Soto and Sommer and Delmer on a Chrysler. In the 3-litre division another de Soto driven by Eggen and Vanhove had against it a 6-cylinder Hotchkiss driven by Halaers and Varselle and Hertzberger and Gullaume on a Lancia Lambda. The 2-litre cars consisted of a Bugatti driven by Evrard and Durand, two 1,300 c.c. Rallys driven by Naden and de Turage and Antoine and Antony, a 6-cylinder 1,790 c.c. Imperia driven by Thelusson and Fanconnier and a 10/30 h.p. Fiat driven by Pons and Jacques. In the 1,100 c.c. class was the only British car in the race, a Morris Minor, driven by Blin and Goemans, and it had against it three German D.K.W. cars driven by Borie and Vandersmissen, Minsait and Orben, and Thimmermann and Roberfiord ; Treunet and Tourbier on a B.N.C. ; Gallez and Meyer on a Tracta ; Cuvellier and Villain on a Rally ; and Billy and Vasipol on a Salmson.

A 4 p.m. Start.

The start was given at 4 o'clock on the Saturday afternoon, and the whole of the 33 competitors got away well together. At the end of the first lap, Stoffel on the big Mercédès was in the lead, closely followed by Birkin on the Alfa-Romeo, Zehender on the second Mercédès and Nimme on the 2,300 c.c. Bugatti. Zigraud on another Bugatti led the second group, but Gallez on the Tracta ran off the road and sustained slight injuries, while at the end of the third lap Nimme broke a wheel and lost some time changing it. Shortly afterwards Zehender on the second Mercédès passed Birkin on the Alfa, who however, seemed to be reserving his strength, and the three leading cars drew well away from the rest of the field.

At the end of the second hour Birkin brought the Alfa-Romeo in for replenishments which were effected so rapidly that G. E. T. Eyston, who now took over, soon passed both the Mercédès and gained the lead. At the end of the third hour the positions of the leaders were as follows :—

1. Birkin and Eyston (Alfa-Romeo), 353 km. 800.
2. Stoffel and Ivanowski (Mercédès).
3. Zehender and Djordjadze (Mercédès).
4. Pesato and Felix (Alfa-Romeo).
5. Sommer and Delmer (Chrysler).

Among the dominant type cars the Chrysler was, of course, leading the biggest class, the Hotchkiss was first of the 3-litre division, the Imperia of the 2-litre machines and the Morris Minor was leading the baby cars.

Eyston's Fastest Lap.

During the fourth hour, Eyston on the leading Alfa-Romeo put in the fastest lap of the day in 7 minutes 8 seconds, or at 77.9 m.p.h., and succeeded in lapping the second Mercédès driven by Djordjadze. His pit, however, decided that this pace was too great for a 24-hour race and hung out the " slow " signal, in spite of which the Alfa kept well ahead of the field.

Early in the race the Rally, driven by Antoine, had gone off the road at the Source hairpin, and during the fifth hour the same fate overtook Ogez on the Delage at the Stavelot corner. The driver hurt his jaw, fortunately not seriously, but as the Delages were running as a team for the King of the Belgians' regularity prize, the other two cars were withdrawn shortly afterwards. A little later the field was further reduced by the disqualification of the 6-cylinder de Soto, driven by Eggen and van Hove for taking on supplies elsewhere than at its pit.

Darkness was now falling, but the leading Alfa-Romeo continued serenely and had gained a dozen miles on Stoffel and Ivanowski's Mercédès which had been held back by a burst tyre. At the end of six hours, at 10 o'clock in the evening, the order of the leaders was as follows :—

1. Birkin and Eyston (Alfa-Romeo), 722 km.
2. Stoffel and Ivanowski (Mercédès), 690 km.
3. Zehender and Djordjadze (Mercédès), 687 km.
4. Pesato and Felix (Alfa-Romeo).
5. Sommer and Delmer (Chrysler).

THE BELGIAN 24-HOUR RACE—continued.

For the next three hours there was no change in the order of the leaders, and then, soon after one o'clock the Alfa-Romeo, which at the time was being driven by Eyston, suddenly started misfiring badly and stopped. The driver at once commenced to search for the trouble by the roadside with the aid of a pocket torch, but he was unable to diagnose it until he had spent more than an hour, which is the maximum time allowed for a single lap in the Spa race. The Alfa-Romeo was thus out of it and the first Mercédès at once took the lead. At about 9.30 on the Sunday morning, however, Ivanowski, who was driving it failed to appear to time and it was finally learnt that the car was hors de combat with a broken selector mechanism. This withdrawal in turn let the second Mercédès up into first place which it held to the end, although threatened at times by the 1,750 c.c. Alfa-Romeo driven by Pesato and Felix. The final result was as follows :—

GENERAL CLASSIFICATION :—

1. Djordjadze and Zehender (Mercédès), 2,543 km. 500. Average speed 65.8 m.p.h.
2. Pesato and Felix (Alfa-Romeo), 2,489 km. 500.
3. Sommer and Delmer (Chrysler), 2,413 km. 600.
4. Helaers and Varselle (Hotchkiss), 2,354 km. 200.
5. Rouleau brothers (Alfa-Romeo), 2,322 km. 500.
6. Thirion and Deljaert (Bugatti), 2,301 km. 200.

CLASSIFICATION BY CLASSES :—

Sports cars—over 2-litres.

1. Djordjadze and Zehender (Mercédès).
2. Rouleau Brothers (Alfa-Romeo).
3. Zigraud and Klepper (Bugatti), 2,101 km.
4. Reinartz and André (Bugatti), 1,922 km.

Under 2-litres.

1. Pesato and Felix (Alfa-Romeo).

Under 1100 c.c.

1. Charrier and Duray (B.N.C.), 1,847 km. 500.

" Dominant Type " cars.

Over 3-litres.

1. Sommer and Delmer (Chrysler).
2. Thirion and Delzaert (Bugatti).
3. Narishkine and Ledure (Graham-Paige), 2,095 km. 900.

Under 3-litres.

1. Helaers and Varselle (Hotchkiss).

Under 2-litres.

1. Naden and de Turage (Rally), 2,120 km. 200.
2. Evrard and Durand (Bugatti), 1,979 km. 900.
3. Thelusson and Fanconnier (Imperia), 1,920 km.

Under 1,100 c.c.

1. Goemans and Blin d'Orimont (Morris Minor), 1,667 km. 900.
2. Thimmermann and Roberfrow (D.K.W.), 1,510 km. 900.
3. Burie and Vandernussen (D.K.W.), 1,496 km.
4. Minsart and Orban (D.K.W.), 1,496 km.

Out of 33 starters, 17 finished. The Regularity prize was won by the D.K.W. team of 2-cylinder 2-stroke cars

THE GRAND PRIX DE LA MARNE

Victory for Lehoux on a Bugatti from Dreyfus' Maserati.

IT was rather a pity, perhaps, that the Grand Prix de la Marne, run over a road circuit in the neighbourhood of Reims, was held on the second day of the Belgian Touring Grand Prix, Sunday 5th July, as the clashing of the two events may have somewhat reduced the field of each. However, the Marne race attracted a satisfactory number of entries, although it was definitely a drivers' event, as the competition to the universal Bugatti was somewhat scanty. In the biggest class, though, it did comprise René Dreyfus on his 2½-litre Maserati and Philippe Etancelin on his new straight-eight Alfa-Romeo of which he has at last got delivery, as well as Ferrant on the old Targa Florio Peugeot. Against these formidable competitors, however, there were seven 2,300 c.c. Bugattis with such famous drivers as Louis Chiron, Marcel Lehoux, Stanislas Czaikowski, who had recovered from his accident in Switzerland, Michel Doré, d'Arnoux, Lumachi and Longueville. In the 2-litre division the Bugattis, which numbered six, had matters all to themselves, and were driven by Jean de Maleplane, Max Fourny, Gaupillat, Mademoiselle Hellé Nice, Ivernel and Carlin ; while in the 1,500 c.c. class Devaud on an Amilcar and Giraud-Cabantous on a Caban faced eleven Bugattis driven by Madame Anne Itier, Tédaldi, Veyron, Augwert, Deloune, Givaudan, Auber, Vagniez, Mouche, Mary and Frankl.

The race was over 50 laps of the Reims circuit or a total distance of just over 250 miles. The start was given at 2 o'clock in the afternoon and the whole field got away well together. At the end of the first lap Dreyfus on the Maserati was the first to appear, but as he passed the grandstands he was overtaken by Chiron on the Bugatti who thus took the lead. Behind the two leading cars came Czaikowski, Lehoux and d'Arnoux on the 2,300 c.c. Bugattis, Etancelin on the Alfa-Romeo, Lumachi on another big Bugatti and Gaupillat on his 2-litre machine.

At the end of the second round Chiron was still in the lead, but he coasted in to his pit and with a gesture of despair, retired with a broken propellor shaft. This let Dreyfus up into the lead, but on the next lap he was passed by Lehoux, who thus became first, with Czaikowski third, and Givandan, who thus suddenly leapt into prominence, fourth on his 1,500 c.c. Bugatti.

On the seventh lap Dreyfus regained the lead, but he could not shake off Lehoux, who repassed him three laps later and thereafter was never headed. On the 26th circuit, just after half distance, the Bugatti exponent from North Africa proceeded to break the lap record in 3 minutes 14 seconds, but the fast pace set by the leaders was causing a number of retirements among the field. Lehoux finally crossed the line the winner, and the rest of the competitors who were still in the running got in one by one in time to be entertained by the Reims newspaper "*l' Eclaireur de l'Est*" to a special champagne party. The final result of the race was as follows :—

GENERAL CLASSIFICATION :—

1. Lehoux (Bugatti), 2h. 47m. 37 2/5s. Average speed 89.5 m.p.h.
2. Dreyfus (Maserati), 2h. 50m. 1 4/5s.
3. Czaikowski (Bugatti), 2h. 51m. 8 1/5s.

OVER 2-LITRE CLASS.

4. Etancelin (Alfa-Romeo), 2h. 55m. 20 2/5s.
5. Lumachi (Bugatti), 3h. 4m. 16 2/5s.
6. Ferrant (Peugeot) covered 49 laps.

UNDER 2-LITRES.

1. de Maleplane (Bugatti), 3h. 3m. 55 2/5s.
2. Ivernel (Bugatti), 3h. 18m. 23s.
3. Gaupillat (Bugatti) covered 46 laps.
4. Mlle. Hellé Nice (Bugatti) covered 44 laps.

1,500 C.C. CLASS.

1. Auber (Bugatti), 3h. 19m. 1 2/5s.
2. Delorme (Bugatti), 33h. 22m. 5 1/5s.
3. Mme. Itier (Bugatti) covered 49 laps.
4. Devaud (Amilcar) covered 45 laps.

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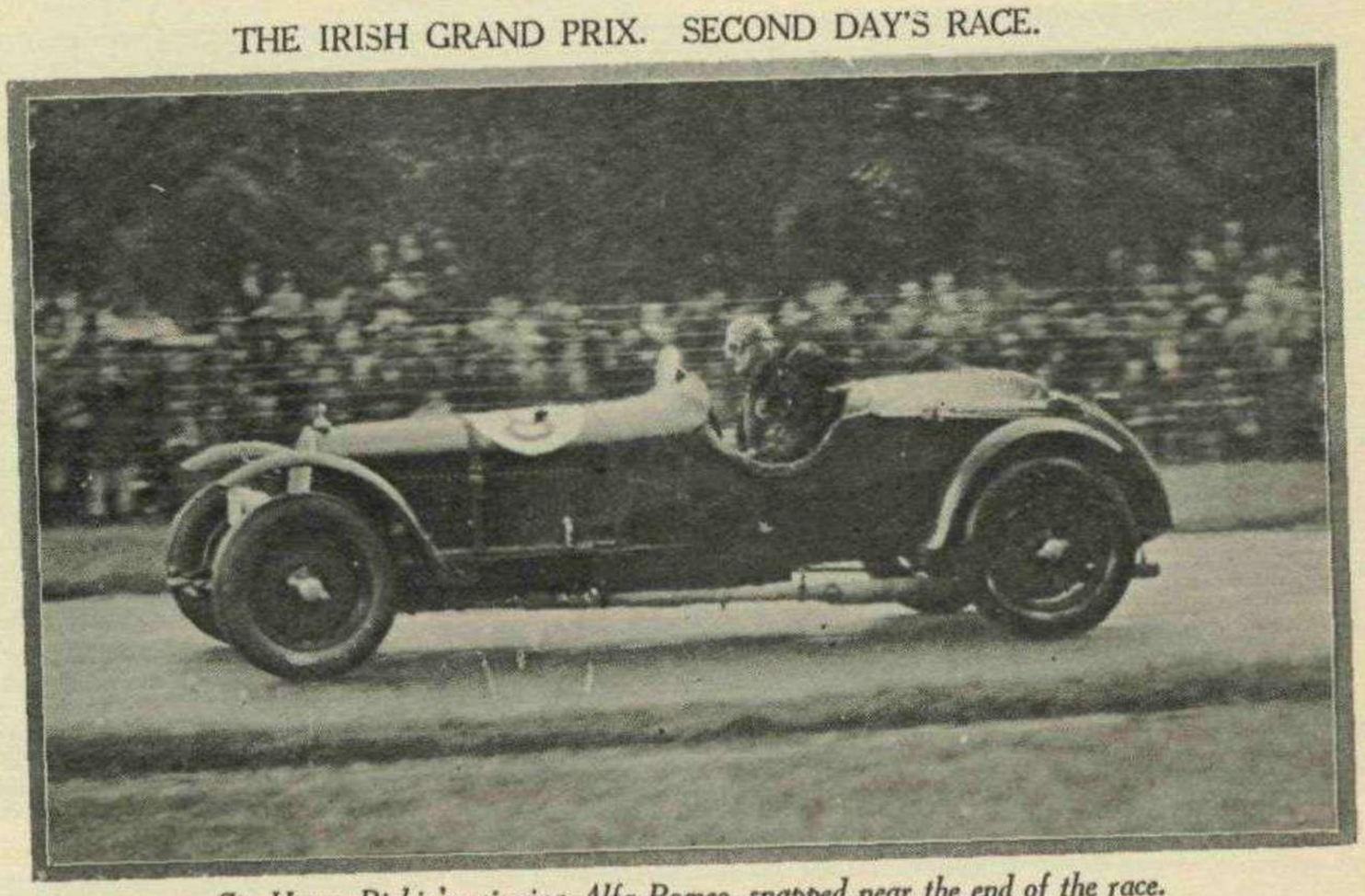
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THE IRISH GRAND PRIX. SECOND DAY'S RACE.



Sir Henry Birkin's winning Alfa-Romeo, snapped near the end of the race.

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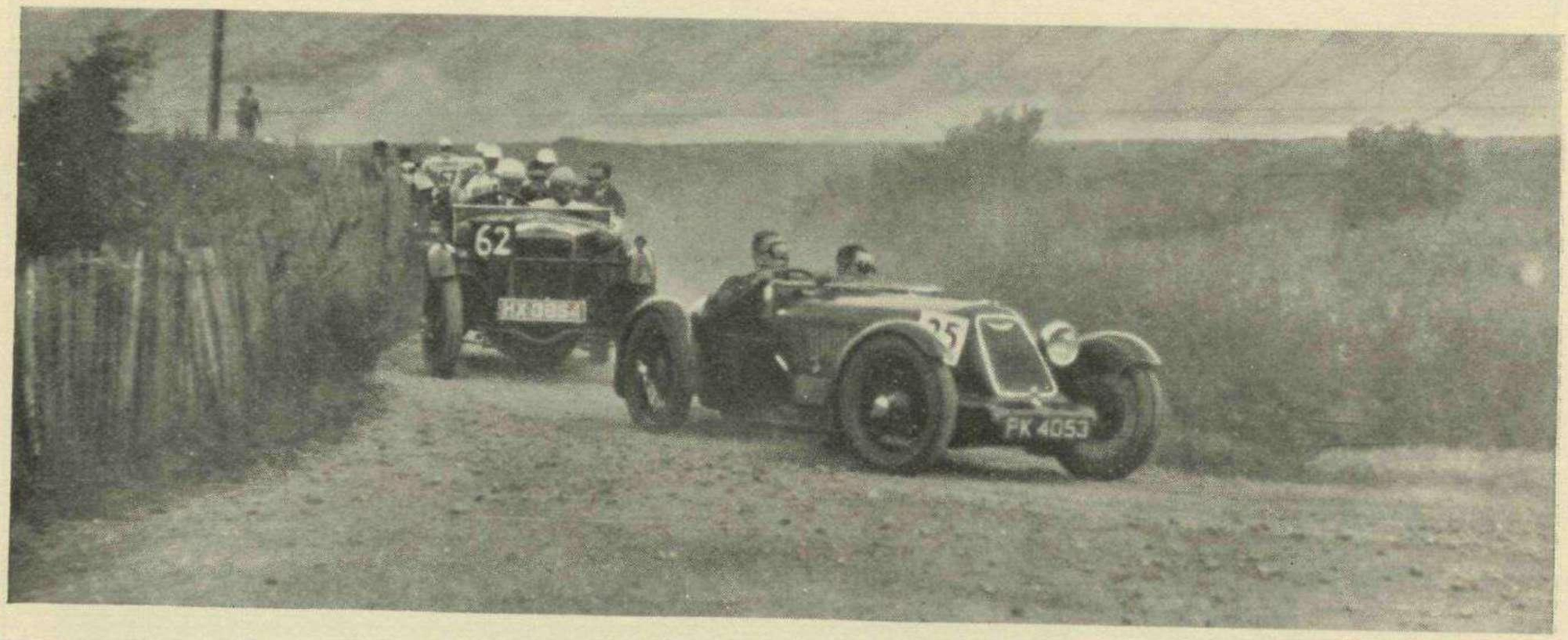
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The High Speed Trial

THE J.C.C.'s DAY AT BROOKLANDS



Follow-my-leader—in this instance G. Taylor (Alta)—at one point of the High Speed Trial course at Brooklands. [Motor Sport Photograph

IN theory the J.C.C. high-speed trial is a reliability affair. In actual practice it is a perfectly good opportunity for a glorious blind. It is about the nearest thing to a road race that the ordinary sports car owner ever gets a chance of entering, and it seems a pity that more events on similar lines, and run quite openly as races, are not a more common feature of Brooklands programmes.

A minimum speed is set for each class for the attainment of gold medal standard, and this is high enough to ensure that competitors shall not hang about. The course, starting in the finishing straight opposite the pits, goes down to the fork, round the Byfleet banking in a clockwise direction, and on reaching the end (or in this case the beginning) of the home banking, turns down through the gate off the track, along the road to the hairpin and then follows the exit roads to the members hill over the bridge. At this point a 15 m.p.h. control is instituted with a "no passing" rule, and the cars drop down the test hill and join the finishing straight once more. Once on the straight a couple of bends marked by tubs and flags add to the interest of the course.

The cars were started in three classes with the 1500 c.c. sent off together first to give them a chance for a good scrap before the smaller fry join in. The 1100 c.c. and 750 c.c. followed separately.

The start was quite in the tradition of the J.C.C. "200"s of a few years ago, and at the fall of the flag everyone shot off with a roar, as if the event was a one-lap sprint.

The first away was G. K. Marriott on a "blown" Frazer-Nash, whose acceleration was terrific. As the cars appeared on the Byfleet banking he was streaking ahead, with H. J. Aldington (Frazer-Nash) and Oetzmann and Chetwynd (Lea-Francis) in hot pursuit.

Marriott's terrific spurt was not permanent however, and he dropped back to a more sober pace, while Aldington took the lead and proceeded to increase it steadily until he had lapped the majority of his rivals. His cornering was distinctly snappy, and he was obviously enjoying himself immensely.

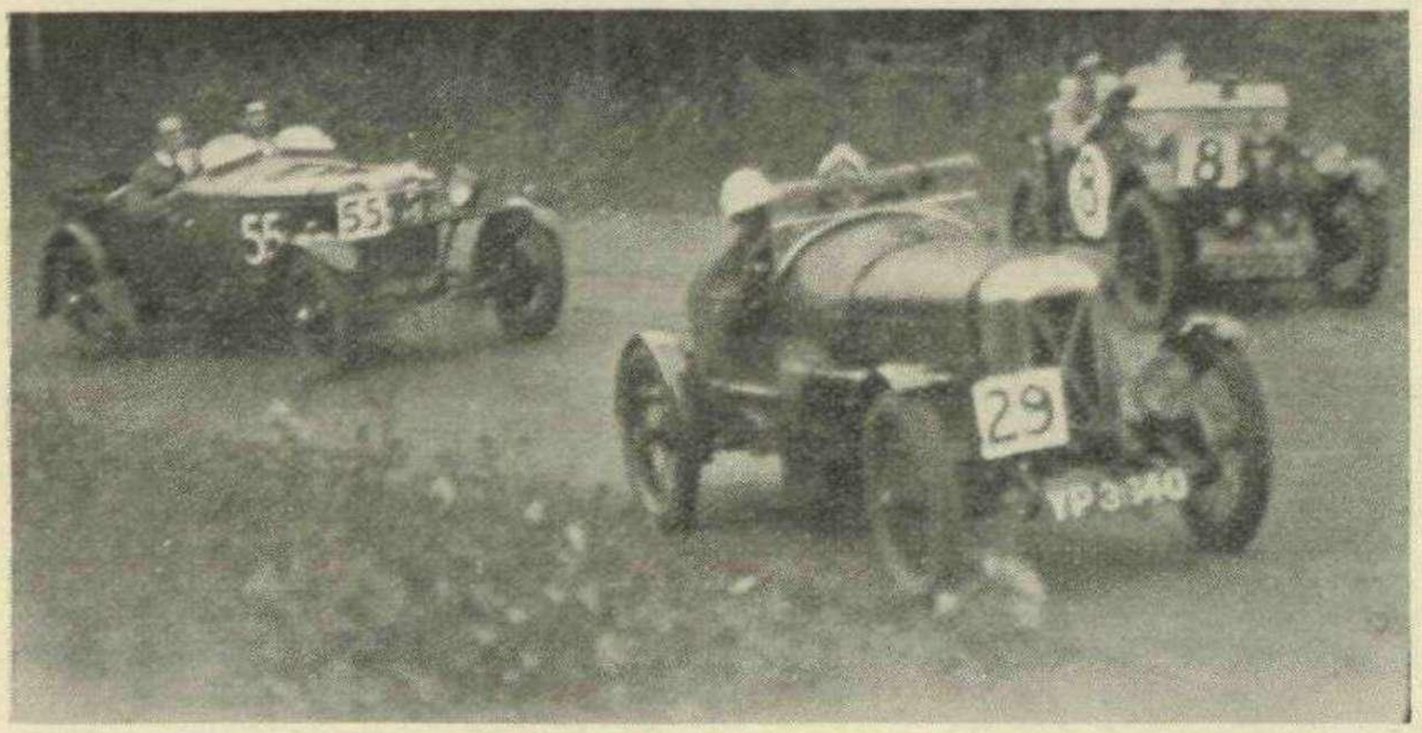
The pace being set by the more enthusiastic competitors was bound to cause trouble sooner or later, and Curtis' Wolseley Hornet had to stop with a slipping clutch, while R. Froy (M.G. Midget) and G. Taylor's very nice-looking Alta, both retired with broken petrol pipes.

The hairpin soon began to get very badly cut up, as is usual in this event, and the result was fairly hectic in the case of those who tried to take it as a racing corner, and the hedge came very near to being spoilt on several occasions. Marriott was among the most violent, and Miss Worsley all but overdid things on one occasion.

The Austin Sevens had a great time among themselves and were pleasingly lurid at times on the bend after the tunnel.

An entertaining incident occurred when Hunter's Riley Nine, on descending the test hill, suddenly made a very expensive noise inside and shot sundry portions of metal along the track almost at our feet. Greatly to our

THE HIGH SPEED TRIAL—continued.



G. H. Marriott's Frazer-Nash is badly baulked on the bend just after "shooting" the tunnel.

surprise he continued flat out, although missing on one cylinder, and proceeded to complete the course without any great loss of speed, though the driver, apparently ignorant of his real trouble, admitted to a certain loss of horses on parts of the course. In view of the fact that one con-rod had decided to take a rest and had endeavoured to escape via the sump, this is hardly surprising. However, the resulting orifice was above the oil level, and the motor duly functioned afterwards for the benefit of the scrutineers.

Frazer-Nashes had a very successful day, while D. C. Evans (Alfa-Romeo) and A. D. Chetwynd (Lea-Francis) were good. In the 1100 c.c. class, with the exception of Appleton's Riley, the "golds" all went to Salmson drivers.

The 750 c.c. class was all Austin except Mrs. Chetwynd, who drove an M.G. and duly collected a "gold" in company with six Austins.

This concluded the morning's performance and, following lunch, various other events were held.

At 2.30 p.m., according to the schedules, some to-and-fro races were due to be held, but the chief sight available for the 45 minutes following was a to-and-fro event for the officials, carrying bunting, arranging flags, etc. When this was more or less completed it was tactfully, but very sensibly, observed by the genial Prof. Low that the barrier shortly after the finishing line had better be removed or the competing cars would undoubtedly save someone the trouble.

Further delay, and Donald Monro's M.G. Six caught fire on the starting line, causing much shouting for Pyrenes, which, however, were not forthcoming till the fire had been extinguished. The event was run in a series of heats, and provided a win for the Frazer-Nash driven by Aldington, with Penn-Hughes second, their acceleration giving them a big advantage over the others. Austin Sevens were also good, as they were able to turn more easily in the small "garage" space provided at the ends of the run.

The next event was an acceleration and stop and restart race, in which drivers had to accelerate, stop between marked lines, get out and retrieve a flag from a bucket, and continue over the finish.

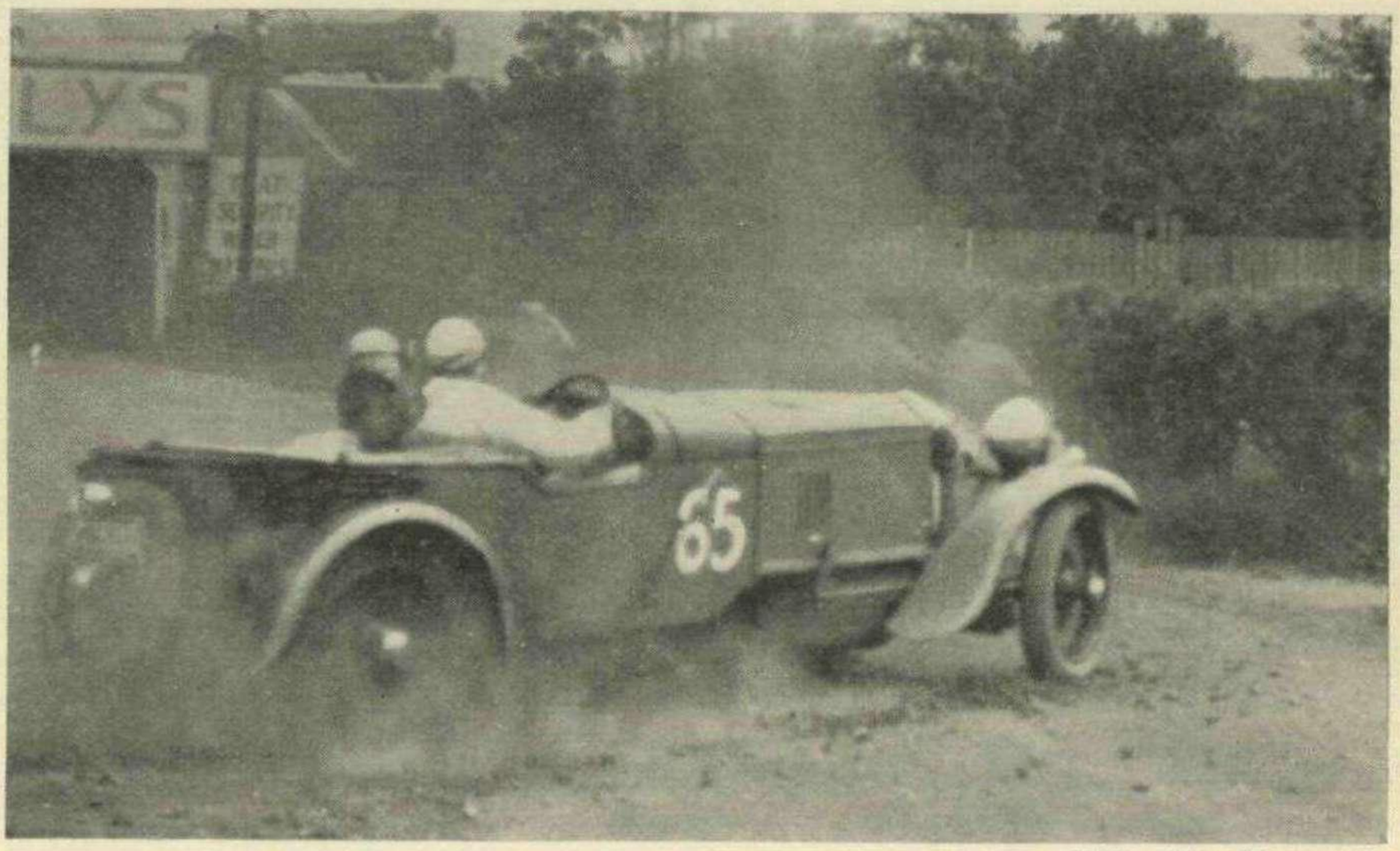
Aldington scored his third successive "1st" in spite of having to restart his engine after getting back into his car. Paul's old Windsor was very good, and was extremely well handled in all its events.

Then we had a two-lap relay race, also in heats, in which a plug had to be extracted and handed to the other car of the team. Marriott (Frazer-Nash-with-blower) appeared in sight so far ahead that he was able to over-shoot and get back to his correct position and still give Chaplin's Austin a clear lead, which he held. Evans and Bachelier had a great scrap on blown Bugattis. The event finally went to Evans and Miss Bowman, on an M.G. Midget.

Things being now well behind time, events were dealt with two at a time. C. Anthony on a very old Senechal won the driving skill contest by a handsome margin, while Bachelier's Bugatti won the test hill event in the remarkable time of 9 3/5 secs., which is under 2 secs. outside the test hill record, and Mrs. Wisdom was a very close second in 9 4/5 secs.

The ten lap race provided a good race, being won by Baker's Minerva from Evans' Bugatti, which was lapping at 90 m.p.h. from scratch, but could not catch up his 6 mins. 3 secs. handicap on the limit man. C. G. H. Dunham, on one of the new 12-60 Alvis, was third, after going very well.

(*Results on page 495.*)

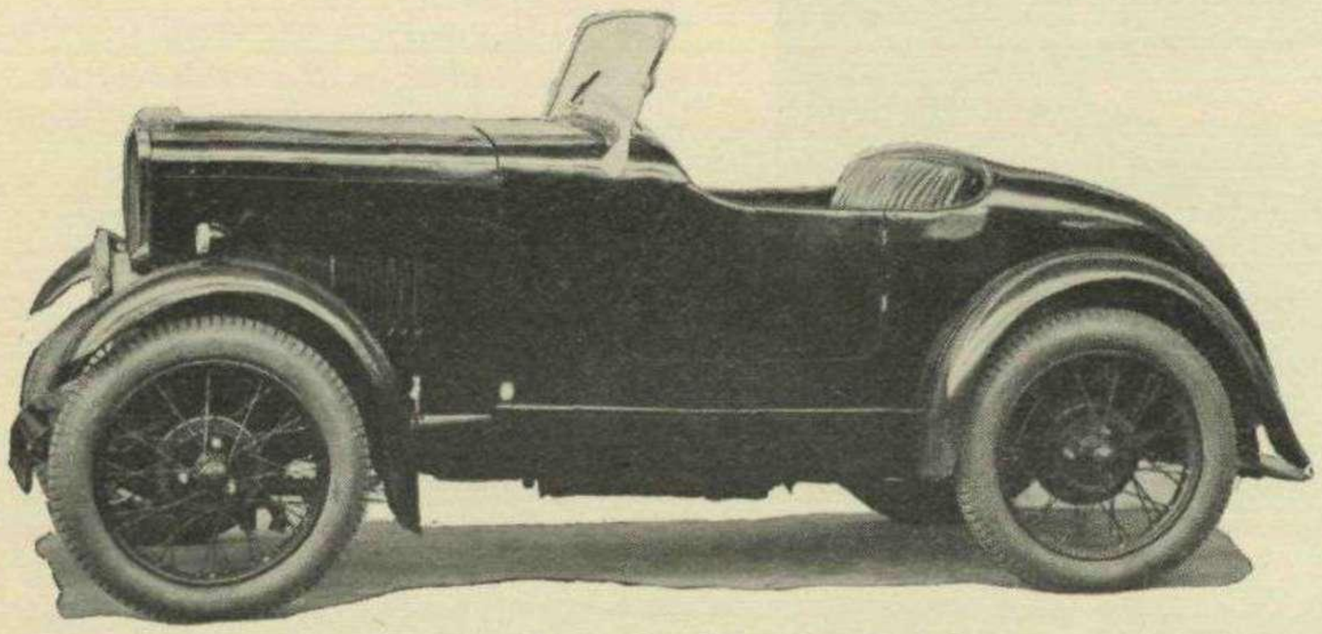


[*Motor Sport Photographs.*

K. Hutchison (Frazer-Nash) stirs the dust on the hairpin.

THE TRIUMPH "GNAT"

An Economical Small Car with a Lively Performance.



A very neat job—the Triumph "Gnat."

THE tremendous increase in the popularity of the small sports car has been one of the most prominent features of motoring in the last few years. Its touring brethren have shown that the comparatively poor man can now take up motoring, without becoming insolvent as a result, and now it is proven in addition that the poor man can also motor with considerable speed and snappiness, without financial embarrassment.

The whole-hearted small car enthusiast will carry his argument still further, and will definitely state that something well under 1,000 c.c. will provide all the performance that anyone can want, so that the big car is entirely superfluous. When he reaches this stage it is time to mention gently that he has forgotten one or two points, and that people sometimes buy cars for reasons of accommodation, power at lower engine speeds, and even to exceed the admittedly fine performance of the "baby." Nevertheless, there are thousands of actual and potential motorists to whom the small car has an irresistible appeal, not only on the score of hard cash, but by reason of the fascinating handiness of this type, enabling averages through traffic and over narrow and difficult roads which are unsafe or impossible on a larger vehicle.

A recent week end during which we had a Triumph "Gnat" at our disposal, enabled us to see even more vividly, why it is that the small car enthusiast is increasing in numbers.

There are many points about the Triumph chassis which have always appealed to us as being modelled on the best car design and practice. The whole job is extremely solidly constructed and neatly laid out. It is essentially a large car in miniature, and the finish is beyond reproach. It is built to the designer's ideal of specification first, and to be sold at a low price as a secondary consideration.

A tireless "revver."

The chief feature of the engine is the fact that in spite of its small size it employs a 3-bearing crankshaft, and the result amply repays any extra cost that may have been incurred in so doing. Throughout its full range of speed (and 5,000 r.p.m. is nothing to worry about on this model), it is absolutely smooth, and in spite of the high engine speed inseparable from such a small unit, there is never any feeling that it is being overdriven or stressed in any way.

The top gear ratio of 6.25 means that the r.p.m. are very high indeed, as it is possible to hold 60 m.p.h. for miles on end when conditions allow, and a maximum speed of 65 m.p.h. is attained.

Acceleration is good on top gear, and especially so on the second gear of 11.1 to 1, but we should have preferred the lower ratios to be rather closer to top, as this would improve the performance on hills, which good as it is, sometimes seems to be asking rather a lot from the engine when all out on second gear. We must admit, however, that the engine does not appear to mind in the least how much it is revved, so the objection is not a serious one.

Solidity with Snappiness.

Handling on the road was good, and the robust chassis and normal layout of the springing assist to give it a very steady feeling at all speeds, which makes one imagine oneself to be at the wheel of a much larger vehicle. The steering was good on the straight and very steady, but though it was perfectly well-behaved on corners, there was not as much caster action as we should have liked, with the result that it was apt to feel just the least bit "dead." The car itself was particularly free from any rolling on corners, although not built excessively low.

In fact the ground clearance has been kept by careful design at no less than 8", which makes the car very suitable for trials work, especially in view of its low gears and ample power output of just over 23 h.p. at 4,000 r.p.m.

Some excursions over rough going with this particular car further confirmed the impression of strength which we got as soon as we took it over, and in spite of some rather abnormal banks and boulders attacked in the course of our wanderings we failed to ground anything.

The brakes are one of the outstanding features of this car, and are liable to take one quite by surprise at first. They are hydraulic, on the Lockheed principle, and although tremendously powerful are not fierce. They will bring the car to rest in 50ft. from a speed of 40 m.p.h., on a dry tarmac surface, which is a performance considerably above the average.

The bodywork is well finished, and comfortable, and the whole car possesses many attractions to the owner who wants a neat 2-seater, cheap to run, and with a performance which enables him to hold many much larger and most costly vehicles on the road, and to stand a good chance in competitions.

Club News

M.C.C.

THE Motor Cycling Club has now issued the results of their Land's End-John o'Groats run. In the car class there were twenty-nine starters, twenty-five of whom finished.

The list of those who secured first class awards is as follows :—

Stroud, H. J. (Alvis), Templeman, J. (Triumph "Scorpion"), Boote, R. S. L. (Lagonda), Mann, T. C. (Lagonda), Massey, R. H. (Austin), Bainbridge, J. B. (Rolls Royce), Tom, W. H. G. (Lagonda), Watson, W. J. (Austin), Strong, G. H. (Standard "Ensign"), Olive, G. W. ("Avon" Standard), Roberts, B. (Schneider), Budd, E. E. (Alvis "Silver Eagle"), Payne, D. B. (Wolseley "Hornet"), Thorburn, A. H. S. (Roger), Bolton, F. W. J. (Morris Minor Page), Holland, W. E. (Lea-Francis), Thatcher, F. A. (Triumph), Robinson, C. I. (Alvis), Guiver, C. L. (Salmson), Collier, G. K. (Talbot), Addis, J. J. J. (Invicta), Morley, R. J. P. (A.C. Acédes), Gaskell, G. E. (Trojan), Tucker, E. H. P. (Frazer-Nash),

The remaining fixtures for the 1931 season comprise the following :—

Brooklands Meeting (Saturday, 26th September)—Sporting Trial (Saturday, 17th October) — London-Exeter Trial (28th-29th December).

J.C.C.

Approximately forty members, chiefly composed of the South Western Centre of the Junior Car Club, paid a visit to Messrs. The Firestone Tyre Co.'s factory on the Great West Road on the 1st July, and saw and had explained to them the various processes entailed in the manufacture of all classes of motor tyres.

The factory appears to be equipped with all modern and up to date plant. After a very interesting tour of the works the party were entertained to lunch by the Directors of the company at the Osterley Park Hotel. Mr. L. J. Evans, the local Branch Manager presided and was supported by the Chairman of the South Western Centre, Mr. Thomas G. Hayter.

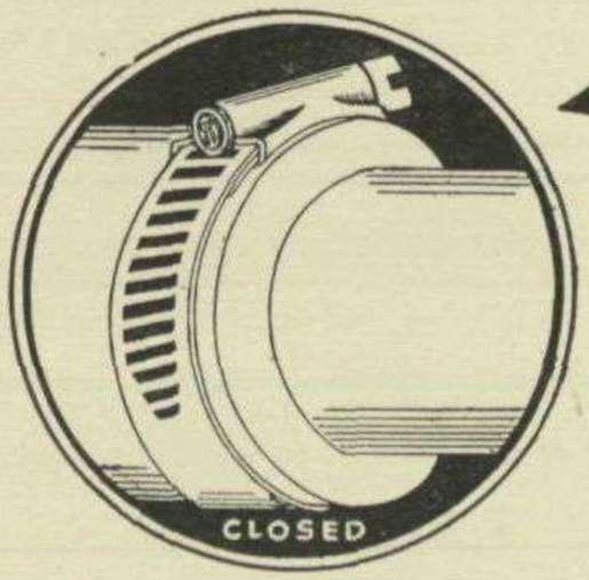
Lunch being over the party then paid a visit to the Pyrene Co.'s works just across the road, and had the making of bumper bars, chromium plating and fire extinguishers explained to them. Various demonstrations were given of fire fighting, and life saving, etc. The members were then entertained to tea by the Management of the Pyrene Co., after which followed a film display of large fires being extinguished.

BRIGHTON & HOVE A.C.

Owing to the severity of the course, first-class awards were few in the Brighton-to-Beer Trial. Thus, amongst the light car competitors, the only drivers to secure the award were R. C. Porter (Riley), A. G. Shepherd (Singer), R. C. Player (Riley), J. S. Drewett (Austin Seven) and R. A. Stenhouse (Riley). Miss E. F. May (M.G. Midget) is to be congratulated upon winning the ladies' prize, and a special award was made to A. F. Scroggs (Trojan) who failed in the brake and acceleration tests, but drove the only car of the whole entry to climb all the hills non-stop. These hills, by the way, included the notorious Simms.

The Editor invites Club Secretaries to send details of their fixtures, sporting and social, for publication in these columns. These items should be sent to reach this office not later than the 16th of the month.

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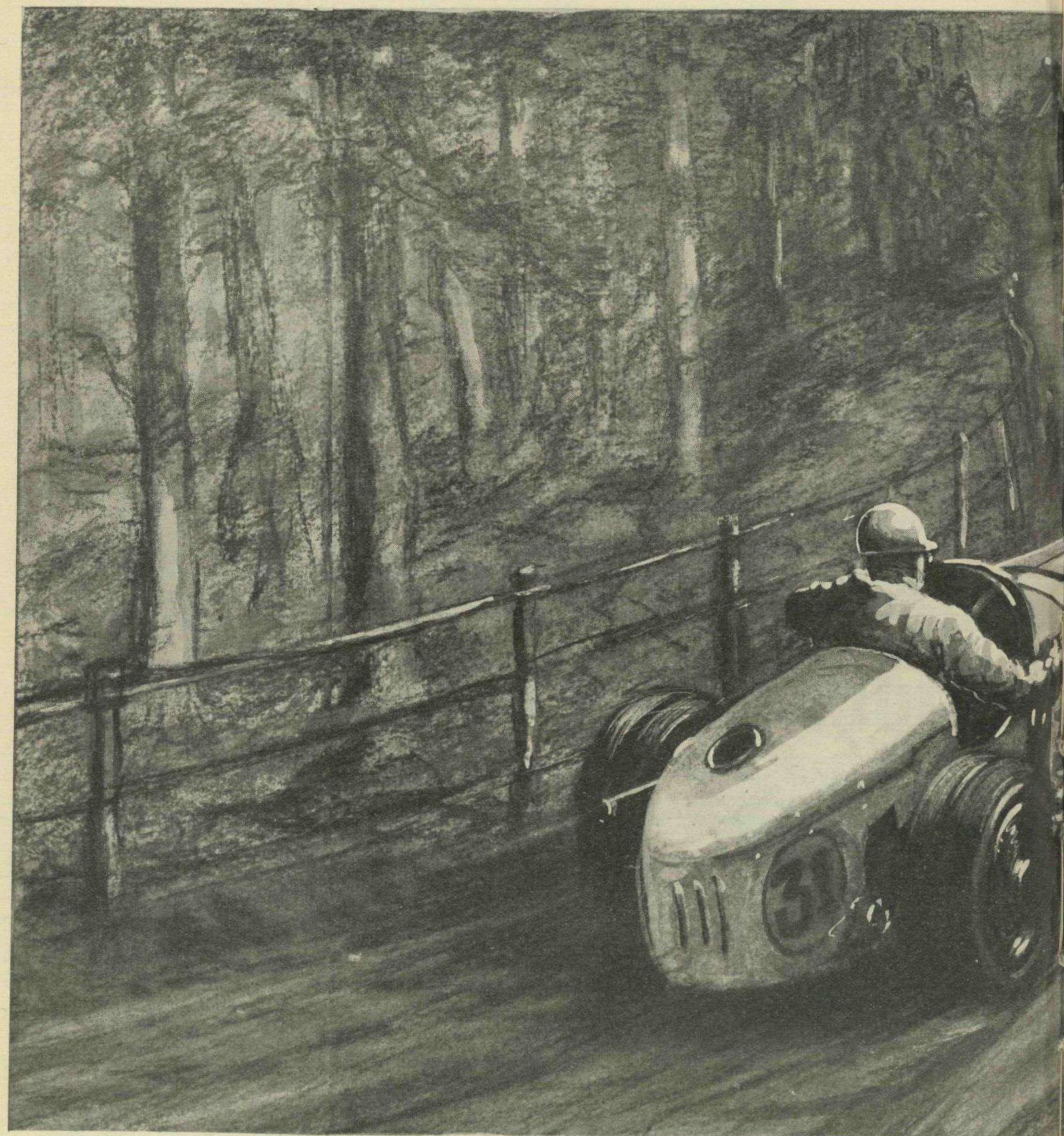
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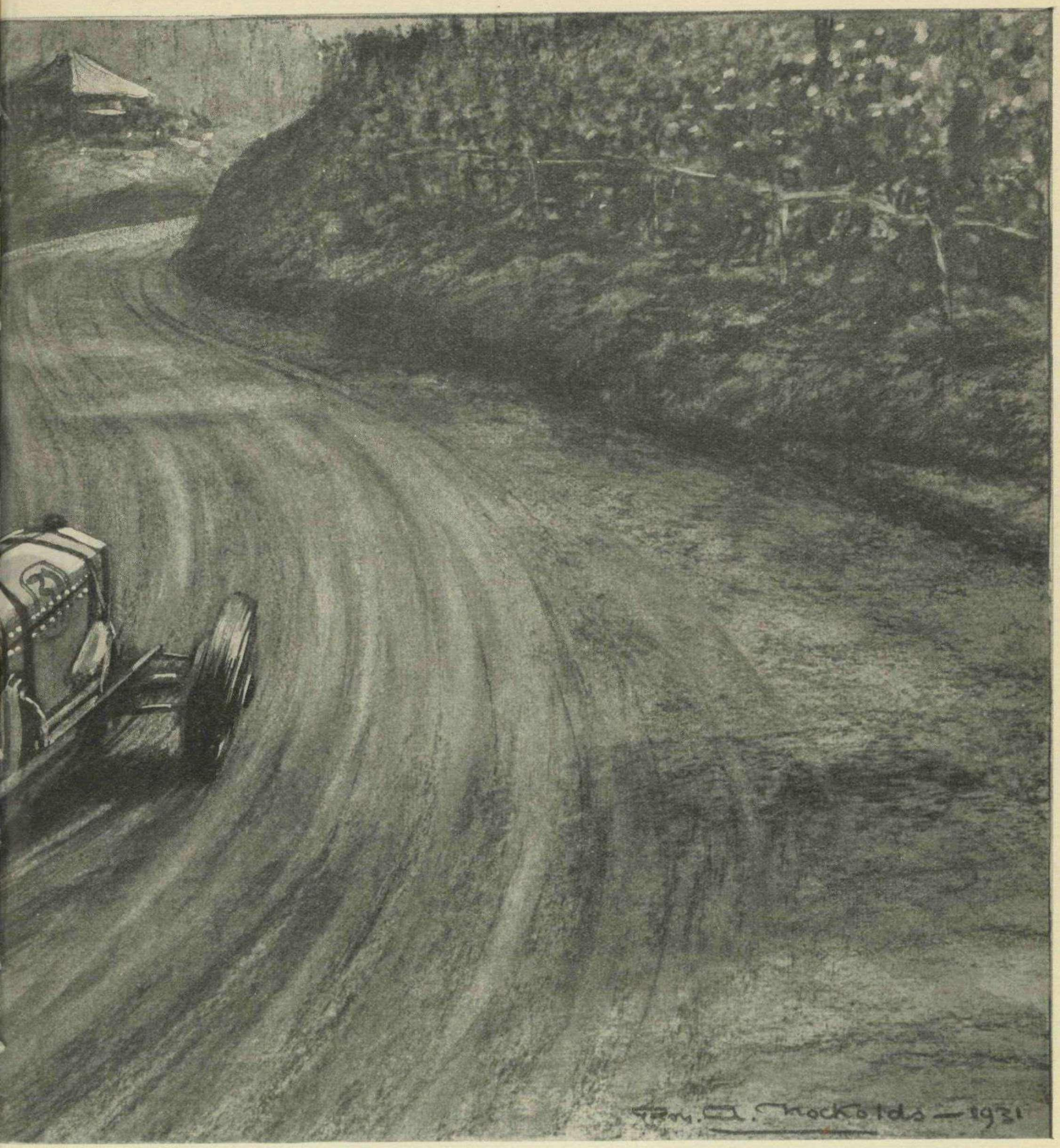
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Fastest Time of the Day. *An impression of R. J. G. Nash making his spectacular ascent at Shelsley*
He clocked 43.4 seconds, and was only 1 second slower



Walsh last month with "The Terror," whereby he won the Shelsley International Championship Cup. than the record-holder of last year, Hans von Stuck.

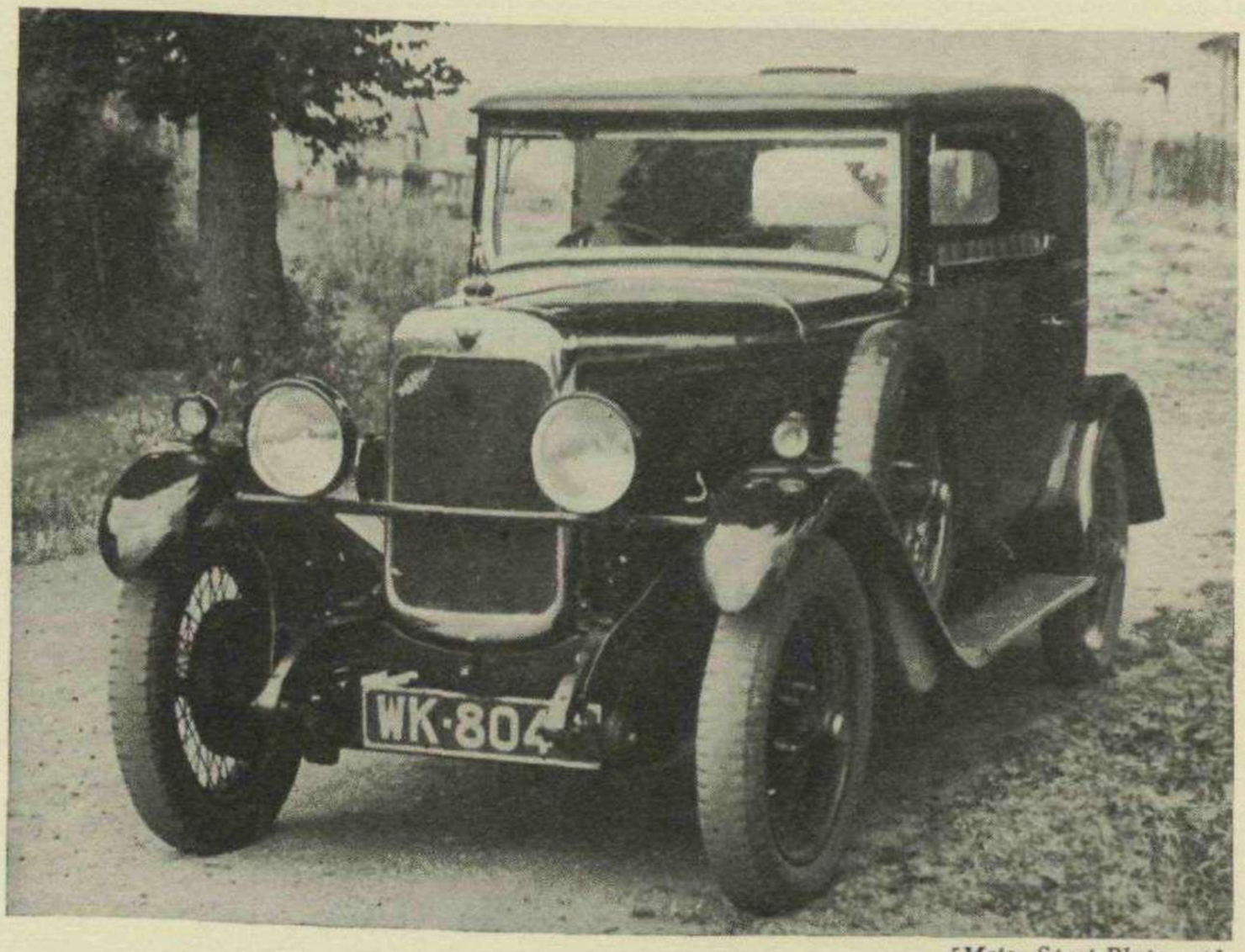
TRYING A "SECOND-HANDER"

V.—A 1929 "SILVER EAGLE" ALVIS.

WHEN one considers the large number of Alvis on the road of six or seven years old, many of them not looking older than a year or so, and all capable of a performance of which many modern cars might well be proud, it hardly seems that one only two years old can be called second-hand at all.

At least that is what we felt when we stepped into the very smart four-seater coupé which was kindly put at our disposal by Charles Follett, Ltd., of 18, Berkeley Street, who are the distributors for this *marque*.

The car in question, taken from their stock of used cars is known, we believe, as the "Clubman's coupé," a designation which we must confess to like very much less than the very nicely finished and cunningly planned body which it is used to denote. One is always inclined to think of a "clubman," as being a cantankerous, overfed individual, in rather formal attire, and addicted to expensive cigars. Why, heaven knows, for most of us belong to clubs and do not, we hope, answer the above description.



[*Motor Sport Photograph*

After a 400-miles trial. The Alvis tested by Motor Sport.

However that is all entirely beside the point, which is that this particular Alvis was a six-cylinder, one of the "Silver Eagle" range, and of 1929 vintage. The 4-seater coupé body was very luxuriously equipped, all the upholstery was pukka leather, and the seats among the most comfortable we have occupied for a very long time. The only thing that could be said against the body was that it was rather heavy compared with a normal open type, and so slightly restricted the acceleration and hill climbing of the car.

Not that one would have been aware of this if one had not already experienced the performance of a similar car with light bodywork, and which was slightly quicker off the mark.

Luxury however, has to be paid for somehow and the penalty here is negligible as this model, although of comforting sober appearance, is *nothing* like so sober when it comes to showing some other sports cars just where they belong in the scheme of things.

Endeavouring to remember that we were in a second-hand car and not a new one, we tried to detect signs of wear and tear. The body work was in as good condition as new, and was quite free from rattles or drumming. The engine was smooth and powerful, though one or two unimportant taps suggested that the valve clearances would bear looking over. It started instantly from cold on the starter which is a good sign that the valves and also the electrical equipment are in sound order. The clutch was smooth, and the indirect gears were quiet, with just that steady hum, unmixed with other noises which tells of good workmanship, and rigid shafts. First gear was hardly ever used, even for getting away, as second did just as well and saved time. It would run up to 35 m.p.h. on this gear, and to between 45 and 50 m.p.h. on third, while the maximum speed on the level was 74 m.p.h. We actually attained a 3 or 4 m.p.h. higher speed than this under more favourable conditions.

The steering showed no signs of wear, and being fairly high geared gave a pleasant and positive control, though we would personally fit a slightly larger wheel if the car were ours.

When first taking the car fast over a not-too-good surface, the springing appeared rather soft, but a trial with a spanner showed that the Hartford shock absorbers had been left slack, and a turn on each of them transformed the suspension completely.

The car was admirably steady, both on corners and on the straight, and during 300-400 miles driving, mainly on winding roads, we found it handled with all the accuracy one would expect in a car built by a firm with real racing experience.

The brakes were smooth and powerful, but being direct acting without servo assistance, were fairly heavy to operate, though not to such an extent as to make driving tiring in any way. Altogether a pleasant car with a definitely sports performance, and at £295 it is another example of the fact that good second hand cars are cheaper to-day than they have ever been.

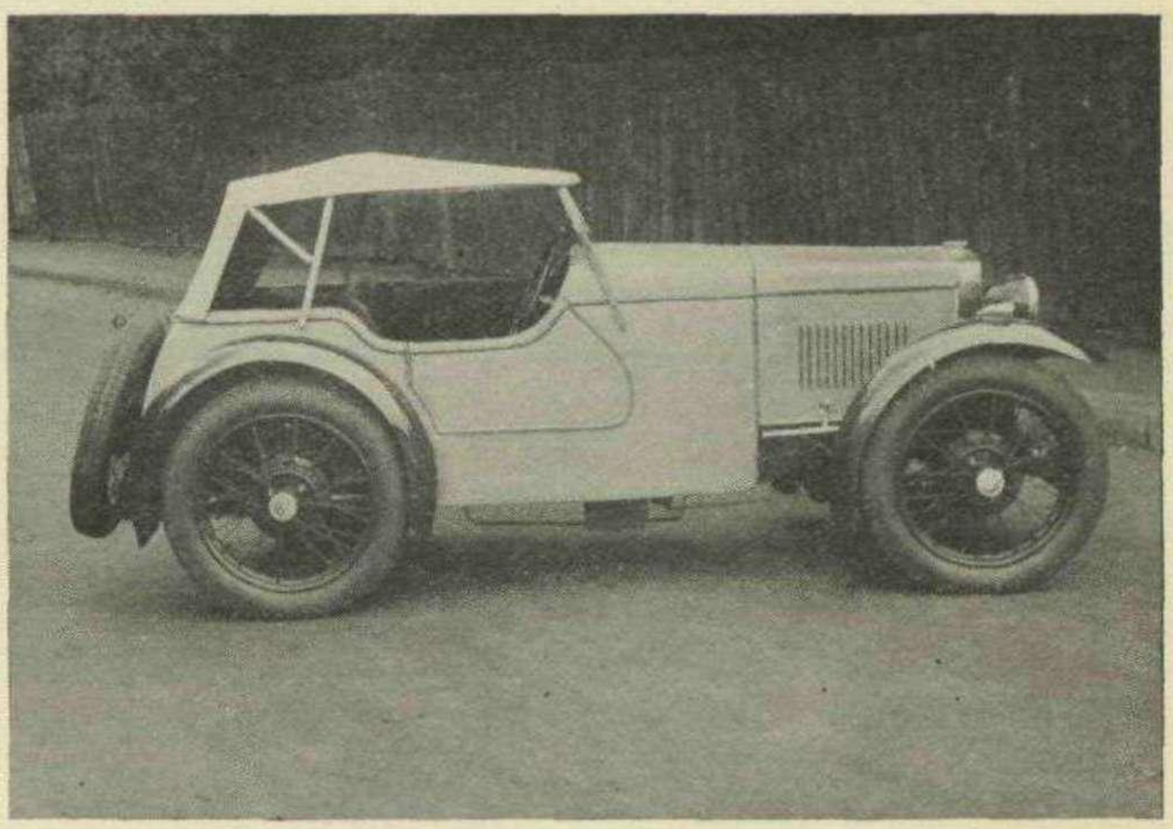
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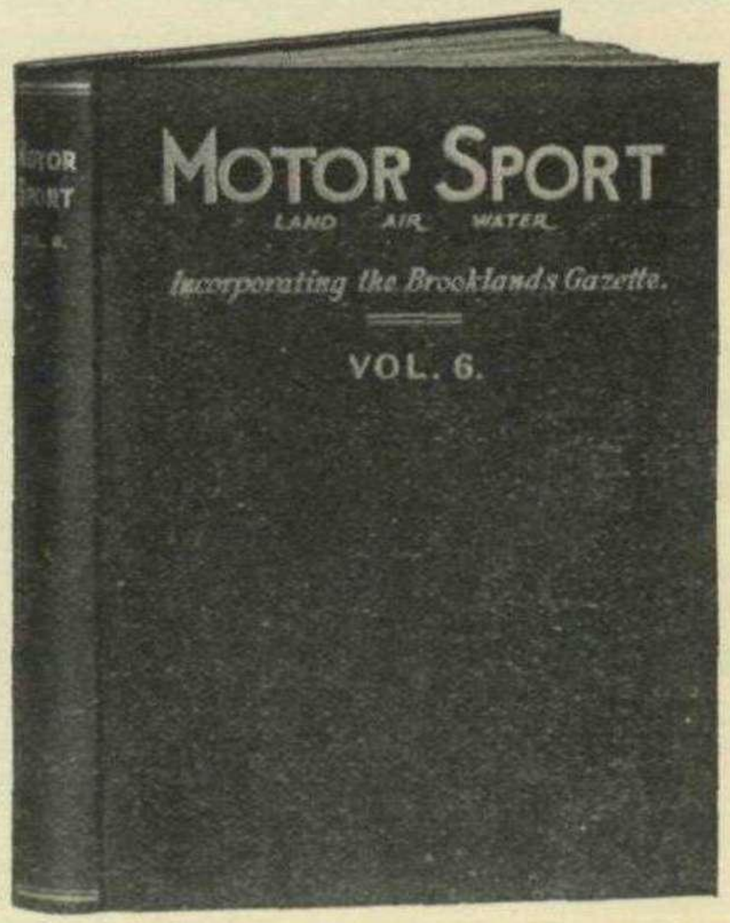
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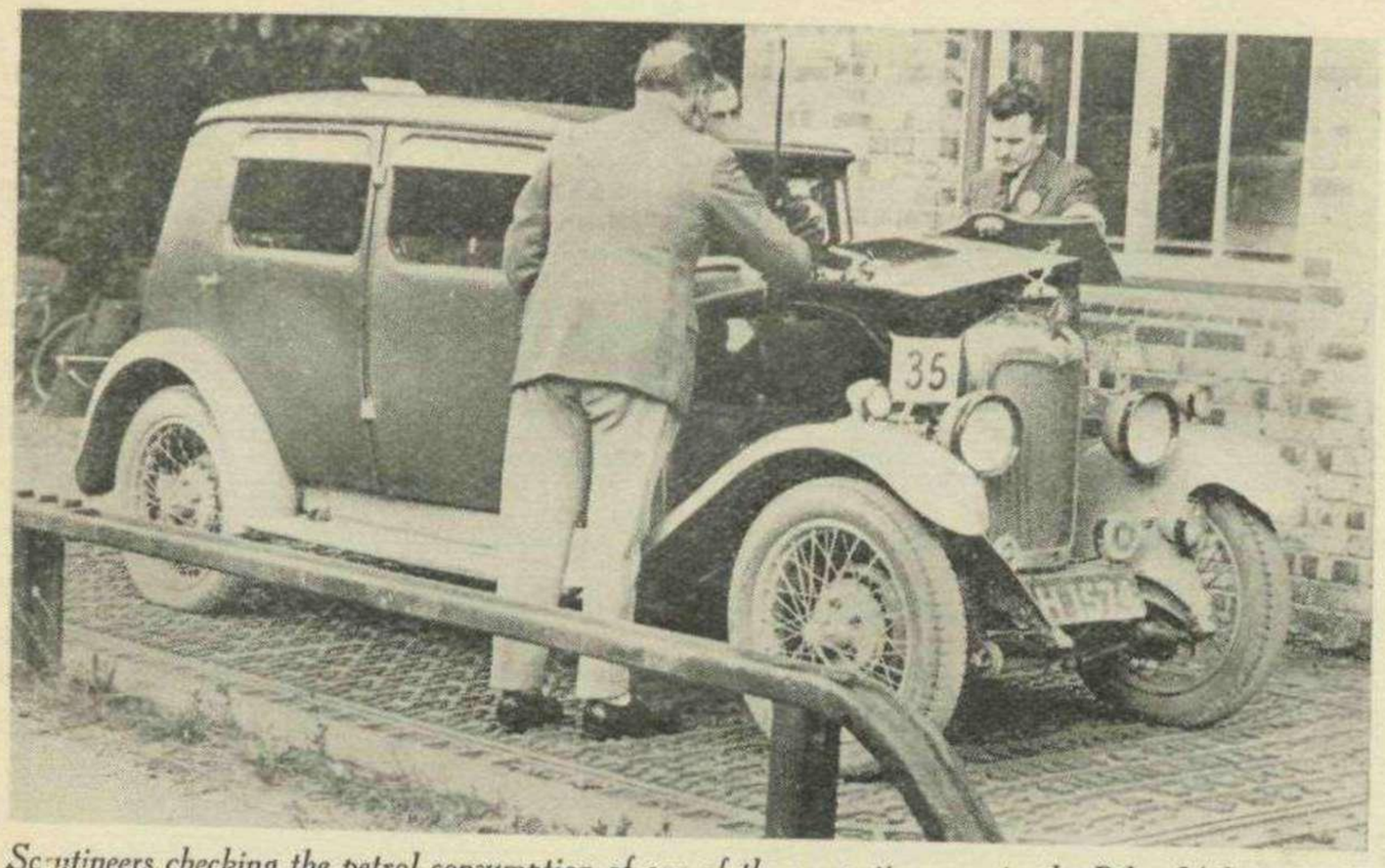
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A ONE-MAKE 24-HOUR TRIAL



Scrutineers checking the petrol consumption of one of the competing cars in the Riley 24-hour trial.

NEARLY SEVENTY COMPETITORS TAKE PART IN WELL-ORGANISED EVENT ARRANGED BY THE RILEY CLUB.

RALLIES of one sort and another are becoming more popular every year, and there is no doubt that the opportunity of individual planning which this type of event provides is a great attraction to many drivers. The Riley Club went one better, however, and combined a rally with a trial over some difficult country in Wales, so that those who had successfully completed their self-imposed tasks of journeying from London, Leeds Newcastle, Southsea, and other points on the map, then had a chance of sampling some Welsh hills, including the famous Bwlch-y-groes.

The cars set off in the evening of July 3rd, and arrived in Brecon in the early morning. After hasty ablutions and some food to freshen drivers and passengers after their night drive, the first man left on the trial proper at 8 a.m. The remainder of the entry, nearly 70 cars, set off at minute intervals to follow the unpronounceable route of 156 miles to Llangollen.

The whole route led through some of the most wonderful scenery in Britain, though it is doubtful if the competitors had very much time or inclination to take advantage of this.

The first hill was situate in the Elan Valley, and named Elan's Back Door, and provided quite a tricky little climb whose three hair-pin bends were very loose, and gave opportunity for neat driving, as well as for some which was anything but. The hill did not present any real difficulty however, and the various types of Rileys coped with the gradient with ease.

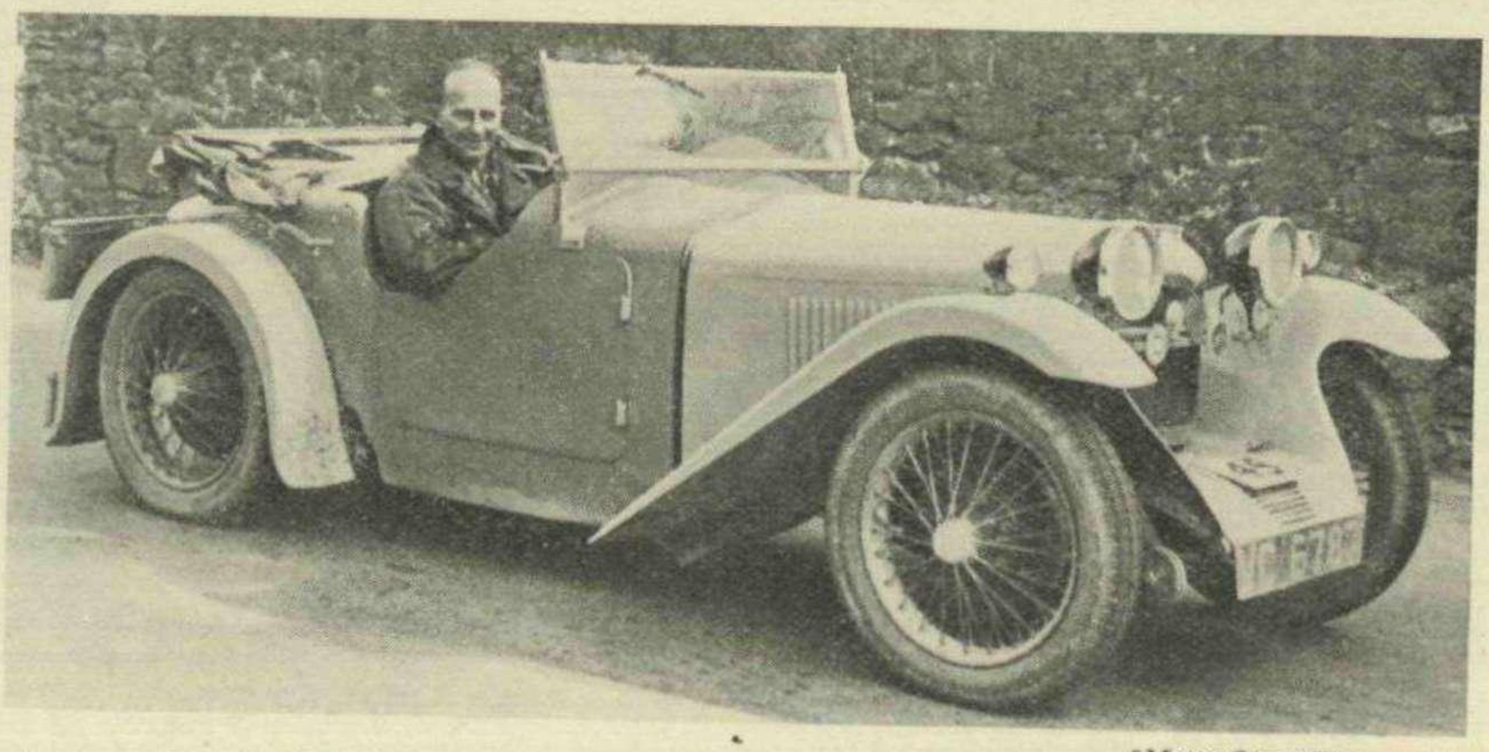
A point which made all the hills a little more severe than they might have been in an ordinary trial was the fact that all cars were compelled to carry their full load of passengers for the entire event, and therefore owners of two seaters were at a distinct advantage in actual hill performance, though at a corresponding disadvantage when their figure of petrol consumption in ton-miles per gallon came to be worked out.

The next hill, Stay-a-little, was also used as a timed climb, which caused the above-mentioned complement of passengers to be considerably shaken up on the very bumpy surface. Once again, though, the cars performed well.

Breakfast having by now been well shaken up—or down—lunch was taken at Dinas Mawddwy to fortify competitors for the attack on Bwlch-y-Groes. This hill, which may be pronounced as it is spelt, if you can do it, is nearly 2 miles in length, 1 in 4½ in gradient in places, and has a prevailing wind designed to overheat nearly any normal car.

The first section of the hill produced no great bother, but the cars were stopped shortly before the half distance had been covered for a timed climb, to ensure that they were given a real blind to the summit.

This resulted in good deal of steam being generated, though the speed of most of the cars did not



[*Motor Sport Photographs*

Donald Healey in the new model Riley, which he took through the Club's trial.

A ONE-MAKE 24-HOUR TRIAL—continued.

seem to be affected by whether they boiled or not. The "nines" were particularly good, both for speed and lack of boiling, exceptions being G. S. Davison (Monaco) and W. E. Chadwick (Biarritz) who stopped momentarily, and Miss Pinder (tourer) who had to unload her passengers before the car would continue.

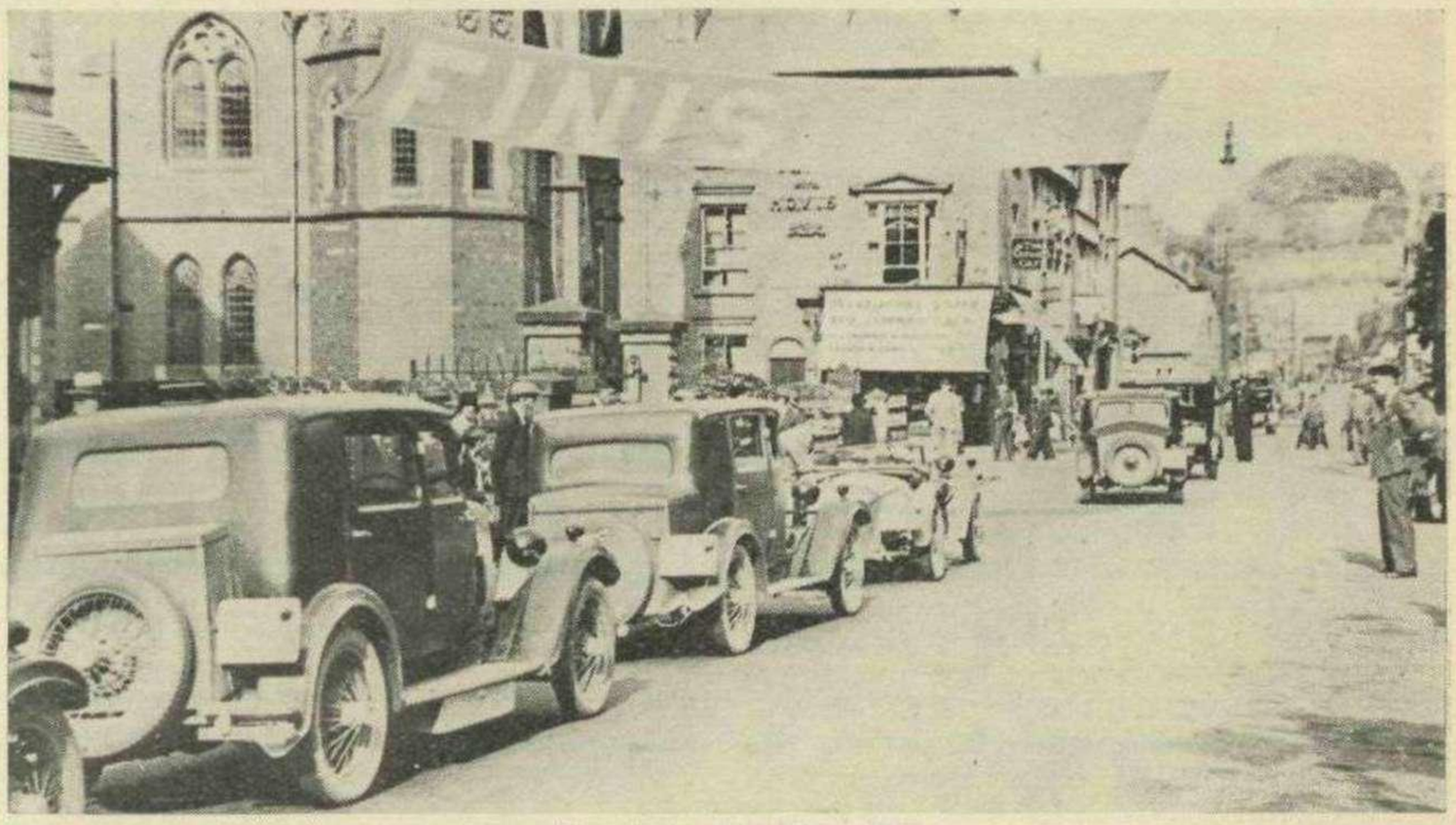
Excellent climbs by "nines" were made by G. Clifton, C. E. H. Finch, G. A. Wooding, and C. Crosthwaite, the latter eventually proving the winner of the Premier Award.

The route led from here via Bala and Corwen to Llangollen, where the cars, after checking in, were sent across the town to the station to be weighed, complete with passengers, what time their remaining petrol was also measured and the results were worked out in time for the awards to be allotted within a few hours of the finish.

Results were based not only on time-keeping, and petrol-consumption on a weight basis, but also on shortage of correct number of passengers, performance in the timed sections of the hills, and distance from Brecon of the chosen starting point.

Awards were also given for various special features, and it was generally voted at the dinner following the event that the Riley Club were to be congratulated on their enterprise in staging such a novel and interesting trial.

The results were as follows:—



The check-in at Llangollen.

The Ski-Lady Challenge Trophy (Premier Award. Best performance by any competitor)—C. Crosthwaite (Leeds), 34.25 ton-miles per gallon.

Directors' Challenge Trophy (best trade performance).—J. Hobbs (London), 34.59 ton-miles per gallon.

"Good Housekeeping" Cup (Best Lady's performance).—Mrs. Harold Goodwin (Southsea), 30.53 ton-miles per gallon.

J. O. Jones Cup (best fuel consumption).—H. N. Booker (Leeds), 53.56 ton-miles per gallon.

Harold Goodwin Cup (best all-round condition at finish).—Harold Goodwin (Southsea).

Derick Burcher Cup (best trade fuel consumption).—S. E. Ellis (London), 42.77 ton-miles per gallon.

Leverett-Kearton Cup (best performance by lady on both hills).—Mrs. Lilian Butchart (Newcastle).

Blake Challenge Cup (best performance by a Riley Nine).—J. H. Fuller (Southsea).

The Secretary's Tankard (best 14 h.p. six-cylinder Riley).—H. J. Ripley (London).

The Club Cup (best two-seater).—C. H. Finch (Leeds).

Stelvio Trophy (best performance on hills).—R. K. Appleton (Cambridge).

Riley M.C. Novice Cup (best performance by novice).—B. Bowles (London).

Harold Phippen Cup (best trade performance on both hills).—G. M. Densham (Exeter).

Service Challenge Cup (for oldest car to complete course).—Miss M. H. Shaw (Leeds).

Fostering Overseas Trade.

PESSIMISTS to-day are apt to say that foreign countries and our Dominions are so badly hit by the general trade depression that it is no use doing anything about overseas trade.

An example has been set to them by Mr. S. Bettmann, founder and managing director of the Triumph Company, who has just returned from a business trip to South Africa. Mr. Bettmann did not go there to appoint new agents, for so energetic has been his company's policy that they are fully represented in South Africa and, indeed, almost all over the world. He merely went to cement the close business relationships which exist between him and his customers in distant lands and to renew the numerous friendships formed during his previous visit to South Africa some years ago.

If the managing director of a concern which has business relationships already established overseas finds such trips necessary, how much more so are they necessary when new ground is being broken?

How Far For £5?

AN analysis of the results of the recent Rover "£5 trial" in New Zealand shows that there is even more in them than meets the eye.

Under the official observation of the Auckland A.A., a "Family Ten" saloon covered 1,577 miles at a cost of £4 17s. 6d. This in itself sounds good, but in New Zealand petrol is more costly than it is here—the average price paid was nearly 1s. 10d.—and as petrol was naturally the largest item the results take on a new aspect when translated in English figures.

Corresponding quantities of fuel at the average "home" price of the best spirit—1s. 3½d.—would have cost under £3, where as in the test they cost £4 5s. 9d. Proportionately, for the round sum of £5, the car could have completed 2,354 miles in Great Britain.

Another interesting point is that in the last "£5 trial" held in England, a Rover Ten did 2,147 miles, under R.A.C. observation, at an average consumption of 32.4 m.p.g., petrol then averaging 1s. 2½d. per gallon. In the New Zealand test, despite the inclusion of atrocious road surfaces which necessitated the use of chains over long stretches, the consumption was 34 m.p.g.

ITEMS OF INTEREST

FROM VARIOUS SOURCES

B.R.D.C. 500 Miles Race.

THE handicap figures in connection with the B.R.D.C. 500 Miles Race to be held at Brooklands on October 3rd are now completed and given below.

It will be seen that non-supercharged cars are shown a slight favour, there being separate handicaps for supercharged and non-supercharged cars. There will, therefore, be two starting times in each class (except in Class E where the non-supercharged car does not receive an allowance) as the handicap is operated by varying the starting time of the competing cars. The car completing 500 miles first will be the winner. The Club has decided to award two prizes in each class, one for the supercharged cars and one for the non-supercharged. The handicap has been drawn up by Mr. A. V. Ebblewhite, the R.A.C. Official Handicapper.

Handicap.

Class.		Speed.	Start.
H. 750	Non-S/C	87.38	1.21.27
	S/C	93.97	0.57.19
G. 1100	Non-S/C	95.78	0.51.17
	S/C	99.61	0.39.13
F. 1500	Non-S/C	99.61	0.39.13
	S/C	110.68	0. 9. 3
E. 2000	Non-S/C	110.68	0. 9. 3
	S/C	110.68	0. 9. 3
D. 3000	Non-S/C	110.68	0. 9. 3
	S/C	111.92	0. 6. 2
C. 5000	Non-S/C	111.92	0. 6. 2
	S/C	113.19	0. 3. 1
B. 8000	Non-S/C	113.19	0. 3. 1
A. Unlim.	„		
B. 8000	S/C	114.29	0. 0. 0
A. Unlim.	S/C		

Singers' New Sales Manager.

MR. Richard Hungerford, well-known in motoring circles as the former Assistant Sales Manager in control of Vauxhall sales at General Motors, Ltd., and who previously officiated in a like capacity for a considerable period at Vauxhall Motors, Ltd., Luton, has just been appointed Sales Manager of Singer & Co., Ltd., of Coventry.

It is understood that Mr. Hungerford, when giving effect to his plans for the promotion of Singer interests, proposes to avoid revolutionary methods of trade development and to endeavour to stabilise the existing organisation by establishing and putting into practice a policy of sustained co-operative effort.

The Popular 10 h.p. Class.

THE Ministry of Transport returns of new cars registered during the first four months of 1931 show a decrease of nearly 7,000 as compared with the corresponding period last year. The actual figures were 53,347 this year and 60,201 in 1930.

A notable increase, however, appears in the 10 h.p. class, with 6,194 cars this year as against 3,828 last year. Apparently the 10 h.p. car which costs little more than the " Baby " to buy and run but which, as a rule, has ample accommodation, is claiming public attention.

It is interesting, too, to see the high percentage of " family " cars in this class. Despatches of the Rover " Family Ten," for instance, during January, February, March and April amounted to 3,810—61 per cent. of the total number of 10 h.p. cars registered and over 99 per cent. of the number in the similar months last year.

A British Success in Poland.

IT is customary, nowadays, to hear of British riders of British machines winning classic races abroad. Our team of racing men is sweeping everything before it, and each week-end brings new lists of successes.

Poland, however, is far afield and there were no British experts in the recent Polish Grand Prix; but British machines were represented, M. Malicki winning the 250 c.c. race on an Ariel. He broke the lap record by a substantial margin. So rough and sandy was the course that he used " competition " tyres.

Alvis Service Station.

THE recently opened London service station of the Alvis Company is now going " great guns." A recent visit showed that they are working at full pressure and despite the fact that less than 2 months has elapsed since opening date, three-quarters of the capacious floor space is in use and the problem of extension is already having to be considered.

The Station is at Jubilee Place, King's Road, Chelsea, and is thus situated at a spot easily reached from all parts of London.

A Useful Tyre Pump.

MOTORISTS are by nature a lazy crowd when it comes to doing manual work on the car or its accessories, and with the number of labour saving devices now at their disposal this is hardly to be wondered at.

One of these which has recently been brought to our notice is the " Gergovia " engine operated tyre pump. This device is a combined sparking plug and tyre pump which is screwed into a plug hole and when the engine is run it operates as a pump. The chief feature of the device, and a very important one for the tyres, is the fact that it pumps air, and not petrol vapour. This is achieved by means of a neat automatic valve arrangement on the body of the pump. This is operated by the gland nut being unscrewed and a key turned, so that the air for the tyre is drawn in from the atmosphere and not through the carburettor.

When the gland nut is tightened down again the device can be used once more as a sparking plug. The whole operation of changing over only takes a few seconds, and the equipment includes 12ft. of rubber flex and connection. In the case of high compression sports engines requiring very special plugs the device is well worth carrying in the tool kit, and it can then be used in no more time than it takes to change a plug. The price is 35s. complete and it is supplied by Continental Motor Hires, 80, Brompton Road, S.W.3.

Traffic Control by Light Signals.

IT is apparent that some drivers are not quite clear as to the correct procedure at crosssoads where automatic light signals are in operation.

It has been laid down by the Ministry of Transport for the guidance of local authorities that drivers wishing to *turn right* should pass the first signal when the green is showing towards them, and then turn right as soon as the traffic passing straight over the crossroads will permit.

In some cases—notably at some junctions with Oxford Street—a right hand turn is prohibited entirely, but is invariably indicated by arrows and warning signs.

As a general rule a *left* hand turn should also be made only when the green light is showing. Where " filteration ", i.e., a left hand turn against the *red* light, is allowed, an illuminated *green arrow* should be shown below the lights.

An Irish Grand Prix Echo.

A CONSIGNMENT of goggles left London for Italy last month. This is a sequel to the Irish Grand Prix when Campari's eye was injured by a stone striking his goggles which, unfortunately, were of ordinary glass. The stone only struck the edge of the " pane," but the lower lid and the lower part of the eyeball were badly cut.

His first act on arriving in London was to call at the Triplex Company's offices in Albemarle Street, choose a model from their stock of goggles and place an order for a quantity of that model.

Curiously enough one of the first exhibits Campari saw in the showroom was the pair of Triplex goggles Sir Henry Birkin had used in the race when he won his class. They had been struck by a stone flung up by Campari's car!

In this case the stone had struck one of the " panes " right in the centre; but though badly starred it had not shed a fragment.

Sir Henry Birkin's goggles are rather interesting in that the glasses, which with the sheet of celluloid between them form the triplex sandwich, are optically worked lenses which have been specially prescribed for him to adjust his vision when at the wheel.

NEXT MONDAY AT BROOKLANDS

THE Brooklands programme for August Bank Holiday includes nine events for modern racing cars, and, in addition, a race in which every competitor's car must be at least twenty-five years old. Popularly known as "Old Crocks," some of these early machines can still give a remarkably good account of themselves. Parked away in odd corners, they had been left to the mercies of rust and dust. Then the proprietors of the *Daily Sketch* organised an Anniversary Emancipation Run a few years ago. About thirty old cars turned out under their own power, and ran from London to Brighton, and this has now become an annual event.

Brooklands is the only place where the public can see these old cars racing together, and for two years the authorities have staged the contest as part of the August Bank Holiday programme.

Last year's winner was built in 1899, and for fourteen years had been parked in a field. When it came to moving the car for the Old Crocks' Run, it was found that a tree had grown right through the body, and the trunk had to be sawn off in order to extricate the car. Then it went to Brooklands and covered a lap of the Mountain course at an average of nearly 30 m.p.h.

The full programme for Bank Holiday Monday includes two Short and two Long Handicaps, three races over the popular "Mountain" circuit, two One Lap Sprint Races, and the Veterans' Race.

THE HIGH SPEED TRIAL—continued from page 485

The results of the various events are as follows:—

Acceleration, Stopping and Restarting Test. CLASS 1 (up to 750 c.c.) : 1, A. C. Fairtlough (Austin), 33.4s. ; 2, G. G. C. Knight (Austin), 36s. CLASS 2 (between 750 and 1,100 c.c.) : 1, G. P. H. Noble (Salmson), 34.4s. ; 2, C. Anthony (Senechal) and C. L. Guiver (Salmson), tied, 35.0s. CLASS 3 (between 1,100 and 1,500 c.c.) ; 1, H. J. Aldington (Frazer Nash), 32.2s. ; 2, C. Paul (Windsor), 32.6s. CLASS 4 (between 1,500 and 2,000 c.c.) : 1, G. K. Marriott (Frazer Nash), 32.4s. ; 2, D. M. Reid (Lagonda), 35.0s. CLASS 6 (between 3,000 and 5,000 c.c.) : 1, L. G. Bachelier (Bugatti), 33.4s. ; 2, E. B. Longbottom (Vauxhall), 35s. CLASS 7 (over 5,000 c.c.) : 1, C. G. Fitt (Sunbeam), 33.4s. ; 2, D. Monro (M.G.), 38.6s.

One-Lap Handicap (about 2¾ miles).—FIRST RACE : 1. E. N. Oetzmann (Lea-Francis) (12s.) ; 2, G. L. Baker (Minerva) (7s.) ; 3, D. Monro (M.G.) (12s.) ; Won by 300 yards. Speed 70.4 m.p.h.

SECOND RACE : 1, W. T. Liddell (Frazer Nash) (24s.) ; 2, H. W. Stonard (Riley) (21s.) ; 3, H. J. Aldington (Frazer Nash) (8s.). Won by 250 yards. Speed 67.3 m.p.h.

THIRD RACE : 1, C. E. Wood (M.G.) (37s.) ; 2, J. F. de Lattre (Austin) (37s.) ; 3, G. H. Goodson (Austin) (30s.). Won by 35 yards. Speed 58.45 m.p.h.

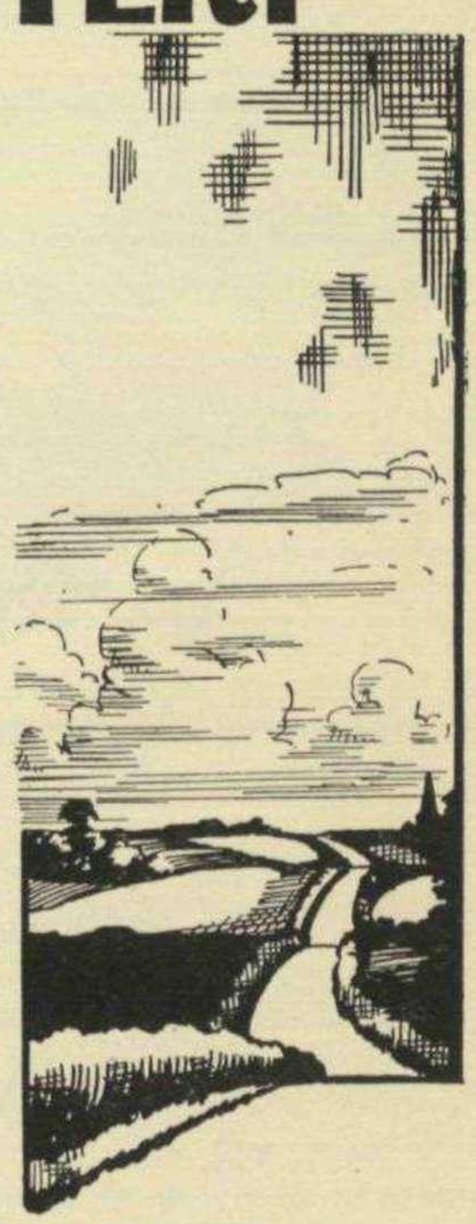
Ten Laps Handicap.—1, G. L. Baker (Minerva) (2m. 44s.) ; 2, G. D. Evans (Bugatti) (scratch) ; 3, C. G. H. Dunham (Alvis) (4m. 1s.). Won by 16 3/5s. Speed 78.43 m.p.h.

Driving Skill.—C. Anthony (Senechal), 27 4/5s. ; N. Bracey (Austin), 33s. ; C. Penn-Hughes (Frazer Nash), 33s. ; C. Paul (Windsor), 36s.

Hill Test.—TOURING CLASS : A. E. Curtis (Wolseley Hornet), 14 1/5s. SPORTS CLASS : E. Longbottom (Vauxhall), 11 4/5s. SUPER-SPORTS CLASS : L. G. Bachelier (Bugatti), 9 3/5s.

LOOK FOR THE YELLOW SIGN

MORE MILES PER BATTERY

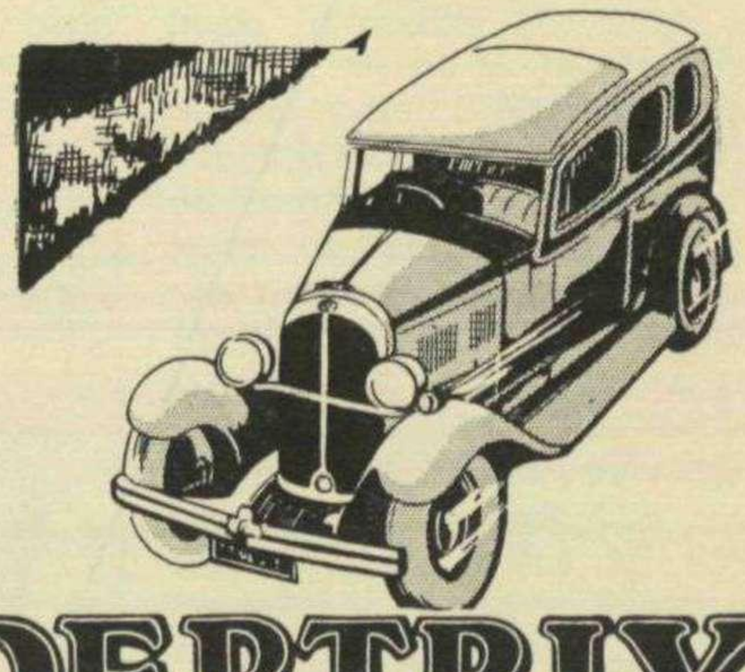


A good tyre is judged by its mileage. So is good petrol—and oil.

Judge your battery by its mileage too, and if it's a Pertrix you will get miles more light—miles more easier starting — miles more faithful service.

Don't forget too, that behind each Pertrix Battery stands Pertrix service, and a service man, skilled in battery care, to safeguard the dependability and long life built-in by Pertrix at the factory.

Ask your Service Station or garage man—they will give you full details, or, if you prefer, write direct to us.



PERTRIX BATTERIES

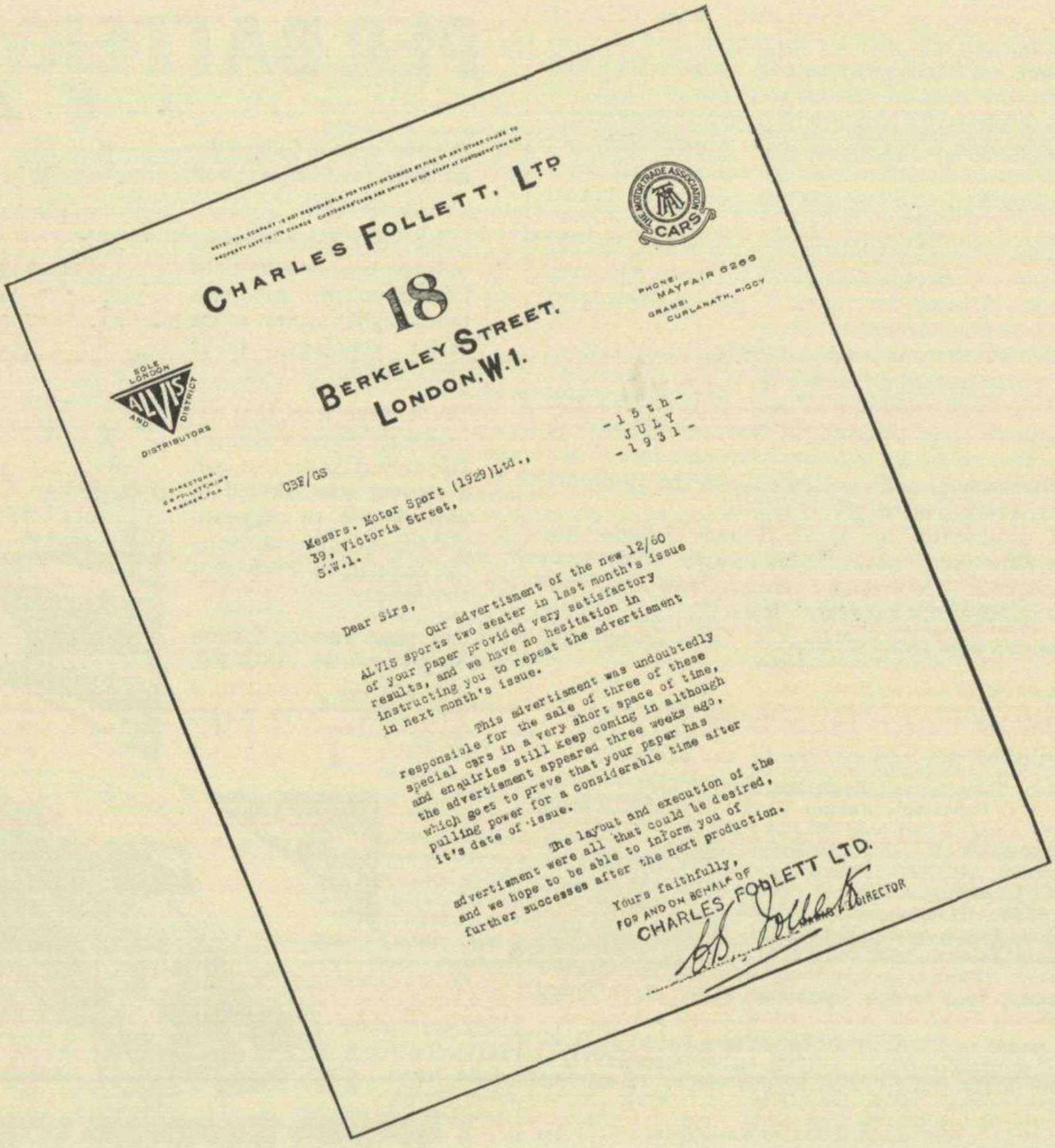
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M212

AN APPRECIATION!



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THE MOTOR TRADE ASSOCIATION CARS

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SOLE LONDON ALVIS AND DISTRICT DISTRIBUTORS

DIRECTORS: CH FOLLETT.M.I.MT. H.BAKER.F.C.A.

CSF/GS

-15th- JULY -1931-

Messrs. Motor Sport (1929)Ltd.,
39, Victoria Street,
S.W.1.

Dear Sirs,

Our advertisment of the new 12/60 ALVIS sports two seater in last month's issue of your paper provided very satisfactory results, and we have no hesitation in instructing you to repeat the advertisement in next month's issue.

This advertisment was undoubtedly responsible for the sale of three of these special cars in a very short space of time, and enquiries still keep coming in although the advertisement appeared three weeks ago, which goes to preve that your paper has pulling power for a considerable time after it's date of issue.

The layout and execution of the advertisment were all that could be desired, and we hope to be able to inform you of further successes after the next production.

Yours faithfully,
FOR AND ON BEHALF OF
CHARLES FOLLETT LTD.
C.S. Follett DIRECTOR

For Advertisement Rates.

Apply to:

Advertisement Manager,
Motor Sport (1929) Ltd.,
39, Victoria St., LONDON, S.W.1.

Some Wolseley "Hornet" Specials

SPORTS VERSIONS OF THE FAMOUS SMALL SIX

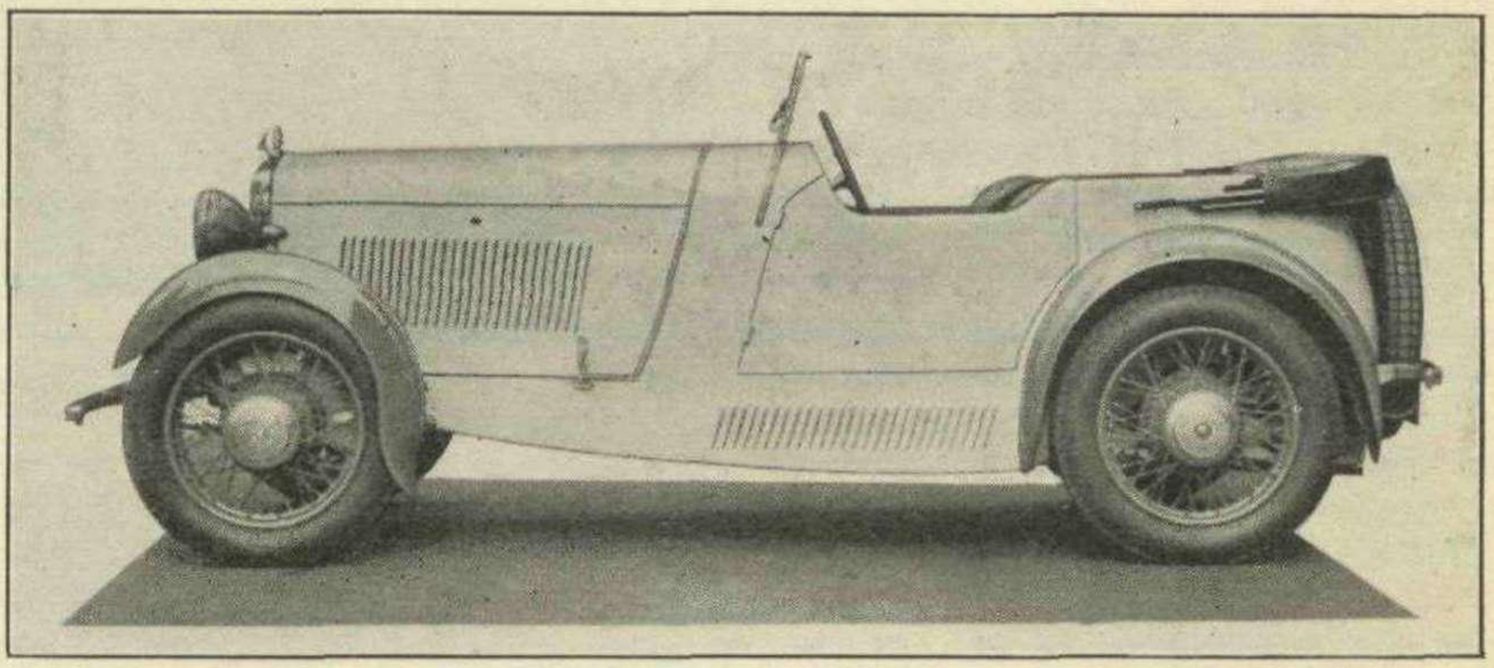
WHEN the now ubiquitous Wolseley "Hornet" was introduced to the public, it was a sober touring vehicle with a closed body, and it seems that little thought of a sports performance entered the minds of its makers. However, performance tells, whatever the guise of the vehicle, and it soon became evident that the new model had a very remarkable turn of speed, and especially good acceleration.

It is, in fact, yet another proof that the lessons learnt in racing apply themselves to ordinary motoring, and the very specification of the "Hornet" savours of speed.

The six-cylinder overhead camshaft engine has a bore and stroke of 57 mm. by 83 mm., giving a total capacity of 1261 c.c. The camshaft is driven by bevel gears, and the crankshaft supported in four bearings. The gearbox has three forward ratios, and is operated by a central lever.

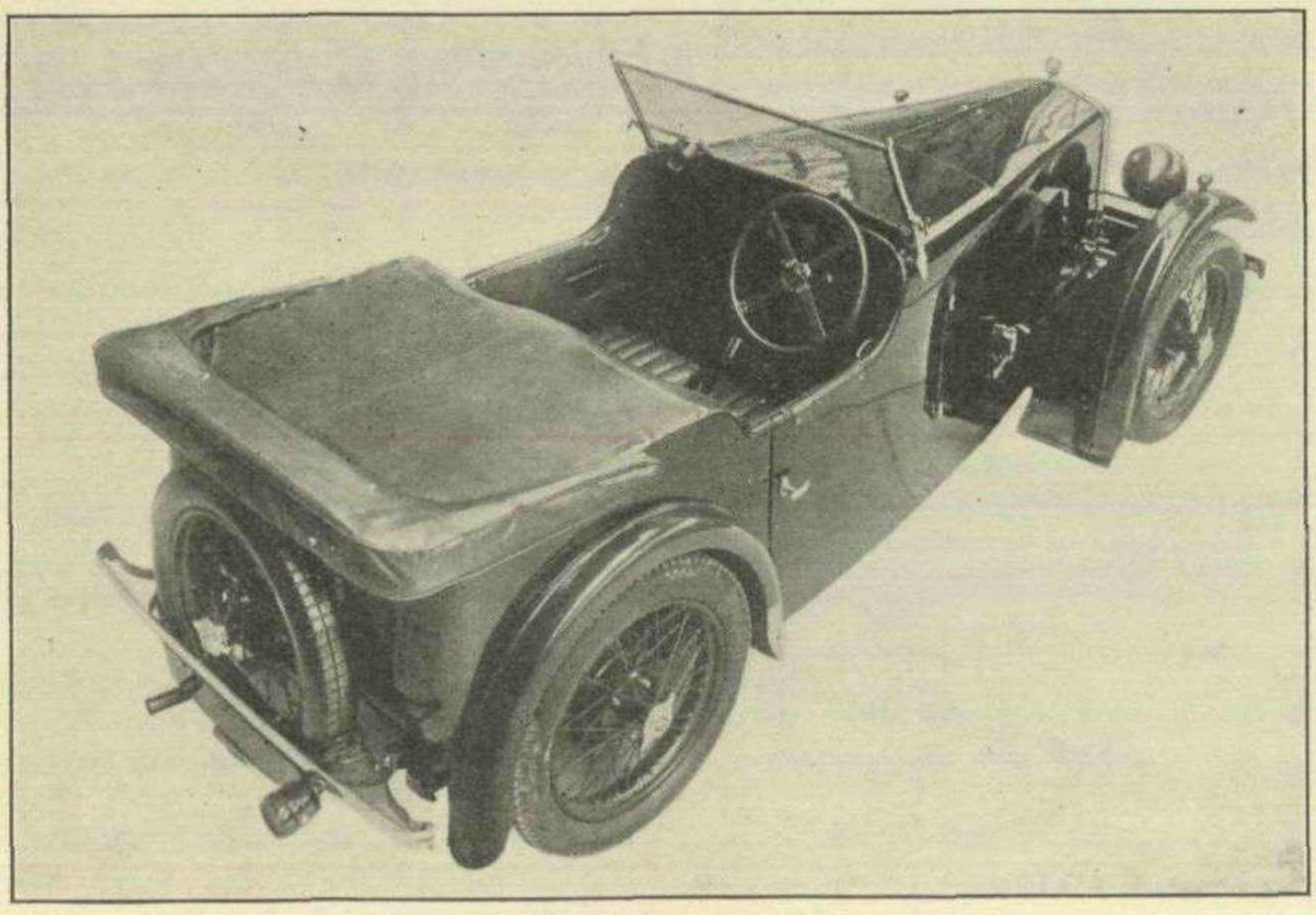
Hydraulic brakes on the Lockheed principle operate on all wheels.

The engine, although roughly classed as a "small six," is by no means small for the very compact and light chassis in which it is installed, and it only needs a short run in one of these cars to see that the old secret of a high power-to-weight ratio has scored another success, and that here, in spite of its purpose and calling, was an embryo sports car.



The E.W. International Sports "Hornet."

Various firms have taken advantage of the latent possibilities of this chassis from the sporting motorist's standpoint, and the result has been a most attractive range of special sports Wolseley "Hornets".



The Patrick Special which is priced at £225.

These have been produced to fulfil a variety of requirements in the way of accommodation and appearance.

* * *

Eustace Watkins, Ltd., of 12, Berkeley Street, W.1, who are the London distributors for Wolseley cars, produce a useful range of models to satisfy both the open car enthusiast and also the man who wants a closed model with sporting lines. Probably the most popular of these is the E. W. International Sports type, "Hornet" de luxe, which is fitted with a very luxurious and useful body with ample luggage space in the rear seats, which are also perfectly comfortable when used for the comparatively unusual purpose—for a sports car—of carrying extra passengers. This model, with Magna wheels and oversize tyres, sells for £245, while the closed car man is catered for by the E.W. Occasional 4-seater Sports Coupé, which sells at £225.

* * *

The model produced by Patrick Motors Ltd., of 479-481, Bristol Road, Bournbrook, Birmingham, is another example of the short four-seater, constructed on an ash frame. The panelling is in 18 gauge aluminium, and the shell is complete without mouldings. Special doors, giving ample room, are hung on strong chromium plated hinges. The front seats are of the separate bucket type, and real hide is used for all

SOME "HORNET" SPECIALS—continued.

upholstery. The rear seat is unusually roomy, and two extra passengers can be carried in comfort on long runs when required.

A smart fourstick hood is provided and a tonneau cover is also included. The spare wheel is carried on a bracket at the rear of the body. Ample tool accommodation and accessibility of batteries and other chassis features are good points which show that details have been carefully studied. Other points are the aprons over the front dumb irons, special exhaust system and Bluemel spring-spoke steering wheel.

This firm also make a speciality of tuning and overhaul jobs for competition enthusiasts, and have a very well equipped workshop to attend to the mechanical as well as the bodywork department. The price is £225.

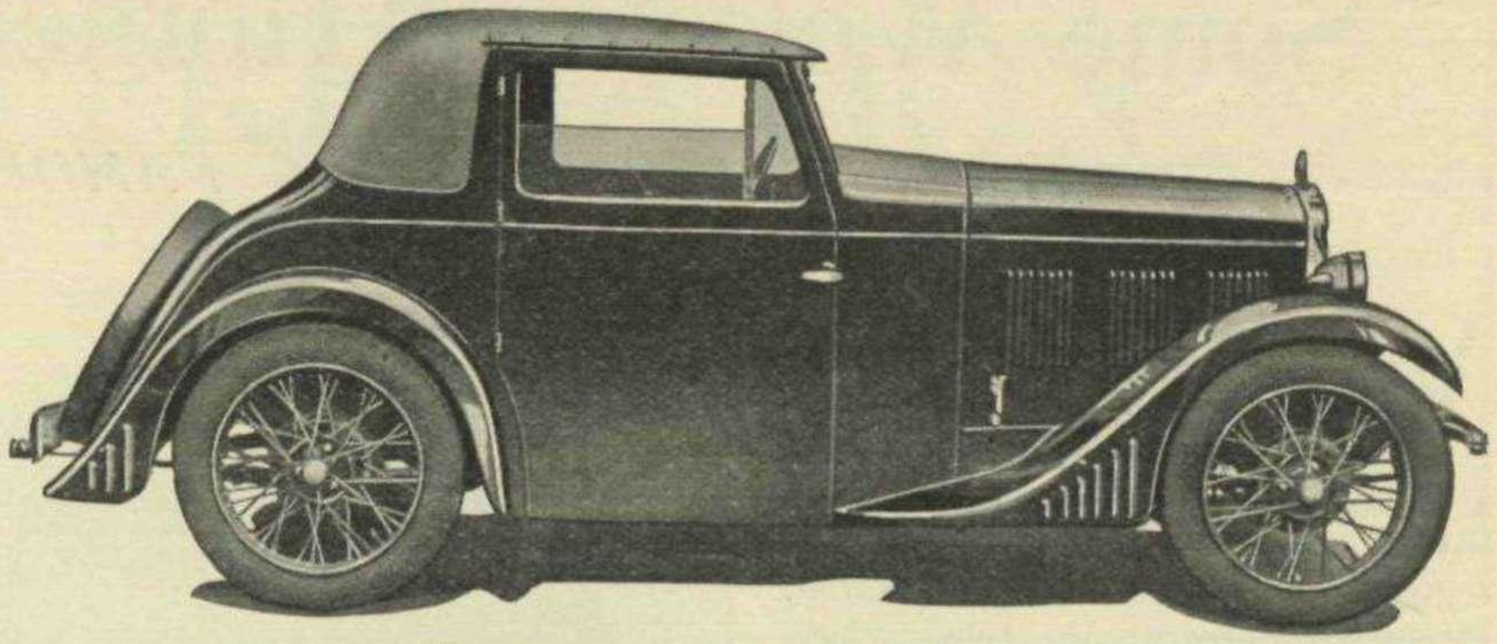
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The Swallow Coach-building Co., of Poleshill, Coventry, have long been noted for the elegance of their productions, and their version of the Wolseley Hornet is one of the prettiest models they have produced.

It is a very neat streamlined 2-seater with a disappearing whipcord hood, which is easily erected and gives full protection. Although the lines of the body might appear to give little room for luggage, there is actually a very capacious locker in the tail which will easily take a large suitcase. Equipment includes a radiator stone guard and bumpers. The price is £220.

* * *

The Arrow coachwork, manufactured by A. P. Compton & Co., Ltd., Boston Road, Hanwell, London,



The Arrow 2-seater Coupé "Hornet."

W.7, is already well known among sports car drivers on various makes, and they have supplied many international racing bodies for the big events of recent seasons. Their Wolseley Hornet range consists of a four-seater sports and a very pretty sports coupé.

The four-seater is a development of Mr. Compton's design of some seven years ago, when he introduced one of the forerunners of this now very popular type. Being used to supplying racing bodies, this firm is well aware of the strength required in sports car body, and the latest design embodies the result of their great experience.

Adjustable bucket seats with a 9″ travel are fitted with pneumatic cushions, and the equipment includes competition type folding windscreen, lengthened steering column with Bluemel spring spoked steering wheel, leather upholstery, etc.

The price is £210.

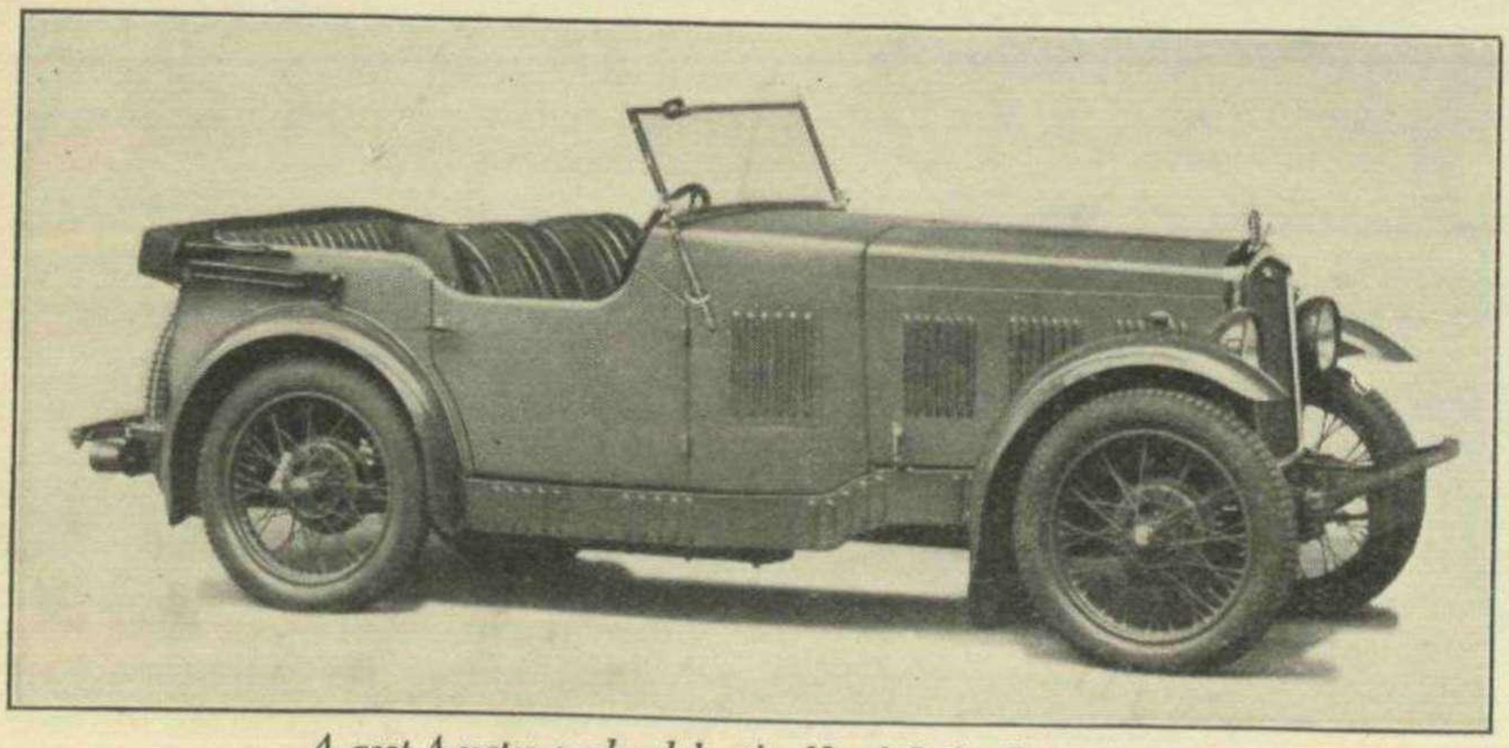
The coupé has very nice lines, and ample locker accommodation for luggage, also a 3ft. wide tray above the squab which is very useful for smaller articles. It costs £225.

* * *

An attractive range of models is produced by the Hoyal Body Corporation, whose bodies have achieved great popularity on many other makes. There is a very neat semi-streamlined 2-seater, the chief characteristic of which is the generous width of body which will accommodate 3 people in the front seat if required. An unusual feature for a 2-seater of this type is the fact that the seat is adjustable both as to position and also to the angle of the back. A very roomy locker is fitted in the boot, which can if necessary be supplied as a dickey seat. This model sells at £195.

Another model is a sports 4-seater with folding screen, adjustable seats, etc., which has good leg room in the rear seats and sound all-weather equipment. A 4-door saloon is also included in the range at £245 with Pytchley sliding roof, the open 4-seater being £215.

* * *



A neat 4-seater produced by the Hoyal Body Corporation.

The special model Hornet produced by M. A. McEvoy, of Leaper St., Derby, is a more completely special affair than the majority of such productions, as in this case the chassis is definitely modified to give a performance suitable for the more hotly contested competitions, as the engine is hotted up to approach racing performance.

The chassis are dealt with in the way any enthusiast would employ in preparing for a race, and are taken down and reassembled with the greatest care to ensure perfect mechanical freedom.

The engine has a raised com-

SOME "HORNET" SPECIALS—continued.

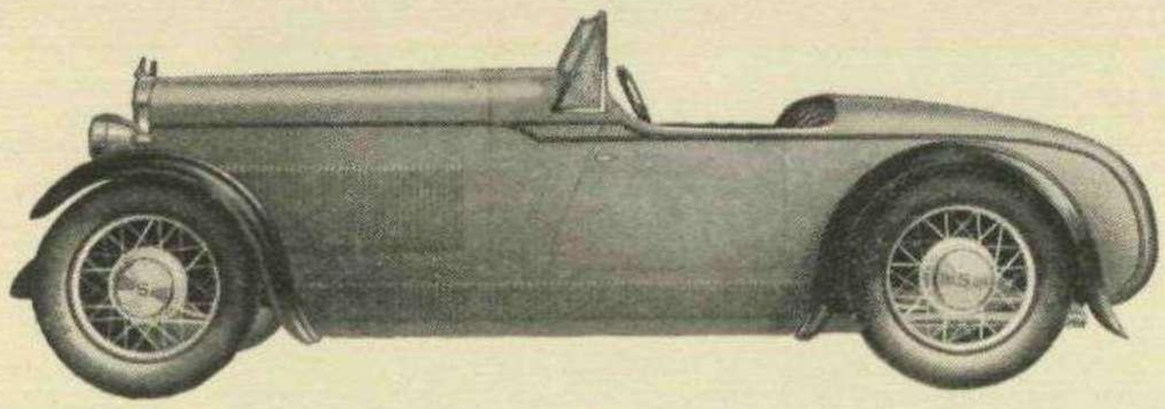
pression and special valve rockers and other details.

A special exhaust and inlet manifold is employed enabling the use of a down-draught Amal carburettor. Twin exhaust pipes are taken from the manifold.

The result is a very definite increase in power and speed, and on a short run we had recently on one of these cars, 6,000 r.p.m. was easily reached in second gear, giving a speed of over 50 m.p.h. The maximum on top is a genuine 75 m.p.h. on the level, and more under favourable circumstances.

A special clutch spring is fitted to cope with the increased power, and remove possibility of slip under arduous driving conditions. A seven gallon scuttle tank is fitted, and the feed is positively arranged by means of an electrically operated Petrolift pump.

The body is a strongly built and neat 2-seater, with the spare wheel mounted in the tail. Other details include a disappearing hood and an outside handbrake.



The Swallow 2-seater.

The price of this model is £240.

A very attractive model of the popular short four-seater type is that produced by the well known firm of Abbey Coachworks Ltd. This has very attractive lines, and various interesting features of construction. The body is built on a strong but very light ash frame, and the panelling consists of a single welded aluminium shell, finished in any colour cellulose to choice. The result is a very rigid body which remains unaffected by rough usage. Pneumatic upholstery covered in hide and very wide doors make for comfort and convenience.

The steering is raked more than standard, the column is lengthened, and a spring wheel is fitted.

The windscreen is the racing type and folds flat on the scuttle when required. A neat hood and efficient side curtains look after the occupants in wet weather.

In the normal model the tools are carried in a felt lined dummy petrol tank, but if required, a rear 12-gallon petrol tank, with autopulse feed and pipe lines, and an extra large filler cap, can be fitted for an extra charge of £15.

The maker's address is High Path, Morden Road, Merton, S.W.19.

In addition to the special bodies available on the Hornet chassis, there is a demand for special fittings to improve the actual performance

TEN YEARS *of* MOTORS
and
MOTOR RACING

BY

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(The famous Pioneer Racing Motorist)

". . . A book which everybody who is the least interested in motor racing should obtain at once. It is a revival of that old, famous and well illustrated book, practically the first of its kind, by Charles Jarrott, which remains one of the finest books on motor racing that has ever been written."

—THE AUTOCAR.

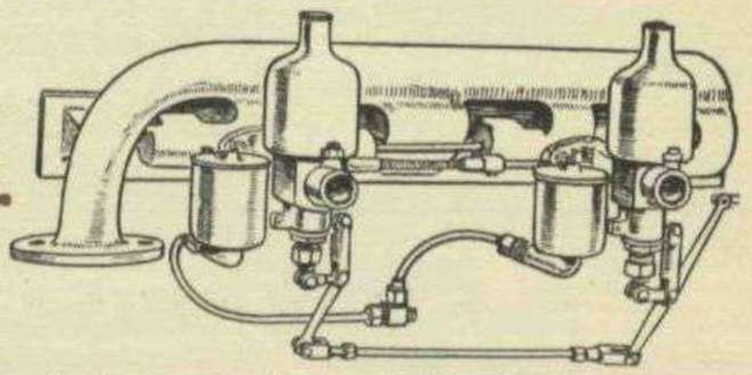
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MOTOR SPORT (1929) LTD.

39, VICTORIA STREET, LONDON, S.W.1.

WOLSELEY HORNET

TWIN CARBURETTER UNIT



With high efficiency design inl t and exhaust manifold, giving an amazing increase of power, better distribution, resulting in very slow running on top gear and a much smoother power output. Acceleration and hill climbing improved by 20-25%. 74 m.p.h. on top, 50 on second, 21 on first gear, 33 m.p.g. Complete unit includes special inlet and exhaust manifold, with twin S.U. Carburetters, double petrol piping, special controls and ready to fit. **£12 10 0** Carriage 3/-

TWIN DOWNDRAUGHT AMAL CARBURETTER UNIT
giving marvellous acceleration. **£14 10 0.**

REAR PETROL TANK

9 gals. capacity, fits between rear dumb irons. Petrol is pumped to carburetter by the S.U. MORISCOT PETROLIFT. Complete with fixing straps, quick filler cap, Moriscot Petrolift and necessary piping. **£5 15 0.** Carriage forward.



DEEP NOTE EXHAUST SYSTEM

Increases power and acceleration and renders the interior of the car cooler. Imparting a most pleasing deep exhaust note. Special steel silencer with extractor baffle, 2" dia. tail pipe, cast aluminium Brooklands Fishtail, clip and rear stay ready for fitting. **42/-.** Post 1/3.

Terry's "Aero" Double Valve Springs definitely prevent valve bounce which normally limits engine revolutions. 14/6 set of 24.

Special tunings for Hornets and Midgets by the Specialists on these makes since their inception. Send for Special Fittings List.

V. W. DERRINGTON

159, LONDON ROAD, KINGSTON-ON-THAMES

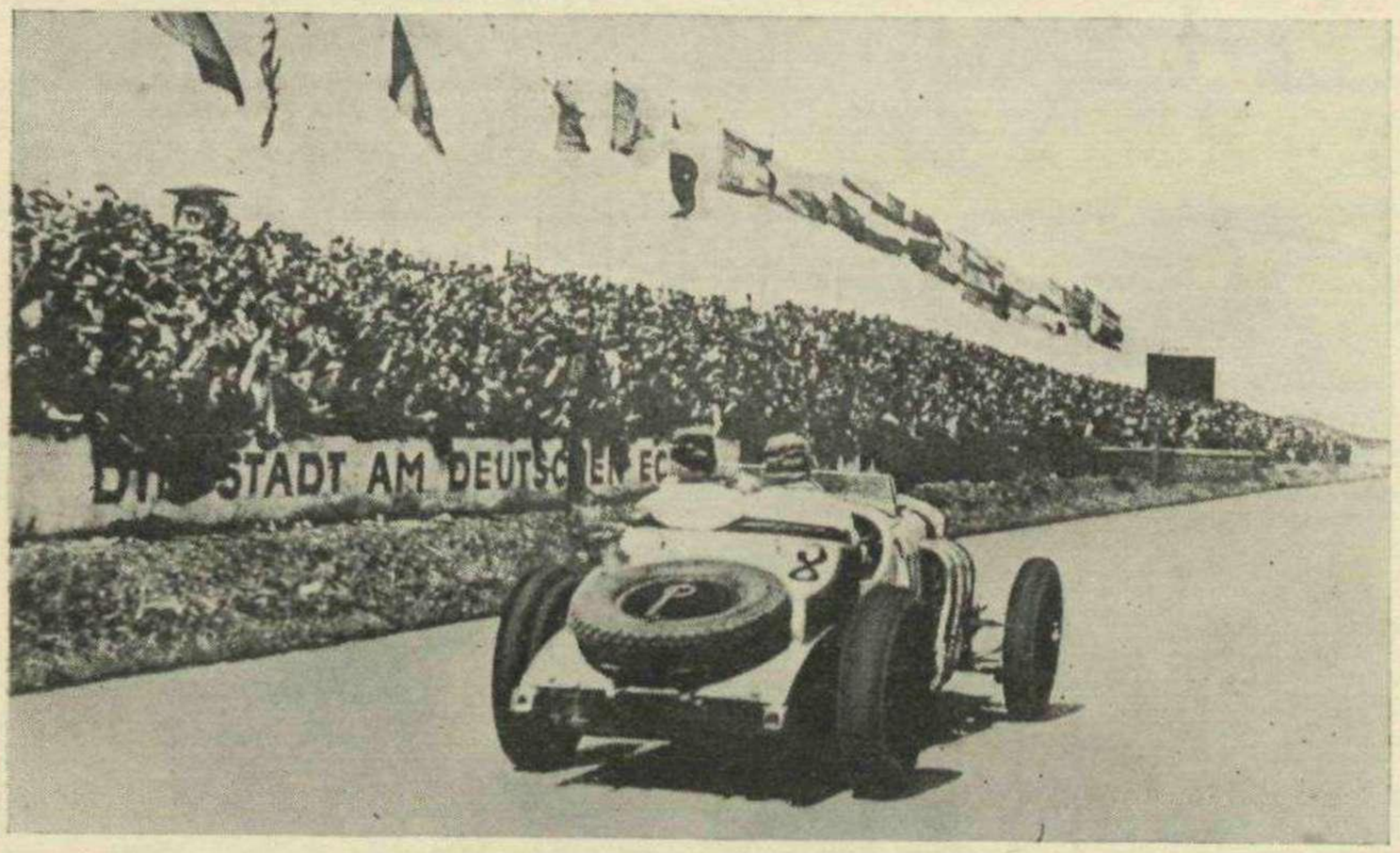
SOME "HORNET" SPECIALS—continued.

of the engine, especially if trials or racing are being considered. This demand is very fully understood and filled by that active enthusiast, V. W. Derrington, who has a good range of special parts. One of the most successful of these is a special twin carburettor set and manifold with balanced induction pipe. The whole layout is carefully designed for maximum power, and carries a high internal polish. The unit includes two 26 mm. S.U. carburettors, manifold, flexible throttle connections, double petrol piping and unions, also set of engine studs and nuts, and costs £12 10s.

Other useful fittings are a 9-gallon rear petrol tank with quickfiller and S.U. Petrolift pump, which is an indispensable fitting for the long distance driver. Special exhaust systems, Brooklands regulation silencers, and double valve spring sets are also supplied by this firm, whose address is 159, London Road, Kingston-on-Thames.

The German Grand Prix

Another Mercedes Victory—Riley Success in 1,100 c.c. Class.



The finish. Caracciola flashing past the stands at the end of the race.

ON Sunday, July 19th, Rudolf Caracciola proved once again his wonderful driving ability under difficult conditions, when he brought his big Mercédes into first place on the hilly and tortuous circuit of the Nurburg Ring, at an average speed of 67.29 m.p.h.

A British victory was recorded in the 1,100 c.c. class, when Dudley Froy scored a win in his Riley over a strong team of Amilcars.

The results were as follows :—

R. Caracciola (Mercédes-Benz), 4h. 38m. 10s. 69.29 m.p.h.

L. Chiron (Bugatti), 4h. 39m 28s. 66.92 m.p.h.

A. Varzi (Bugatti), 4h. 42m. 10s. 66.24 m.p.h.

T. Nuvolari (Alfa-Romeo), 4h. 43m. 16s.

O. Merz (Mercédes-Benz), 4h. 43m. 50s.

Von Stuck (Mercédes-Benz), 4h. 47m. 34s.

R. Bouriat (Bugatti), 4h. 50m. 4s.

Wimille (Bugatti), 4h. 52m. 8s.

Spaudel (Mercédes-Benz), 4h. 54m. 45s.

Sir Henry Birkin (Maserati), 5h. 1m. 13s.

Earl Howe (Bugatti), 5h. 8m. 19s.

1,100 C.C. CLASS RESULTS.

Dudley Froy (Riley), 4h. 23m. 56s. 58.03 m.p.h.

Count Arco (Amilcar), 4h. 32m. 18s. 56.23 m.p.h.

Scaron (Amilcar), 4h. 34m. 52s. 55.73 m.p.h.

Rouleau (Amilcar), 5h. 7m. 22s.

Samuelson (M.G. Midget), 5h. 9m. 52s.

G. Macher (D.K.W.), 5h. 13m. 50s.

Theissen (D.K.W.), 5h. 25m. 18s.

There were eight retirements in the big class, including Schafer, on an Indianapolis type of car, the Schafer special, which was quite unsuited to the course but put up a plucky show while in action.

The small class showed seven retirements, which included two D.K.W.'s, two Amilcars, two Salmsons, and an M.G. driven by Urban Emmrich.

The course of the Nurburg-Ring, although artificial in the sense of having been specially built for road racing, has some of the finest natural scenery in the world as its setting. The thickly-wooded slopes of the mountains have given an opportunity for the construction of a road racing course which seems almost to surpass in difficulty the famous Targa Florio circuit in Sicily. It is 14¼ miles round, and contains every variety of corner and gradient, but practically no straight anywhere.

Small wonder that the event attracted a large crowd, and in spite of the financial crisis, 100,000 people paid the equivalent of over £16,000 to watch the race. And yet there are still people in this country who say that the general public are not interested in road-racing !

Thirty-three cars faced the starter, of which 19 were over 1,100 c.c. and the rest below that limit. The full 17 mile circuit was not being used, the short loop being omitted, and the length being thereby reduced to 14½ miles.

At the fall of the flag Fagioli on a Maserati shot ahead, closely followed by Caracciola and Sir Henry Birkin, and the cars screamed off through the blinding rain. The famous German driver soon began to show that he is indeed a wizard on wet roads, and he was soon in the lead.

Concurrently the battle of the 1,100's was being waged in earnest, and at the end of the first lap the Mercédes and Scaron (Amilcar) were leading their respective classes. Fagioli and Von Morgen on a Bugatti were hot on the leaders' heels, but Carracciola was obviously not going to be caught, barring accidents.

On the third lap each leader had a minute in hand over his nearest rival, while a terrific scrap ensued between Chiron, Nuvolari and Fagioli. Earl Howe and Birkin, in spite of the appalling conditions, and the fact that the very difficult circuit was comparatively strange to them, were driving magnificently, although unable to hold the official Bugs and Maseratis.

Then Chiron and Varzi started to put on speed, though the light Bugattis were handicapped on the slippery roads against the heavier Merced s and its wonderful driver. Lehoux lost five valuable minutes changing plugs, while Williams and Bourgaller retired early in the race.

At about half distance Caracciola was leading Chiron by the narrow margin of

THE GERMAN GRAND PRIX—continued.

1m. 50s., with Nuvolari only 10 secs. behind the second man. Then followed Varzi (Bugatti), Otto Merz and Von Stuck on Mercs, and Fagioli, Von Morgen (Bugatti), Wimille (Bugatti), Birkin, Lehoux, Bouriat, and Dreyfus in that order.

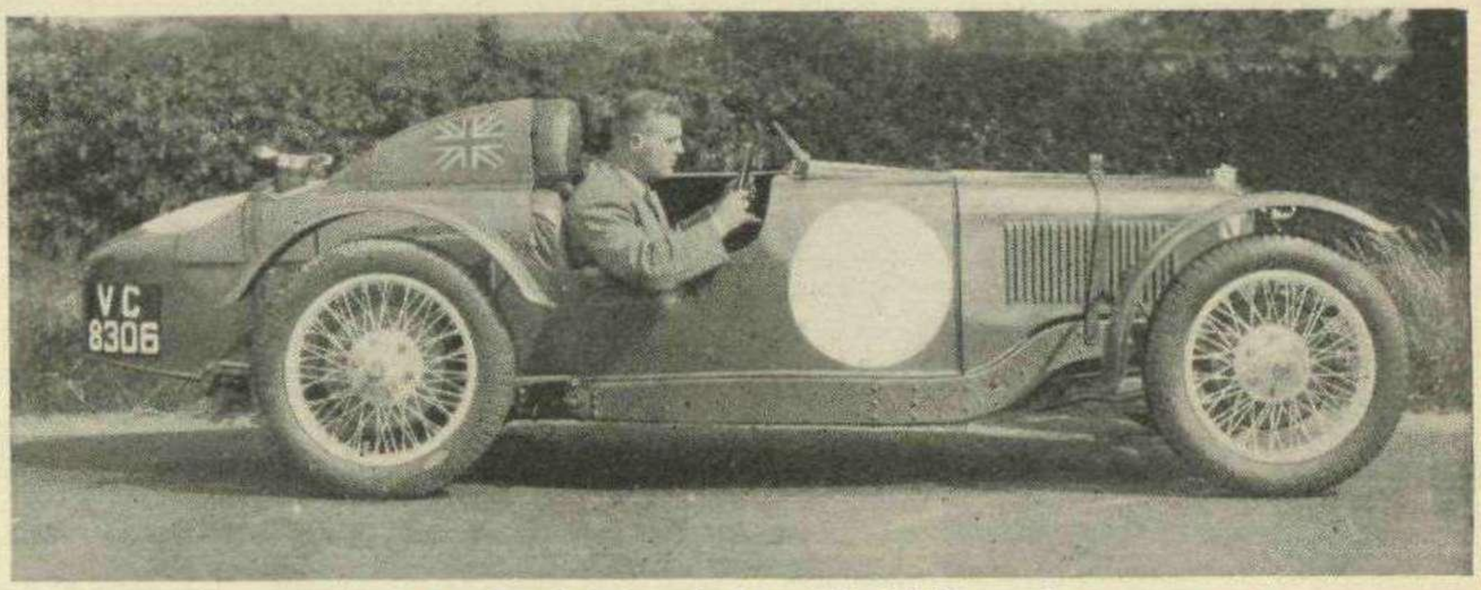
In the 1,100 c.c. class Scaron was leading Froy on the Riley by 3 minutes, with Count Arco 4 minutes behind.

Caracciola came in to fill up at half distance and changed the rear tyres at the same time, the whole being accomplished in 1 minute 20 seconds, and was the fastest of any.

When four-fifths of the race was run, the rain ceased, at this point the German driver's lead being 1 minute 45 seconds from Chiron, with Varzi 2 minutes behind Chiron, and Nuvolari in fourth place. Chiron was driving all he knew, and the soaking crowd were thrilled by his great effort to catch the Mercéd s. On his nineteenth lap he caught up 15 seconds but Caracciola got a pit signal to increase speed, and the next lap saw both cars go round in 12 minutes 15 seconds.

The feeble sun was hardly enough to dry the road, but the better visibility enabled all the drivers to put on a spurt. On entering his last lap, Caracciola, who had lapped in 12 minutes, 7 seconds, had a lead of 1 minute 30 seconds on Chiron who replied with a lap in 12 minutes 4 seconds.

Varzi then gave a taste of his true form and broke the lap record in 11 minutes 44 seconds, a truly astounding performance for such a circuit.



Dudley Froy's Riley which won the 1,100 *c.c. class.*

Their efforts could not catch the Merc., however, and Caracciola roared home to the deafening cheers of the crowd, who also gave a great ovation to Chiron and Varzi.

In the small class a great race had been in progress, and Scaron, who had led from the start, and entered his last lap with a six minute lead over the Riley, struck trouble and could only finish third behind Froy and Count Arco.

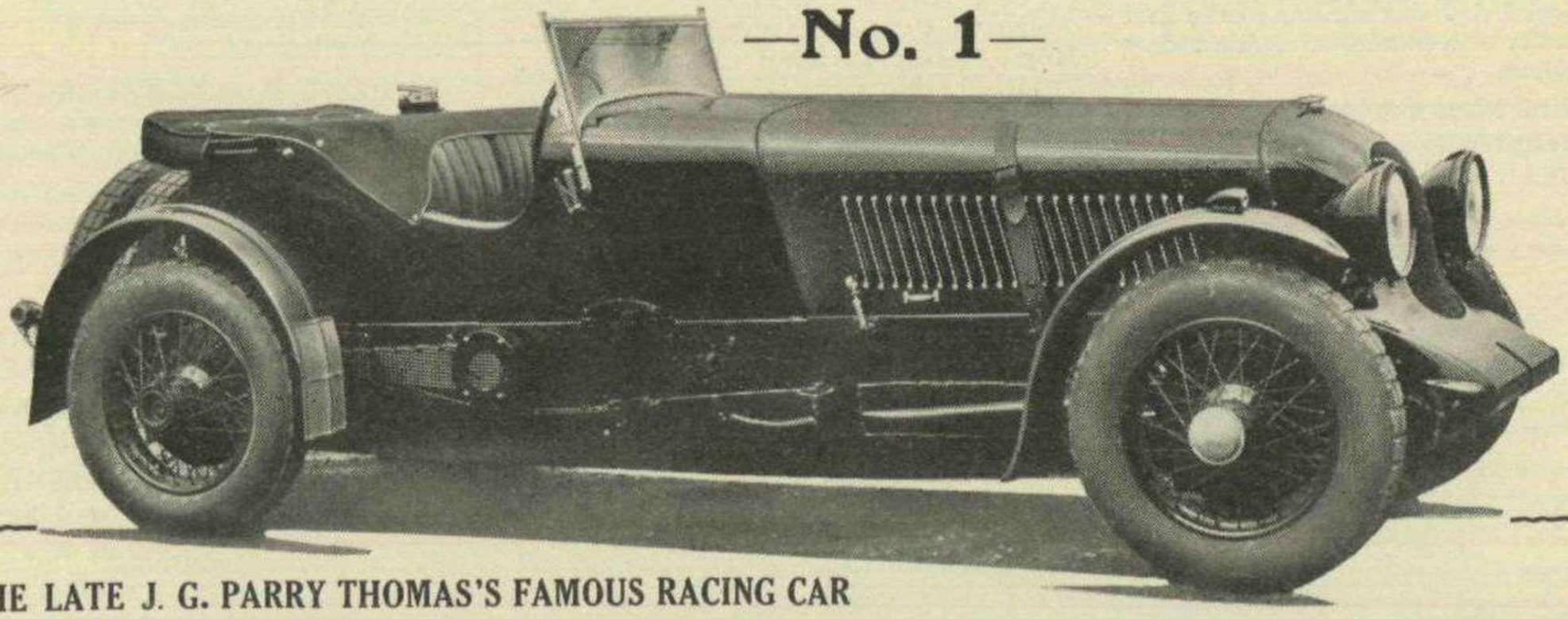
THE supercharged Austin Seven, which did so well in the Italian 1,000 Mile Race this year, put up a splendid performance in the Susa Moncenisio Mountain Race held on July 5th, when driven by F. Trevisan—the well-known Italian driver—it secured first place in the Sports Class for cars up to 1,100 c.c. at an average speed of 62 k.p.h.

The event is held under the auspices of the Automobile Club de Torino, and some idea of its severity may be obtained from the fact that the 22 kilometre course starts from Susa (490 metres above sea level) and climbs to Moncenisio (2,086 metres), a rise of 1,600 metres.

The Italian newspaper "*La Stampa*," commenting on the Race said "A 'miraculous' race from every point of view was accomplished by Trevisan who, with the small Austin made a time which was the real surprise of the day. When one thinks that this machine, of pocket size, only 750 c.c. was able to beat the time of motors of over 3,000 c.c., the word 'Miraculous' does not seem to be an exaggeration."

LEYLAND-THOMAS

—No. 1—



THE LATE J. G. PARRY THOMAS'S FAMOUS RACING CAR

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Apply :—THOMSON & TAYLOR, BROOKLANDS TRACK, BYFLEET, SURREY.

The Skegness Affair

IT was unfortunate that the weather did not favour the meeting that was held on July 17th and 18th, but, uninviting as it was, it failed to damp the enthusiasm of the competitors, and there was some close and lively racing on both days.

On the first day one-lap scratch races were the chief item of interest, with a 4-lap and a 5-lap by way of variation.

There was no baby class race, and the "750's" had to take their chance that the 1,100 c.c. vehicles in the same class would pass away. This duly happened, as Noble's Salmson was the only car of the full capacity in the event, and after getting away well, he retired, and Thomson, in a blown Austin, scored accordingly. This was in the sports car event, and he also won the racing car event, though his time in this was actually 1 1/5th secs. slower.

The 2½-litre event proved a win for Neville Carr, who has been motoring very quickly of late, with A. Conan-Doyle second. The latter (driving the famous Frazer-Nash, the "Slug") beat the redoubtable Spottiswoode by 2 3/5th secs.

A series of heats followed for the unlimited sports car race, the final of which was run off on the second day. R. J. Munday's very quick Vauxhall won a heat, and H. H. Stisted's Mercédès the next.

The unlimited class 5-lap race for racing cars fell to N. A. Carr after a close race with Spottiswoode. These two Bugattis finished the seven miles only 4 secs. apart, with Pollock on another Bugatti in third place.

The second day was similar to the first in the matter of weather, but again racing was excellent.

Raymond Mays produced the famous Villiers-Supercharge for the unlimited event, but was unable to hold Neville Carr's Bugatti after the first corner, and shortly gave up. Carr came home a comfortable winner, while Spottiswoode's Bugatti and Stisted's "Merc" fought for third place.

Then eight starters came to the line for the four-lap unlimited sports car event. Raymond Mays and Stisted soon sorted themselves out from the crowd and went round together till Mays' Invicta developed trouble and retired, leaving the Mercédès an easy victory.

Spottiswoode and Carr then each won a heat of the 1-lap scratch event, the latter winning the final.

The unlimited sports handicap went to R. Way on the very fast new Rover which has been doing so well in speed events this last few weeks.

The 4-lap handicap for sports cars gave us some fine racing in the heats between V. W. Derrington on a very fast Wolseley Hornet and Way's Rover, the latter winning the heat.

RESULTS.

SPORTS CARS UP TO 1,100 C.C —1, W. L. Thompson (Austin S.), 2 mins. 6 1-5 secs.; 2, B. G. Bailey (Austin S), 2 mins. 4-5 secs. 1 lap.

RACING OR SPORTS CARS UP TO 1,100 C.C.—1, W. L. Thompson (Austin S.), 2 mins. 7 2-5 secs.; 2, B. G. Bailey (Austin S.), 2 mins. 8 1-5 secs.

RACING OR SPORTS CARS UP TO 2½-LITRES.—1, N. A. Carr, (2-litre Bugatti S.), 1 min. 40 1-5 secs.; 2, A. M. Conan Doyle (1½-litre Frazer-Nash "Slug" S.), 1 min. 40 4-5 secs; 3, A. N. Spottiswoode (2-litre Bugatti), 1 min. 43 2-5 secs

SPORTS CARS, UNLIMITED C C.—1, R. Mays, 4½-litre Invicta), 1 min. 50 secs.; 2, R. J. Munday (4½-litre Vauxhall), 1 min. 53 3-5 secs.; 3, D Conan Doyle (3-litre Austro-Daimler), 1 min. 53 4-5 secs.

UNLIMITED RACING CARS (five laps)—1, N. A. Carr (2-litre Bugatti S.), 8 mins. 4 3-5 secs.; 2, A. N. Spottiswoode (2-litre Bugatti), 8 mins. 3-5 secs.; 3, I. S. Pollock (Bugatti).

SPORTS CAR UP TO 2,500 C.C. (one lap, scratch).—1, Gen. Sadlier Jackson (Bugatti), 1 min. 54 2-5 secs.; 2, E. Farley; 3, G. Casswell (Alvis).

UNLIMITED SPORTS, NOVICES (one lap, scratch).—1, H. H. Stisted (Mércedès), 1 min. 43 2-5 secs.; 2, Gen. Sadleir Jackson (Bugatti); 3, H. Harding (Vauxhall).

RACING OR SPORTS CARS, UNLIMITED C.C.— (one lap, scratch).—1, N. A. Carr (Bugatti), 1 min. 35 1-5 secs.; 2, C. Spottiswoode (Bugatti); 3, H. H. Stisted (Mercedes).

UNLIMITED SPORTS (four laps, scratch).—1, H. H. Stisted (Mércedès), 6 mins. 57 2-5 secs.; 2, D. Conan Doyle (Austro-Daimler); 3, R. J. Munday (Vauxhall).

RACING OR SPORTS (one lap handicap).—1, N. A. Carr (Bugatti), 1 min. 35 2-5 secs.; 2, C. Spottiswoode (Bugatti); 3, R. J. Munday (Vauxhall).

UNLIMITED SPORTS (one lap handicap).—1, R. Way (Rover), 1 min. 57 3-5 secs.; 2, Gen. Sadleir Jackson (Bugatti); 3, R. J. Munday (Vauxhall).

ONE LAP OPEN HANDICAP.—1, R. J. Munday (Vauxhall), 1 min. 51 4-5 secs.; 2, N. A. Carr (Bugatti); 3, E. Farley (Alvis).

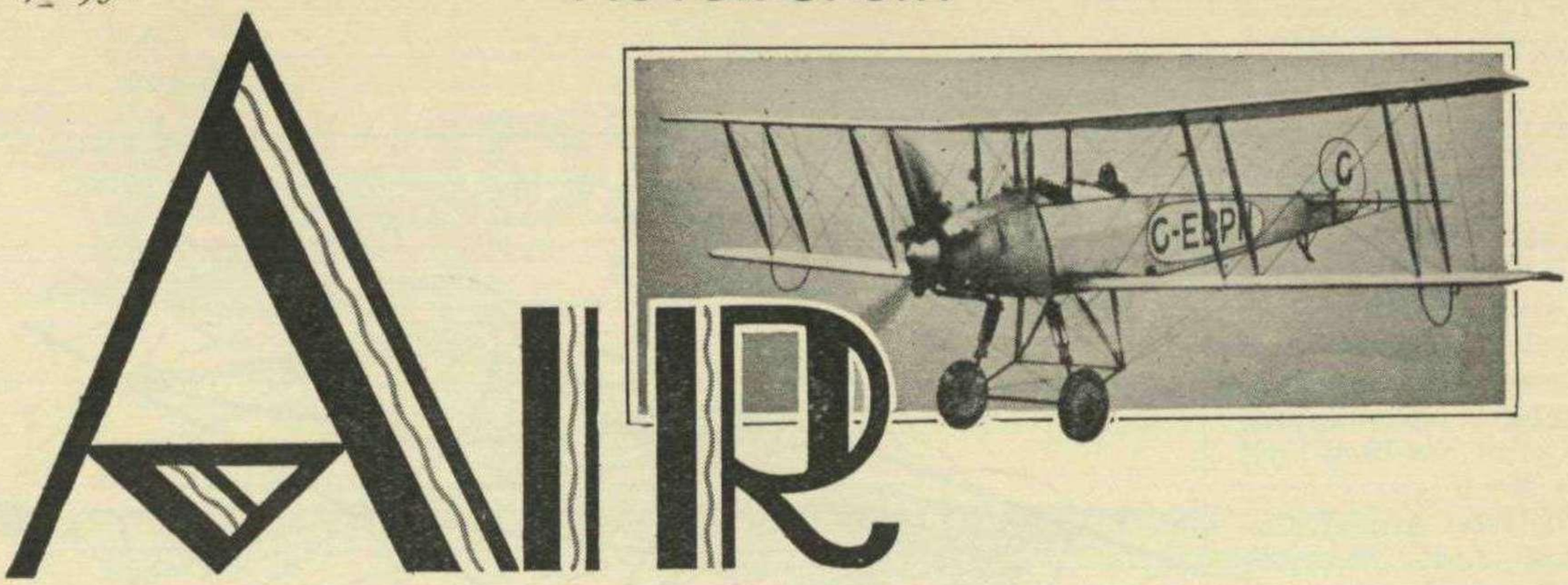
FOUR LAP SPORTS HANDICAP.—1, Gen. Sadleir Jackson (Bugatti), 7 mins. 13 secs.; 2, W. L. Thompson (Austin); 3, R. Alderson (Bentley).

FIVE LAP RACING HANDICAP.—1, A. N. Spottiswoode (Bugatti), 7 mins. 55 secs.; 2, N. A. Carr (Bugatti), 7 mins. 36 2-5 secs.

A French Veterans' Run

FOR the second time the well known French sportsman, M. Jacques May, has had the excellent idea of organising a run for veteran cars in France in collaboration with several other members of the A.C.F. Last year, it may be remembered, the run was to Rouen, but this year the course consisted of a journey from Dreux to Versailles, a distance of about 40 miles, on 24th June, and on the following day a run on to the Pavillon Royal in the Bois de Boulogne. Seventeen veteran cars took part in the event, and sixteen came through with flying colours. The participants comprised Jacques May himself, who drove an 1895 Bugot, Jean and Pierre Terouanne, both on 1895 Léon Bollée tri-cars, a Peugeot of the same date driven by Pierre Delpeuch, and Jacques Delpeuch on an 1896 Delahaye, Louis Vernet on an 1899 Amédée Bollée, Roger Mengin on a De Dion Bouton tricycle, Pozzoli on a car built by a mechanic at le Mans in 1899, Réné Millaud and Richer on 1898 Panhards, Marcel Mengin on a 1900 De Dion Bouton, Maurice Luling on an 1899 Renault, Desrozier on another Renault of 1900 and Castex on the 1902 Paris-Vienna racer of the same make, Dutot on a 1900 and Barré on a 1902 De Dion Bouton. The last-named car was running on its original tyres, and between Ville d'Airay and Suresnes one of them burst, with the result that the car overturned. M. Barré and his passenger were thrown out, but received only minor injuries, and after righting the car went off and bought a new tube from a neighbouring garage. This they fitted, and arrived in the Bois de Boulogne less than half an hour after the main body of the procession.

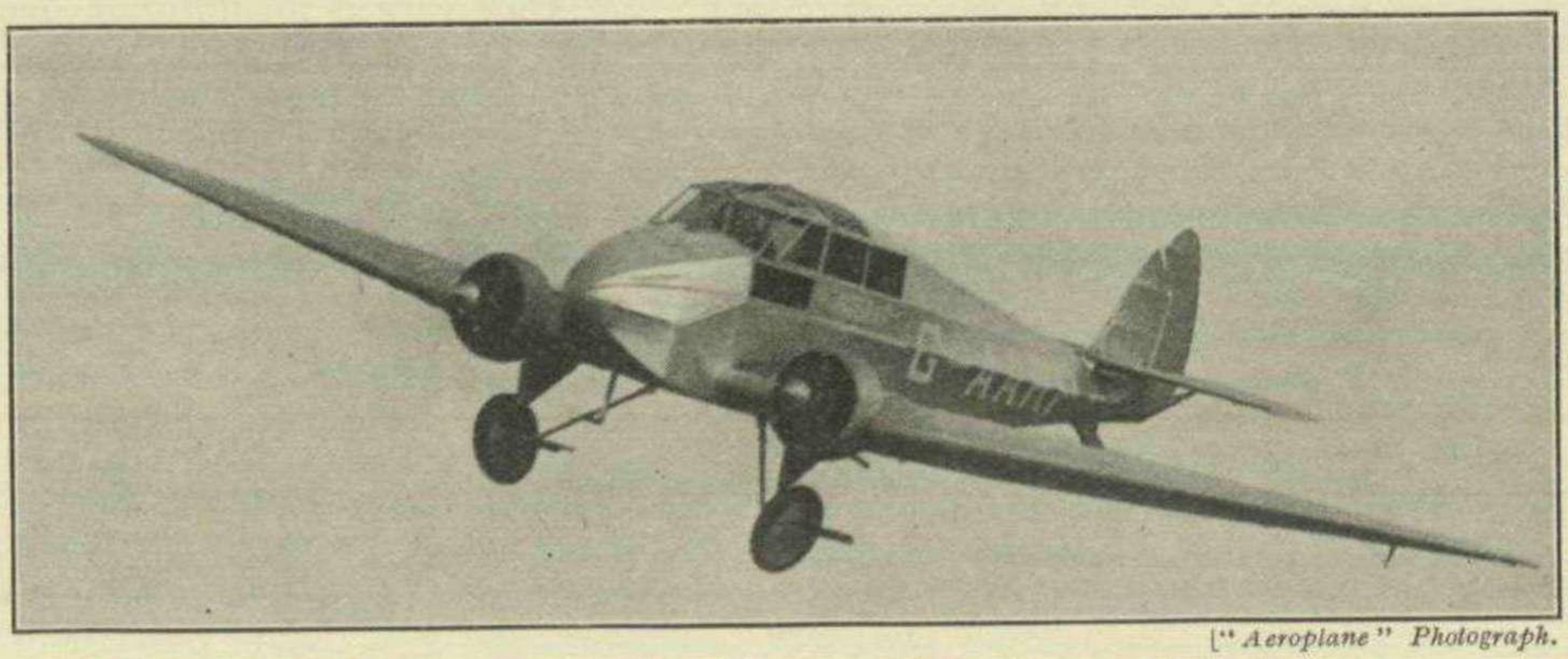
The run was followed throughout by Mr. Ainsworth, who drove a 6-cylinder Hotchkiss built in 1906.



A NEW EXPERIMENTAL MONOPLANE

An Interesting Machine Built on New Principles.

WHEN the Mono-Spar system of wing construction was first made public, on the occasion of the last Aero Show at Olympia, it created a great deal of interest amongst all those technically-minded people who inspected it, since it represented a clear breakaway from existing practices and principles employed in aircraft construction. The interest attached to it was not merely on account of it being something new, however; for it clearly offered fresh possibilities in the construction of a full cantilever monoplane wing with an extremely low structure weight. The student of aeronautics will have seen clearly that the trend of design during the past few years has been towards better performance—the cruising and top speed of 'planes of all types are increasing more and more—and since this increase demands the elimination of parasitic drag, the cantilever monoplane with its clean exterior form has come very much into favour. Hitherto the good qualities of the cantilever aerofoil have not been obtained without the disadvantage of a rather high structure weight, and, as has already been said, the big point of the Mono-Spar is that this weight is greatly reduced by the system of construction employed.



["Aeroplane" Photograph.

A very modern aeroplane. The Salmson-engined Mono-Spar machine in flight.

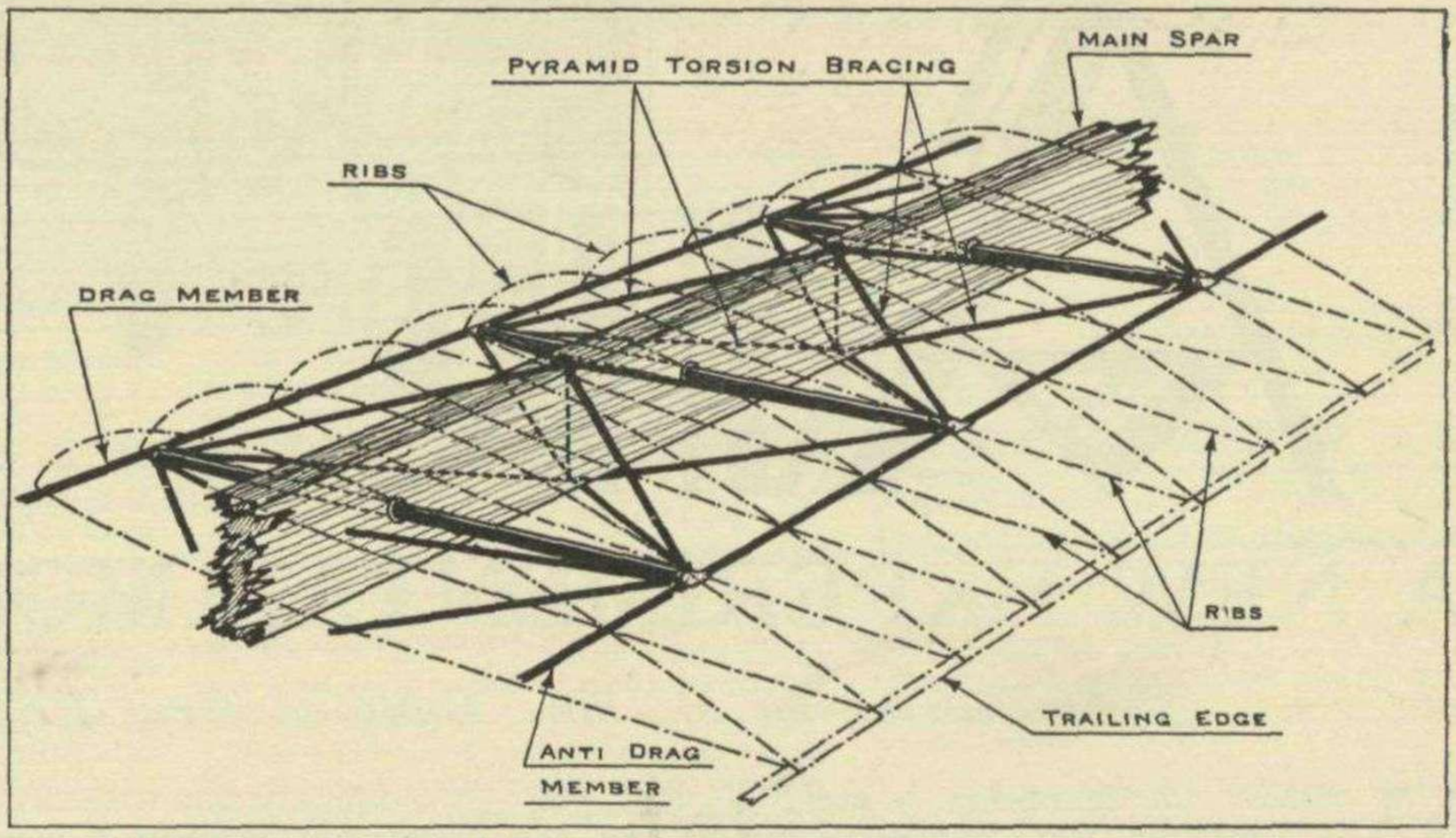
The Mono-Spar wing was invented about four years ago by Mr. H. J. Stieger, a young Swiss engineeer. As a result of a theoretical analysis of aeroplane construction in general he came to the conclusion that the provision of torsional stiffness in a full-cantilever wing at the minimum expense in weight was the fundamental problem which required solving. In a wing built up in the ordinary way with two spars, all the material in the two main members is never fully stressed; when the centre of pressure, for instance, is in its most forward position, the rear spar is only partially stressed, and similarly, with the front spar when the centre of pressure of the wing is in its rearmost position. Obviously, since there is nothing else to take it, in a single-spar wing the whole of the load is taken all the time by the single member, but, contrary to what one might assume, a single spar can be designed to take the place of two spars and yet be 40 per cent. lighter in weight. The trouble met with in using the single-spar system is in making the wing sufficiently rigid in torsion; the method of overcoming this in the past has been the utilisation of metal or three-ply wood covering in place of fabric, but this means more weight.

The Mono-Spar system consists of a single main member, strong in bending but braced against torsion by an arrangement of struts and ties. As can be seen from the sketch, the tie rods are in pyramid formation, being anchored at their apices to the extremities of the tubular struts which pass through the spar, and to plates on the top and bottom face of the spar at a point where the tie rods intersect. The drag and anti-drag members are fixed to the front and rear ends of the tubular struts.

When Mr. Stieger first introduced his wing into this country the Air Ministry carried out extensive tests with it at the R.A.E., Farnborough, and the results showed that the claims made by him as regards strength,

A NEW EXPERIMENTAL MONOPLANE—continued.

stiffness and weight were fully justified. More recently a complete machine has been designed embodying the Mono-Spar system not only in the wing structure, but in the fuselage as well, and this has now been completed and tested. This experimental craft has been built for the Mono-Spar concern by the Gloster Aircraft Co., Ltd.; it is the low-wing cabin type, and has two 50 h.p. type 9 AD Salmson engines mounted on the wing. The cabin provides accommodation for the pilot and two passengers.



A diagrammatic sketch of the Mono-Spar system of wing construction. The single spar can be either of wood or metal.

The main plane is built up in three sections, the centre portion being made integrally with the fuselage; this centre section carries the mountings for the two Salmsons, and an interesting feature is that the main members of these mountings are in one with, and extensions of, the tubular struts which pass through the spar. The latter is a Duralumin I-beam built up of a number of members with lattice-work bracing. The form ribs are also of metal, and the fabric covering is wired to these. The two outer sections of the plane are attached to the centre section by three bolts, and the ailerons are carried on a false spar. This is set at a pronounced angle to the main spar, running from the wing tip to the last bay of internal bracing, which is situated about halfway in the span.

The application of the Mono-Spar principle to the fuselage layout has been carried out very cleverly. As with the wing, the main member is a Dural beam, and this is placed at the bottom of the fuselage and anchored to the centre-section by a large tubular "V" fixing. This main member carries a superstructure of hoops and stringers, which form the framework for the fuselage covering, and, being braced, these also serve to stiffen up the assembly as a whole. The undercarriage of the machine follows modern practice in design, being of the axleless type with the shock absorbing medium enclosed in the main "legs." The wheels are fitted with brakes, and an experimental arrangement is being tried out in which their application can be made when the pilot pulls the stick right back in making a three-point landing. This action can be thrown in or out of engagement at the will of the pilot by a simple release, and an additional independent control by a centrally placed lever is also provided.

The tail unit of the Mono-Spar is of the usual type, and the framework of the rudder (which is partially balanced), the fin, elevators and tailplane is of metal with a fabric covering. The layout of the cabin is well arranged; the pilot's seat is in front, where, owing to the large windows, the view is extremely good. One passenger sits next to the pilot, and the third seat is behind. The controls comprise the usual stick and rudder-bar, and the streamlined nose of the fuselage houses the main fuel tank, which provides a gravity feed to both engines.

This first machine has been built solely as an experiment, and while various modifications will naturally be made before a production model is put in hand, the performance figures are highly satisfactory, and practical tests have shown that the machine has achieved the purposes for which it was produced. The one outstanding point is, perhaps, that in the Mono-Spar monoplane we now have a twin-engined three-seater cabin machine (with a full-cantilever wing) which weighs no more than the average two-seater light aeroplane.

CONCESSION TO OWNER-PILOTS.

PILOTS flying abroad from this country are reminded that a refund of the duty paid on petrol taken on board at the port of clearance outwards, can be obtained from H.M. Customs and Excise, if application is made on the proper form.

A.A. members may obtain these forms with their other foreign touring documents on application to the Aviation Department, The Automobile Association, Fanum House, New Coventry Street, London, W.1.

Members clearing customs outwards at Heston Air Port may apply for the refund through Airwork Limited, who make a nominal charge of 10% for their services.



SLIPSTREAMS

Speed, Weight and Power.

NOW that the light aeroplane has attained a degree of safety and ease of control which makes it a reasonably reliable means of transport when in charge of anyone of normal intelligence, manufacturers are devoting more and more attention to the question of performance. A higher cruising and all-out speed seems to be the aim of all designers, and as a result engines of increased power are being adopted, and the reduction of drag by very careful streamlining and other means is the order of the day.

Head resistance is being attacked very thoroughly by American designers, and "spats," or streamline fairing over the landing wheels and retractable undercarriages are found on quite a number of types. In this country nothing much has been done in this direction so far, although I believe that the retractable undercarriage is being experimented with by one or two firms. This feature certainly appears to be a very desirable one where more m.p.h. is being sought after, and when the various problems attached to it have been satisfactorily solved, it is not unlikely that it will ultimately replace the orthodox type of landing gear.

Meanwhile aero-engine designers are hard at work trying to get more power from motors which weigh less than their prototypes, for with a high power-weight ratio a really low landing speed, a greater power reserve and a quicker cruising speed are made possible, and it is in these directions that the 'plane for the private owner must develop. It does not seem so very long ago when we thought that anything below three lbs. per b.h.p. was a great achievement; now it has been brought down to very nearly 1 lb. per b.h.p. with some engines—as, for example, the latest Pobjoy. This little power unit, I think, deserves to be better known. It was first built in 1926, and although until quite recently it was never made on a production basis, several examples of the early experimental models are in use and giving satisfactory service. The latest Pobjoy, known as the "R" type, came through its type test very well indeed; the petrol consumption works out at .57 pints per b.h.p. hour, and the oil, 0.9 pints per hour, but what is really remarkable is the fact that it weighs complete with exhaust pipes, hand starter, and propeller hub only 130 lbs. Its normal output is 75 h.p., and thus the power-weight ratio is 1.7 b.h.p. The makers (Pobjoy Air-motors, Ltd., of Hooton, Cheshire), in writing to me about their engine, point out that in order to avoid installation difficulties they supply the unit complete with cowlings, oil tank and cooler, all ready for mounting in the air frame.

The Pobjoy "R" runs at a fairly high speed for an aircraft engine, with 3,000 r.p.m. as its normal speed and a geared prop. The reduction gear consists of a pair of double helical wheels, and to assist in steadying the drive, a small hollow flywheel is incorporated. One of its salient qualities is an exceptionally smooth running at all speeds secured by virtue of its revs and seven small cylinders.

Autogiro Demonstrations.

By now the great British public must be quite familiar with the Autogiro, since it is to be seen at every aviation function of note. Sometimes I have thought that this machine's ability to land practically vertically has not been demonstrated sufficiently, for it is a feature which should appeal to the spectator more than any other, and is one which places it in a class quite by itself. Brie, who is one of the Autogiro Company's pilots, presumably realised this at the recent Blackpool Pageant, for he made several vertical landings on a part of the aerodrome which was marked out as a tennis court, and then took off again with an incredibly short run.

The Blackpool show, which was staged to mark the opening of the municipal aerodrome, was a well-organised affair and went off very well. There was plenty of variety about the programme and a fairly wide assortment of aircraft to keep the crowd amused. One of the most impressive individual displays was Captain "Dasher" Blake's stunting with the Blackburn "Lincock," his inverted flying being particularly emotioning.

An Australian Sky Pilot.

An interesting story comes from Australia concerning the Rev. Daniels, who owns a Moth. The Rev. Daniels has in his charge the Diocese of Wilcannia, the area of which is 600 square miles. He regularly uses his Moth to cover his Diocese.

A Clergy Conference of Riverina Diocese was recently called at Hay, N.S.W. The Clergy from Wentworth and Balranald, both on the borders of N.S.W. and Victoria, and distanced respectively 180 and 80 miles from Hay, took respectively three and four days to reach Hay by road, finally having to abandon their cars owing to boggy roads, and be brought in on the mail coach. The Rev. Daniels reached Hay from Wilcannia in his Moth in 2½ hours, the distance being 250 miles. In his own words: "Comment on the best mode of travelling in outback Australia is needless."

The G.O.M. of Motoring.

Although he has for years lived in retirement, Sir Henry Royce, the founder of the Rolls-Royce Company, still makes a point of visiting the R.A.F. Display at Hendon. He was seen there this year, inspecting some of the latest aero engines in the designing of which he himself has played a large part.

The name of Rolls-Royce is as well known among airmen as it is among motorists, and it would be interesting to know which side of the business he founded appeals most to this Grand Old Man of Motordom.

"RUDDERBAR."

THE KING'S CUP RACE

A "BLUEBIRD IV." WINS AT 117 M.P.H.

ON Saturday last, the 25th July, the tenth King's Cup Air Race took place with forty-one competitors figuring in the entry list. Under the revised rules which had been put into force by the Racing Committee of the Royal Aero Club only *bona-fide* private owners were allowed to enter and only *bona-fide* amateur pilots were allowed to participate in the race, so that new types, and high powered and ultra-fast machines which would have been entered by aircraft firms in the ordinary course of events, were entirely absent. This was foreseen several months ago when the regulations were first made public, and much adverse criticism arose.

It so happened, however, that while the race was a 100 per cent. light 'plane affair, and one in which no very exciting high speeds were set up, there was a certain amount of variety in the aeroplanes entered, and so the 1931 King's Cup Race did not turn out to be quite as uninteresting as many people had imagined. As was to be expected, there were more D.H. machines than any other make; these comprised twelve "Gipsy Moths" and five "Puss Moths." Five Blackburn "Bluebirds" were also entered, and there was a similar number of Avro "Avians," two Southern "Martlet" single-seaters, four Spartans, four "Widgeons," and a Comper "Swift." Then there was a Civilian Coupé, an Arrow "Active," and a Curtiss-Reid "Rambler," a Canadian designed-and-built biplane which was flown by its owner.

Starting at Heston, the competitors followed a course to Desford aerodrome, near Leicester, Norwich, Nottingham (Tollerton) and then to Brough and Sherburn. They then had to cover a 90-miles leg to Castle Bromwich, double back to Woodford aerodrome at Manchester, continue to Hooton and return via Castle Bromwich again to Heston. After a stop of forty minutes they then got away again on another circuit, with Shoreham, Hamble and Bristol as turning points. The total mileage was 982½.

The weather conditions from the start were most unpromising, and as the day wore on, the rain and wind increased and the visibility grew steadily worse. In consequence, a number of machines were out of the running fairly early, the first being T. W. Shipside's Gipsy "Moth." Shipside landed at Radlett, Herts. Meanwhile, the lead had been taken by J. Grierson on a Gipsy "Moth," but between Nottingham and Leeds he was overtaken by Flight-Lieut. Gibbons, D.F.C., who was flying his own Spartan with a Cirrus-Hermes II engine. Flight.-Lieut. Gibbons started 19th and by the time he had reached the first control (Norwich) his position was ninth. Having assumed the premier place at Leeds (where he was 13 seconds in front of Grierson), he flew an exceptionally good course in spite of the weather, and was still leading when he checked in again at Heston prior to attacking the Shoreham-Hamble-Bristol circuit which formed the final part of the course. While Gibbons had thus been pushing on, Flying-Officer E. C. T. Edwards with a "Bluebird" IV was hot on his tail—and the list of unfortunates, who had given up, for various reasons, increased.

Many Retirements.

Squadron-Leader F. E. Guest who was accompanied in his "Moth" by Pilot-Officer Selway, withdrew at Norwich, as did Lady Bailey ("Puss Moth"), and Flight-Lieut. Wincott who was scratch man in the new and very attractive Arrow "Active" single-seater had a forced landing near Taddington and did not take off again. At Leeds there were numerous retirements including Miss Diana Guest and Flying Officer Nash ("Moth"), H. Peake and Squadron-Leader J. Woodhouse, D.S.O. ("Bluebird" IV), Flying-Officer Gillan ("Bluebird" IV), Flying Officer Leech (Martlet), Flight-Lieut. J. Bradbury ("Bluebird" IV), Flight-Lieut. D. Atcherley ("Bluebird" IV), and F. Gough ("Moth"). Ill luck overtook H. R. Law who was suddenly faced with a forced landing and had to put his "Widgeon" down in a hurry; he turned up on his nose and broke the propellor. Then news came through at Heston that Miss Winifred Brown, last year's King's Cup winner, after taking off from Leeds had also retired as a result of a forced landing, in which things had been bent somewhat. F. Symondson ("Moth") was another competitor to retire; he landed near Sheffield with engine trouble, as did A. C. Johnstone ("Avian").

By the time that the twenty-one survivors had duly checked in at Heston and—after the prescribed 40 minutes interval—taken off for the last section of the race, the rain and low-flying clouds had become appalling in their denseness. Indeed, after the gruelling the competitors had had up to this stage, it must have required a whole lot of doggedness to carry on. Most of the pilots looked extremely weary—the result of the strain of flying for hours in and below rain clouds, and over difficult country, where a forced landing would mean something rather serious, nine times out of ten.

A Close Finish.

It was on the last leg of the course that Gibbons was passed by Edwards They checked in and took off again simultaneously at the last control (Bristol), and a first rate duel ensued all the way to the finish, so that when they flashed over the line at the end of their strenuous 982½ miles journey, less than 3 minutes separated them.

The winner's average speed worked out at 117.8 m.p.h., while Gibbons' was 109 m.p.h. Third man home was Lieut. G. Rodd, R.N., on a "Puss Moth". He put up the fastest time (127½ m.p.h.).

Flying Officer Edwards learned to fly in 1925 when he joined the Oxford University Air Squadron. In 1927 he received a permanent commission in the R.A.F., and in the past few years he has participated in a number of air races on different light 'planes, notably an old Avro "Baby" and a Klemm.

THE SPORT AFLOAT



The Prince takes to Motor Boating.

EXCEPT for one or two of the larger races, such as the Star or Fedden trophy events, it must be admitted that the average outboard race is poorly supported compared with similar club meetings of two years ago. It seems strange, therefore, that so many who were originally attracted by outboard motor boat racing should so soon tire of the sport. It is to be hoped that the depression, like that of trade at the present time, is merely temporary. If, however, a revival is to be expected, those who are keen on the sport must certainly work hard to remove the causes of the rot which set in. Undoubtedly one of the major causes was public prejudice, possibly engendered by the noise the average outboard seems to raise, and the unwelcome publicity of the Channel Race in 1929. Overcoming this prejudice is rather a formidable task, and it is therefore exceedingly gratifying to learn that the Prince of Wales has taken to outboarding. Although it is not at all certain that he will have time to race, his patronage should have an immediate and marked influence on the position of outboard racing in this country. The Prince's interest was aroused at a charity fete held at Lord Ednam's seat, Hinsley Hall in Worcestershire, when outboard craft were giving demonstrations on the lake. The Prince was so intrigued by the outboard, that two days afterwards Sharland Motors received an order for a boat and engine, which order was later duplicated. This gesture by H.R.H. in selecting without hesitation an all-British motor is significant to outboardists in particular.

The hulls selected by the Prince are two slipper type single-step hydroplanes, similar to Dab III., Captain Palethorpe's boat, which was designed by himself. As Captain Palethorpe is a director of Sharland's, he put his own racing outfit at the disposal of the Prince while delivery was being awaited. Thus, during last month, the calm of Virginia Water in Windsor Great Park has been somewhat disturbed, and the Prince in his boat, which he handles already exceedingly skilfully, demonstrates what an admirable site Virginia Water would be for an outboard meeting. It is understood that H.R.H. has been approached concerning the presentation of a trophy, which will be raced for on this water in aid of some charity.

Considering that the word "dinghy" has been constantly reiterated this year, it may be a surprise to many that hydroplanes are the Prince's choice; but then for purely private use on inland waters, the hydroplane, although commanding a greater degree of skill in piloting, is infinitely more fun. When the hydroplane was popular, two years ago, I suppose there were but few drivers who did not at some time during their career turn the outfit over, quite often the cause being outside the pilot's control, such as striking a piece of driftwood or seizure of the engine. The large number of these inversions and the almost complete absence of serious effect is evidence enough to all and sundry that over turning is not as dangerous as it looks. It is not hard to imagine, however, what would be the result in the lay press should His Royal Highness happen to overturn. Perhaps I am being unnecessarily pessimistic though, for there are few more stable boats than Dab III.

The Sharland's 6,000 r.p.m.

The Sharland engine, it will be remembered, is a 347 c.c. or 'B' class, horizontally opposed twin cylinder engine, with overhead valves operated by roller bearing rockers and twin camshaft, twin carburettors and dry pump lubrication. It will be seen that, except for the use of a flat twin, Mr. Sharland, the designer, has defied every other outboard convention, and it would seem that he is justified. Very few changes have been made since the engine was fully described in MOTOR SPORT last August. The underwater housing now carries a skeg, while the upper portion of this unit is now extended aft over the prop to form a steering fin. Other alterations are of a detail nature, the principal being modifications in the oil-cooler, cylinder, and clamp castings. A noticeable feature of this engine is that it is extremely flexible, partly due to correct carburation right up the scale to 6,000 r.p.m., where the motor peaks, but more so to the fact that the engine is a flat twin. In a horizontally opposed twin both the primary and secondary or octave balance is nearly perfect, and the firing impulses are spaced exactly evenly. That the balance is not perfect is due to the offset of its cylinders, for although the reciprocating parts of one cylinder exactly balance those of the other cylinder, being out of line, a rocking couple of small magnitude is produced, which cannot be entirely cancelled out by the balance weights. This arrangement of cylinders, however, is much to be preferred to any other twin arrangement, for in all imposed twins the octave balance is very poor.

The finish of the Sharland motor is in deep blue and chromium, so the letters need only to be put on in red for the motor to be in the Prince of Wales' colours.

F. M.

The One-And-A-Half Litre Class.

Its Rise and Fall from Popularity Discussed.

A QUESTION which has been frequently debated but never settled, is whether the 21 footers of pre-war days was a more popular class than the post-war International 1½-litre Class. The partisans of the former are largely those whom we hope will not mind being referred to as the veterans of the sport. Their protagonists are those of the newer school who claim that no class has ever met with the spontaneous and International support that was accorded the 1½ litre class immediately upon its inception. It is all very much like the eternal question—is Hobbs a better batsman than W. G. Grace?

The introduction of the 1½ litre class was a matter of historic importance in the motor boat racing world and the auspices under which it was launched will always remain an important land mark in marine motoring. The class was first introduced at the International Conference on marine motoring held in Brussels in September, 1922, and was unanimously adopted as an International Class by all the nations represented there.

It may be of interest to readers to record the fact that this very important conference, which was attended by delegates from practically every country interested in the sport,—was the direct outcome of the tireless energy of that most ardent racer of pre-war days —Commander Morton Smart, D.S.O.

At the end of the war the M.M.A. was to all intents and purposes, defunct, but Commander Morton Smart gathered together what remained of the Association and the real enthusiasts, and put forward his proposals for the reviving of the M.M.A. and his plans for an International Conference. The result was completely successful in both instances. The delegation to represent Great Britain was representative of every branch of the sport, and is not without interest. The principal delegate was, of course, Commander Morton Smart and the two delegates with power to vote were Mr. Fred May and Mr. Tom Thornycroft. They were supported by Technical delegates composed of Messrs. Mawdsley Brooke, Arthur Bray, C. V. Mackrow and Frank Maynard. Other delegates representing the clubs and the sport were Mr. George Paxton, Col. B. Millard, Capt. J. A. Holder, Commander T. Fox and the late "Jonnie" Ward.

The first "1½-litre."

The adoption of the 1½ and 3 litre classes at the Conference immediately produced one boat for each class. The first 1½ litre boat was that eventually named "Mr. Poo," which was built by Mr. Brooke and the 3 litre boat was the "Ardenrun major," built by S. E. Saunders, Ltd., for Capt. Woolf Barnato. That was the only boat built to the larger class which did not find any further adherents until it was adopted by several members of the Windermere M.B.C. some years later.

The 1½ litre class, however, immediately went ahead. Within a few days a boat was laid down for the late Mr. Gordon Bolton. This was "Miss Empire," and turned out to be one of the most successful boats in the class.

The next event was the presentation of a trophy which now constitutes the Blue Riband for hydroplane racing in Great Britain—i.e., H.R.H. the Duke of York's International Gold Trophy, which was to be raced for by boats of the 1½ litre class.

The first race for this was held at Torquay in 1923 and the eliminating race for the selection of the British team was run over the "boat race" course and this was the first time that hydroplane racing had ever been permitted on the upper reaches of the Thames.

The following boats entered for this event:—"Miss Betty" (winner), "Ardenrun minor," "Cockleshell," "Miss Empire," "2.L.O.", "Lady Pat" and "Miss Walton," a stepless boat.

By this time a number of boats had been built on the Continent, but owing to transport difficulties only one entry from France was received, that being "Pierre de Lune", owned by the Marquise de Casa Maury.

Splendid Support.

Within a period of two years from the inception of this class the race for this Trophy produced an entry which has probably never been equalled by any other class. Boats representing no fewer than seven nations competing for the Trophy. This particular race was again held on the Thames over the "Boat Race" course, but in spite of this wonderful entry was one of the most unlucky events that ever took place. Eleven boats started on the first day, but owing to damage by floating obstruction and mechanical breakdown, the starters for the final heat numbered only two, "Newg" (Miss Carstairs, Great Britain) and "Sigrid" (M. Greuger, Germany).

The "growth" of the class up to this time had been almost phenomenal, and there is no doubt it would have continued to increase had there been a greater number of important International events organised—and greater encouragement given to people to build or run their boats more frequently. The support of the class began to dwindle after only four years, but during its short life the 1½ litre class was extremely successful and had it been fostered in the same way that the 21 footers had been it would have lived a long time and been extremely popular.

Some of the best known British boats are given in the following table.

NAME	OWNER	DESIGNER	BUILDER	ENGINE
"Mr. Poo"	M. Brooke	J. W. Brooke & Co.	J. W. Brooke & Co.	Brooke
Miss Empire	G. Bolton	C. V. Mackrow	Chester Boat Co.	Talbot
Ardenrun	W. Barnato	S. E. Saunders	S. E. Saunders	Sunbeam
Miss Betty	E. Johnston Noad	C. V. Mackrow	Camper & Nicholsons, Ltd.	Aston Martin
Lady Pat	Maj. Webber	J. W. Brooke & Co.	J. W. Brooke & Co.	Brooke
Newg	Miss B. Carstairs	S. E. Saunders	S. E. Saunders	Sunbeam
Cockleshell	T. Desnos	J. W. Brooke & Co.	J. W. Brooke & Co.	Brooke
2.L.O.	Fred May	F. Maynard	F. Maynard	Green
Miss Walton	F. Burnard	F. Burnard	Walton Launch Co.	Green
Bulldog	H. Tevis	J. W. Brooke & Co.	H. W. Brooke & Co.	Brooke
Miss Olga	G. E. T. Eyston	C. V. Mackrow	Walton Launch Co.	Aston Martin
Bela	F. T. Bersey	C. V. Mackrow	Walton Launch Co.	Laystall
Little Bela	F. T. Bersey	C. V. Mackrow	Walton Launch Co.	Laystall

THE ONE-AND-A-HALF LITRE CLASS—continued.

A boat was built for the late J. G. Parry Thomas to take one of his 8 cylinder Thomas Special engines, but his untimely death occurred just as the boat was completed, and was never used.

A point of interest as regards "Miss Betty" is that she was the winner of the first race ever held for the Duke of York's Trophy, at Torquay, and then after a lapse of five years succeeded in winning the Trophy again, in what turned out to be the last time it was competed for by boats of the 1½ litre class.

The reason for suggesting that the decline of this class was due to the want of serious competitions is based largely on the fact that practically all the boats built to this class were owned by members of two or three clubs situated on the S.E. coast and included in a comparatively small area, and big entries would undoubtedly have been obtained, had the events for the class merited the cost of transport. With the exception of the "Brooke" boats, all the others had their home ports, between the Thames and Southampton.

The 21 footers used to obtain better entries for the ordinary regatta events, but the fact must not be lost sight of that the difference in cost of transport from one regatta to another before and since the war is very great and had the effect of restricting the activities of the owners very considerably.

Given equal conditions and facilities there does not seem to be any doubt that, with the greater number of boats of the 1½ litre class, it would have proved the more popular and successful class.

There were, in all, about sixteen boats built to the class in Great Britain alone and the same number between France, Italy, Germany, Belgium and Holland, while three or four were built in U.S.A. and one in Canada.

It is a matter for regret that what might have been the biggest International class by a wide margin, should have been allowed to "peter out" through lack of sufficiently important events.

The Duke of York's Trophy was last year competed for by the 3 litre class, and those who attended "at the bedside" of the once famous 1½ litre class murmured "the 1½ litre is dead, long live the 3 litre."

Through an unhappy circumstance the 3 litre event nearly died at birth. This year there is no race for the Duke of York's Trophy at all, and the 3 litre class seems to have been deposed or forced to abdicate. Is this to be the creation of a marine republic?—C.V.M.

"MISS ENGLAND'S" NEW RECORD.

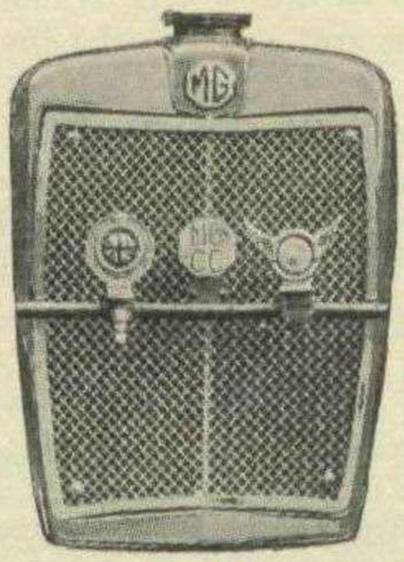
EVER since the International Meeting at Gardone, mechanics have been at work on Miss England II, and whenever the boat was taken out it was some small detail that prevented Don from proving conclusively that Lord Wakefield's boat is at present without a rival. Recently, when a new cylinder block was being conveyed to Italy by special aeroplane, interest was focussed on our little camp there because the pilot of this aeroplane was lost for a day due to a forced landing. It was then that Mr. Fred Cooper, the designer of the boat, said publicly that he was confident that within the next few days Miss England II. would do close on 110 m.p.h.! Almost prophetic, for on 9th July Mr. Kaye Don put up a magnificent show by averaging over both ways of the mile course exactly 110 m.p.h. His outward run was accomplished at 112.06 m.p.h., and the return at 107.94 m.p.h. As on previous occasions, Don took considerable risks, for there was much driftwood about, and one can never be sure that the course is quite clear, however well inspected.

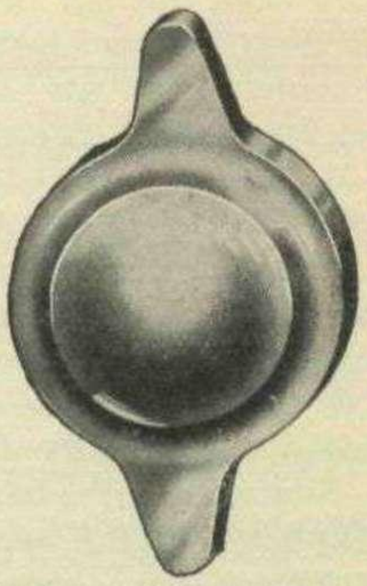
Prior to leaving Italy, Don tried out various propellers in preparation for his American visit for the B.T.trophy races. Never was our chance more rosy of at last bringing it back to England, and our boat has more than justified the original points in her design. It was not many years ago that propeller speeds of over 3,000 r.p.m. were considered unsuitable, for it was thought that at higher rates of rotation propeller efficiency would be necessarily low.

Mr. Chapman's 1½-litre Duke of York's trophy challenge was the first boat to break convention, for on this craft the prop turned at 7,000 r.p.m. It has now been demonstrated that Miss England II., with a single propeller turning at 12,000 r.p.m., must have a very high propulsive efficiency, even after making allowances for the exceptional power of the Rolls-Royce aero engines.

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BROOKLANDS Radiator Grilles effect a wonderful improvement in the frontal aspect of any Sports Car. Accurately shaped to contour of radiator and constructed from solid brass throughout, including mesh, and finish in Chromium Plate. For real snappy and sporting looks fit a "Brooklands" Grille—priced from only 30/- up.

AUSTIN 7, M.G., MINOR 30/-
BUGS: 30/98's, LEAFS, HORNETS, BENTLEYS, etc., - - from 36/-

BRING your bolt-on wire wheels right up-to-date with present day racing equipment by fitting a set of these fine "Brooklands" Hub Caps. Make an amazing improvement in both Wheel and Car which has to be seen to be appreciated. Beautifully proportioned with off-set ears and made in solid brass throughout.—Chrome Plated.

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HERE and THERE

By "Camshaft"

Spanish Impetus for British Motor Trade.

BRITISH motor manufacturers are pleased by the news from Spain that the Spanish Cabinet has decided to reduce by 50% the duty on motorcar chassis and parts imported into the country for erection by native labour. It will mean a definite expansion of British trade for, as Mr. Sidgreaves, Managing Director of Rolls-Royce, points out, Spain has always been one of the best markets for British cars, especially in the luxury class. Now cars will be produced in Spain at lower prices and there will be demands for British machines of other grades. Already the Riley concern, realising how great are the possibilities of the Spanish market, has been contemplating the establishment of an erection factory in Madrid to attack the extensive Spanish markets.

In addition to new scope being given to car manufacturers it is likely that the action of the Spanish Government, says Major H. R. Watling, of the Motorcycle Manufacturers Union, will result in attracting further orders of British components.

"Even Germany, which produces so many makes of its own, uses British components when it comes to building machines on the assembly system," he said :—"So also do Denmark, Czecho-Slovakia, Switzerland, Belgium, Austria and Italy."

Developments Abroad.

British automobile development abroad has increased very rapidly during the last few years. New showrooms and offices connected with various British manufacturers have been opened in all parts of the world to deal with the distribution of the cars in and around the localities in which they are situated. One of the largest firms concerned with car exportation and distribution abroad is Messrs. Rootes, Ltd., who are, of course, world exporters of Humber and Hillman cars and Commer commercial vehicles, with headquarters at Devonshire House, Piccadilly, London, and who have distributors in every quarter of the globe.

A new enterprise—Rootes Argentina S.A.—was recently successfully launched in South America, while in Switzerland, where already there was quite strong Humber-Hillman representation, further distributors—at Neuchatel—have recently been appointed in order to improve still further the distribution arrangements in Western Switzerland.

The Small Car "Down Under."

The pessimists who persistently cry that the small British car is "unsuitable for overseas" will be shocked by the news that in New South Wales, at any rate, the type has proved itself most suitable and efficient.

During the last twelve months or so one make alone, the Triumph Super Seven, has won 34 cups and trophies in open contests. Included in the trophies are the Challenge Shield for the 24 hours' winter trial—the most strenuous in New South Wales—and the Wakefield Trophy for 1930. The latter is offered annually for the highest aggregate score in ten trials organised by the R.A.C. of Australia and it was won by the little British car in competition with foreigners of many times the size. So much for the pessimists.

Crusading by Motorcycle.

There are no party politics in the Crusade which is being undertaken by twelve young Jewish athletes. Theirs is a "sports crusade" and they are motorcycling all over Europe to foster Jewish interest in a huge Olympiad which it is proposed to hold next summer at Tel Aviv, Palestine.

Already they have visited Vienna, Paris and other European centres and at present they are in England. Of their twelve machines only two, unfortunately, are of British manufacture. These two are Ariels and when the Crusaders were in the Midlands they paid a surprise visit to the Ariel works. Their trip round the factory, during which they displayed great interest in the moving assembly track and other modern production methods, may be considered in the nature of a respite, for when it was completed they leapt into their saddles, like the Crusaders of old, and set forth once more on their self-imposed task.

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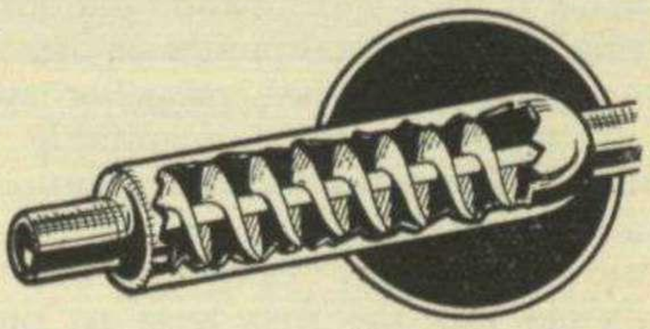
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70 m.p.h. A.B.C. Special streamlined Super-sports 2-seater, cost £800!! Specially built plated chassis, wire wheels, 70 m.p.h., track car, returned giving amazing acceleration, chromium, covered extras, 50 m.p.h. in third, perfect; £45!!—Greenwoods' Motors, 30a, Highgate Rd., N.W.5. Gulliver 4223.

A.C.

£35.—A.C. 1926 6-cyl. sports 4-seater, most beautiful condition, maroon and beige, only wants seeing.—Gatehouse Motors, Highgate Village, N.6. 'Phone: Mountview 4444.

ALFA-ROMEO.

ALFA ROMEO, 1930 series (Olympia show model), 2-litre supercharged sports chassis, 4-seater drop head coupe, mileage 9,000 only, many extras; cost £1,400, accept £995.—The Car Mart, Ltd., 46-50, Park Lane, W.1 ('Phone: Grosvenor 3311); 297-299 Euston Rd., N.W.1 ('Phone: Museum 2000).

TAYLOR and ASKEW for Slightly Used Cars.

GENUINE Racing Model 1½-litre Alfa Romeo Supercharged 2-seater, twice run second in international events, docile, tractable and economical for ordinary use, 100 m.p.h.; price £665.—13, Weymouth Mews, Harley St., W.1. 'Phone: Langham 3929.

AMILCAR.

70 m.p.h. Amilcar Super Sports 2-seater, blue and red, F.W.B., wire wheels, long-tailed body, pressure oiling, rev. counter, etc., leather upholstery, Vee screens, good tyres, rebored and overhauled throughout, mechanically 100%, any trial; £47!!—Greenwood's Motors, 30a, Highgate Rd., N.W.5. Gulliver 4223.

SECOND-HAND SPORTS CARS (*continued*).

AMILCAR.

AMILCAR, 1927, 11.8 h.p. sports 2-seater, very smart boat-shaped body, with fabric top f.w.b., 4 speeds, etc., £57 10s.; also 1926 Grand Sports model, £39; exchanges, terms. Yarwoods, Stoneley South, High Road, Tottenham. 'Phone 3122.

BENTLEY.

1931 BENTLEY supercharged 4½ litre. Open 4 seater body, Vanden Plas, painted Le Mans green, Lucas P 80 headlamps, Zeiss spotlight, Unscratched. Only driven 2,000 miles. Cost £1,45 at Easter. Will accept £1,100. Apply, H.65, c/o Motor Sport (1929) Ltd., 39, Victoria Street, London, S.W.1.

BUGATTI.

£32.10.0 BUGATTI, 16 valve, 4 speed, 11.9 h.p. Has been entirely rebuilt. Semi-sports, 2-seater body, very fast. Metro Motors, 45, Newman Street, W.1. Museum 9953.

BUGATTI modified Straight 8, Grand Prix 2-seater body, built for Southport Trial, one of the most perfect of these very fast cars overhauled and tuned by experts, £100. Box No. M. 82 c/o Motor Sport.

2-LITRE Straight Eight Bugatti, 1926, overhauled, dynamo starting and lighting, cellulosed cream and blue, sports 2-seater, with double dickey, F.W.B., good balloon tyres; £100.—Milne's Garage, 212 High St., Colliers Wood, S.W.19. 'Phone: Wimbledon 3257.

FRAZER-NASH.

FRAZER NASH cars, Falcon Works, London Rd., Isleworth (Hounslow 3172) always have for disposal reconditioned and guaranteed cars, fitted with new tyres and F.W.B. Prices from £125.

H.E.

1931 model 16/60 short chassis H.E. sports 4-seater, slightly soiled. Outstanding performance, very attractive. Listed £695, accept £495.—Messrs. Schneider Automobiles (Eng.) Ltd., 138, Long Acre, London, W.C.2. Temple Bar 3322.

LANCIA.

1931 Unregistered, Unused (shop soiled LANCIA sports 4-seater, Weymann body. Very fast. Listed at £725; will accept £550.—Padden Bros., Ltd., 60, Cheval Place, Brompton Road, S..W.7. Sloane 7493-4.5.

LEA FRANCIS.

£55 LEA-FRANCIS 12 h.p. Special Aluminium Super Sports 4-seater, F.W.B. Green wire wheels. Very fast. In perfect order throughout.—Greenwoods Motors, 30a, Highgate Road, N.W.5. Gulliver 4223.

SECOND-HAND SPORTS CARS (*continued*).

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1931 Special Brooklands Model Riley Nine 2-seater, this car has been specially tuned by Messrs. Thomson and Taylor at cost of £85, and is a really super model only just run in, owner must sell; sacrifice £275; part exchange and deferred terms.—British and Colonial Motors, Ltd., 8-9, Long Acre. Temple Bar 3605.

SALMSON.

£95 1929 SALMSON, 10-40 h.p. grand sports 2-seater, o.h.v., dual-tone finished, unscratched, nearly 1931 condition, cost £300, accept £95, or exchange.—H. 81, c/o Motor Sport.

1930 SANS SEBASTIAN Supercharged Salmson, four speeds, twin magnetos, roller bearing crankshaft, large Exide starter battery and many extras. Very successful this season's competitions, and winner Brooklands Mountain Handicap. Just been overhauled & supertuned by Salmsons; attains 110 m.p.h.; exceptionally fine mechanical condition. 300 guineas.—Apply Z 69, c/o Motor Sport (1929) Ltd., 39, Victoria Street, London, S.W.1.

£45 GRAND PRIX special roller bearing engine, 4 speed, actually winner of many competitions, guaranteed 80 m.p.h., exchange or deferred payments.—C. & K. Motors, 5, Putney Bridge Road, S.W.18. Putney 2728.

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42 Guineas.—1927¾ long tail fabric 3-seater, F.W.B., balloons, exceptional runner.

32 Guineas.—1926 model Grand Prix, twin o.h.c., F.W.B., low built sports body.

55 Guineas.—1927 Grand Prix, twin o.h.c., F.W.B., large flexible steering wheel, shock absorbers, balloons, smart fabric long tail streamline body.

19 Guineas.—Twin camshaft coupé De Luxe, dickey, divided windscreens, starter, very comfortable and roomy.

19 Guineas.—1926 sports skiff, Vee screens, wiper, starter, fast, smart.

20 Guineas.—1926 o.h.v. 4-seater, new hood, F.W.B., balloons.

VADUM Co., 352, High Rd., Willesden Green, N.W.10. Willesden 2469.

SCHNEIDER.

MESSRS. SCHNEIDER Automobiles Ltd., 138, Long Acre, London, W.C.2, have for disposal a few slightly soiled 13/55 le Mans 4-seater Schneiders and saloons at reduced prices.—Prices on application.

VAUXHALL.

CRACKINGTON MOTORS, Welwyn, Herts (Tel.: 154), the largest 30-98 h.p. dealers in the country, offer the following sports cars.—Works, 35a, Hertingfordbury Rd., Hertford.

1926 30-98 h.p. o.h.v. Vauxhall Sports 2-seater, beautiful mahogany boat decked Wensum body, copper fittings throughout, recently recellulosed cream, new tyres, F.W.B., the whole car indistinguishable from new, 85 m.p.h., every conceivable accessory; £230.

1925 30-98 h.p. o.h.v. Sports Vauxhall 4-seater F.W.B., newly recellulosed yellow-black Ace disc wheels, 12,000 miles only, chauffeur kept, guaranteed 90 m.p.h.; £175.

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SECOND-HAND SPORTS CARS (*continued*).

VAUXHALL—*continued.*

30-98 h.p. Vauxhall Sports 4-seater, just repainted cream-red, new hood and tonneau cover, tyres and mechanical condition perfect F.W.B.

30-98 h.p. Vauxhall Aluminium Sports 4-seater F.W.B., cycle type mudguards, perfect order throughout; our bargain this week, £70.

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