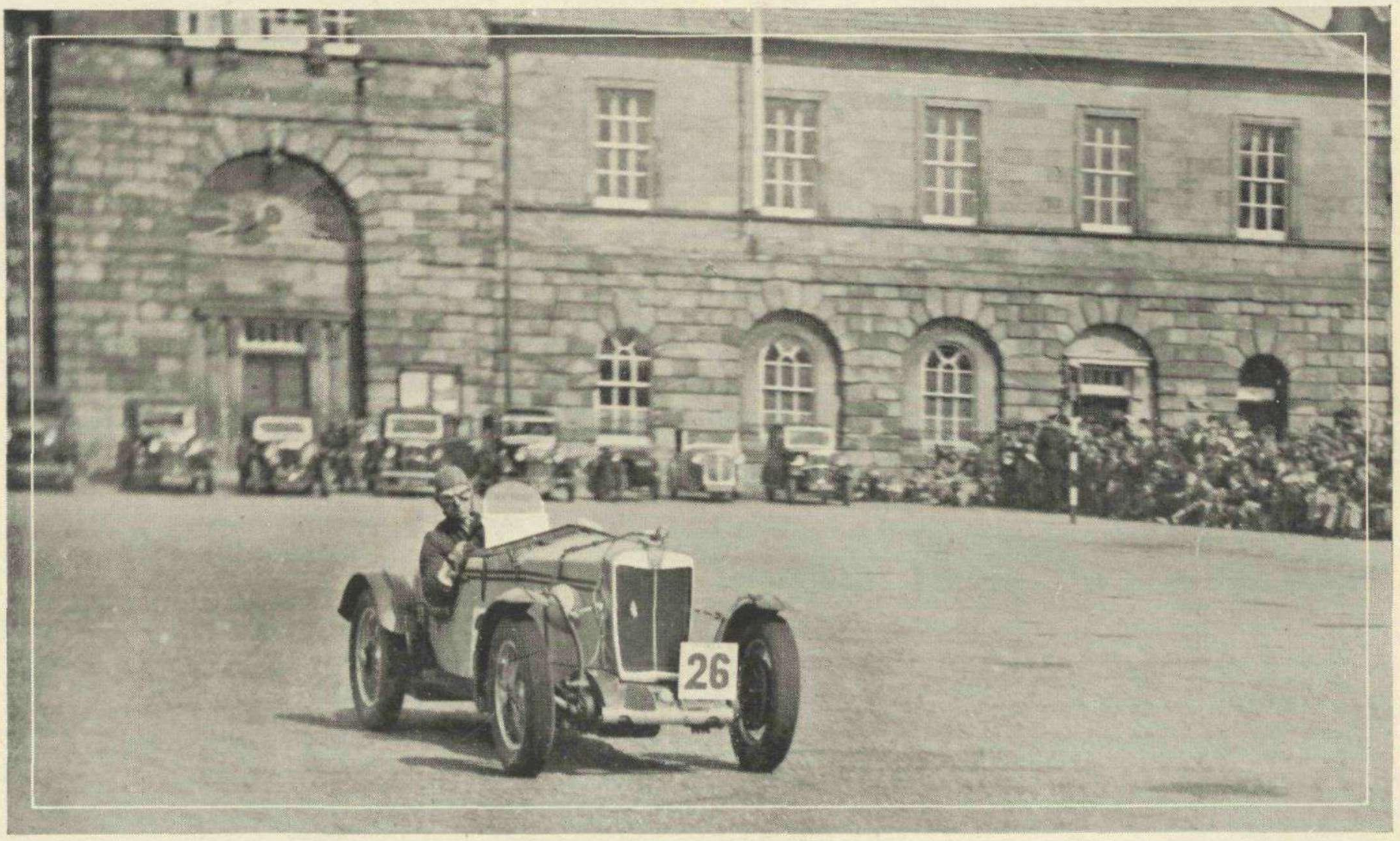
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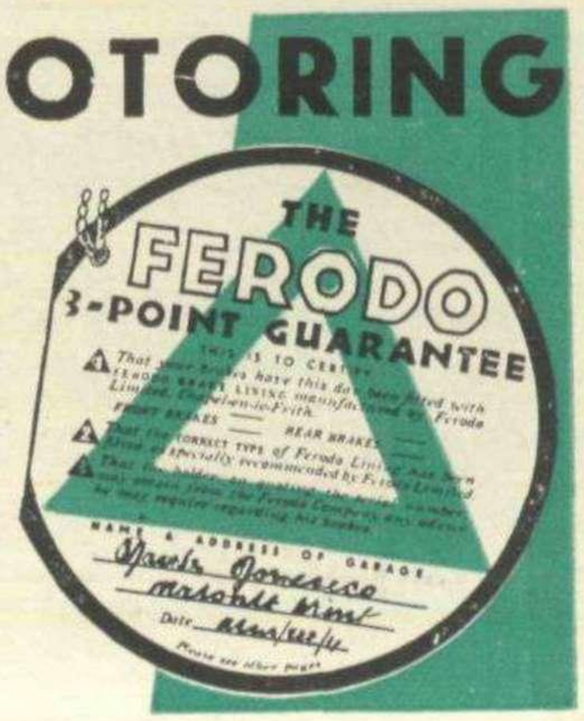
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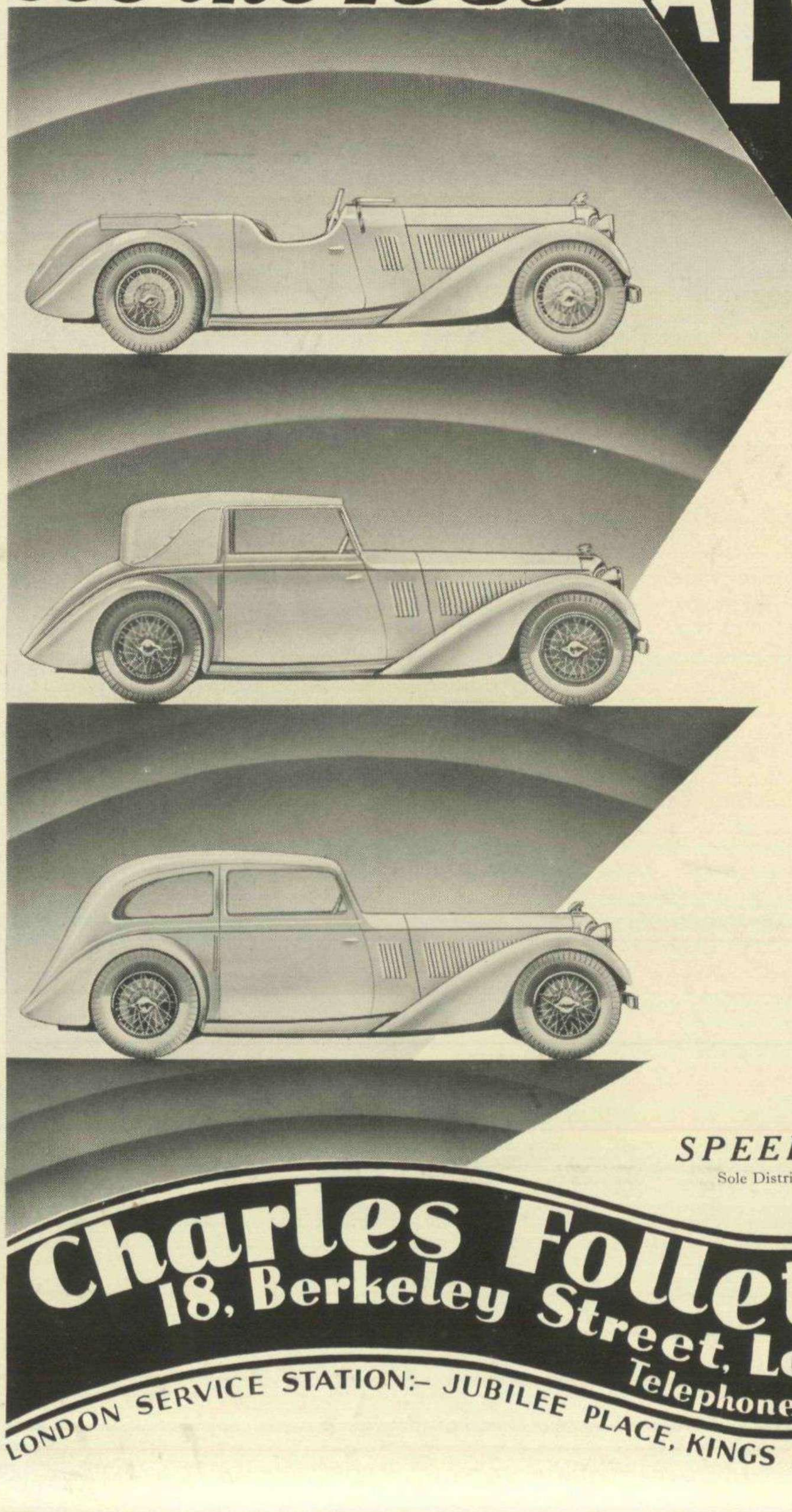
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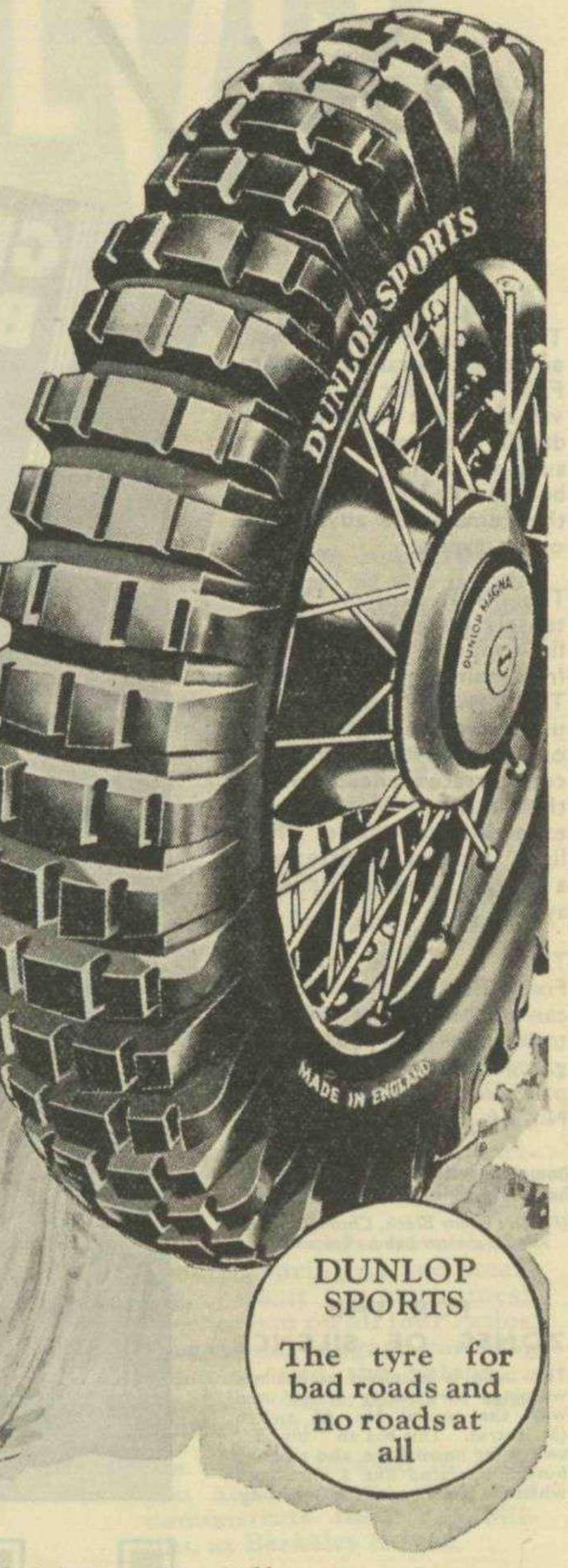
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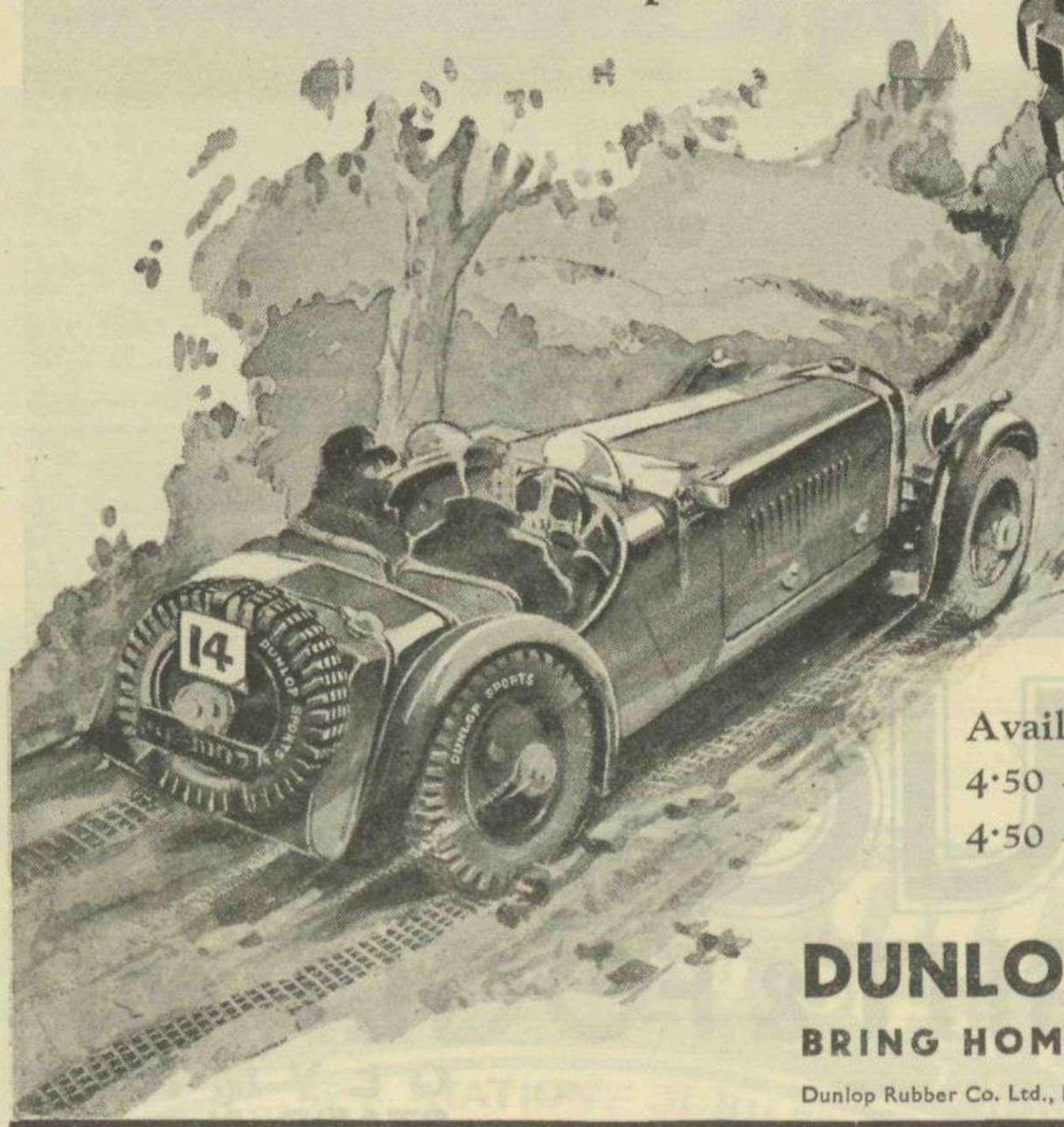
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IS THE FORMULA A SUCCESS?

OUR readers will remember that the International Formula for Grand Prix races caused a considerable storm of discussion when it was first announced in 1933. After a season has elapsed we are now in a position to form some conclusion as to the success—or otherwise—of the formula, which is to be in force until the end of 1936.

With one exception our own views coincide with those of M. Perouse, President of the Sporting Commission of the A.C.F., published recently in a French contemporary. In brief, M. Perouse believes that some means of limiting the speed of racing cars will have to be found, because the stage has now been reached when the cars have become too fast for any but super men to handle without endangering their own lives and those of fellow-drivers and spectators. Nothing can be learned at the moment from travelling at a higher speed than 180 m.p.h. on normal roads.

Bearing in mind that the present formula must necessarily remain in force for two more seasons, what is to be done to give motor racing a useful function in the development of the automobile, and at the same time reduce the risk of accidents? Amendments to the formula of too drastic a nature cannot be included, in fairness to the manufacturers who have spent considerable sums of money in building their present racing machines. The first thing to be done is to stipulate that normal fuel should be used, containing only a specified content of ethyl or benzol. In this way speeds would inevitably come down with a rush, with the advantage that more could be learnt about obtaining the maximum power from normal fuels. At present the tremendously costly fuels used have no relation whatsoever to motoring in general. As to limiting fuel consumption, M. Perouse does not suggest this, and we are of the opinion that this should only be applied with the greatest care, *i.e.* a generous consumption should be allowed. Some of the cars racing nowadays have a consumption of less than 5 miles per gallon, so a little improvement in this respect would undoubtedly have the twinfold effect of reducing speed and promoting knowledge.

M. Perouse also recommends that the circuits should be made more difficult, cutting down speed in that way. On this point we do not entirely agree. At least one "straight leg" on a road course is essential, otherwise maximum speed counts for nought. As to the danger element, it is generally on corners that accidents happen—although we admit that the trouble may be caused by the colossal speed at which the cars now approach a corner at the end of a straight stretch. There seems little to find fault with in most of the courses used to-day except that some of them are rather too narrow. Rain is the chief cause of accidents, and occasionally the failure of a driver to give sufficient room to a passing car. Finally, with the example of the Italian Grand Prix so fresh in our minds, when the course used was so slow that the race was lacking in interest, the idea of altering the actual circuits will appear to be even less attractive.

We invite our readers to give their views on this subject, which has a vital bearing on the future of Grand Prix road racing.

CONTENTS

	PAGE
Rain Spoils the 500-Miles Race	532
My Motoring Reminiscences, by S. F. Edge...	537
Railton Terraplane, The...	539
Squire Car, The	543
Manx G.P. Races	544
News from the U.S.A.	548
Rumblings	550
Speed Trials on Brighton Front	554
Continental Notes...	557
Club News	559
Ulster T.T., The	561
Von Stuck takes the Mont Ventoux Record...	567
German Success in the Italian G.P.	568
Confusion at Phœnix Park	570
M.C.C. Annual "Blind"...	572
A Guide to the 1935 High Performance Sports Cars... ...	574

RAIN SPOILS THE 500-MILES RACE

F. W. DIXON (RILEY) WINS AT 104.80 M.P.H.—SPEEDS GREATLY REDUCED BY RAINSTORMS—MANY CARS RETIRE AND ONLY SEVEN FINISH WITHIN TIME LIMIT—TWO ACCIDENTS, BUT NO CASUALTIES.

THIRTY cars all lapping at over 110 m.p.h. ! Such was the fearsome spectacle envisaged by the entry list of the B.R.D.C. 500-Miles Race, which was held on Saturday, September 22nd, at Brooklands Track. Many people fore-told disasters and accidents of a magnitude never before experienced in this country, for the error of any one driver would be sure to involve cars following immediately behind. The drivers of fleet "750's" were advised to keep low on the banking, but this can be as dangerous as baulking by being too high, for a small car can easily get out of control in this way.

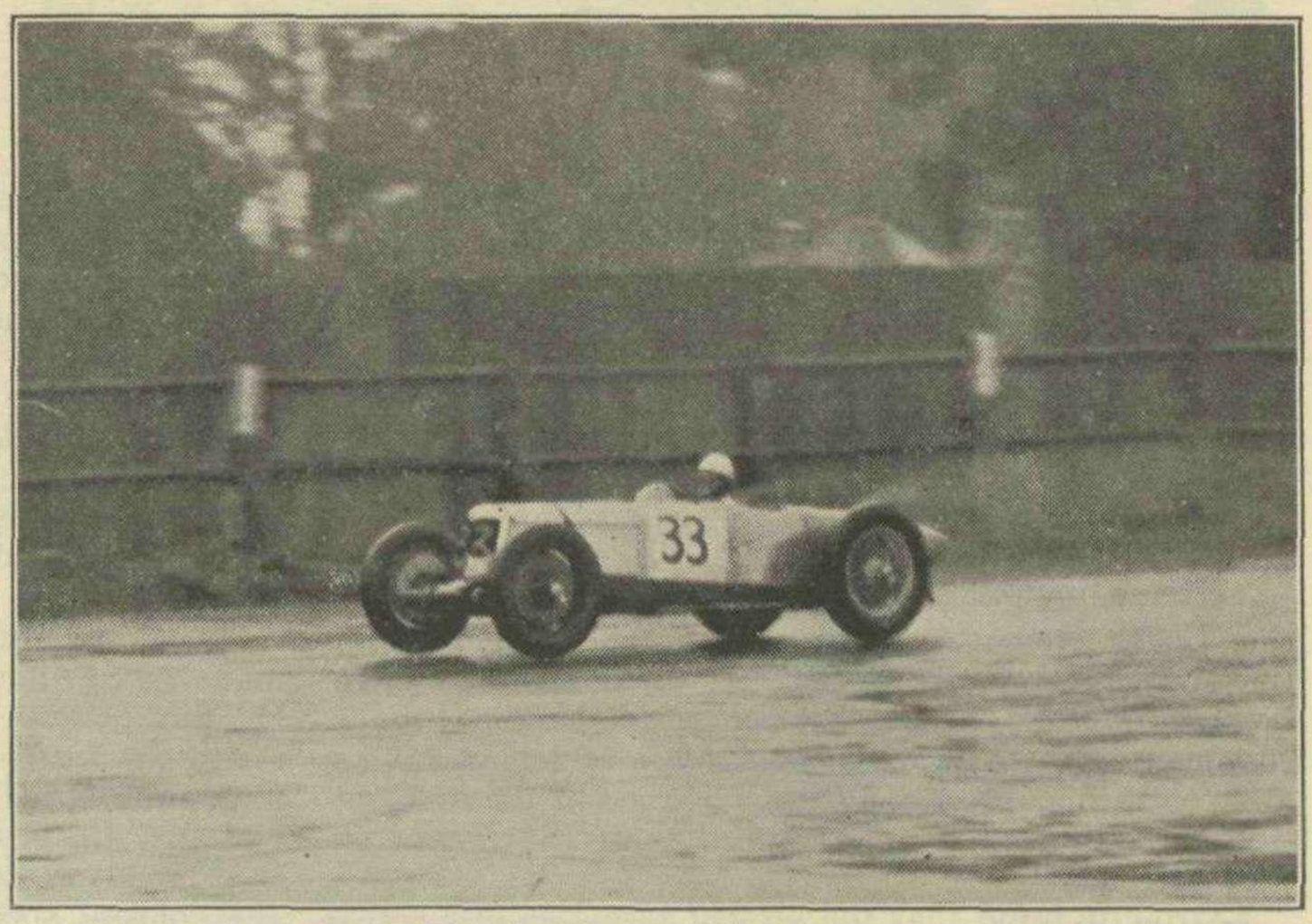
That speeds were going to be phenomenally high was shown by the practising which went on during the preceding week. Whitney Straight turned out with the 4-litre Duesenberg, raced by the Scuderia Ferrari, and covered several laps in the region of 137 m.p.h. The Barnato Hassan, in the hands of Dudley Froy, exceeded 130 m.p.h., and Freddie Dixon got round in his unblown 2-litre Riley at 125 m.p.h. !

The day dawned unpropitiously. The sky was just about as menacing as it could be, and augured a prolonged downpour. Actually the rain held off until the whole field had been going for about half an hour, and then it turned from a faint drizzle into a heavy deluge. To crown the disappointment of the arriving spectators, the Duesenberg was posted as a non-starter, owing to doctor's orders forbidding Straight to drive. Actually there were nine non-starters, J. G. C. Low's M.G. Midget, R. J. W. Appleton's Appleton Special, H. L. Maddick's M.G. Magna, E. R. Hall's M.G. Magnette, C. Penn Hughes' Aston-Martin, R. F. Oat's Aston-Martin, the 2½-litre Maserati to be driven by R. E. L. Featherstonhaugh and R. G. B. Seaman, Tommy Hann's Hann Special, which failed to cover a qualifying lap at a speed of 100 m.p.h., and the Duesenberg.

The first group started at 12 o'clock, and from then until 12.24 the track became steadily more populated with faster and faster cars. Most people made a good getaway, but Dixon was rather slow and Horton could not get his engine started until the rest of the cars had disappeared from sight. It was a pity that such a fine field could not have been sent away *en masse*, but some of the groups were quite good to watch, especially the big cars. N. Black (2.3-litre Alfa-Romeo), R. Marker (Bentley) and O. Bertram (4.9 Bugatti) were in front, with Froy (Barnato-Hassan) and John Cobb (Napier-Railton) behind. Cobb nosed forward while waiting for the flag, but it was of no advantage for he was baulked by the Bentley and the Bugatti, both of which made extremely bad starts. Black, on the other hand, fairly shot away and was leading the group at the end of the first lap.

It was too early as yet to form an opinion as to the possible leaders on handicap, and so leaving this task to the slide-rule mathematicians, we took the opportunity of timing some of the cars for their approximate lap speeds. The Napier Railton, of course, was the fastest of the field at 126 m.p.h. Dixon was averaging a shade over 120 m.p.h., as was Eyston on the Magic Magnette. Horton was doing 115 m.p.h. and Dodson on the little Magic Midget 112 m.p.h.

After a delay of 25 minutes the leaders at 12.30 were announced, and no one was surprised to hear that George Eyston was ahead of the rest at this early stage, with Cobb second and Dixon third. Already Von der Becke, driving the Riley which was ultimately to finish second, was lying fourth. If the weather held it looked as though there would be a close struggle between Eyston, Cobb and Dixon, with the odds in favour of Eyston.



This photograph of F. W. Dixon's winning Riley gives some idea of the waterlogged condition of the track, the cars sending up huge plumes of spray.

Pit-stops were soon made, as is usual at Brooklands. Goodacre's Austin was actually the first car to pull in, while J. L. Ford and P. L. Donkin both required plugs for their Magnettes. The earliest retirement was A. H. Boyd's Magnette, which only ran for 10 minutes before developing an alarming lubrication trouble. A much criticized feature was that distinctive pit signals were not allowed, which was a little hard on the drivers of small fast cars requiring a good deal of concentration to handle.

The one o'clock positions revealed that Eyston was steadily building up his lead, being two minutes to the good of his scheduled handicap. Cobb was 1 min. 14 secs., and Dixon 42 secs. ahead of their speeds. Eyston and Dixon were both lapping at the same speed and had averaged 116 m.p.h., but, of course, the smaller size of the Magnette put it ahead on handicap. At 1.15, incidentally, the leader-board at the Fork informed the public that the Napier-Railton had covered four laps—in 50 minutes !

Then the rain started to fall really hard, and all at once the speeds fell down with a rush. All the drivers maintained the maximum speed possible in such circumstances, and at the same time exercised the utmost caution in order to avoid accidents. Cobb was now lapping at 112 m.p.h., being no faster than the small fry on the banking and only unleashing the countless horses of his Napier engine on the Railway Straight. Freddie Dixon slowed to a mere 100 m.p.h., and Horton was doing about 2 m.p.h. more. The Barnato-Hassan, which had been blowing a cloud of blue smoke since the race started, was lapping at 115 m.p.h., Dudley Froy apparently being quite at home on the wet and slippery track.

The spectators, meanwhile, huddled as best they might beneath what shelter they could find, and the refreshment rooms were filled with damp humanity and the combined odour of wet mackintoshes, Bass, ham rolls and steaming urns. Those who had paid for the privilege of standing on the Fork Grandstand saw their value for money slipping rapidly away, as water trickled down their necks and ankles.

The pits were busy. Goodacre's Austin refused to be comforted by the constant administrations of its mechanics, and called many times for attention. The trouble was a combination of excessive oil pressure and plugs. The 4.9-litre Bugatti was not in good form, and boiled furiously owing to pre-ignition. Bertram came in a second time brandishing the gear lever in his hand, and a temporary affair was made out of some tubing and some wire. Horton came in with a

RAIN SPOILS THE 500-MILES RACE—continued.

tyre in ribbons, which caused a good many people to wonder whether the smaller cars would be quite as kind to their tyres as had been predicted. Samuel's very fast Montlhéry Midget called twice, and a broken oil pipe was repaired. Others who pulled in from the fray to inspect and repair faulty motors were the Hon. P. Mitchell-Thomson (Frazer Nash), Cyril Paul (Riley Nine), E. K. Rayson (Bugatti) and Dudley Froy (Barnato-Hassan). The Austins and the Magic Midget came in for more fuel at about 1.15 p.m., indicating that they would have to stop at least three more times before the end of the race. Soon after one o'clock Rayson withdrew his Bugatti with valve trouble. This car, by the way, is the 2-litre single camshaft job raced last season by Mathieson. Rayson's retirement was followed by three more. The Cuthbert-Riley retired with a broken supercharger ; the crab-track single-seater Frazer-Nash blew its gasket, and the Magic Midget developed acute clutch trouble.

At 1.30 George Eyston continued to lead, and on his present showing would undoubtedly be hard to beat. His margin in hand was 3 mins. 5 secs. over his handicap, as against Dixon's 1 min. 43 secs., and Cobb's 1 min. 30 secs. Von der Becke was still fourth, 45 seconds to the good. Eyston's speed was 116.09 m.p.h. at this juncture, and Cobb's 122.82 m.p.h. Eyston was maintaining his speed well in spite of the rain, assisted by his vast experience of track driving in all weathers.

Refuelling, adjustments and repairs were being constantly carried out at the pits. Bertram found the broken gear lever of the Bugatti too much of a handicap, so the car had to be withdrawn, in a sound mechanical condition. Many drivers made a quick stop for a vizor to enable them to see their way amid the showers of spray sent up by passing cars. Norman Black complained of a jammed shock absorber, Samuel's Midget was still overheating, Kenneth Evans changed all the plugs of his " Q " and handed over to his brother Denis, and Paul's Riley was suffering from fuel feed troubles.

At 2 o'clock the rain still fell in torrents, and speeds were so reduced that the big cars were finding difficulty in maintaining the necessary average. Eyston's margin-in-hand over his handicap had fallen to 2 mins. 8 secs., but he was faring much better than Dixon and Cobb, who were 1 min. 36 secs. and 2 mins. 32 secs. down on their respective schedules. Cobb's average was now only 116.73 m.p.h. against the Magnette's 113.97 m.p.h.

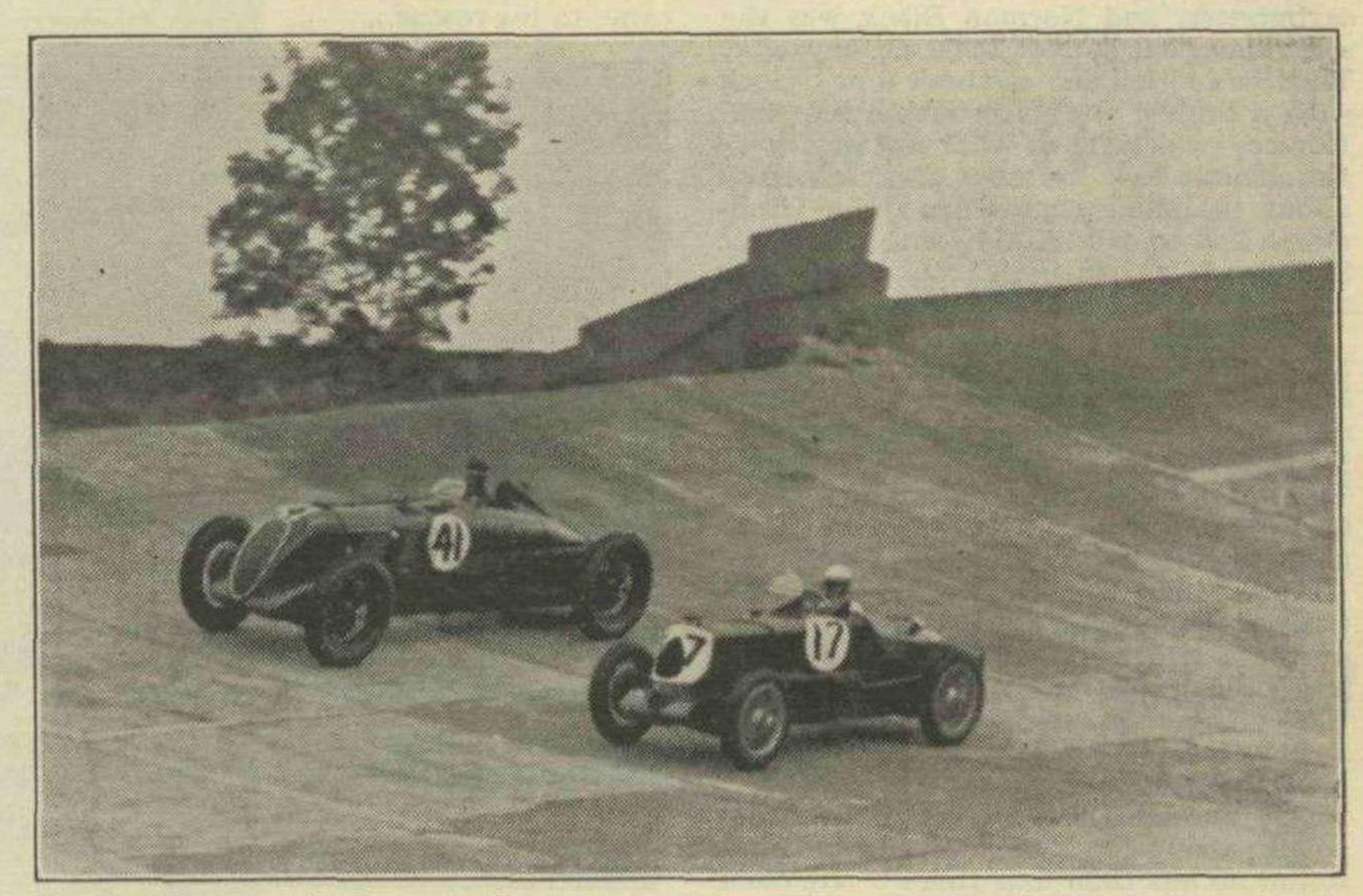
A variety of troubles continued to occupy people at the pits. The Evans's Midget developed an insatiable appetite for plugs, as did Donkin's Magnette, now driven by W. E. Wilkinson. Horton's Midget, handled by hatless Charles Brackenbury with complete equanimity in the driving rain, retired at 2 o'clock with a trouble connected either with engine or clutch. John Cobb stopped and had a leisurely discussion with his pit-staff, the net result of which was the withdrawal of the Napier-Railton. It was manifestly a forlorn hope to keep the big car going in the existing conditions, so Cobb wisely climbed out of the cockpit. W. L. Thompson's Austin was another sufferer from constant plug trouble.

On the other side of the picture, however, some wonderfully consistent performances were being put up by some of the cars—and drivers. H. G. Dobbs was lapping with complete regularity on his offset streamlined Riley, as were G. F. Manby-Colgrave (M.G. Magnette) who was driving single-handed, C. E. C. Martin's Magnette, and Henry Laird's black Aston-Martin, another single-handed effort.

Between 2 o'clock and half-past Eyston handed over to Handley, so that the 2.30 placings showed Dixon in the lead, 3 minutes ahead on handicap comparison, McClure had taken over from Von der Becke and was third, with Everitt fourth. Just after 2.30 Handley nearly met with disaster in the Railway Straight. He developed a long slide which eventually carried him off the track on to the grass, without serious damage either to himself or the car. Thus ended a run which might have proved to have been that of the winning car.

The next placings, at 3 o'clock, showed a newcomer to the " first four " in P. G. Fairfield, driving one of Dixon's Riley Nines. He was now lying 2nd behind his chief to the extent of four minutes, and had put back McClure and Everitt one place each. A. R. Samuel gave up the long struggle with the lubrication system of his Midget and retired.

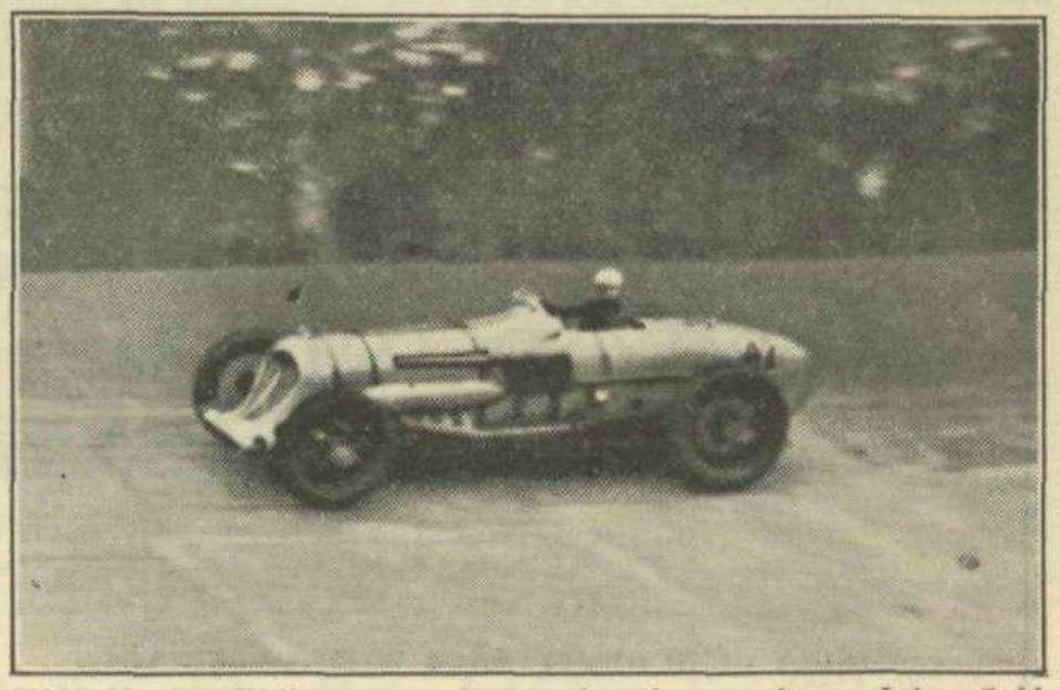
But McClure's Riley was keeping up



Dudley Froy, on the Barnato-Hassan, sweeps past Dr. J. D. Benjafield at the end of the Members' Banking. The cause of the Barnato-Hassan's retirement was not divulged.



With George Eyston at the wheel the " Magic Magnette " looked a certain winner, but W. L. Handley, on taking over, had a sensational skid on the Railway Straight and left the track.



The Napier-Railton was beaten by the weather. John Cobb started by lapping at 126 m.p.h., but the rain reduced this by 10 m.p.h.

RAIN SPOILS THE 500-MILES RACE—continued.

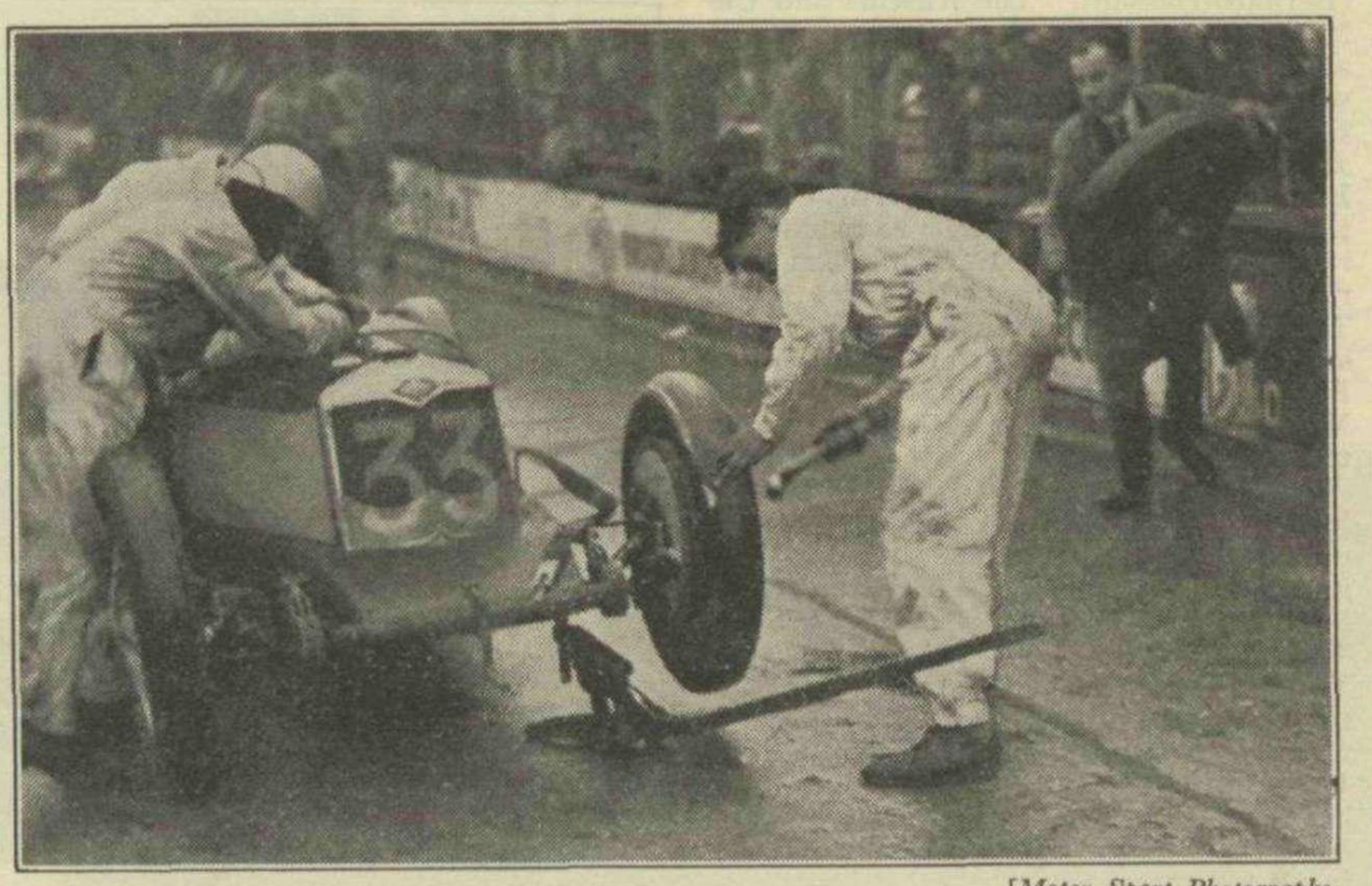
a fine gait, and soon got ahead of Fairfield to take second place. He began to overhaul Dixon, and crept nearer and nearer until at 3.30 he was only a matter of 30 seconds astern of "Freddie." The latter did not seem to worry, but it is possible that he could not see pit signals in the appalling weather. The big cars were thinning rapidly; in fact Marker's Bentley went out at 3.52 with a broken carburetter, and Norman Black was the sole runner left of over 2,000 c.c. capacity. Then he too fell out at about four o'clock with a broken chassis frame on his Alfa-Romeo—which shows what sort of surface Brooklands has. A stout effort ended at about the same time when John Hindmarsh had to call it a day with the 2-litre Singer, which had been lapping regularly at the 100 m.p.h. mark.

J. L. Ford had to make several stops to refix the shifting coachwork of his Magnette, and Horton made a hasty repair to the fairing of the single-seater Magnette. The eternal plug-changers, Thompson (Austin) and Evans (M.G. Midget) were cheerfully (!) carrying on the good work.

Apart from Handley's narrow escape the race had so far failed to produce any of those hair-raising catastrophes which had been quite reasonably foretold. At this point, however, those in the pits saw a spectacle which could very well have been described as "This is It." P. G. Fairfield lost control of his Riley when passing the Vickers Sheds and spun round no less than four times! He came to rest without hitting anything or anybody, and set off once more, shaken but steadfast. He did not get far. At the Railway Straight the car again lost direction, and this time tore down a vast quantity of corrugated iron sheeting from the fence at the conclusion of its gyrations. This time Fairfield could not continue, so he retired when lying fourth in the race.

At four o'clock a bare 2 seconds separated Dixon and McClure, but these two were four minutes ahead of Everitt and Manby-Colegrave. In spite of the drencing rain, those spectators who had reserved sufficient interest in the race to discover the state of affairs now forgot their discomfort and watched the duel between the two Rileys with a certain amount of eagerness. Stop-watches were produced and the relative positions checked on each lap.

Of course Dixon had the speed in hand to enable him to keep ahead, but just then he appeared with a front tyre torn to shreds. He changed the wheel in 1 minute, but by that time McClure was a lap and a bit ahead. This lead the redoubtable man set about with such vigour that he chopped it down by 3, 4, 5, 6, and 7 seconds on successive laps. Even so it looked a hopeless task, for the blue "works" Riley was still 1 min. 20 secs. ahead only 5 laps from the finish. But this did not deter Freddie, and it was just as well, for the unexpected came to his rescue.



[*Motor Sport Photographs.*

A vital pit-stop, which cost Freddie Dixon the lead. Luckily (for him) E. McClure was also delayed in the last stage of the race, allowing Dixon to win back his position—and the race.

McClure was overdue! Then he appeared, coming in slowly from the Byfleet Banking. On the preceding lap the car had betrayed a slight tremor in its exhaust, and this was the first indication of a blocked fuel pipe, which was to rob the car of victory when within a lap or two of the end. It did not take the pit staff long to clear the obstruction, but Dixon was secure now. He carried on in his usual imperturbable fashion, and was flagged home a popular winner in his first race after recovering from his bad accident at Donington. That he drove single-handed is just another proof of his well-known toughness.

Only six more cars finished within the time limit. McClure was a good second, some consolation for his bitter experience. Third place was taken by the M.G. Magnette driven by Major A. T. G. Gardner and Dr. J. D. Benjafield, after a trouble-free run. Two more Magnettes followed, the first being handled by W. G. Everitt and T. H. Wisdom, and the second by G. F. A. Manby-Colgrave. The latter's single-handed drive was a magnificent effort, and deserving of the utmost praise. A similar remark applies to H. G. Dobbs, the next finisher with a Riley.

Actually there were seven more cars still going, but they were all flagged off. The Aston-Martin, in particular, was unfortunate in failing to do the 181 necessary laps by 2 only.

RESULT.

1. F. W. Dixon (Riley 1,985 c.c.), 4h. 58m. 48s., 104.80 m.p.h.
2. A. Von der Becke and E. McClure (Riley 1,486 c.c.), 5h. 1m. 35s., 101.65 m.p.h.
3. Maj. A. T. G. Gardner and Dr. J. D. Benjafield (M.G. Magnette 1,087 c.c. S), 5h. 13m. 15s., 97.85 m.p.h.
4. W. G. Everitt and T. H. Wisdom (M.G. Magnette 1,087 c.c. S), 5h. 14m. 34s., 97.37 m.p.h.
5. G. F. A. Manby-Colegrave (M.G. Magnette 1,087 c.c. S), 5h. 15m. 3s., 97.25 m.p.h.
6. H. G. Dobbs (Riley 1,089 c.c.), 5h. 16m. 55s., 94.82 m.p.h.
7. C. E. C. Martin and G. Duller (M.G. Magnette 1,087 c.c. S), 5h. 27m. 55s., 93.35 m.p.h.

STILL RUNNING AT THE END, BUT NOT PLACED.

W. L. Thompson, Jun., and R. F. Turner (Austin), 142 laps; K. D. Evans (M.G. Midget), 163 laps; A. F. Ashby (Riley), 163 laps; C. Paul (Riley), 158 laps; P. L. Donkin (M.G. Magnette), 162 laps; J. L. Ford and M. Baumer (M.G. Magnette), 152 laps; J. D. Greaves and H. Laird (Aston-Martin), 179 laps.

Course: 181 laps.

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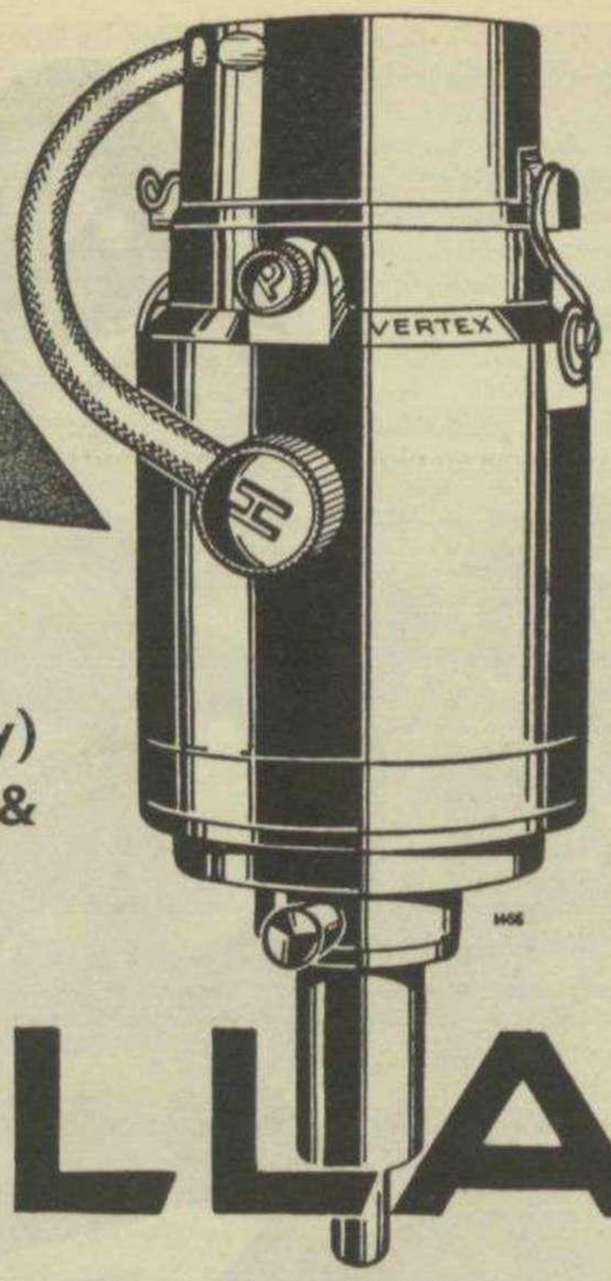
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MY MOTORING REMINISCENCES

By S. F. EDGE.

THE contrast between the present Age of Motors and the years at the beginning of the century, when the petrol vehicle was still considered by all but a few far-sighted men as a rather offensive plaything, is so great that one is always anxious to learn more of the Good Old Days. No one is better fitted to recall the past than Mr. S. F. Edge, whose name was so closely associated with the early development of the British motor car industry.

As he reminds us, until 1896 motor cars were prohibited by law from running on the road unless preceded by a man carrying a red flag, and even when the " Emancipation " Act was passed 12 m.p.h. was the maximum speed allowed. Petrol was unobtainable, there were no repairers, and the lonely motorist was liable to be abused if not actually attacked by other road users.

Like many of the pioneer motorists, Edge was a keen racing cyclist, and competed with success in the French long distance races such as the Paris-Bordeaux, so he was naturally interested in the new form of sport which was growing up in France.

Besides being General Manager of the Dunlop Tyre Company, he was soon interested in a Company which was agent for several foreign cars, and after some exciting years with racing motor-tricycles, decided that the time had come to launch a British motor car which should be comparable to those being produced by France and Germany. With the help of his friend Montague Napier, he remodelled an old racing Panhard, then designed a new four-cylinder car which took part in the famous 1,000 Miles Trial of 1900. Encouraged by success in this event, they evolved the monstrous 50 h.p. Napier, which was capable of 85 m.p.h. and weighed 3½ tons, and drove it almost without preliminary trial in the first Gordon Bennett Race from Paris to Bordeaux. As Lord Howe remarks in the Foreword to the book, one must have the greatest admiration for the pioneers who constructed and drove these monsters with no data of strength or stability to guide them, with the probability of a serious accident through tyre failure if the cars did function properly for any length of time.

Napiers again represented England in the Gordon Bennett races of 1903 and 1904, and then came a period in which the six-cylinder car was being developed, and the racing activities of the firm were cut down. Edge was always full of new ideas, and no sooner was it decided to open a racing track at Weybridge than he hired it for a 24 hour test at 60 m.p.h., and duly accomplished this feat on his Napier two days after the track was opened. Motor-boat racing also attracted his attention, and on a Napier-engined craft won the International Trophy in 1903 and 1905.

Apart from its historic interest, the book gives a splendid picture of the trials and the lighter moments which were the lot of the early motorist. Tyres, of course, provided the greatest trouble, and Edge recalls how on one occasion he spent 14 hours patching first one and then another tube on his car, and an even worse time when he wrestled with a refractory set for no less than 24 hours !

" My Motoring Reminiscences " is well illustrated, and is furnished with maps showing some of the races in which Mr. Edge took part. It is published by G. T. Foulis, and costs 10s. 6d.

THROUGH RUSSIA BY AIR

By JOHN GRIERSON.

THE accounts of conditions in Russia which reach the outside world are so contradictory that they form in themselves a tremendous attraction to the adventurous. Mr. Grierson determined in 1932 to visit the U.S.S.R. by air on his four-year-old Gypsy Moth, on which he had already accomplished some ambitious long-distance flights, and after having had the greatest difficulty in obtaining a visa, and a fruitless journey to the shores of the Gulf of Finland, he was allowed to enter Soviet territory en route for Moscow.

Mr. Grierson succeeds in giving a vivid and unprejudiced picture of life in Russia to-day, and the light-hearted way in which the book is written adds to its attraction. It is illustrated with some excellent photographs and a map, and is published by Foulis at 5s.

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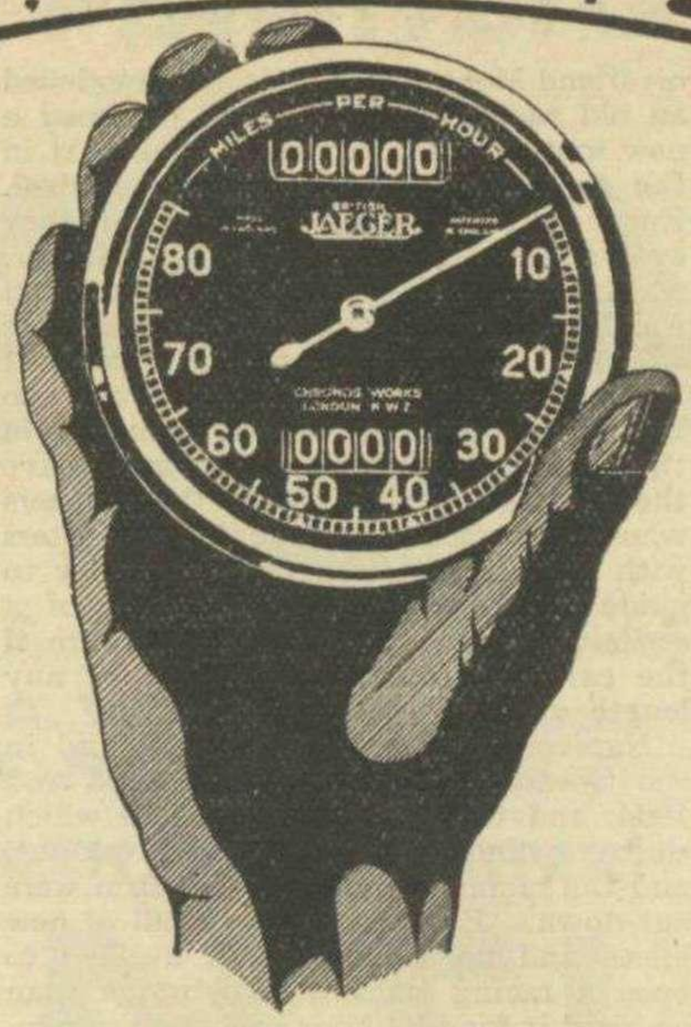
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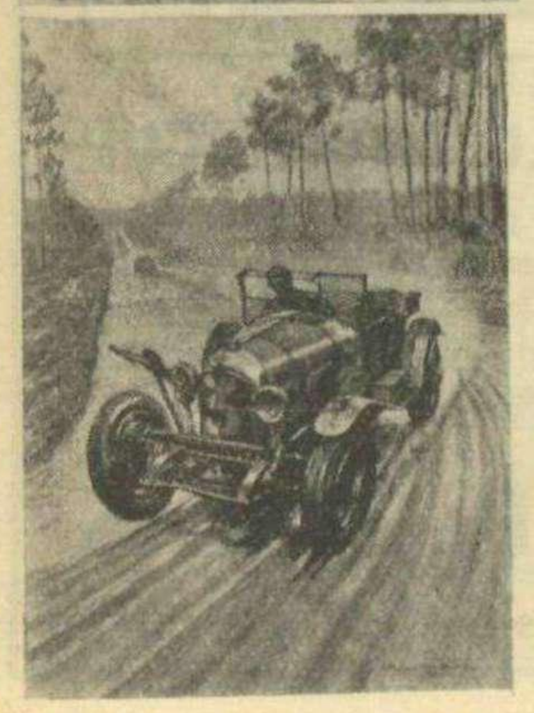
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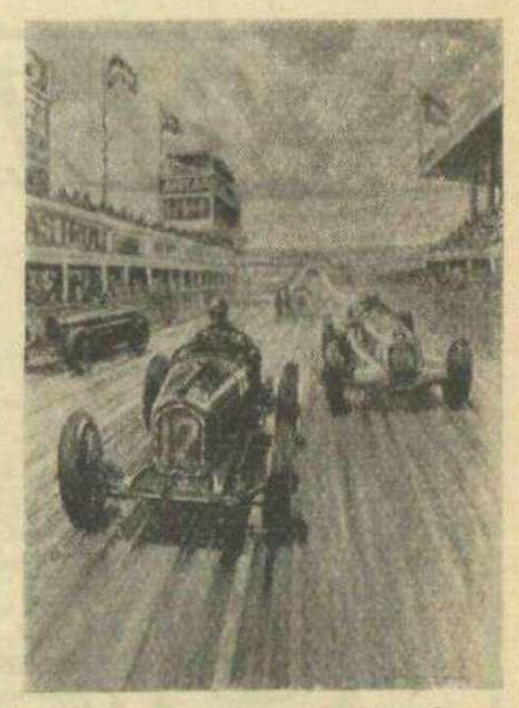
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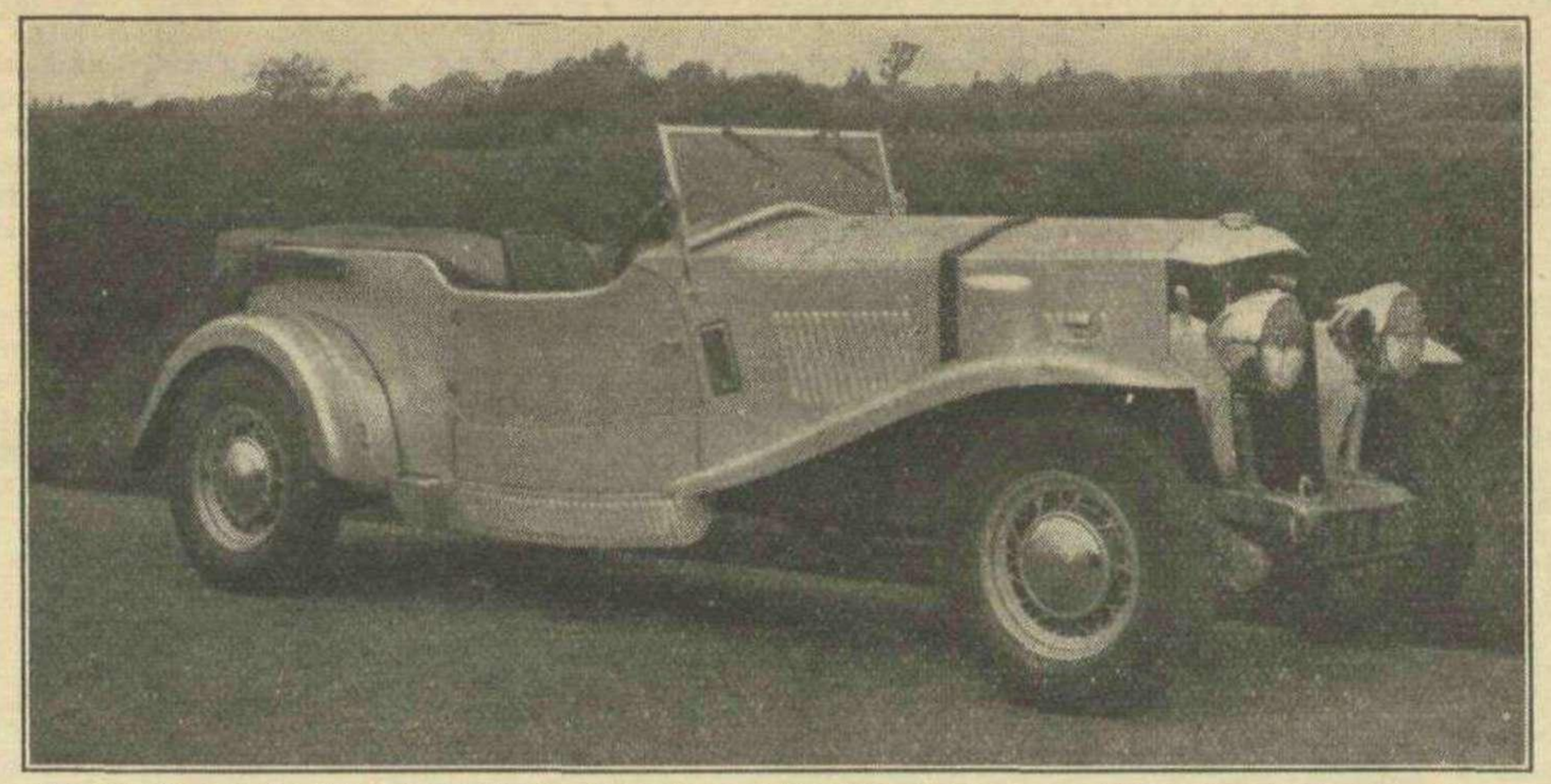
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THE RAILTON TERRAPLANE ON THE ROAD

HIGH POWER-WEIGHT RATIO GIVES AN OUTSTANDING AND EFFORTLESS PERFORMANCE.

THE Hudson Terraplane and the Railton Terraplane, which is the sports car developed from it, have in the past two years become words to conjure with when the subject of acceleration came up for discussion, and it was with great interest that we carried out a road-test on one of the latest "Railtons." Until we tried the car we had felt a certain doubt that such a light chassis could provide the feeling of stiffness and security one expects in an English sports car, but after half-an-hour at the wheel we satisfied ourselves that the unlikely had become the actual. A purposeful 80 m.p.h. along a bye-pass, and an easily achieved seventy on the short stretches of straight road which offered themselves on the course of the route taken added to the conviction that here was a thoroughbred sports car.

The winding nature of the main road taken soon gave opportunities of testing the cornering, which was found to be outstandingly good. The Goodyear Air-wheel tyres seemed to lock the car to the road, and when brutal cornering caused slight squeal to come from the rear, the car still held steadily to its course, or if required the tail could be slid round by locking over the wheel or holding on the power in the most controllable way. There was no sign of plunging, twisting or any other vices often found with light chassis, and we acquire renewed respect for the stiffening effect of the steel sheet which acts as floorboard, and locks together the whole frame structure as far forward as the dash. The only disadvantage of its light weight was that over hidden culverts the back wheels were apt to be thrown off more than with a heavier car; fortunately such obstacles are rarely met with.

Though the suspension was so firm at speed, it was not harsh at low speeds, and the only time the Andre Telecontrols needed altering was when passing at speed over some badly corrugated stretches of road. A surface of this type is apt to jar the wrists when taken at speed on the average sports car, but on the Railton the independent front springing seems to prevent the snatch from reaching the steering mechanism. The steering is completely positive, and reasonably high-geared, and the car holds a steady course at speed even though there is little caster action.

Brief Specification.

Engine: 8 *cylinders*, 76 *mm. bore*, 114 *mm. stroke, capacity* 4,168 *c.c. Tax* £29. *Side-by-side valves. Coil ignition. One Carter down-draught carburettor.*

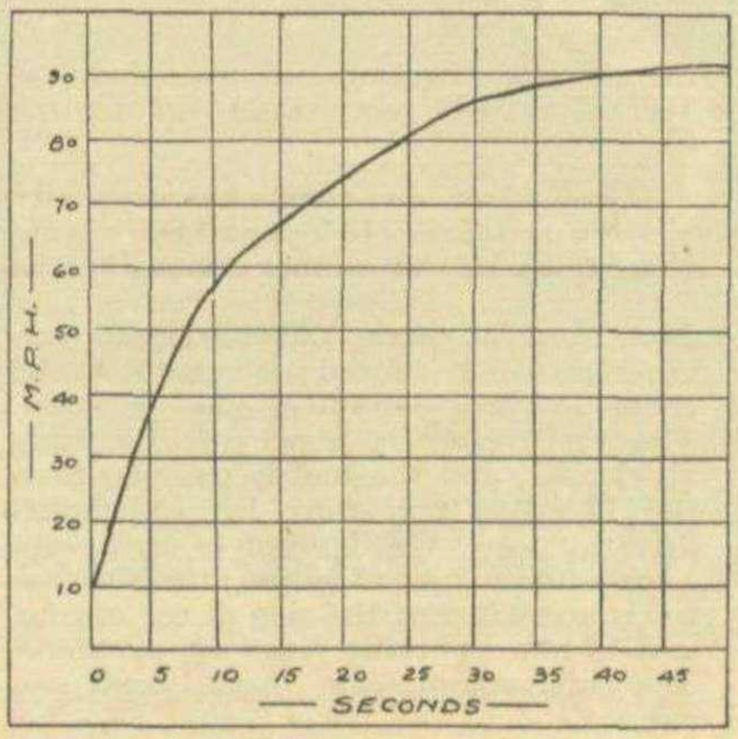
Gearbox: Three speeds and reverse. Constant-mesh second gear. Ratios 4.11, 6.1 *and* 9.94 *to* 1.

Back Axle: Semi-floating. Spiral bevel final drive.

Suspension: Half-elliptic. "Axle-Flex" independent springing for front wheels.

Dimensions: Wheelbase 9*ft.* 8*in.; track* 4*ft.* 8*in.; weight with four-seater open body* 22¾ *cwt.*

Price: £535.



The Acceleration Chart of the Railton Terraplane.

The acceleration of the car has a character all its own, and when the pedal is put down either on top gear or second, the driver does ont receive a "push in the back," but the whole outfit is wafted forward in effortless fashion, and getting away from a corner or overtaking other cars is a particularly satisfying manœuvre.

Tested over a cross-country journey frequently accomplished during the course of the season, and one which is always rather tiresome in the ordinary way, the Railton seemed to straighten out the crooked bits and flatten out the hills, and allowed the driver to put up an average which one could consider first-class on normal main roads.

Even so, one hardly realised until a stop-watch had been used how fine the acceleration really is; up to 80 m.p.h. its performance surpasses that of any unsupercharged car we have previously tested. It was not found possible to time the car on the track, but on runs in opposite directions on a main road the maximum speed readings on an accurate speedometer were 89 and 94 m.p.h., which fully substantiates the claim of the makers that this is a 90 m.p.h. car. These figures were put up with the screen folded down and the air cleaner removed; with these in position, 85 m.p.h. seems the maximum on the level.

The car tested was fitted with a high compression head giving a compression ratio of 7 to 1. Pratt's Ethyl was used and there was no sign of pinking, in fact the engine was remarkably smooth. The head scarcely affects the all-out speed, but naturally improves acceleration. Petrol consumption at fast touring speeds is 16 m.p.g., dropping to about 12 m.p.g. when the car is driven flat out on all gears.

THE RAILTON TERRAPLANE ON THE ROAD—continued.

The brakes were powerful but came on progressively. Unfortunately the rear ones took effect in advance of the front set and locked the back wheels if the pedal was firmly depressed, but in spite of this we were able to pull up in the excellent distance of 50 feet from 40 m.p.h.

Eighty miles an hour may be maintained indefinitely, and with the engine turned over effortlessly at 4,000 r.p.m., some astonishing averages may be put up. After some forty miles of this the engine showed no signs of tiring, and the owner informed us that he habitually kept his car at this mark on deserted roads. Owing to the light weight of the car, gear-changing is seldom necessary, but the gearbox is there to be used when required, and gives a useful 60 m.p.h. on second gear and just under 40 on bottom, with an engine speed of 4,500 r.p.m., while if required it may be taken up to 5,000 r.p.m. for short periods. There is no trace of period and the carburetion is clean through the range. Second gear runs quietly up to 3,500 r.p.m., but above that makes a high-pitched whine, which blends with the roar of air into the carburetter. On top gear, strangely enough, this "power-roar" is not experienced, while the exhaust is virtually inaudible whatever the speed. The gear-change is a straightforward and very fast one, but one would have preferred a shorter and stiffer gear-lever.

The other controls are well arranged. The steering wheel comes comfortably into the lap, the clutch, foot-brake and accelerator are at the right angle and the wind screen affords good protection, and in spite of the large bonnet one can see the whole of the off-side and the top of the near-side wing. The seat-back was specially arranged to be almost vertical on this car and gave an alert driving position. The lay-out of the dash-board, with its large Smith rev. counter and speedometer was commendably neat, but one would have liked an oil gauge and an ammeter in place of the safety lights which are the only indication that the lubrication and the lighting are working properly.

When trying the Railton for the first time one is a little apt to be led away by its acceleration and general liveliness from considering it as an everyday fast touring car, but these very qalities are just the ones which make for effortless journeys at high speed. Returning to London we managed to restrain ourselves somewhat, and were charmed in turn with the way in which 65-70 m.p.h. could be kept up at moderate engine speed and with but a touch of throttle, while it was possible to glide without a sound through the towns along the route at 40 miles an hour with the full approval of the local constabulary. After a hard day's motoring the driver feels no trace of fatigue even in the wrists, which usually suffer most in fast driving, and this is no doubt due to the good weight-distribution and to the fact that one is driving a car weighing half a ton less than many of its contemporaries of similar wheelbase.

Many prospective owners will ask "How will a light car such as this stand up to continued spells of hard driving?" The car tested had covered 7,000 miles of really hard work, scores of racing starts, ascents of the Brooklands test hill trials, and the week before had made second fastest sports car time at Brighton. The engine, chassis, and transmission seemed in absolutely new condition, and there seems therefore no fear that the Terraplane will not stand up to the strain.



[*Motor Sport Photographs*

The modifications carried out on the Railton Terraplane have resulted in a general sense of tautness and rigidity which is essential on a really fast car.

The eight-cylinder engine has a capacity of 4,168 c.c., gives 113 h.p. at 3,800 r.p.m., and is carried on rubber mountings at three points. Side-by-side valves are used, and a single down-draught carburetter, which is fitted with an automatic choke control, supplies the mixture. The carburetter is fitted with a large air-cleaner, and the fuel is pumped from the 13-gallon rear tank by an engine-driven pump. Coil ignition is used, with a spare unit in case of failure; the distributor is accessible at the side of the engine, and 14 mm. sparking plugs are standard. The high-compression head costs an extra £7.

The five-bearing crankshaft has balance weights and Lanchester damper, steel connecting rods and alloy pistons are used, and the oil is cooled by passing through ducts on the side of the crank case. The sump holds 1½ gallons. The honeycomb radiator is a handsome design and, equally important, holds 5 gallons of water.

The clutch is a single-plate unit with cork insets and runs in oil. The gearbox has a constant-mesh second gear, and the final drive is through an open propellor shaft with two needle-bearing universal joints to a spiral-bevel back axle.

The chassis is a light but strongly-made structure with a large X-bracing behind the gearbox. It owes its special rigidity to the use of a steel floor-board which comes right up to the engine, locking the whole of the entire rear half of the chassis in one rigid unit. The steel dash and other reinforcements not seen also contribute to its stiffness, so that the chassis weight is about 2 cwts. heavier than that of the early Essex Terraplanes.

Long half-elliptic springs are used all round, but the front wheels are independently sprung. The centre part of the front axle consists of two parallel links joined by short links which carry the axle ends, to which the springs are also attached. Either of the outer halves of the axle can therefore swing up in company with the central links without affecting the opposite end. Andre telecontrol shock absorbers are fitted to the back and front axles in addition to the standard hydraulic plunger type.

The wire wheels carry 16 by 6.25 Air Wheel tyres running at 25 lbs. pressure, which help to insulate the chassis from road shocks without causing instability. Cable operated Bendix brakes are used.

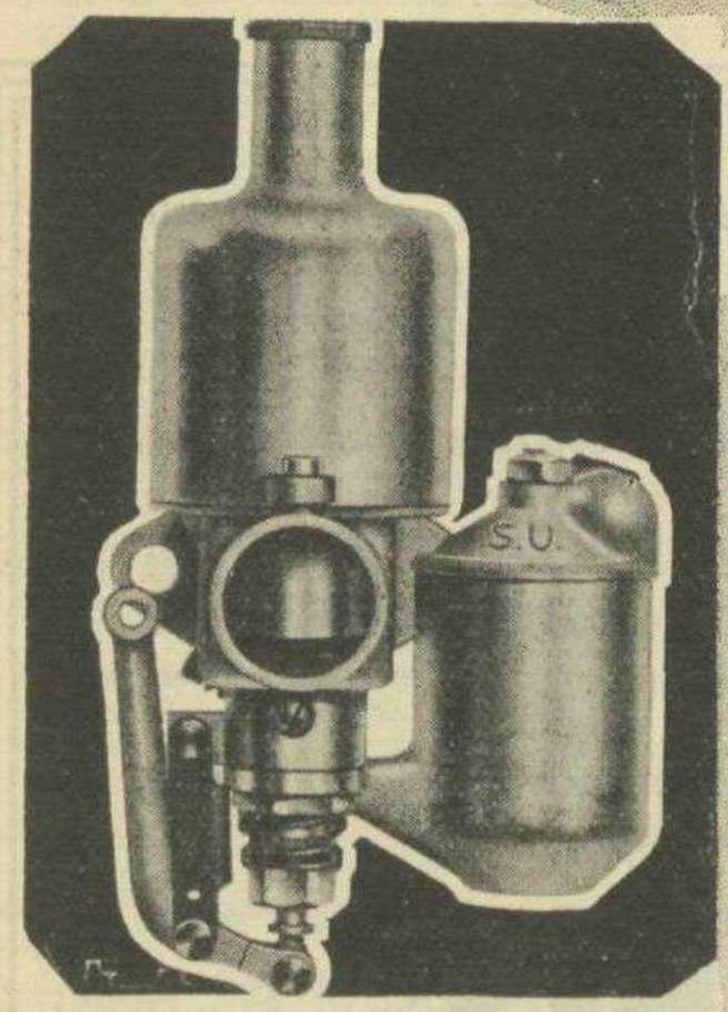
The car tested was fitted with a light and attractive-looking body by John Charles. In spite of its light construction there was plenty of room, and the front seats, without being luxurious, gave adequate support. There is plenty of leg-room in the back, as deep wells are provided. The passengers sit rather high over the back axle, but the body sides are carried up to give them protection.

We are indebted to Mr. Robert Strang, of Messrs. Shaw & Kilburn, 117, Great Portland Street, W. 1, for the loan of his private car for this interesting road test. Messrs. Shaw & Kilburn carry out all the speed tuning on the Railton cars, and as this is carried out without altering any of the standard components, one can rely on having the performance outlined above on all the Railton cars produced.

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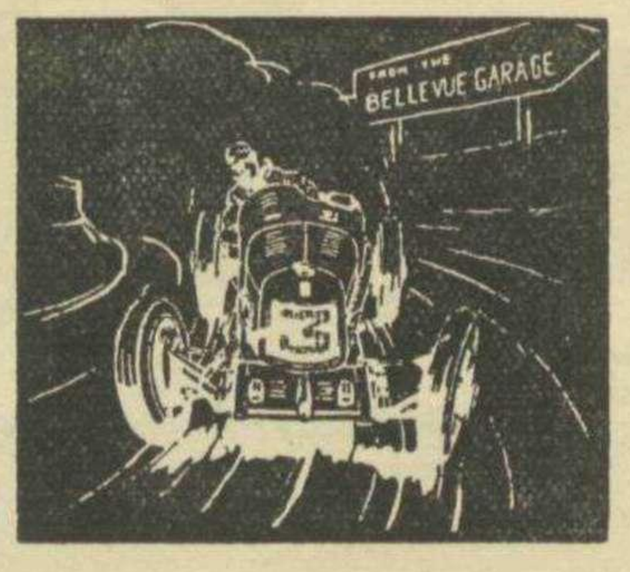
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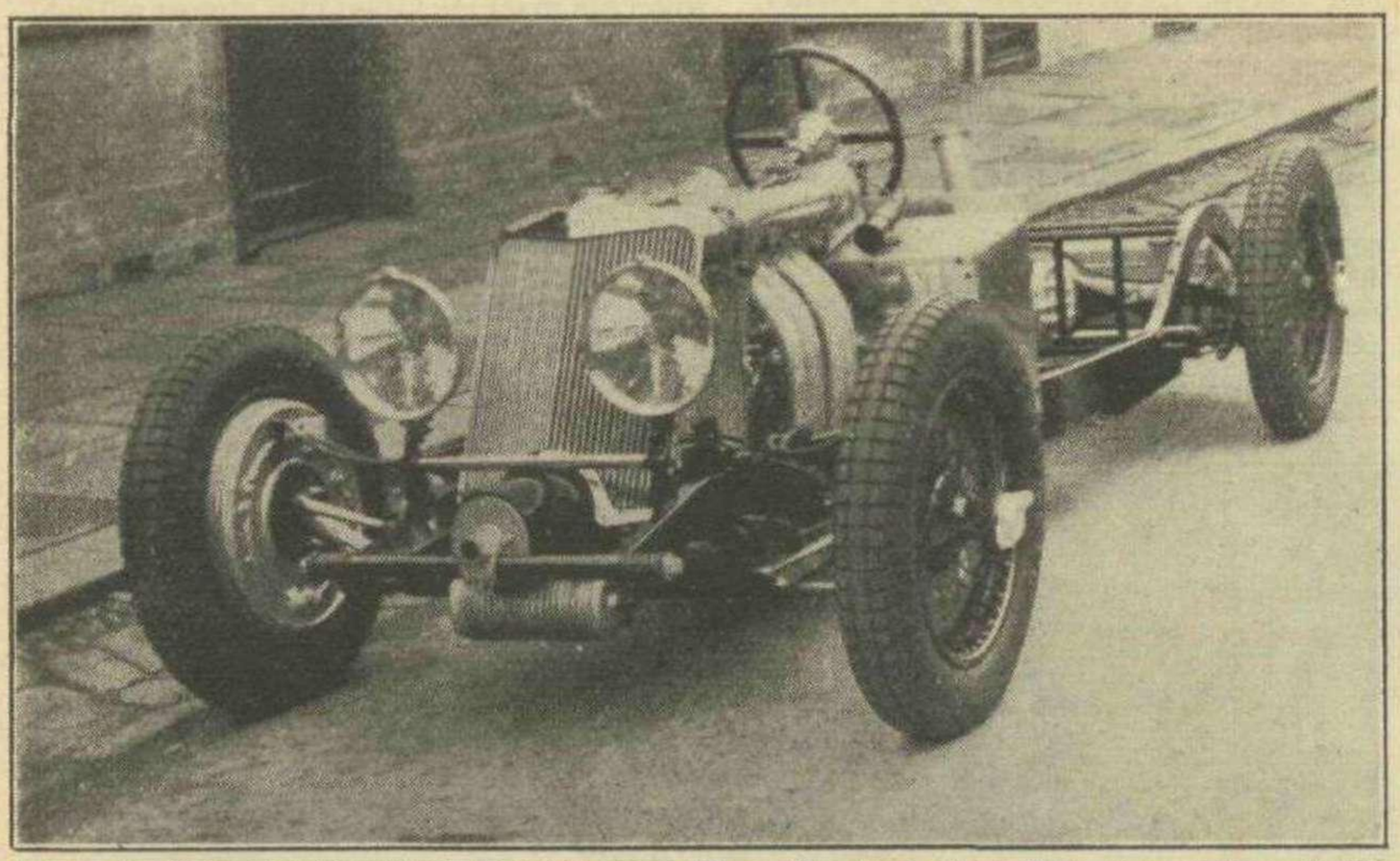
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ALL students of design and connoisseurs of the sports car world will welcome the appearance of the new car which has recently been put on the market by the Squire Manufacturing Company, Ltd., Remenham Hill Works, Henley-on-Thames. Mr. Squire, the designer, has had experience of many types of sports cars, large and small, and refusing to be bound down by considerations of price has evolved a motor car which should make a name for itself in acceleration, road holding, and the other qualities which an exacting owner expects to have.



For a "fifteen hundred" the Squire possesses a chassis of exceptionally generous build. The hydraulic brakes and oil cooler are prominent features of this front view.

The power-unit is a supercharged four-cylinder double overhead-camshaft engine with bore and stroke of 69 and 100 mm., giving a capacity of 1,496 c.c. The camshafts are driven by a chain of double-helical gears from the rear end of the crankshaft, and each runs in 3 needle-roller bearings. The valves are set at 90 degrees to one another in hemispherical combustion chambers in a detachable head, and are operated by short tappets of square section which are fitted with rollers where they bear on the cams. Valve clearance is adjusted by changing the hardened thimbles on the end of the tappet rods, an operation which is only required every 10,000 miles; a special tool allows the valve cotters to be removed and the springs changed without dismantling.

A sturdy crankshaft with extended webs is carried in three white metal bearings, with a fourth between the camshaft pinion and the flywheel; the big-ends are also plain. The Roots-type supercharger is driven by single-helical gears from the front end of the crankshaft, and draws its mixture from a large S.U. carburetter, fed by a double electric pump from the 13-gallon rear tank. The induction pipe, which is well-finned, slopes evenly back from the engine, draining away surplus petrol when the throttle is suddenly shut and thus giving good slow running and a pick-up free from flat-spots. It has two substantial blow-off valves and a Ki-Gass spray for starting from cold.

The distributor, which is driven from the rear end of one of the camshafts, is a special high-speed Lucas product, which is tested up to 8,000 r.p.m., and the coil is the largest type made. 14 mm. K.L.G. plugs are used. The rev. counter drive is taken from the rear of the off-side camshaft.

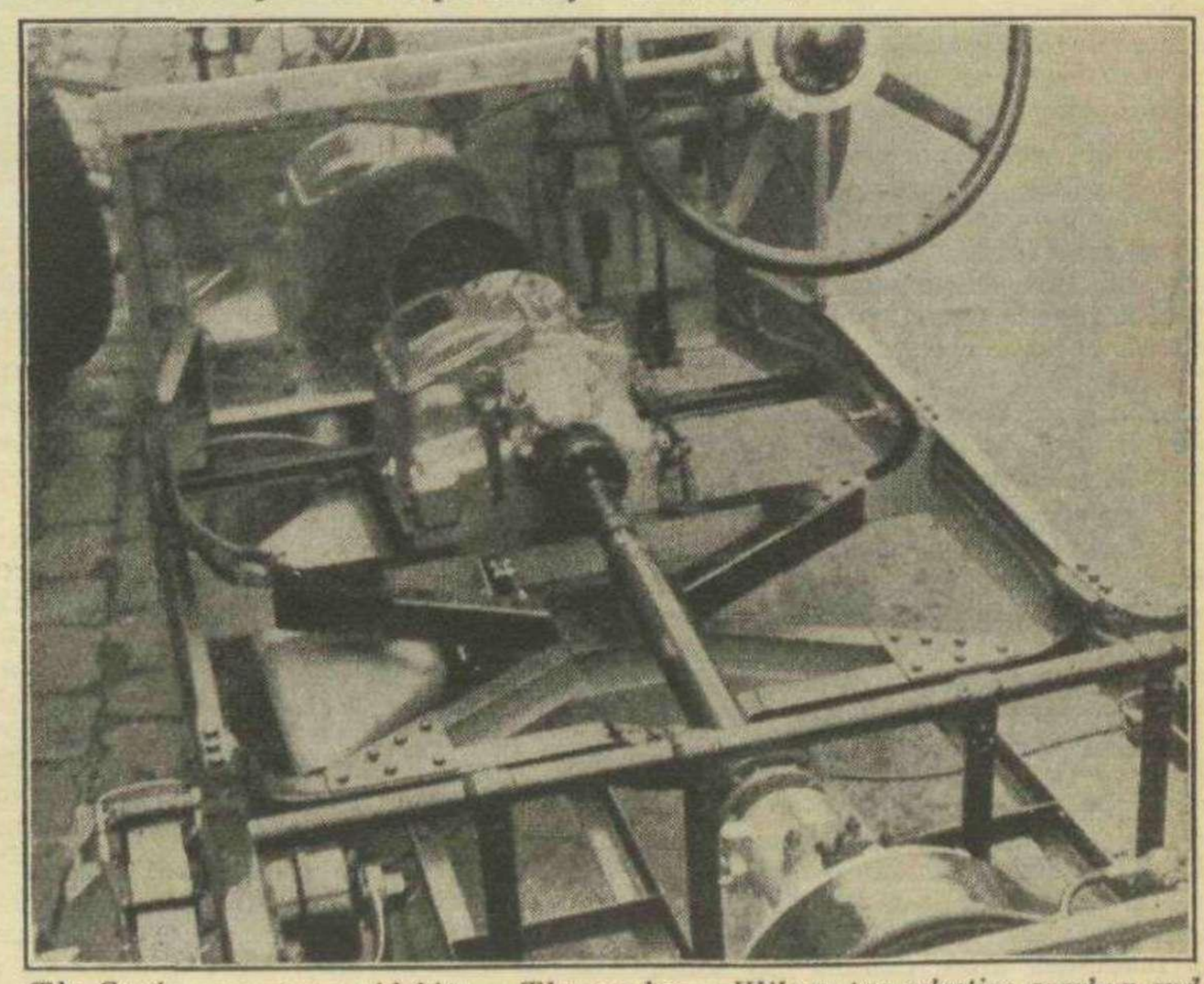
The ribbed sump holds two gallons, and is well baffled to prevent the possibility of the oil surging away from the pump inlet. A large ribbed Tecalemit filter is mounted beneath the radiator, with a bye-pass in case the cleaning element becomes choked, and after passing through this cleaner the oil is pumped in the usual way to the hollow crankshaft, the camshafts and other points which require it. Two gallons of oil are carried in an auxiliary tank on the dash, and this is fed into the crank-case through a float chamber, which maintains the correct level in the sump.

A striking V-fronted radiator with a neat filler-cap is used, and there are two centrifugal water pumps mounted on the camshafts which force the water to the bottom of the cylinder-block on each side, with one central return pipe from the centre of the cylinder-head. The pumps are made watertight by carbon glands which require no lubrication.

Starting and lighting is effected by a very large dynamo mounted between the front dumb-irons, and the tests have shown that it gives a certain start even in the coldest weather. The two units of the twelve-volt lighting set are carried on either side of the propeller-shaft.

A four-speed E.N.V. self-changing gearbox is used and is coupled to the engine by a shaft with two fabric universal joints and the engine and gearbox are each mounted on silentbloc bushes at three points. The gears are selected by a rotatable knob control on the steering column, which pulls out against a spring when one wishes to engage reverse. For night driving a special lamp lights up the knob without dazzling the driver.

An open propeller-shaft with two universal joints transmits the drive to a semi-floating back axle, with spiral bevel drive. The final ratio on the 2-seater is 3.8 to 1.



The Squire, as seen amidships. The car has a Wilson pre-selective gearbox and an exceptionally sturdy frame.

The chassis is a stout and well-braced structure 6 inches deep in the centre and tapering each end. It is upswept over both the axles, and widens out behind the

[*Continued on page 583*

MANY RECORDS BROKEN IN MANX G.P. RACES

J. H. WHITE (NORTON) WINS JUNIOR AT 75.59 M.P.H. AND CRASHES WHEN LEADING THE SENIOR—PIRIE SCORES ANOTHER VICTORY.

WITH no inducement but the love of the sport and the hope of a replica, or—remote possibility—the famous Manx Grand Prix trophies themselves, a record total of 129 riders this year entered for the two races, held over 6 laps of the 37¾-mile Mountain Course. Almost all the high finishers in the races of the previous few years were taking part, and some fine times were put up towards the end of the practising period, notably by J. H. White, who broke last year's Senior record with a lap at 79.54 m.p.h. Monday's and Thursday's rounds were marred by fatal accidents to J. C. Gilbert, who was dazzled by the early morning sun at Sulby Bridge, and J. C. Williamson, whose machine touched that of another competitor as they were passing through Kirk Michael.

THE JUNIOR RACE.

There were 59 starters in the Junior Race, and a fine spectacle they presented as they formed up on the starting grid. The first 15 machines were of the 250 c.c., or Lightweight category, and this year a special trophy and replicas were being presented for this class.

In view of the large entry it was thought advisable to send off the riders at intervals of 20 seconds instead of 30 as in previous years. The fast men are scattered throughout the field, with Blyth, No. 28, Darbishire and White Nos. 34 and 35, Swanston 41, Pirie 46, and last year's second and winner, namely Frith and Munks, Nos. 60 and 64. Thirteen club teams had been nominated, and as the clubmen took their places on the starting square they received bursts of applause from various parts of the well-filled stands.

Favourable weather reports from all round the course were given out as the early numbers started, and soon half the riders, including "Crasher" White, member of the Cambridge University Club and favourite for the race, had been dispatched. All the early numbers except No. 1 (Drew on a Levis) were going well, but this unfortunate got no further than Bradden Bridge, where he retired with a broken exhaust valve.

There was a fair crop of first-lap spills, Metters (New Imperial), who came off at Governor's Bridge and retired, Sugg (Norton), the only Oxford University driver, who skidded on a patch of oil at Greeba, but remounted and went on, and Robinson, a Dunelt rider, who after a slow start from the stands came to grief on Creg-ny-baa. All the star riders seemed to be making good progress, and White had passed Darbishire by the time he reached Michael, picked several more places on the mountain and flashed through the start amongst a group of slower machines after picking up some ten places. Pirie seemed to be doing almost as well and the order was in doubt till the leader board was painted up:—

Leaders after One Lap.

1. J. H. White (Norton), 30m. 13s., 74.94 m.p.h.
2. D. J. Pirie (Norton), 30m. 49s., 73.68 m.p.h.
3. A. Munks (Velocette), 30m. 54s., 73.28 m.p.h.
4. F. L. Frith (Norton), 31m. 4s., 72.89 m.p.h.
5. S. B. Darbishire (Norton), 31m. 35s., 71.68 m.p.h.
6. W. A. Rowell (Velocette), 31m. 37s., 71.61 m.p.h.

The fastest Lightweights were Foster and Moore, both on New Imperials, who took respectively 35-40 and 35-43.

There was a general speeding-up on the second lap, with one change on the leader-board. Rowell, a local rider, who had put in some first-class times in practise, changed places with Darbishire to take fifth position. Retirements from various causes continued, Whitehead coming off at Signpost without injury, two men stopped with tyre trouble, while Reich (Excelsior) and Evetts (O.K.) had



D. J. Pirie, second in the Junior Race and winner of the Senior, corners on the footpath after Governor's Bridge.

engine trouble on the Mountain and had to walk back to the Gooseneck. The engine of Blyth's Velocette seized as he was approaching Ballaugh and he was thrown off almost under the front wheel of a following machine, but he escaped with bruises.

White continued his hurricane progress round the course, opening up a little wider on his third lap, in view of the refuelling stop at the end of it. The extra throttle gave him a record lap, in 29 mins. 45 secs., a speed of 76.1 m.p.h., or 11 seconds faster than his own record of last year. This gave him a lead of 1½ minutes over Pirie, who was being closely followed by Munks, now only 16 seconds behind.

The fourth lap showed no change of order, but White drew away another half-minute, and interest was transferred to the duel between Pirie and Munks, in which the latter was only five seconds behind, and a lesser one between Rowell and Darbishire. White was enjoying himself hugely, and though comfortably in the lead on his fifth lap put up another record, this time one of 29 mins. 30 secs., or 76.75 m.p.h. Now nearly three minutes ahead of Pirie, he seemed sure of first place unless overtaken by some misfortune like that of two years ago, when his machine failed him almost within sight of the finish. Munks and Pirie were now only three seconds apart, but Frith's circling indicator suddenly slowed, and at the end of the lap he had dropped to sixth place.

White set a crown upon his efforts by completing his final lap in 29-25 or 77 m.p.h. and finished at 1.12 p.m., amid much applause, a certain winner. The Pirie-Munks duel was uncertain till the end, owing to the difference of starting numbers, and Darbishire in a final sprint failed by the narrowest margin in his attempt to draw level with Rowell, the local rider.

The Cambridge University team, consisting of White, Darbishire, and Fell, were easy winners of the Club award, though the latter rider had experienced some gear-box trouble; only three teams finished. Mitchell's success in the Lightweight category was an excellent and unexpected feature of the race, since he only came into the first three on the fourth lap.

RESULTS.

JUNIOR.

1. J. H. White (Norton), 2h. 59m. 44s., 75.59 m.p.h.
2. D. J. Pirie (Norton), 3h. 2m. 53s., 74.29 m.p.h.
3. A. Munks (Velocette), 3h. 2m. 57s., 74.26 m.p.h.
4. W. A. Rowell (Velocette), 3h. 8m. 39s., 72.02 m.p.h.
5. S. B. Darbishire (Norton), 3h. 8m. 42s., 72 m.p.h.
6. F. L. Frith (Norton), 3h. 9m. 24s., 71.73 m.p.h.
7. N. Christmas (Velocette), 3h. 12m. 28s.
8. J. Alexander (Velocette), 3h. 14m. 31s.
9. J. Buchan (Velocette), 3h. 15m. 49s.

All the above receive replicas.

10. J. H. Fell (Norton), 3h. 18m. 49s.
11. R. A. Allen (Norton), 3h. 19m. 39s.
12. T. McEwan (Velocette), 3h. 21m. 4s.
13. H. Taylor (Velocette), 3h. 21m. 11s.
14. A. K. Millington (Velocette), 3h. 24m. 26s.
15. G. Gorteen (Lewis), 3h. 25m. 23s.
16. N. Wainwright (Velocette), 3h. 26m. 51s.

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MANX G.P. RACES—Continued.

17. L. Kitchen (Norton), 3h. 27m. 24s.
18. J. K. Swanston (Velocette), 3h. 27m. 55s.
19. J. Cannell (Velocette), 3h. 31m. 25s.
20. J. H. Corkill (Norton), 3h. 31m. 27s.
21. J. R. Williamson (New Imperial), 3h. 34m. 29s.
22. S. Scott (Rudge), 3h. 35m. 30s.
23. R. A. Edwards (Norton), 3h. 36m. 41s.
24. G. A. Chamberlain 3h. 37m. 57s.
25. Jas. Sugg (Norton), 3h. 39m. 20s.

LIGHTWEIGHT.

1. W. D. Mitchell (Cotton), 3h.33m. 58s., 63.49 m.p.h.
2. R. A. Foster (New Imperial), 3h. 34m. 32s., 63.33 m.p.h.
3. Cogan-Verney (New Imperial), 3h. 36m. 8s.
4. C. V. Moore (New Imperial), 3h. 37m. 26s.
5. K. Bills (Rudge), 3h. 40m. 1s.
6. R. H. Robinson (Dunelt Panther), 3h. 47m. 19s.
7. S. H. Goddard (Calthorpe), 3h. 50m. 15s.
8. S. R. Warren (New Imperial), 3h. 52m. 50s.
9. H. Hartley (O.K.S.), 3h. 54m. 40s.

All the above receive replicas.

Thursday, the day of the Senior Grand Prix, broke fair again, and a strong sun soon scattered the mists on the mountains. The big machines always prove a great attraction, and reinforced by midnight steamers from the mainland, large crowds made their way to the various vantage points round the course.

The field was again a magnificent one, numbering 57, and all the stars of Tuesday, with the exception of Munks, who did not feel up to a second bout of 226 miles, were taking part. Ten Club teams had been nominated.

The faster riders soon started to overtake the tyros, and the first machine to pass Creg-ny-baa was No. 6, W. A. Rowell, a Manx rider on a 350 c.c. machine, with Pirie, No. 12, half a minute behind. With a clear road, as he was bound to have in a short time, White and the other later numbers would find him difficult to catch. Swanston came round comfortably before his time, while Frith was actually close on his heels, despite their difference in starting time.

mate, as was revealed when the times for the first lap were announced.

First Lap Leaders.

1. F. L. Frith (Norton), 28m. 30s., 79.45 m.p.h.
2. D. J. Pirie (Norton), 29m. 1s., 78.03 m.p.h.
3. S. B. Darbishire (Norton), 29m. 7s., 77.76 m.p.h.

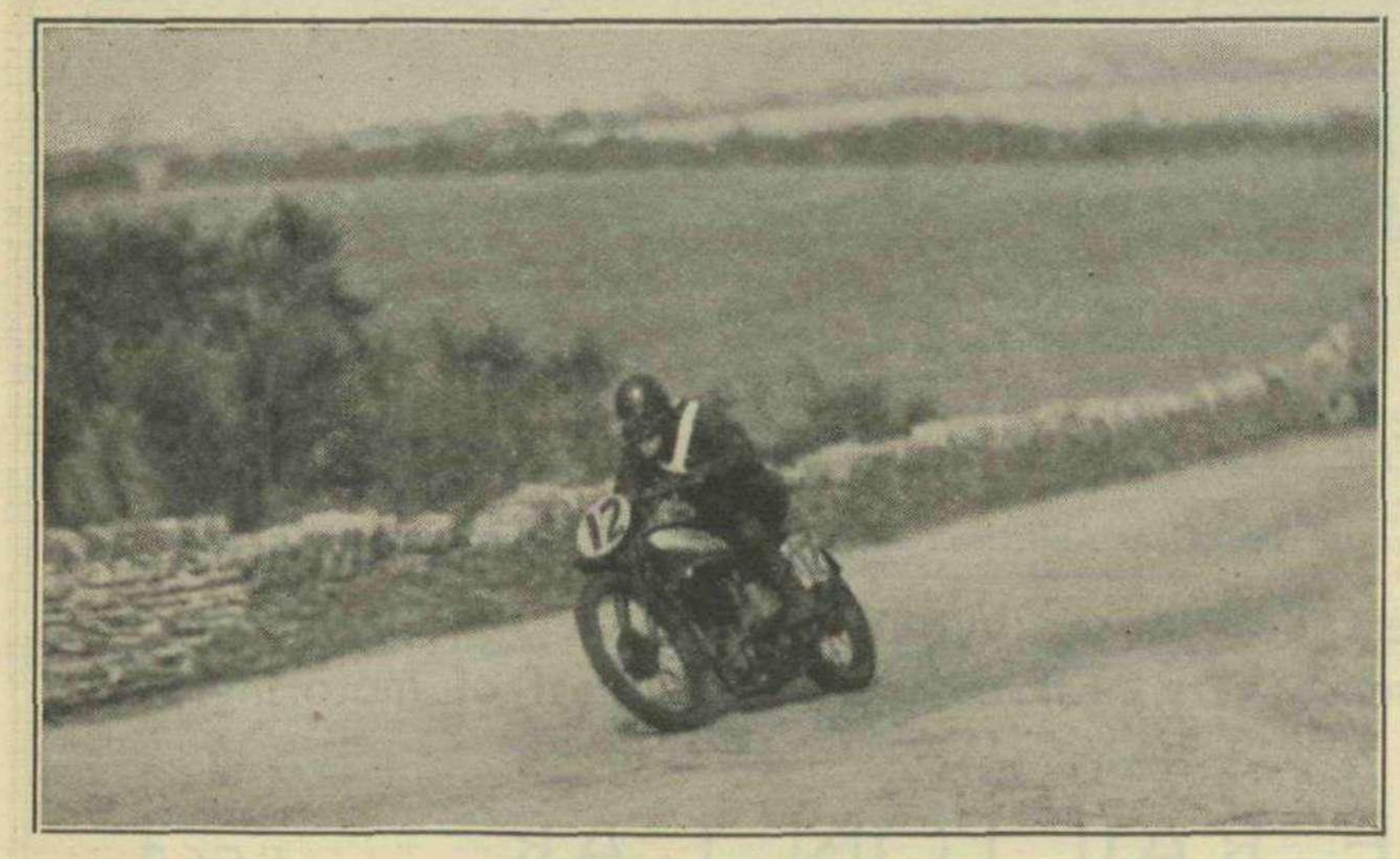


[*Motor Sport Photographs*

J. K. Swanston (Norton) cornering at Creg-ny-baa.

4. J. K. Swanston (Norton), 29m. 15s., 77.41 m.p.h.
5. J. H. White (Norton), 29m. 46s., 76.06 m.p.h.
6. R. Harris (Norton), 30m. 38s., 74.92 m.p.h.

Five riders round in under 30 minutes for a standing lap—here was something to think about! Pirie meanwhile had got a clear road, and took full advantage of it, rocket and through the start to set up a lap record of 28 mins. 8 secs., or 80.48 m.p.h., a performance which received the applause it deserved. So great was the speed of the leaders, however, that this effort only gained him one place, a second behind Darbishire.



Pirie at speed in the "Senior." He is banking over to take the fast bend at Hillberry.

White was going well, though he had hardly gained as many places as one would have expected from his speed in practise. It was afterwards learnt that he had been delayed at Quarter Bridge with a defective plug terminal. Darbishire was going particularly well, and we judged him further ahead than his club-putting up a record lap of 28 mins. 35 secs., or 79.22 m.p.h., while Frith was feeling a similar speed-urge and replied with a second lap only a second slower.

Now that White had cured his trouble, something spectacular was expected of him, for apart from his great riding ability, his machine was said to be from the "works," and very considerably faster than those of most of his rivals. Round he came, taking the Creg in a clean sweep where others wobbled and came perilously near the sandbags, past Hillberry like a

At the speed at which the race was being run exciting incidents could hardly fail to occur, one of the most spectacular was when Lind came off his Rudge, at the Creg. He was reported to have turned three somersaults, but was saved from injury by his leather clothing, while the machine was not unnaturally too much damaged to allow him to continue. Soon afterwards Cole riding an H.R.D. on the Mountain took a toss, and to avoid him Hoult threw himself off the machine on which he was following, and Kellas, for the same reason took to the hedge, smashing his machine but saving the other two from serious injury.

Judging from their indicators Frith and Pirie were making fast times during their third circuit, but now White had got going, nothing could hold him, and he completed his third lap in 27 mins. 42 secs., or 81.74 m.p.h., only 26 secs. slower than the Senior record in the June races. Darbishire, who had been lying third, was seen to be lagging, and it was thought that his tyre, which had punctured on the way to the start, had given out. It was learnt later that his petrol tank had burst, doubtless due to the shaking from the flat tyre, and he was forced to retire near Ramsey. His retirement brought Rowell on the leader board for the second time that week, all the more creditable because his mount was the same 350 c.c. machine he rode on Tuesday.

MANX G.P. RACES—Continued.

Third Lap Leaders.

1. J. H. White (Norton), 1h. 25m. 26s., 79.35 m.p.h.
2. F. L. Frith (Norton), 1h. 25m. 40s., 79.29 m.p.h.
3. D. J. Pirie (Norton), 1h. 26m. 3s., 78.94 m.p.h.
4. J. K. Swanston (Norton), 1h. 27m. 10s., 77.93 m.p.h.
5. R. Harris (Norton), 1h. 31m. 15s., 74.44 m.p.h.
6. W. A. Rowell (Velocette), 1h. 32m. 44s., 72.25 m.p.h.

White's average speed was 1.35 m.p.h. higher than that of the winner in the last Senior T.T. though, of course, bad weather slowed riders considerably on that occasion, but nevertheless his lead was not nearly enough to make him safe. After a rapid re-fill he set off with renewed fury, and with a lap only a minute slower than his record one had an advantage of 42 seconds as he flashed past the stands on his fifth lap. It was soon noticed that he was overdue at Ballacraine, and soon came the sad news that he had crashed at Union Mills. Heeled over at a terrific angle the footrest touched the ground, throwing the machine into a wobble which the rider could not control. White was unhurt, but his bike was put out of commission.

This accident put Frith once more at the head, with a lead of 12 seconds over Pirie, but the London rider was now flat out, and at the end of the fifth lap only 2 seconds separated them, with Swanston, who was lying third, three minutes behind.

All interest was focussed on the leading two ; at 12.45 Pirie was at the Gooseneck and Frith at Ballacraine ; three minutes later Pirie was on the mountain, and Frith with Swanston, who had started 14 places earlier, at Kirkmichael. Pirie continued his meteoric progress and finally crossed the line at 12.54. He completed his last lap at over 79 m.p.h., so Frith would need all his speed to beat him.

Frith made steady progress as far as the Mountain signal post, and there his pointer stuck. His number perhaps had been missed at Creg-ny-baa, one felt, but when Swanston's sign showed that he had reached Governor's Bridge alone, it was obvious that Frith was out of it. A few minutes later news came, at once a relief and an anti-climax. Frith had run out of petrol on the Mountain.

One of the surprises of the fifth lap was the arrival on the Leader-board of Courtney, riding a 350 c.c. Velocette, Appropriately enough in the final placings he tied with Rowell, riding a similar machine, and helped to gain the Team Award for the Brooklands M.C.R.C., with his fellow-members Pirie and Harris.

RESULTS.

1. D. J. Pirie (Norton), 2h. 51m. 34s., 79.19 m.p.h.
2. Dr. J. K. Swanston (Norton), 2h. 55m. 55s., 77.27 m.p.h.
3. R. Harris (Norton), 3h. 2m. 0s., 74.65 m.p.h.
*4. W.A. Rowell (Velocette), 3h. 6m. 30s., 72.85 m.p.h.
*5. L. R. Courtney (Velocette), 3h. 6m. 30s., 72.85 m.p.h.
6. A. R. Foster (Sunbeam), 3h. 7m. 44s., 72.37 m.p.h.

* Tie.

The above riders qualified for replicas.

7. K. Bills (Vincent H.R.D.), 3h. 8m. 53s., 71.93 m.p.h.
8. T. McEwan (Velocette), 3h. 9m. 36s., 71.65 m.p.h.
9. J. H. Fell (Norton), 3h. 10m. 29s., 71.32 m.p.h.
10. J. Alexander (Velocette), 3h. 10m. 30s., 71.31 m.p.h.
11. W. E. Whitehead (Velocette), 3h. 13m. 59s., 70.04 m.p.h.
12. L. C. Newman (Sunbeam), 3h. 16m. 6s., 69.28 m.p.h.
13. J. A. Macdonald (Rudge), 3h. 16m. 57s., 68.98 m.p.h.
14. R. Allen (Norton), 3h. 17m. 17s., 68.86 m.p.h.
15. C. V. Booth (A.J.S.), 3h. 17m. 50s., 68.67 m.p.h.
16. H. Hartley (O.K. Sup.), 3h. 19m. 0s., 68.27 m.p.h.
17. D. W. Ronan (Rudge), 3h. 19m. 46s., 68.01 m.p.h.
18. R. Hooper (Sunbeam), 3h. 20m. 46s., 67.67 m.p.h.
19. D. Parkinson (Norton), 3h. 22m. 30s., 67.09m.p.h.
20. J. M. Sugg (Norton), 3h. 23m. 31s., 66.76 m.p.h.
21. F. Robinson (Rudge), 3h. 24m. 52s., 66.32 m.p.h.
22. J. Cannel (Velocette), 3h. 25m. 49s., 66.01 m.p.h.
23. E. A. Corfield (Velocette), 3h. 28m. 9s., 65.27 m.p.h.
24. C. R. Hodgson (Norton), 3h. 34m. 15s., 63.41 m.p.h.



NEWS FROM THE U.S.A.

JENKINS SHATTERS INTERNATIONAL CLASS RECORDS AND WORLD'S RECORDS FOR 24-HOURS IN UTAH TESTS—CANTLON WINS AT SYRACUSE—WINN VICTOR AT ATLANTA—OTHER RACES.

BY

Our American Correspondent

T. MERIWETHER-SMITH

AB JENKINS, after setting several nternational class records last year, announced early in 1934 that he would attempt to better his 24-hour record during the summer months. The announcement created wide interest here and abroad, but few motor experts conceded Jenkins a chance of shattering his own mark of 117 miles per hour by the almost incredible margin of 10 miles per hour.

Roaring over the sun-baked, concrete-like sands of the dry lake beds near Boonesville, Utah, Jenkins broke international and world's records late in August, driving a streamlined 12-cylinder Pierce-Arrow Special. This machine was radically different from the job used last year only in its efficient streamlining.

Jenkins covered 200 miles at a speed of 132.18 miles per hour; 3 hours at 132.18 miles per hour; 500 kilo. at 132.4 miles per hour; 500 miles at 132.607 miles per hour; 1,000 miles at 130.906 miles per hour; 2,000 kilos. at 129.597 miles per hour; and 1,700 miles at 128.48 miles per hour. He drove the entire test without relief. A broken clutch halted Jenkins's run shortly after the first 24 hours had been completed at 127.215 miles per hour.

* * *

Winn Again Victorious.

Billy Winn, the diminutive Kansas City star, enjoying one of his most successful seasons, was the winner of the 100-mile Championship contest held at Springfield, Illinois, in August. Driving a Miller Special, Billy roared to victory at a speed of 77 miles per hour over a select field of A.A.A. aces. Mauri Rose was second, and Russell Snowberger third. Johnny Sawyer, the Milwaukee flyer, had the tough break of the contest. Driving in the lead through the 93rd lap, seven laps from the checkered flag, Sawyer was forced to abandon the race when his Lencki-Madis Special developed motor troubles. It would have been Sawyer's first Championship victory had his motor lasted those last heartbreaking seven laps.

* * *

Winn is Atlanta Victor.

Winn, still in fine fettle after his Springfield triumph, breezed to hard-earned triumph in the feature race at Atlanta, Georgia, early in September. This race was marred by one of the most peculiar accidents in motor racing, an accident after the checkered flag had dropped. Chet Gardner and Winn, rounding the curve at the end of the stretch, after a thrilling duel, skidded together and crashed into the inner railings. Gardner was severely injured, but Winn escaped unscathed.

* * *

Unser is Pike's Peak Victor.

Louis Unser, driving a Schultz Special, was the winner of the annual Pike's Peak mountain climb, America's "Shelsley Walsh," on September 3rd. Unser, driving the dangerous curves with extreme daring but also with uncanny skill, succeeded in bettering the old record of 16 minutes 47 seconds set by Glenn Schultz in 1932, bringing the mark down to 16 minutes 1⅛ seconds. He was driving an 8-cylinder Special designed by Schultz.

R. D. Hammond, in a Ford roadster, captured honours in the stock car division, setting a new record of 19 minutes, 25.7 seconds for the climb. He bettered the record by almost 32 seconds. Racing conditions were ideal.

* * *

Doug. McLeod, of Richmond, swept to victory in the races at Salisbury, N.C., in September, with Chick Young second, and Carl Baker third.

* * *

Vernon Orenduff, of Florida, flashed his Ambler-Hisso Special to an easy triumph in the 20-mile feature at Richmond, on September 9th. Malcolm Fox was second, Eddie Skinner third. There were no serious accidents.

* * *

Harry Hartz, veteran retired auto race star, aided by "Babe" Stapp, established what is regarded as an American fuel economy record last month when he drove an Imperiod air-flow Chrysler machine from Los Angeles to New York at an average of 18.1 miles per gallon of petrol. Earlier in the month Hartz, aided by Wilbur Shaw, sped to a new American closed-car record of 24 hours at the Dry Lake beds, Utah, covering 2,026.40 miles. The car did the mile at 95.7 miles per hour and covered 500 miles at an average of 90.04 miles per hour.

E.R.A.'s TAKE RECORDS.

Although still suffering from teething troubles, which have seriously affected their performances in long-distance races, the E.R.A. racing cars have shown us that they possess acceleration of a very high order. Both the 1,100 c.c. and the 1,500 c.c. models now hold the Mountain Circuit lap records in their respective classes, and the cars were brought down to Brooklands last month for an attempt on International Class records.

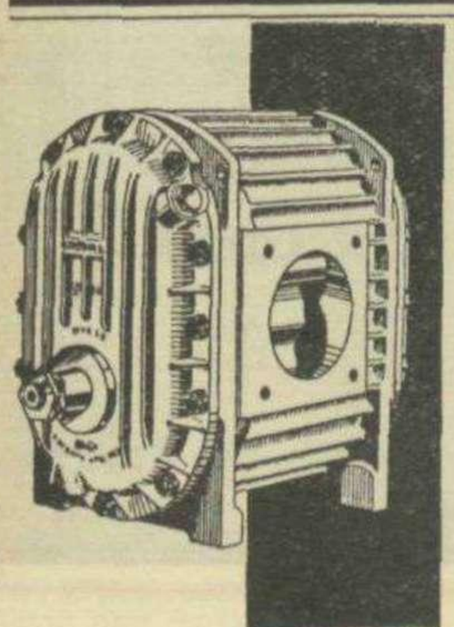
The standing kilometre and mile were the objectives, and as usual Raymond Mays drove the 1,500 c.c. car and H. W. Cook the smaller model. The attempt was completely successful. Raymond Mays' speed was as follows:—

Kilometre (s.s.) 83.35 m.p.h. (Amilcar 83.09 m.p.h.)
Mile (s.s.) ... 96.08 m.p.h. (Talbot 92.33 m.p.h.)

Cook recorded the following speeds:—

Kilometre (s.s.) 79.75 m.p.h. (Amilcar 78.33 m.p.h.)
Mile (s.s.) ... 88.91 m.p.h. (M.G. 83.20 m.p.h.)

The E.R.A.'s, by the way, are equipped with Smith's instruments.



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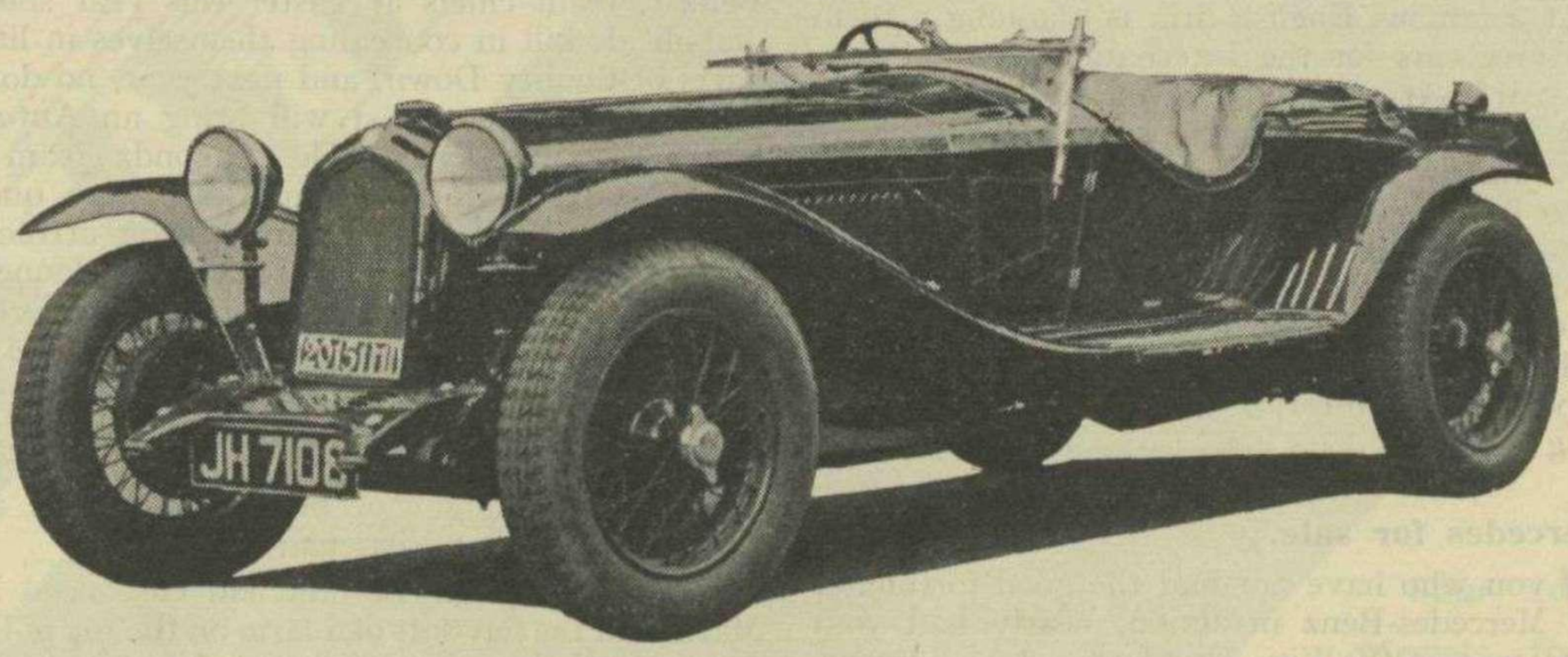
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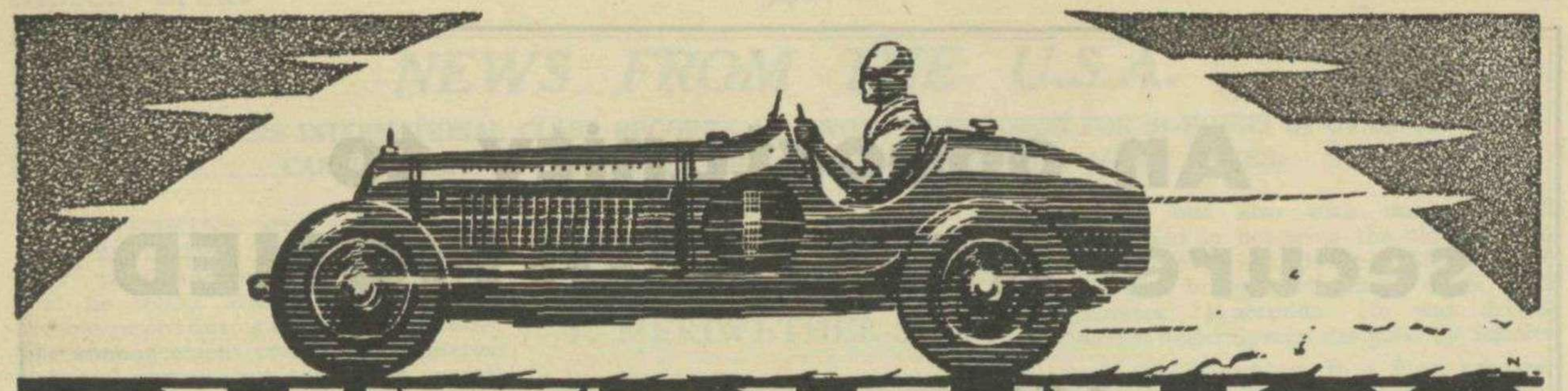
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RUMBLINGS

Rumours—thick and fast.

GREAT excitement is being caused by the rumour that a famous English firm is planning a team of three cars for the International Grand Prix races next year. At one moment you are told that the cars will be 3-litres, and the next person you meet says they will *definitely* be "three-fives." Then there is supposed to be a detuned edition on the stocks as a sports car—the fastest in the world. I am not at liberty to spill the beans that I have up my sleeve (pardon the mixed metaphor!), but anyway, I can tell you that the firm in question is not entirely lacking in racing experience. Editorial discipline prevents me from saying more.

G. P. Mercedes for sale.

Those of you who have not had the good fortune to see a new Mercedes-Benz in action, nearly had your dream come true in the Five Hundred. A well-known Brooklands driver actually sent a large deposit to Unterturkheim with his order for one of the new cars, delivery to be in time for the race. But it was returned with apologies and regrets, *and* the information that the Grand Prix cars will be on sale to independent drivers for next season!

The Inevitable Pine-Tree.

Have you ever noticed that pine-trees always seem to be growing in the neighbourhood of motor tracks? They are a feature of Brooklands scenery on the Members' Hill, and there are some on the approach to Montlhery. A few grow round the Rheims circuit, and of course lots at Le Mans. Nurburg Ring is lined with them, and you even see them near Monza.

A New Resident.

An important new resident has arrived at Brooklands in the form of Samuel the Squirrel. He lives in the finishing straight pits, and can be seen frequently crossing the track on foraging expedition in the public enclosure. The other day he made several journeys across the concrete while Mountain race practice was going on. Once he began to leap across just as a car was approaching, and Samuel's acceleration had to be seen to be believed!

Scattered Depôts.

In an effort to escape from the maddening crowd of Belfast, team chiefs at Ulster this year showed quite diabolical skill in concealing themselves in little-known parts of County Down, and next year, no doubt, every self-respecting journalist will bring an Autogyro with him for paying calls. The Lagonda team (compère Arthur Fox) and the Chain Gang were quartered at Donaghadee, the former camp being attracted there, I believe, because of the good sea fishing found off-shore, while the Talbots, the Singers and Powys Lybbe's Alvis were housed in a garage in Bangor. Michael May, who was acting as mechanic to his fellow Alvis owner, was seen wandering about disconsolately, looking for a piece of wood to chock up one of the wheels, the only spare he had not thought of bringing and one apparently rather rare in that particular garage.

The ever-popular Bertelli had ensconced his Aston-Martins in the hay-loft of a farm on the top of Bradshaw's Brae, and had painted the cars red to drive away the bad luck they experienced at Le Mans, with most gratifying results, while the M.G.'s lived in another country retreat not far away. I believe that the Alfas camp during their successful invasions of Ulster used to be somewhere



How long will it take to cover those 21 km. 56 metres? asks Whitney Straight. He had to concede his Mont Ventoux record to Hans Stuck last month, but he made second fastest time of the day.

ALVIS

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H.P.

RUMBLINGS—continued.

in the neighbourhood, so evidently Bradshaw's Brae, like Guinness, is good for one.

Moving Hazards and High Speeds.

One of the unnamed heroes (or heroines) of early morning practising was a caterpillar which crawled across the road at the end of the pits, with cars passing at high speed every minute, and finally reached the bank in front of the Grand Stands unscathed. Another creature which played an unofficial part in the practise period was the pigeon which collided with Lord Howe's car, but the driver made light of the incident, preferring to talk of the races on the Pescara circuit, in which he had taken part the month before. His drive with Rose-Richards in the Targa Abruzza, in which they won the Campari Cup, was a particularly fine effort, as they completed the last few hours with only bottom and top gears.

"Chilometro Lanciato."

I was much interested in a newspaper cutting which Lord Howe showed me, giving the speeds recorded by various cars over a flying kilometre during the course of the Coppa Acerbo, some of which are given below. The figures speak for themselves, but it is worth recalling that ten years ago the world's land speed record, which was held by Eldridge on his Fiat, only stood at 145.9 m.p.h.

Here are the speeds :—

Mercedes ...	Caracciola	179.6	m.p.h.	Henne	179.5	m.p.h.
Auto Union ...	Sebastian	171.1	,,	Stuck	167. 5	,,
Alfa-Romeo...	Chiron	168.7	,,	Moll	166.2	,,
	Varzi	156.9	,,	Penn-Hughes	141.3	,,
Maserati ...	Nuvolari	155.2	,,	Zehender	144.5	,,
	Earl Howe	142.7	,,	Straight	142.7	,,
Bugatti ...	Brivio	159.3	,,			

In the under 1,100 c.c. class, Hamilton's M.G. Magnette was the fastest with 121 m.p.h., while Fourmanek's Maserati did 118.4.

Moll's fatal crash occurred just after the flying kilometre. He had come up level with Henne on the Mercedes at the beginning of the stretch and abreast they raced through the measured distance at the indentical recorded speed of 161.2 m.p.h. A hundred yards beyond the second timing station there was a break in the Alfa's exhaust note, and to the horror of the spectators the back swung round and the car slid sideways into a ditch beside the road. The driver was flung out and killed instantly. It is usually impossible to account for accidents which happen at such terrific speeds, but it was thought that the Alfa had been caught by a puff of wind, and that the driver had been compelled to apply his brakes.

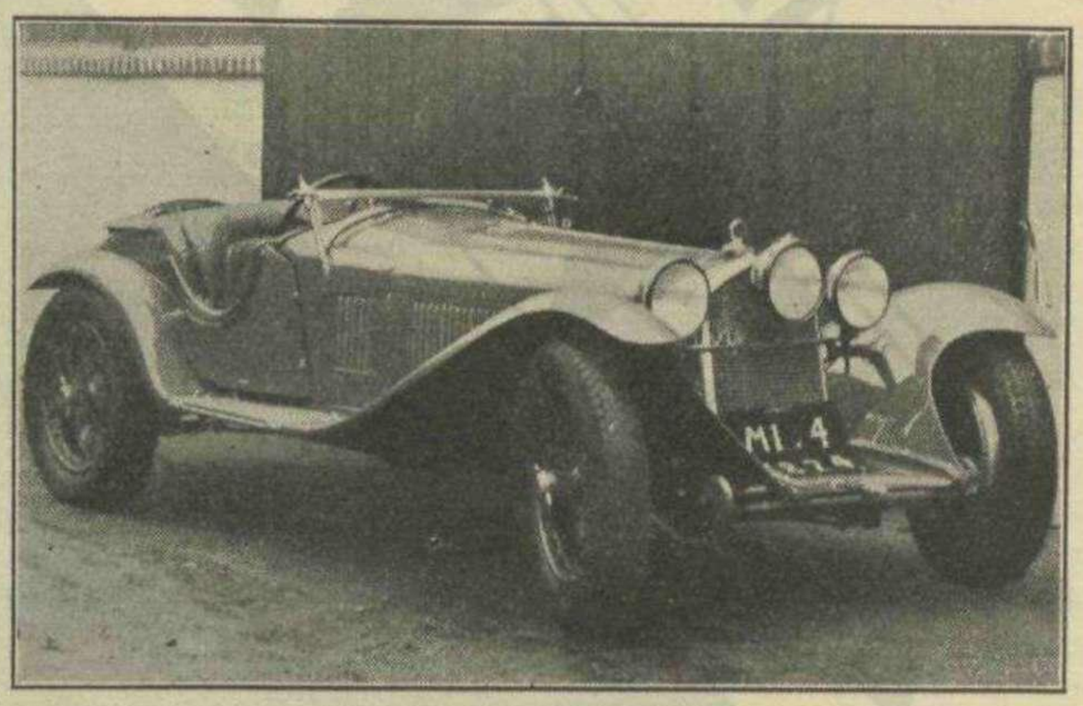
Der Karussellkurve.

Quite one of the most extraordinary corners on any racing circuit (yes, I include the top corner on our Mountain Circuit !) is the Karussellkurve on the Nurburg Ring. The inside of this corner is fringed by a wide sloping ditch, and this slope is often used by drivers as a sort of banking. It is just wide enough for the track of a racing car, which must be put right into the " ditch," so to speak, otherwise the undershield will graze the ridge made by the conjunction of the road and the slope.

It is an astonishing sight to see cars hurtling round in this manner, but it is not always the quickest course. In the German Grand Prix, Caracciola passed Von Stuck at this point by sticking to the road proper.

Vintage 1922.

A man whose motoring tastes will find an echo in many hearts is the Hon. Jock Leith. He surprised a good many people at Lewes recently by his performance on an old 1922 Hispano Suiza, and he also runs a G.P. Sunbeam. I had a talk with him at Brighton after the speed trials, and he told me that 1922 was his favourite vintage. The Hispano is probably Dubonnet's Targa Florio car. Anyway, the body is similar, but the trouble is that three or four were built. It is a grand car, can still do its 97 m.p.h., and got the better of a Railton Terraplane and an S.S.K. Mercedes Benz at Lewes.



Penn-Hughes' 2.3 Monza Alfa is for sale. The car was entirely rebuilt at T. & T's., is completely devoid of plug trouble, and dates from 1933. 125 m.p.h. is its speed with low-compression pistons. Do you want his address ?

The Sunbeam is a 1922 G.P. car, built for the French Grand Prix at Strasbourg. Leith found it tucked away in a garage, badly burnt and extremely rusty. A ten-pound note secured it, and he is now busy getting the old motor into something like its Grand Prix tune. Whether it actually ran at Strasbourg or not is difficult to say. The chassis is stamped No. 4, so it is possibly a practice car.

When Plans Gang Awry.

That implicit obedience to orders can sometimes have its drawbacks is illustrated by this story of a one-hour record attempt. The driver was told to keep the car at 6,100 r.p.m. and to lift his foot twice on each lap as he came off the banking, in order to let the oil circulate properly. Being an obedient person, he did what he was told.

After a quarter of an hour the Boss noticed that the supercharger gland must be letting oil past, judging by the cloud of blue smoke every time the driver eased his foot. At this rate the car would never get through the hour without oiling a plug, and the Boss cursed himself for telling the driver to lift his foot. The only thing was to make him go faster and faster, until he would simply *have* to omit the foot-lifting. Accordingly the " Go faster " signal was waved to the driver, who responded nobly, but no matter how long the signal was

RUMBLINGS—continued.

waved he still did what he was told—and lifted his foot. The rest of the hour was a nightmare to the Boss, but luckily the car kept going and the record was taken —about 3 m.p.h. faster than had been intended!

Next Year's Ulster.

Returning to more cheerful topics, everyone is asking what form next year's Tourist Trophy race will take. The three essentials of speed, numbers of entries and wide range of types were certainly secured by this year's regulations and the R.A.C. will no doubt be tempted to continue them unaltered. A further suggestion I heard, and one that seemed quite reasonable, is that fuel next year shall be confined to that obtainable from the ordinary petrol pumps, that is, leaded petrols, benzol mixtures and alcohol blends.

I wish myself that the bodywork regulations could have remained as they were last year, for the gauze windscreens, the curious pocket handkerchief and gas-pipe hoods, and the racing mudguards bear little relation to the appliances fitted to most sports cars, but without them apparently the general public will not believe that the chassis are standard. A stock car race sounds the obvious alternative, and the same minimum production would ensure that the manufacturer was putting on a really typical and properly finished car. They would certainly learn something about wing supports.

What about blown cars?

The claim of the supercharged car to run on the Ulster Race will of course come up again, and with the announcement of the supercharged two-litre Triumph, and the 1½-litre Squire, the organisers will have to think furiously. The M.G. Magnette is the only other fully equipped blown English car on the market yet—the Q-type Midget is so far only produced with a racing body—but some others will probably be joining them in the near future, and if they can run on the standard fuel permitted and are produced in sufficient numbers in proportion with the output of the factory, it is difficult to see why they should be excluded from Britain's only sports car race.

* * * * *

Nuvolari's Maserati—and the new Alfas.

Versatility might almost be the watchword of the Maserati works, and when their competitors are hard at work with their "eights" and their "sixteens" the Officine Maserati has jumped back to the four, which put up a fine performance at Monte Carlo early this year, and to the six which Nuvolari drove at Monza.

This machine had a six-cylinder engine with cast-iron cylinders cast in pairs, and had a total capacity of 3,325 c.c. The engine developed 290 h.p. at 5,300 r.p.m. and weighed 3½ cwt. Outwardly the chassis was like that of the eight-cylinder cars, but a cross-bracing amidships had stiffened it up considerably. If the brakes had not failed owing to the reserve tank being drained for the weighing in, Nuvolari might easily have improved on his fifth place.

Meanwhile, as was forecast in these columns two months ago, work is proceeding on the 16-cylinder 4-litre Alfa-Romeos, which, like their German rivals, have all four wheels independently sprung.

S. F. EDGE —

My Motoring Reminiscences

Foreword by Earl Howe

who says: "This is the record of gallant endeavour, written by almost the only man living who can tell the story from personal experience."

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SPEED TRIALS ON BRIGHTON FRONT

R. O. SHUTTLEWORTH (BUGATTI) MAKES FASTEST TIME AT 75.63 M.P.H. — GOOD SPORT WITNESSED BY HUGE CROWD—PERFECT WEATHER AND SMOOTH ORGANISATION.

ONE'S remembrances of last year's Speed Trials at Brighton are chiefly confined to drenching rain, squalls and general discomfort, amid which the cars splashed their way up the course in a shower of spray. But what different conditions prevailed on the 1st of last month! A glorious September day, brilliant sunshine, a cool breeze, a huge crowd, and everybody happy.

A tremendous entry had been received, so an early start was made at 10.30. Even then a good crowd lined the terraces above the Madeira Drive, the people on holiday at Brighton turning out in force and augmenting those enthusiasts who always come from far and near whenever anything in the nature of a motor race is being held. The beach side of the Drive was screened by a tall canvas "fence," which effectually prevented a crowd from assembling too near the road.

The morning's programme consisted of the Sports Classes and the special events for Brighton and Hove Club members. A. Ashton-Rigby started with an enterprising series of victories, his well-tuned L. type M.G. Magna making a crisp getaway on every run. He first of all won the Members Only 1,100 c.c. class from Macdermid's Midget, and then the 1,500 c.c. class from R. Gardner's Frazer Nash and E. Quero's Single Le Man's. In both cases his speed was exactly 54.22 m.p.h. The unlimited "Members Only" produced a well-deserved win for Forrest Lycett's black 8-litre Bentley. This magnificent car was 5 m.p.h. faster than Robert Strang's Railton Terraplane, which in turn beat D. L. S. Shilcock's 4½-litre Lagonda. The Hon. Jock Leith's Hispano Suiza was not in good form, and was unplaced.

There were no fewer than 20 entrants in the 850 c.c. blown, and 1,100 c.c. unblown class, open to all comers. Ashton-Rigby's Magna was quite the best of the bunch, but there was an interesting tie for second place between J. Eason Gibson's Riley and F. W. Carr's Singer Le Mans. The Special Lagonda Rapier driven by Lord de Clifford scored a "third." The heavier metal of the 1,500 c.c. unblown cars proved too much for Rigby, but he nevertheless tied with G. Casswell's Frazer Nash for third place. This was quite a Frazer Nash party, for S. E. Cummings was first on his greatly-lowered model at 56.96 m.p.h., and Roy Eccles was second.

Lycett's Bentley was again a safe tip for the unlimited unblown class, and he was a shade faster than his previous run in clocking 64.7 m.p.h. He beat R. R. K. Marker's Railton Terraplane by 6 m.p.h, with Eccles gallant little 1½-litre Frazer Nash third. There were some close finishes between various pairs as they raced up the half-mile, a particularly near thing being when Cummings beat Leith by a fraction of a bonnet.

The supercharged 1,100 c.c. class produced a victory for Geoffrey Taylor's Alta, Ashton Rigby again being in the limelight by scoring a "second." The morning programme concluded, so far as cars were concerned, with the unlimited supercharged class, which went to Major Gardner's beautiful 2.3 litre Alfa-Romeo after a close tussle with E. K. Rayson's Mercédès coupé.

Lunch, in some cases of a completely liquid variety, was then partaken, and proceedings re-commenced at 2 o'clock. The afternoon classes, being for racing cars, were not sub-divided into blown or unblown. The "850's" took the field (or front) first, and provided a most worthy winner in A. H. Samuel, handling R. R. Jackson's M.G. Midget. Jackson has had bad luck with his Midget at Brighton in previous years, but this time it was in great shape and recorded the record speed for its class of 64.29 m.p.h. No less creditable was the time of the second man, J. C. Elwes, with an Austin-Seven, which has seen much competition work. R. Morgan's bronze single-seater Austin was a shade slower.

Many of the 850's also entered for the 1,100 c.c. class, and Samuel actually succeeded in tieing for first place with G. R. Hartwell's M.G. Magnette. There was another tie for third place between J. L. Ford (M.G. Magnette), and E. K. Rayson (Riley). The 1,500 c.c. class went to J. C. Davis's 8-cyl. G.P.Delage, humorously described in the programme as being of 14,800 c.c. capacity. Competition was again very keen, and there were ties for both second and third places. Harker's Special and Rayson's Riley both clocked 65.69 and R. G. J. Nash on the "Spook" and Hartwell's Magnette were third with 64.29 m.p.h. The "Spook" was, of course, the favourite for this class, but it preferred to be sulky at Brighton.

The 3-litre class proved to be an all-Bugatti victory, for R. O. Shuttleworth was first at 73.77 m.p.h. with his neat and fleet twin-camshaft car, once driven by Chiron in the Monaco G.P., Charles Martin was second at 72.58 m.p.h. with his black single-camshaft job; and Mrs. K. Petre scored a fine third at 71.43 m.p.h. on a similar car.

The unlimited class was likely to produce "fastest time of the day," and Oliver Bertram was obviously out to carry off this honour if he possibly could. He had fitted twin-wheels to the 10-litre Delage, but on his run with Lycett's Bentley, he made a poor getaway and could do little more than keep ahead of his rival all the way up the course. His speed was 69.23 m.p.h. Shuttleworth ran by himself, and got off the mark like the proverbial stag, snaking from side to side as "the rear wheels tried to pass the front ones," as someone remarked. His time was correspondingly fast, 75.63 m.p.h., but not quite so quick as Sir Malcolm Campbell's 76.27 m.p.h. in 1932.



A feature of the Meeting was the wonderful opposition to O. Bertram's Delage shown by F. Lycett's 8-litre Bentley. Bertram has twin wheels, you notice.

Martin was a tiny bit slower than before, but his 72.00 m.p.h., was good enough to get him a comfortable "second."

Mrs. Petre won the Ladies' Class quite easily, being some 11 m.p.h. faster than Miss I. C. Schwedler on Dunham's Speed Twenty Alvis. Miss Wyn Hilder had difficulty in persuading Dobson's Bugatti to leave the line, repeated efforts to restart a stalled engine giving the announcer an opportunity to be humorous at the expense of the vast and quaintly-attired Andrew Leitch.

After some of the motor bikes had hurtled up the Drive, Bertram asked whether he might have an unofficial run, against Martin's Bugatti, for which purpose he discarded a pair of wheels. Martin had no objection, and gave everyone a lesson in the art of getting a racing car on the move. Bertram lost appreciably on the getaway, and not all the might of his 10-litres could prove him to be right. His speed of 72 m.p.h. was 3 m.p.h. slower than Cobb's time with the same car in 1932.

An enjoyable meeting closed with a race between the fastest car and fastest motor bike. Accordingly, Shuttleworth's Bugatti and Noel Pope's Brough lined up, and in due course roared away into the

SPEED TRIALS ON BRIGHTON FRONT—continued.

distance, seemingly side by side. Shuttleworth just got it, equalling his previous speed of 75.63 m.p.h., but in fairness to Pope it must be recorded that his motor was not firing as regularly as it might have been.

PROVISIONAL RESULTS.

Fastest run of the day : R. O. Shuttleworth (2.3-litre Bugatti S), 75.63 m.p.h.

Open to Brighton and Hove M.C. Members only, 1,100 c.c. sports : 1, A. Ashton Rigby (M.G. Magna), 54.22 m.p.h.* ; 2, R. A. Macdermid (M.G. Midget), 47.87 m.p.h. ; 3, C. A. Hall (Singer), 45.92 m.p.h.

1,500 c.c. sports : 1, A. A. Rigby (M.G. Magna), 54.22 m.p.h. ; 2, R. Gardner (Frazer Nash), 49.18 m.p.h. ; 3, E. Quero (Singer Le Mans), 44.33 m.p.h.

Unlimited sports : 1, F. Lycett (8-litre Bentley), 64.29 m.p.h. *; 2, R. N. Strang (4-litre Railton Terraplane), 59.60 m.p.h. ; 3, D. L. S. Shilcock (4½-litre Talbot-Lago), 54.88 m.p.h.

Open Classes.

1,100 c.c. sports : 1, A. Ashton Rigby (M.G. Magna), 53.57 m.p.h. ; 2, tie between J. Eason Gibson (Riley) and F. W. Carr (Singer Le Mans), 50.00 m.p.h. ; 4, Lord de Clifford (de Clifford Lagonda Rapier Special), 48.13 m.p.h.

1,500 c.c. sports cars : 1, S. E. Cummings (Frazer Nash), 56.96 m.p.h. ; 2, R. H. Eccles (Frazer Nash), 55.56 m.p.h ; 3, tie between A. Ashton Rigby (M.G. Magna) and G. Casswell (Frazer Nash), 53.57 m.p.h.

Unlimited sports : 1, F. Lycett (8-litre Bentley), 64.75 m.p.h. ; 2, R. R. K. Marker (4-litre Railton Terraplane), 58.44 m.p.h. ; 3, R. H. Eccles (1½-litre Frazer Nash), 56.96 m.p.h.

1,100 c.c. Supercharged sports : 1, G. Taylor (Alta S), 54.88 m.p.h. ; 2, A. Ashton Rigby (M.G. Magna U/S), 53.63 m.p.h. ; 3, J. Athelstan Elliott (Crossley S), 49.18 m.p.h.

850 c.c. Racing : 1, A. R. Samuel (M.G. Midget S), 64.29 m.p.h.*; 2, J. C. Elwes (Austin S), 61.64 m.p.h. ; 3, R. Morgan (Austin S), 61.64 m.p.h.

1,100 c.c. Racing : 1, tie betaeen A. H. Samuel (M.G. Midget S), 65.22 m.p.h.*; and G. R. Hartwell (M.G. Magnette S) ; 3, *tie between* J. L. Ford (M.G. Magnette S), and E. K. Rayson (Riley S), 63.83 m.p.h.

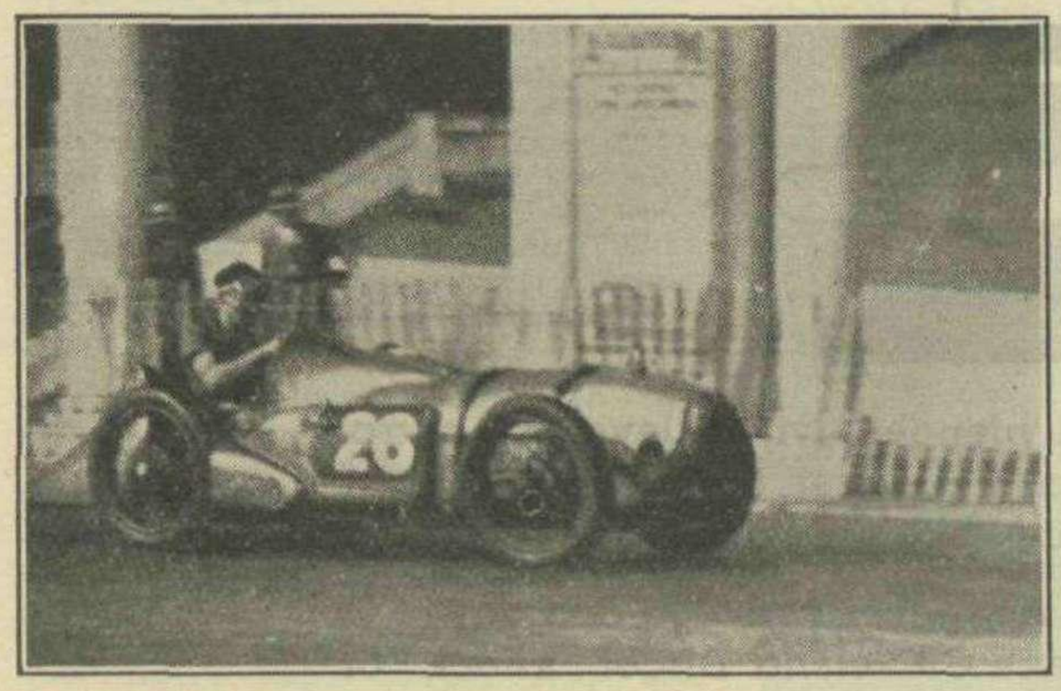
1,500 c.c. Racing cars: 1, Capt. J. C. Davis (1½-litre G.P. Delage S), 66.18 m.p.h. ; 2, tie between W. E. Harker (Harker Special S) and E. K. Rayson (Riley S), 65.69 m.p.h. ; 4, tie between G. R. Hartwell (M.G. Magnette S) and R. G. J. Nash (Anzani Nash, "The Spook"), 64. 29 m.p.h.

3-litre Racing : 1, R. O. Shuttleworth (2.3-litre Bugatti S), 73.77 m.p.h.* ; 2, C. E. C. Martin (2-litre Bugatti S), 72.58 m.p.h. ; 3, Mrs. K. Petre (2.3-litre Bugatti S), 71.43 m.p.h.

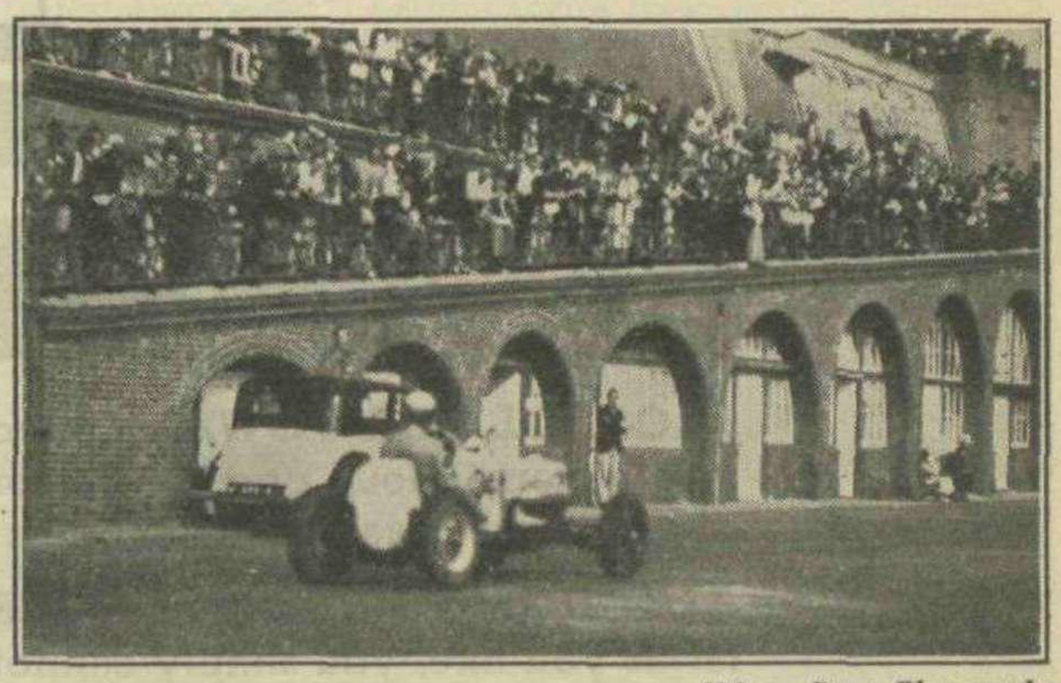
Unlimited Racing : 1, R. O. Shuttleworth (2.3-litre Bugatti S), 75.63 m.p.h. ; 2, C. E. C. Martin (2-litre Bugatti S), 72.00 m.p.h. ; 3, O. Bertram (10½-litre Delage), 69.23 m.p.h.

Ladies' Class (unlimited racing cars) : 1, Mrs. K. Petre (2.3-litre Bugatti S), 69.77 m.p.h. ; 2, Miss I. C. Schwedler (Alvis Speed Twenty), 58.44 m.p.h. ; 3, Mrs. Tolhurst (Riley Nine S), 54.55 m.p.h.

(*Indicates new class record.)



R. Morgan's fleet little Austin gets off the mark in a hurry. It was third in its class.



[*Motor Sport Photographs*

The "Spook" was not in good form at Brighton, and R. G. J. Nash had to be content with third place in the 1,500 c.c. class.

DONINGTON PARK MOTOR RACES



Under R.A.C. Rules

International Open Meeting,

CASTLE DONINGTON (Nr. DERBY),

SATURDAY, OCTOBER 6th, 1934.

First Race - - - **1 p.m.**
25-Mile Handicap Race.

Second Race - - - **2.30 p.m.**
50-Mile Scratch Race
for the Donington Park Trophy.

OUTSTANDING EVENT OF THE DAY.

3.30 p.m. - - 100-Mile Handicap Race for the "NUFFIELD TROPHY."

The Trophy and Prize Money for this race have been given by LORD NUFFIELD.

Entries include EARL HOWE, WHITNEY STRAIGHT, A. H. L. ECCLES, F. W. DIXON, R. MAYS, C. J. P. DODSON, C. S. STANILAND.

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Continental Notes and News

By
HAROLD NOCKOLDS

To Attack Jenkins' 24-Hour Record.

I HEAR that a French firm is preparing a car to attack the World's 24-hour record, at present held by D. A. Jenkins, with his Pierce-Arrow. Jenkins' speed is 127 m.p.h. odd, so that the car will have to lap Montlhéry at well over 130 m.p.h., which seems to be a pretty tall order. The attempt is to be made just before the Paris Salon, but whether it will be a good advertisement for the firm in question remains to be seen.

Profit and Loss.

In spite of rain, which always tends to keep the crowd away, the Grand Prix of Switzerland turned out to be a financial success. It was generally agreed by the drivers, the press, and the spectators that the organisation was perfect, which is particularly good for a first effort. The actual profit was in the region of 2 or 3 thousand francs—about £150 to £200.

The Klausen hill climb, on the other hand, was a crushing blow for the organisers. Of course the weather for several days before the event was appalling, and bad enough to scare lots of people away. As a rule spectators come from all over Switzerland, but this year the conditions were so bad that there was more than a chance that the event would not be held. The deficit amounted to £3,000, but fortunately a Reserve Fund amassed from the profits of happier years reduced this figure to a little over £1,500.

The Klausen will not take place next year, but this does not necessarily mean that it has been abandoned for ever. The classic hill-climb was not held in 1926, 1928, 1931 and 1933.

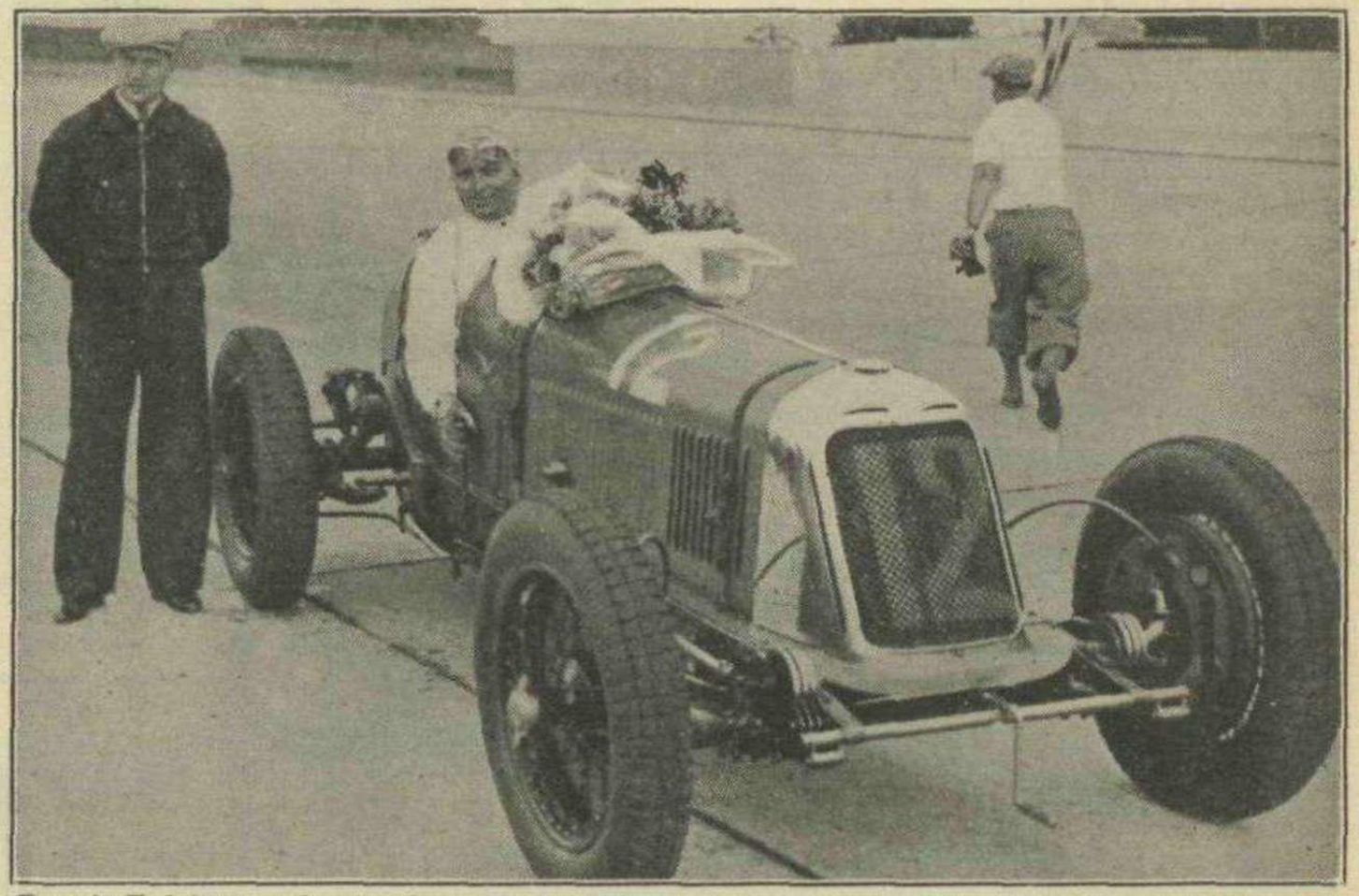
The Austrian Alpine Trial.

An unusual method of scoring marks will be used in the Austrian Alpine Trial, which will take place on October 6th and 7th. Competitors will have to run for 24½ hours (unlimited) and 27 hours (up to 1,200 c.c.), over a distance of 1,370 kilometres or thereabouts. The actual route will be a matter of choice, but 26 cols will have to be climbed. These cols can be selected from a list, and they carry varying marks according to their severity. For example, the Turracher Höhe, so well remembered by competitors in the Alpine Trial, counts 67 points, the Loibl 41 points, and the Katschberg 40 points.

Donald Healey, of course, did very well in the Austrian Alpine Trial a few years ago with his Invicta.

The German Season Closes.

Two hill-climbs brought the German sporting season to an end. First of all there was the Fribourg, at the end of August, in which Hans Stuck made fastest time at the wheel of his Auto Union in 8 mins. 6' secs., beating his eternal rival Caracciola (Mercédès Benz), by 26 secs. Von Delius was third in 8 mins. 45 secs., with an Alfa-Romeo, and Zanelli fourth in 8 mins. 57 secs., driving a National Pescara. Steinweg (Bugatti) carried off the 2,000 c.c. class in 8 mins. 45 secs., Kessler (Maserati) the 1,500 c.c. class in 9 mins. 10 secs., Rofoello (Maserati) the 1,100 c.c. class in 9 mins. 55 secs., and finally Burggaller made a wonderful climb in 9 mins. 32 secs., with the little single-seater Austin, with which he has scored many successes recently. There was another English victory in the 1,100 c.c. sports class, recorded by Kohlrausch on an M.G. There were two fatal accidents; in the first Fraulein Edith Fritsch was killed when her Alfa-Romeo crashed, and the other victim was Norden de Bozen.



Benoit Falchetto, winner of the Grand Prix de France (unlimited category). His Maserati was much the fastest car in the race, and won by 2 minutes.

The second event, and the last on the German calendar, was the Feldberg hill climb on September 15th. The unusual course was adopted of making no differentiation between the sports and racing cars. Fastest time of the day was made by Paul Pietsch on his 2.6-litre Alfa-Romeo, in 4 mins. 21 secs., beating Wimmer's Bugatti by 11 seconds. Steinweg's Monoposto Bugatti won the 2-litre class in 4 mins. 32 secs., Burggaller scored another Bugatti victory in the 1,500 c.c. class in 4 mins. 31.8 secs. (second fastest of the day); Briem's Amilcar beat Kohlrausch's M.G. Magnette with a time of 4 mins. 45 secs.; and Brude's M.G. Midget was 3 seconds faster than Burggaller's Austin in the 850 c.c. class, recording 4 mins. 43 secs.

Lehoux Leaves Ferrari.

Marcel Lehoux, that genial little Algerian, has left the Scuderia Ferrari. The Grand Prix du Cummings was the last race scheduled in his contract with the Modena stable, and there are already rumours that he has signed up with another team for next year.

" Remote Vision " on the Auto Unions.

Dr. Porsche fitted his Auto Union cars with an interesting arrangement for the Swiss G.P. at Berne. Two convex mirrors were placed one on each side of the car, just in front of the driver, in such a position that he could keep an eye on the state of his rear tyres. On a normal racing car, of course, it is possible for the driver to take a quick glance at the tyres, but the forward driving position on the Auto Union makes this impossible.

Incidentally, I hear that with the 4.5-litre engine these cars develop 300 h.p. at 6,000 r.p.m.

Les Grand Prix de France.

The annual races for the Grand Prix de France were run at Montlhéry Sunday, September 9th. Motor cycle and sidecar races formed the largest part of the programme, but there were car classes for (1) 750 c.c. blown and 1,100 c.c. unblown; (2) 1,100 c.c. blown and 1,500 c.c. unblown; and (3) blown 1,500 c.c., and over. The various distances to be covered were 70, 80 and 90 kilometres respectively, and the 5 kilometre *circuit routier* was utilised.

The 850 c.c. blown and 1,100 c.c. unblown race produced a fine victory for a Q type M.G. Midget, handled by Herkuleyns, a one-time motor-cyclist. He did not have the race all his own way, however, for M. Dhome on a little car called a Darmont actually led the Midget for 25 kilometres, and was eventually beaten by 34 secs. Maillard-Brune, winner of the Bol d'Or, brought his M.G. Midget into third place.

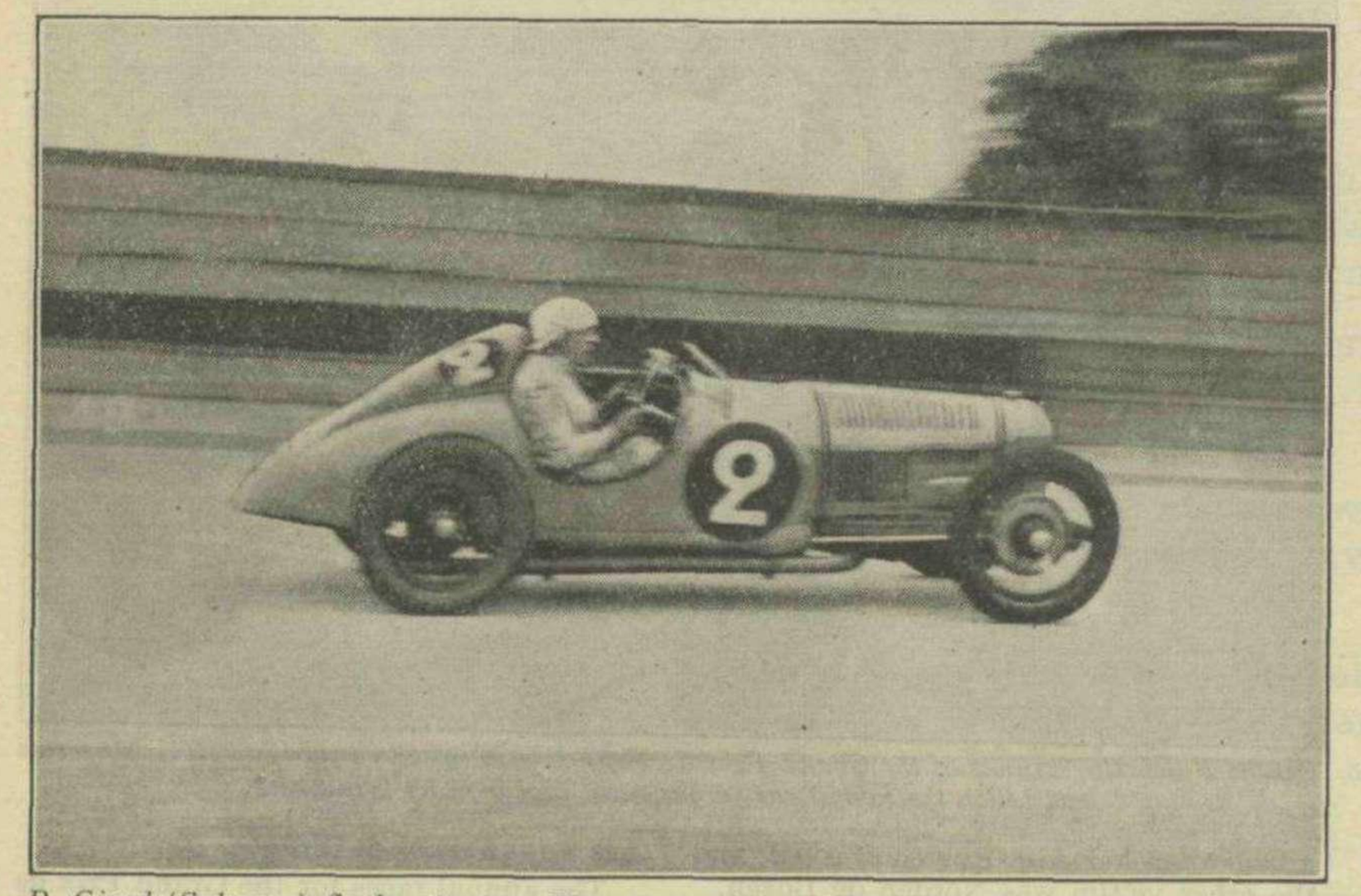
The first event was the race for 1,100 c.c. blown and 1,500 c.c. unblown cars, and was marked by a terrific struggle between R. Girod (Salmson) and Maurice Mestivier (Amilcar). The latter led at the start

CONTINENTAL NOTES AND NEWS—continued.

and soon a fight was going on between the leader, Girod and Druck (Salmson). On the 6th lap, Girod passed Mestivier, and Druck fell out, as did Venot on a La Pintade, and Malivoir on a B.N.C. Martin charged the bank with his Amilcar, but regained the road, only to retire after four laps. Girod had got the measure of Mestivier, and continued to lead for the rest of the race.

The unlimited class, run at 3.30, was an easy thing for Benoit Falchetto's Maserati. At first he was challenged by another car from the Braillard stable, namely, Robert Brunet on a 2.3-litre Alfa-Romeo, but he soon drew ahead and was never really extended. A pack of 1,500 c.c. Bugatti's brought up the rear, all running with regularity and speed remarkable for cars which had seen many seasons of hard work.

In the morning a match race was staged between Falchetto's Maserati and Marcel



R. Girod (Salmson) flashes past on his way to victory in the 1,100 c.c. class of the Grand Prix of France. He was closely pursued by M. Mestivier (Amilcar) who finished 8 seconds behind.

Doret, with his Dewoitine Aeroplane. Doret is famous in France for his aerobatic feats, and he played with the Maserati with great ease, winning the race easily.

RESULTS.

850 c.c. Supercharged and 1,100 c.c. Unsupercharged.

1. Herkuleyns (M.G. Midget, Q type), 37m. 20.4s., 112.480 k.p.h.
2. M. Dhôme (Darmont), 37m. 54s.
3. Maillard-Brume (M.G. Midget), 38m. 44.4s.
4. A. Debille (Salmson), flagged one lap short.
5. G. Boussin (Amilcar), flagged one lap short.

1,100 c.c. Supercharged and 1,500 c.c. Unsupercharged.

1. R. Girod (Salmson), 40m. 40.4s., 118.033 k.p.h.
2. M. Mestivier (Amilcar), 40m. 48.2s.
3. R. Toni (Bugatti), flagged 2 laps short.

1,500 c.c. Supercharged and Over.

1. B. Falchetto (Maserati), 38m. 38.5s., 139.860 k.p.h.
2. R. Brunet (Alfa-Romeo), 40m. 36.2s.
3. Leoz (Bugatti), flagged 1 lap short.
4. Cattaneo (Bugatti), flagged 1 lap short.
5. Renaldi (Bugatti), flagged 1 lap short.

Trossi Wins New Italian Race.

For a nation who run races over circuits as large as the Mille Miglia, the Circuit of Biella was something of a contrast. Actually it was the first race of the round-the-town variety ever organised in Italy, and the course was even smaller than that at Monaco, being only 2 kilometres 200 metres in length.

There were three heats and a final run on September 2nd, the heats being run over 25 laps, or 55 kilometres, and the final over 40 laps, or 88 kilometres. In spite of its short length the circuit contained a steepish hill, at the Hospital, some right-angle corners, a hairpin, and some fast curves. Only seven cars were allowed to start in each heat, and from the entry of 27 the following were selected for the first heat :—Trossi (Alfa-Romeo), Biondetti (Maserati), Premoli (Maserati), Minozzi (Alfa-Romeo), Restelli (Alfa-Romeoi, Casareto (Maserati) and Arezzi (Alfa-Romeo). At the last moment Restelli (1,920 c.c. Alfa) and Arezzi (1,750 c.c. Alfa) did not start.

The day was a fine one, and in the morning a vast crowd of spectators poured into the little town from all Piedmont and Lombardy. At 2 o'clock the racing began and rather surprisingly the lead was taken by Premoli (do you remember him at Shelsley ?). But this unexpected success proved too much for him, and he made a beautiful tête-à-queue at the corner following the grandstands. Minozzi then held the lead, but by that time Trossi had recovered from a slow start and easily passed him. The Ferrari President stayed there until the end, with Minozzi second and Biondetti third. Casareto shot off the road and retired on the third lap, while Premoli managed to cover 23 laps despite the handicap of no brakes.

Result of First Heat.

1. Trossi (Alfa-Romeo, 2,904 c.c.), 40m. 44.2s., 81.008 k.p.h.
2. Minozzi (Alfa-Romeo, 2,600 c.c.), 41m. 26.8s.
3. Biondetti (Maserati, 3,000 c.c.), 42m. 9.6s.
4. Premoli (Maserati, 2,300 c.c.), 23 laps.

Fastest lap : Trossi, on his 7th, 1m. 35.6s.

The second heat presented the spectacle of Tazio Nuvolari once more at the wheel of an Alfa-Romeo, the 2.3-litre model he drove in the Mille Miglia. He jumped into the lead at the start, and kept there for the whole race. Behind him a good scrap was being waged between Farina on a very fast 1,500 c.c. Maserati and Comotti, driving a 3-litre monoposto Alfa-Romeo. The latter made such tremendous efforts to pass the little Maserati, thereby living up to the reputation gained by winning the Grand Prix du Comminges recently, that he turned right round on a corner and put himself hopelessly out of the running. Castelbarco had to change a wheel, also a fatal delay in such a short race.

Result of Second Heat.

1. Nuvolari (Alfa-Romeo, 2,300 c.c.), 40m. 19s., 81.851 k.p.h.
2. Farina (Maserati, 1,500 c.c.), 40m. 39.6s.
3. Balestrero (Alfa-Romeo, 2,600 c.c.), 41m. 26.6s.
4. Comotti (Alfa-Romeo, 3,000 c.c.), 42m. 2.2s.

Castelbarco (Maserati, 1,500 c.c.), flagged on his 24th lap.

Pages (Alfa-Romeo, 2,300 c.c.), flagged on his 24th lap.

Fastest lap : Nuvolari on his 18th, 1m. 33.4s.

The third heat was completely dominated by Achille Varzi, who just did as he liked with the rest of the field and finished nearly two minutes ahead of Brivio's Bugatti, a 2.3 model. The latter was equally a master of the others, and the interest centred on a rousing duel between Cornaggia's 2.3 Alfa-Romeo and Lurani's 1,500 c.c. Maserati. Honours went to the former.

Result of Third Heat.

1. Varzi (Alfa-Romeo, 2,904 c.c.), 39m. 42s., 83.123 k.p.h.
2. Brivio (Bugatti, 2,300 c.c.), 41m. 25.4s.
3. Rovere (Alfa-Romeo, 2,600 c.c.), 42m. 41.8s.
4. Corraggia (Alfa-Romeo, 2,300 c.c.), 42m. 44s.

Lurani (Maserati, 1,500 c.c.) flagged on 24th lap.

Bianchi (Bugatti, 1,500 c.c.) flagged on 23rd lap.

Fastest lap : Varzi on his 25th, 1m. 31.2s.

The cars eligible for the final were the two leaders in each heat, and the fastest third man. Thus Trossi, Nuvolari, Varzi, Minozzi, Farina, Brivio and Balestrero lined up to receive the starting signal from the Duchess of Pistoia. Trossi was in the best position at the start, but he did not clinch the deal and allowed Minozzi to get to the first corner first. Hard on his heels came Farina and Varzi. Minozzi was thoroughly roused, and covered his standing lap in 1 min. 39 secs. Then came Varzi, followed at some distance by Farina. The little Maserati, however, was still in front of Nuvolari, Trossi, Brivio and Balestrero.

Nuvolari was obviously worried by the fact that he had broken a rear shock absorber, and after a call at the pits he eventually retired on the 25th lap. Varzi meanwhile had passed Minozzi, and Trossi soon came up into second place. Minozzi was hotly pursued by the enterprising Farina, who was the sensation of the day with his amazing little 1½-litre Maserati.

Varzi and Trossi played a pretty little game together, first one and then the other leading. Finally Varzi did not try to pass again, and Trossi was flagged in a popular winner amid scenes of intense enthusiasm from the great crowd.

Result of Final.

1. Felice Trossi (Alfa-Romeo, 2,904 c.c.), 1h. 2m. 57.2s., 83.871 k.p.h.
2. Achille Varzi (Alfa-Romeo, 2,904 c.c.), 1h. 2m. 57.4s.
3. Guiseppe Farina (Maserati, 1,500 c.c.), 1h. 3m. 44.4s.
4. Antonio Brivio (Bugatti, 2,300 c.c.), 1h. 4m. 10.6s.
5. Renato Balestrero (Alfa-Romeo, 2,600 c.c.), flagged on his 39th lap.

Fastest lap : Trossi on his 24th, 1m. 29.8s., record for the race.

Club News

JUNIOR CAR CLUB.

The South-Western Centre are holding their Fourteenth Annual Reliability Trial on Saturday, October 6th. Every member should make a point of attending this trial, for it is specially arranged to provide social enjoyment as well as the serious side of the actual trial.

A start will be made from Wilton, near Salisbury, at 10 o'clock in the morning, and five good hills will have to be tackled before the finishing point at Lynton is reached. Stress is laid by the organisers on the fact that the trial is free from irritating rules and regulations, and that no part of the course need cause any damage to the competing cars. A stop and restart will be held on Barton Steep.

The trial actually finishes at Lee Abbey Hotel, near the Valley of Rocks, and overlooking a magnificent piece of coastal scenery. There the party will have a dinner and dance, an affair which is always marked by an atmosphere of great cheerfulness. Incidentally, the dinner, dance, room, bath and breakfast cost only 18s. 6d., while the entry fee for the trial is purely a nominal one.

The organising secretary of the South-Western Centre is Mr. C. P. Lambert, 75, The Avenue, Southampton.

N. W. LONDON M. C.

The First Inter-Club team trial is being staged on October 20th. The starting point will be at Bideford, North Devon, and the 50-mile route is claimed to embrace some severe hills not yet well known to trials competitors. Five hills will be observed, and one of these will be the dreaded Cunliffe Lane. The organisers state that the course, although rather more severe than is usually met with nowadays, will do no damage to the cars.

The finishing point has not yet been disclosed, but in the words of the organisers will be "near the sea at a quite unique establishment." The teams must consist of four cars, of which the performance of the best three will count. Thus the "reserve," or fourth man, may run or need not. Entries, of course, will be accepted from Club Secretaries only.

The Hon. Secretary is Mr. J. C. G. Bond, 1, East Dulwich Road, London, S.E. 22.

THE FRAZER-NASH CAR CLUB

A fine array of Trophies to be competed for annually has been amassed by the Club. They are held for one year by the successful Frazer-Nash owners, and the full list is as follows: The Selsdon Bowl, for the best all-round performance; the Botterell Trophy, for the best all-round performance, taking the age of the car into consideration; the Twentyman Cup, for racing and speed events; the Aldington Cup, for reliability trials; the Mitchell-Thomson Cup, for team events.

The Hon. Competitions Secretary is Mr. H. W. Inderwick, Woodlands, Crofton, Orpington, Kent.

THE LIGHT CAR CLUB.

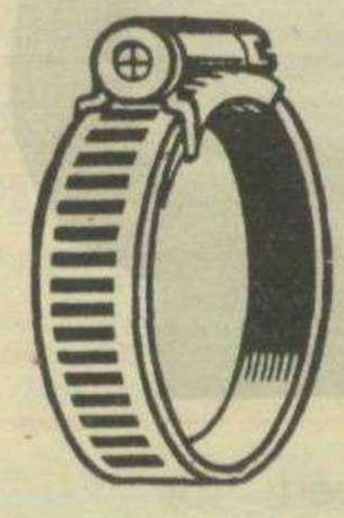
The latest issue of the Club's journal "Sidelights" is the most ambitious produced to date. It contains, besides the usual text, an 8-page pictorial supplement dealing with the Relay Race and the Gymkhana, an excellent feature. "C.M.B." has written an amusing poem "Ode to 'Poor Old Charles'"; Sporting Notes are as bright as ever, and the full Relay Race results are given.

Forthcoming events are so far confined to the Annual Dinner and Dance, which will be held on November 2nd, at the comfortable Park Lane Hotel, London, as usual.

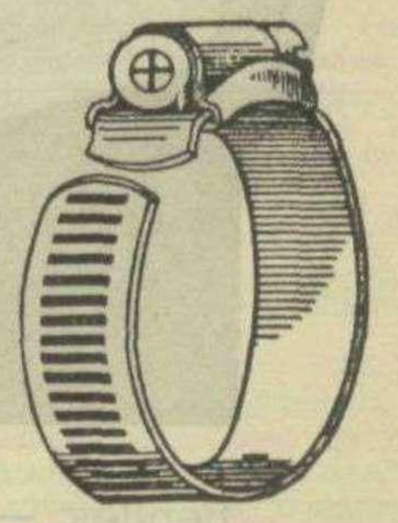
The Hon. Secretary is Mr. Harold Jones, 22, Basinghall Street, London, E.C. 2.

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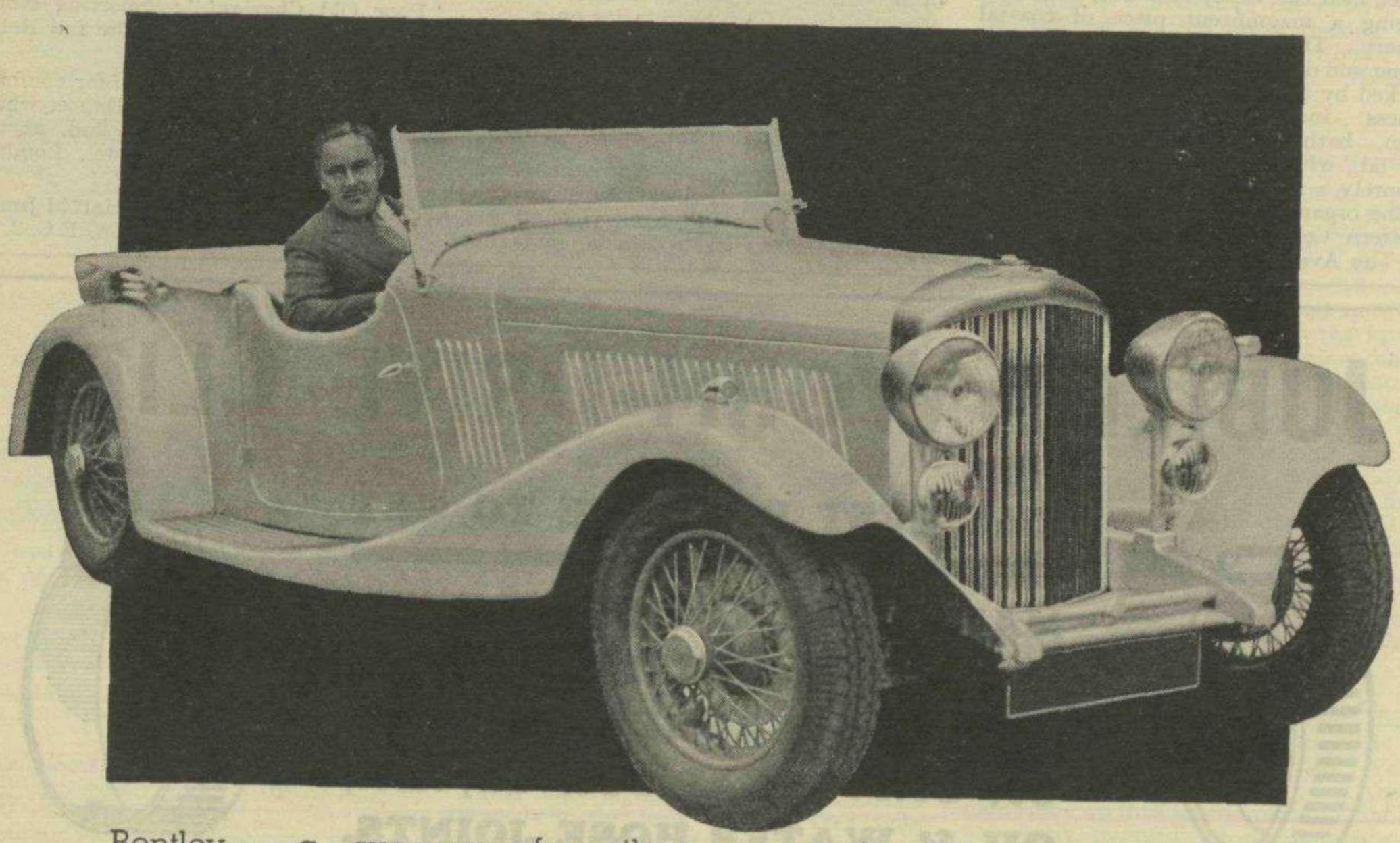
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UNSUPERCHARGED CARS PROVIDE SPLENDID SPECTACLE IN ULSTER T.T. RACE

DODSON (M.G. MAGNETTE) WINS DESPITE HIGH-SPEED BATTLE OF BIG CARS—HALL'S BENTLEY SECOND—ASTON-MARTINS CAPTURE THIRD PLACE AND TEAM PRIZE WITH LAGONDAS ONE POINT BEHIND.

OPINIONS may differ as to whether banning superchargers is or is not a retrograde step, but there could be no doubt of the success of the seventh Tourist Trophy race, held over 35 laps of the famous Ards circuit and totalling 478 miles. At last, it seemed a "formula" had been evolved which encouraged manufacturers of cars of all capacities to take part, and the spectacle of the Bentley and the Lagondas thundering round was as fine a sight as one could hope to see, while Hall's record lap of 81.15 m.p.h. was within a few seconds of the fastest one of all, put up by Sir Henry Birkin in 1932. Dodson's success on the M.G. Magnette was equally a demonstration of the driver's skill in this newly-entered sphere of fast motoring, and of the speed and stamina of the Magnette in its unsupercharged form.

Apart from the ban on superchargers, this year's regulations were framed to exclude "alternative fittings" such as oversize crankshafts, special cylinder heads, lightened chassis and the like, and not more than 50 per cent. of benzol was permitted in the fuel. The cars had to be catalogue models and evidence had to be shown that a certain number, depending on the size of the factory, had been produced or laid down. This year, therefore, the chassis really were standard productions, though in many cases the lightweight streamlined racing bodies were fitted; these of course had to comply with the regulations laid down by the Sporting Code of the A.I.A.C.R.

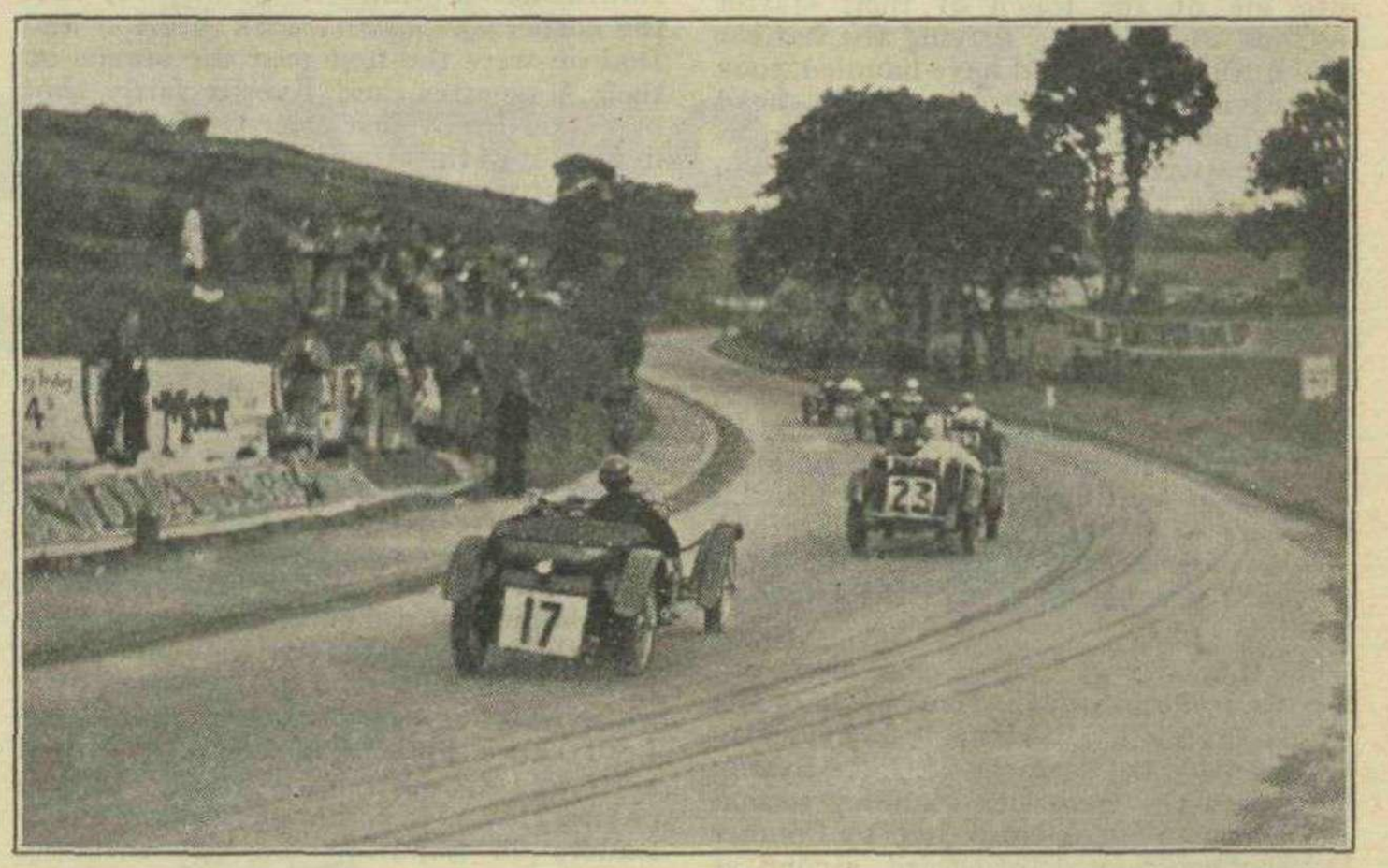
The list of entries was headed by the three 4½-litre Lagondas entered by Messrs. Fox and Nicholl. The cars had the new short chassis with a wheelbase of 10 ft. 3 ins., instead of 10 ft. 9 ins., while the Girling system of brake operation replaced the vacuum-servo lay-out formerly used. The handsome four-seater bodies, which were painted red, had a suggestion of Alfa about the tail, and the hood was supported on two tubular hoops which at a touch telescoped into the body, where they served to stretch the hood fabric over the rear seat opening to act as a tonneau-cover. The cars weighed about 27 cwt., with 28-gallon petrol tanks, and had a maximum speed of about 103 m.p.h.

The three V8 Fords were chiefly remarkable for their enormous petrol tanks, which held 45 gallons, but hopes of a non-stop run were defeated by the abrasive surface of the course, which played havoc with the tyres of all the cars. Their maximum was over 90 m.p.h.

Hall's Bentley was the first of the 3½-litre cars to take part in competition, and was of course privately entered, and except for friction shock-absorbers, a 26-gallon tank and a streamlined body, was the essence of a standard car. Its total weight was only 25 cwt., and the maximum speed was just over the century mark.

The two "105" Talbots were two of the old team cars which had been driven in the T.T. race two years before, and Rose-Richards was actually piloting his old mount. Powys Lybbe was making a very sporting attempt on his old Silver Eagle Alvis, fitted with a light body off one of the special two-litre cars.

Of the four Frazer-Nashes entered, the two driven by Aldington and Mitchell Thomson were fitted with six-cylinder engines, while Berry and Thorpe had the new overhead-camshaft fours. The Aston-Martins were similar in appearance to the Le Mans cars, but they were compelled to revert to the old position of the petrol tanks, behind the back axle, as this was held to be the standard position, and this also applied to the M.G. Magnettes, which of course were the "N" type cars. The Singers were six-cylinder three-carburetter cars with the standard two-seater bodies, while the two 1½-litre Rileys had two-carburetter engines in the m.p.h. chassis.



Three Frazer Nashes and the Singers of Langley and Baker take Quarry Corner at the beginning of the race. Thorpe's four-cylinder Nash (No. 17) is in the foreground.

The works team of 1,100 c.c. Rileys and those entered by Dixon and the various private owners were of the new "Imp" type, and Class G was completed by Aston Rigby's L-type Magna and Hodge's Singer Nine.

The first day of practise was showery, but in spite of this E. R. Hall on the Bentley put in five laps each under 11 minutes, his best time being 10 mins. 33 secs., while Brian Lewis was second with 11 mins. 10 secs. and Earl Howe third on the "105" Talbot in 11 mins. 12 secs. Thursday morning was more favourable and Hall again made best time with three laps of 10 mins. 36 secs., with Lewis and Hindmarsh next behind him. Driscoll, who was driving the Aston-Martin which Hamilton was to have piloted, beat his handicap by 2 secs., confirming the favourable impression made by the low red cars on the previous day's practise. Lord Howe had a narrow escape from serious injury. A large bird collided with the windscreen of the car as it was rushing up Bradshaw's Brae, and completely demolished the glass, but the visor which the driver was wearing protected his face from injury from the flying fragments.

Scrutineering took less time than usual, for nearly all the cars had been strictly examined during construction. There had been a petition during the week to allow the cars to run without mudguards, owing to the danger of flying treads, but it was pointed out that the pit staffs could easily keep a good look-out for signs of wear. Lamps however were not fitted to any of the cars, as the regulations had failed to lay down a minimum size!

After the showers and downpours of the past week, many an anxious eye was turned skywards on Saturday morning. The sky was overcast, but conditions seemed more settled than during the previous few days. Crowded steamers had been arriving in Belfast since the previous night, and their passengers helped to swell the crowds of half-a-million spectators in cars and on foot making their way to vantage points round the course.

The grand-stand, which was decked with flowers and was filled from end to end, and the fine entry of forty cars, many of them of makes not seen on the Ards circuit for several years, promised a race of quite unusual interest.

THE ULSTER T.T. RACE—continued.

Eleven o'clock drew near, the roads were cleared of their throngs in a surprisingly short time, then all stood uncovered at the arrival of the Duke of Abercorn and other high officials of the Ulster Government. Meanwhile the cars had been moved from the pits to their starting positions, facing diagonally across the road. A final look inside the bonnet to see if the right plugs were in, a pull on the bonnet straps, and the drivers were in most cases left sitting in their cars in solitary state, for mechanics were optional, and the Fords and the Invictas were the only cars which carried them.

The starter took up his usual position on the bank near the Pratt's bridge, Union Jack in hand, intently watching his chronometer, then after an age of time down it went, and the first group consisting of six M.G. Magnettes burst into life at the touch of their starter buttons, and Everitt, driving the red car which Nuvolari should have handled, took full advantage of his place at the head of the line to shoot ahead. The snarl as this group got away was little less than that of the blown cars of the year before and in the excitement of seeing them take Quarry Corner a spectator fainted! The 1½-litre group was led by Aldington on his Frazer-Nash, who had gained a thirty-yard lead by the time he reached Quarry Corner. Hodge's Singer Nine had a group to itself, and Rose-Richard's Talbot as well, for Lord Howe lost 20 seconds in getting away, then after a further two minutes a formidable group of nine cars up to 5 litres, headed by the powerful-looking red cars of the Lagonda team.

As the later groups of cars move off, reports come in from various parts of the course, and a lively struggle is evidently taking place between the M.G.'s. Eyston has taken the lead with Handley second and Norman Black third, but by Comber Dodson has moved into third, second at Dundonald, finally leading Eyston as they sweep past the stand. Fothringham, Penn Hughes and Driscoll lead the 1½-litre group on their low, streamlined Aston Martins, with Aldington next on a Frazer-Nash, followed by Charles Brackenbury who is driving Dixon's Riley, as "Freddy" does not yet feel up to the strain of six hours at the wheel. Frazer-Nashes and Singers were still in close company, then came Lord Howe, who had made up for his bad start by catching and passing Rose-Richards on the way in from Dundonald. A short pause, then the big cars rumbled through with Hall's green Bentley a few lengths in the lead from Lewis, and the other members of the Lagonda team in formation behind him. Wright and Sullivan on their Fords were close behind, followed by the Invictas driven by Rayson, who was at the wheel of Lace's car, instead of Lace and Fontes.

Two exciting incidents were reported on the first lap, one where Hall skidded at the Moate and narrowly escaped disaster, and the other where the exhaust pipe fell off Powys Lybbe's Alvis right in front of Everitt, who had to swerve violently to avoid it. On the next lap Hamilton nearly hit the sandbags at Newtownards, while Aldington over-shot the corner. Norman Black, Eyston and Dodson were the first past the stands on their Magnettes, and Everitt fairly shot by Aston Rigby just after Quarry Corner in pursuit of the other three. Fothringham and Driscoll still led the "Fifteen Hundreds," but Penn-Hughes had to call at his pit to reduce his oil pressure. Staniland had already called to change plugs, while Black was delayed at Comber with engine trouble.

Hall was pulling up fast on the Talbots, and drawing away from the Lagondas which in turn led the rest of the "big" class, and the 1,100 c.c. cars, usually soon on the leader-board, this year seemed to be eclipsed. Handley led the field on the third lap but pulled into the pits, complaining of difficulty in selecting top gear, leaving Eyston in the van. The 1½-litre cars continued in the same order, while Hall had passed Rose-Richards and Lord Howe, and Brian Lewis, who had been told to open up a little, had also passed Howe. The announcement of the leaders on handicap did not therefore came as a great surprise.

Leaders at 11.30 a.m.

1. Hall (3,669 c.c. Bentley), 77.87 m.p.h.
2. Handley (1,287 c.c. M.G. Magnette), 73.51 m.p.h. (Time behind leader, 11 secs.).
3. Eyston (1,287 c.c. M.G. Magnette), 73.4 m.p.h. (13 secs.).
4. Dodson (1,287 c.c. M.G. Magnette), 73.35 m.p.h. (14 secs.).
5. Lewis (4,429 c.c. Lagonda), 76.9 m.p.h. (16 secs.).
6. Hindmarsh (4,429 c.c. Lagonda), 76.78 m.p.h. (18 secs.).

Quarry Corner rarely fails to have its accident in the early part of the race, and this time the unlucky driver was Prestwich on a Riley, whose car hit the kerb, dived over the hedge and turned over into the ditch in the field below. The driver escaped with a few cuts and bruises.

There was plenty of activity at the pits from now onwards, ranging from the large job of building up a new exhaust system on the Alvis from a sister car which had been used as a tender, to the brake adjustments on the Frazer-Nashes of Aldington and Mitchell Thomson, and changing plugs on Sullivan's Ford. Meanwhile Hall continued to put on speed, setting up two record laps, one at 10-20 and one at 10-16 or 79.83 m.p.h., which kept him comfortably in front, with a lead of 39 seconds, while as a result of consistent fast lapping Fothringham brought his Aston-Martin into second place at mid-day, with Lewis third.

The race by now seemed to have settled down, so we decided to see the cars at some other points on the course. On the winding descent of Bradshaw's Brae, Hall on the Bentley looked extremely fast and safe, while the Lagondas needed rather more handling. The Aston-Martins seemed glued to the road, while Eyston and particularly Dodson on their M.G.'s, who were straining every effort to maintain their handicap positions, took the unfavourably-cambered second bend in controlled broadsides. The Rileys were steady though not so fast, while A. P. Hamilton had several awkward moments on his M.G. through trying to take the bends too quickly.

At Newtownards we were particularly impressed by the accurate and faultless cornering of Brian Lewis, who always took the same path right over the levelled footpath within two feet of the corner shop. Fothringham and Penn Hughes were also outstandingly neat.

The first retirement of the day is announced when Baird, the North of Ireland driver of a Riley, regains the pits after his car had caught fire at Dundonald. Lord Howe was delayed a short time with ignition switch trouble, while his team mate, Rose-Richards, was lapping fast and silently, his best 10-52 or 75.42 m.p.h. Sullivan has been in



Charlie Dodson, the winner of the 1934 T.T., about to take the Newtownards Corner on his M.G. Magnette, McClure (1,100 c.c. Riley) is following behind.

BY APPOINTMENT TO HIS MAJESTY THE KING

BY APPOINTMENT TO H.R.H. THE PRINCE OF WALES

R.A.C.

T.T. RACE

ULSTER *Sept. 1*

WON ON CASTROL

by C. J. P. Dodson

(M.G. MAGNETTE)

2ND E. R. Hall

(BENTLEY)

(Subject to official confirmation)

USING

WAKEFIELD Castrol

THE WORLD'S FASTEST OIL

THE ULSTER T.T. RACE—continued.

changing the distributer of his Ford, a component which later gave trouble on the other cars of the team, Barnes' Singer called at the pit with a bad oil leak, and later retired with a blown gasket, while Baker after some wild driving at various points retired with transmission trouble.

The leader card at 12-30 showed an all-round increase of speed, and Dodson had won his way into third place. He recorded the fastest lap in class F, 10-49, while Von der Becke is also hurrying, and Hall completed a lap in 10 mins. 11 secs., or 80.48 m.p.h., which as a performance on a standard sports car speaks for itself.

Leaders at 1 p.m.

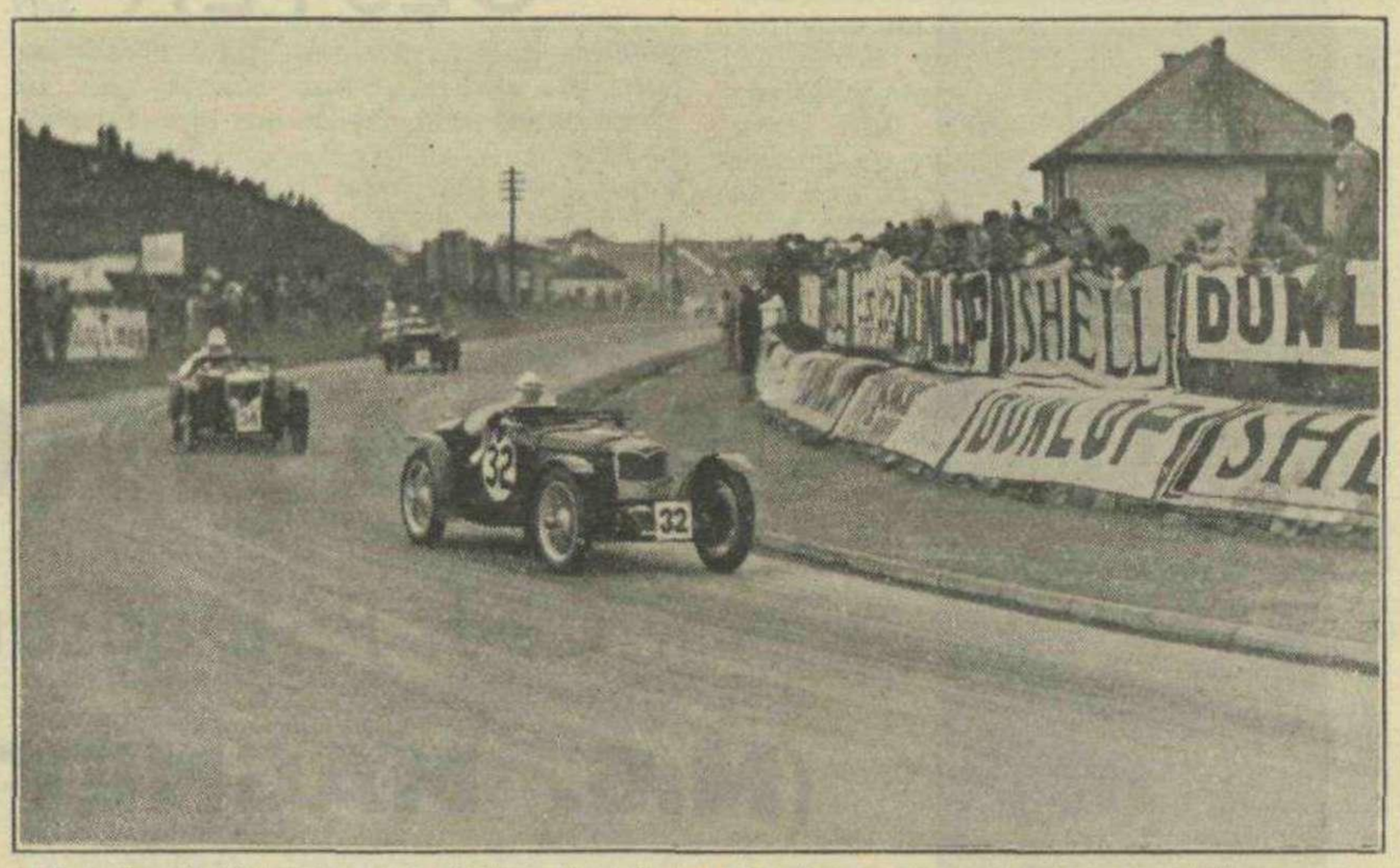
1. Hall (3,669 c.c. Bentley), 80.44 m.p.h.
2. Dodson (1,287 c.c. M.G. Magnette), 74.69 m.p.h. (Time behind leader, 1 min. 6 secs.).
3. Lewis (4,429 c.c. Lagonda), 78.31 m.p.h. (1 min. 24 secs.).
4. Fothringham (1,495 c.c. Aston Martin), 74.9 m.p.h. (1 mins. 31 secs.).
5. Driscoll (1,495 c.c. Aston Martin), 74.6 m.p.h. (1 min. 59 secs.).
6. Eyston (1,287 c.c. M.G. Magnette), 74.14 m.p.h. (2 mins. 2 secs.).

The handicapping this year seems particularly successful, judging by the variety of cars on the leader board, but much would depend on the pit-stops, for in the case of the big cars even two changes of tyres may be called for, as the road surface is this year more abrasive than ever. Mitchell Thomson (Frazer-Nash) is the first to stop, and takes on 10 gallons of petrol and some oil in just over two minutes, while Hall changed all four wheels and took on petrol in 2 mins. 49 secs. He shot off again at great speed, and again had a bad moment at the Moate, which also nearly proved his Waterloo in his duel with Nuvolari in last year's race.

The smartest pit-work we saw was that performed on Rose-Richards' Talbot, when he filled up with 20 gallons of petrol and changed all tyres, getting away in 54 secs. Arthur Fox thought that Brian Lewis and the other members of the Lagonda team could complete the course with only one stop, and so Lewis was not called in until just after 2 p.m., when he took on 24 gallons of petrol, changed wheels, and adjusted brakes in 2 mins. 9 secs.

As a result of his pit-stop, Hall fell back to sixth place, and Charlie Dodson led the field, his best lap being at a speed of 76.36 m.p.h. Hodge on his Singer Nine put in a lap at over 71 m.p.h., but his steering gear collapsed at Ballystockart Bridge, and the car shot into the ditch. The driver escaped unhurt. Everitt, who had been running well, was eliminated by the collapse of a road wheel, Norman Black retired with distributer trouble, and Handley failed to cure the defect in his gearbox.

Speeds continued to mount and Hall lapped in 10 mins. 7 secs., or 81.01 m.p.h.



Von der Becke, who made fastest time in the 1,100 c.c. Class, McClure and Newsome, all on 1,100 c.c. Rileys, taking Quarry Corner.

Von der Becke again recorded best time in the 1,100 c.c. class of 11 mins. 24 secs., while Fothringham, Driscoll and Penn Hughes took it in turns to raise the 1½-litre speeds. The latter recorded 10 mins. 35 secs., or 77.44 m.p.h., while Driscoll had a lucky escape at the Moate, hitting the bank but bouncing off again.

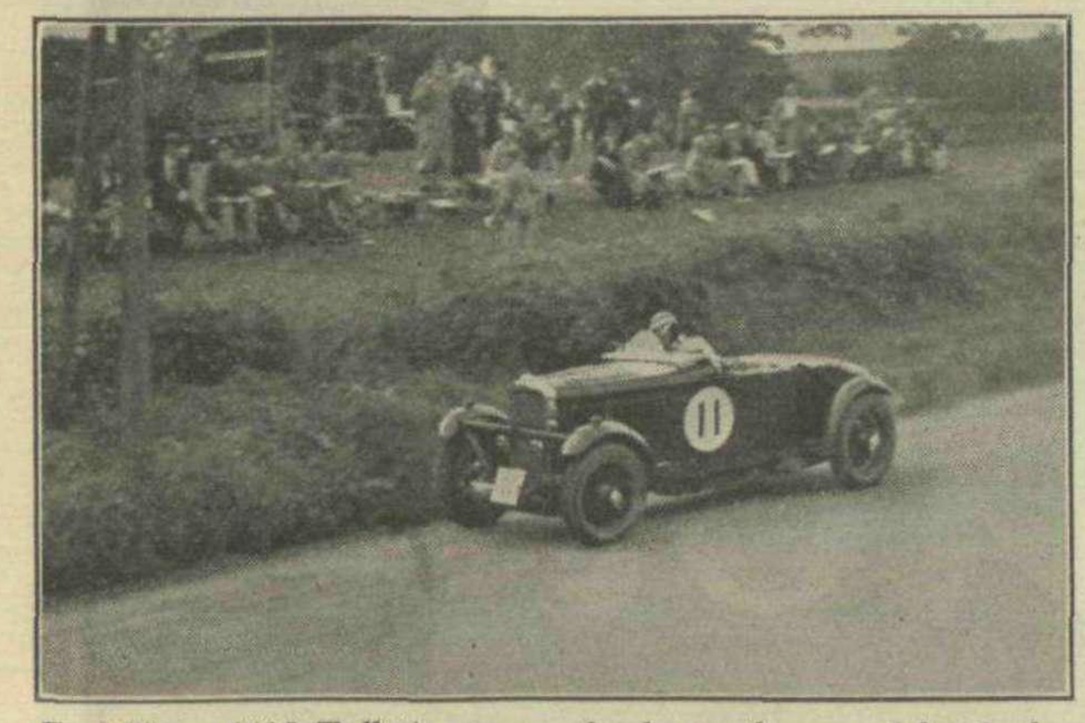
Leaders at 3 p.m.

1. Hall (3,669 c.c. Bentley), 78.68 m.p.h.
2. Dodson (1,287 c.c. M.G. Magnette), 74.36 m.p.h. (Time behind leader, 1 min. 21 secs.).
3. Lewis (4,429 c.c. Lagonda), 77.65 mp.h. (2 mins. 51 secs.).
4. Hindmarsh (4,429 c.c. Lagonda), 77.46 m.p.h. (3 mins. 23 secs.).
5. Fothringham (1,495 c.c. Aston Martin), 74.12 m.p.h. (3 mins. 30 secs.).
6. Driscoll (1,495 c.c. Aston Martin), 73.97 m.p.h. (4 mins. 2 secs.).

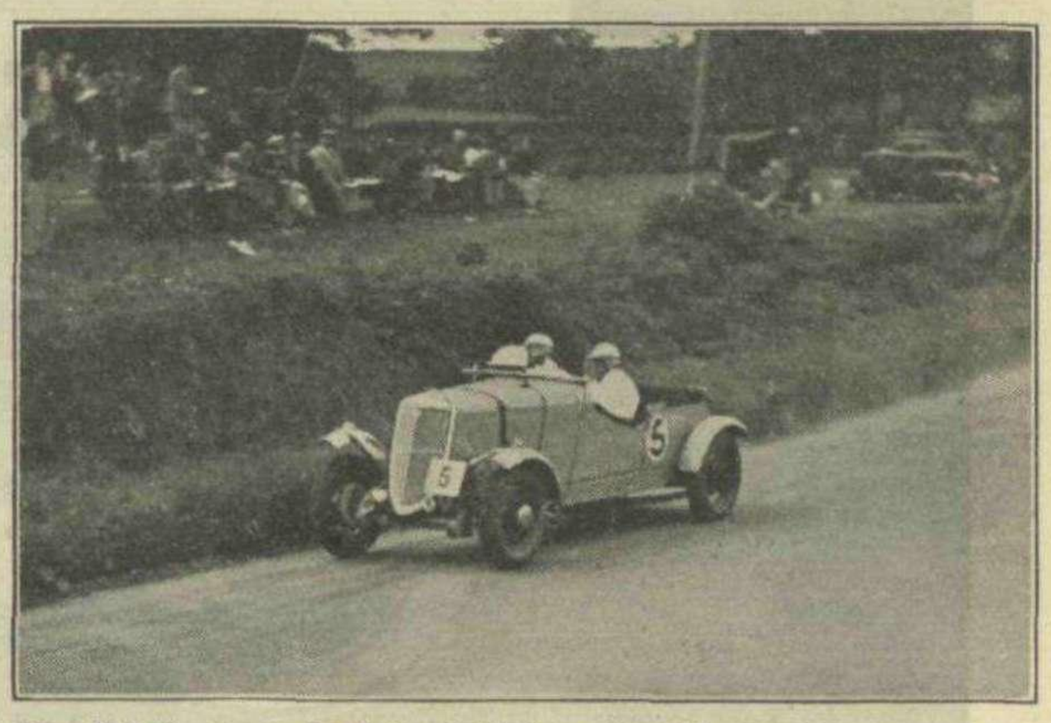
After four hours' running there were still 27 cars in action out of the 40 starters, the latest retirements being Rayson's Invicta with a broken piston, Wright's Ford with ignition trouble and the Rileys of Paul and Staniland with defects respectively in the oiling system and the engine. The Lagonda team was still intact, with Cobb a lap behind his team-mates, the Talbots were lapping as silently as before, the four Frazer-Nashes were still going well, the Astons consistently fast and Dodson and Eyston were keeping M.G.'s well in the picture.

Hall's pit-staff was standing by for a wheel-change, and with loud blasts on the horns the Bentley came in at 3.36.

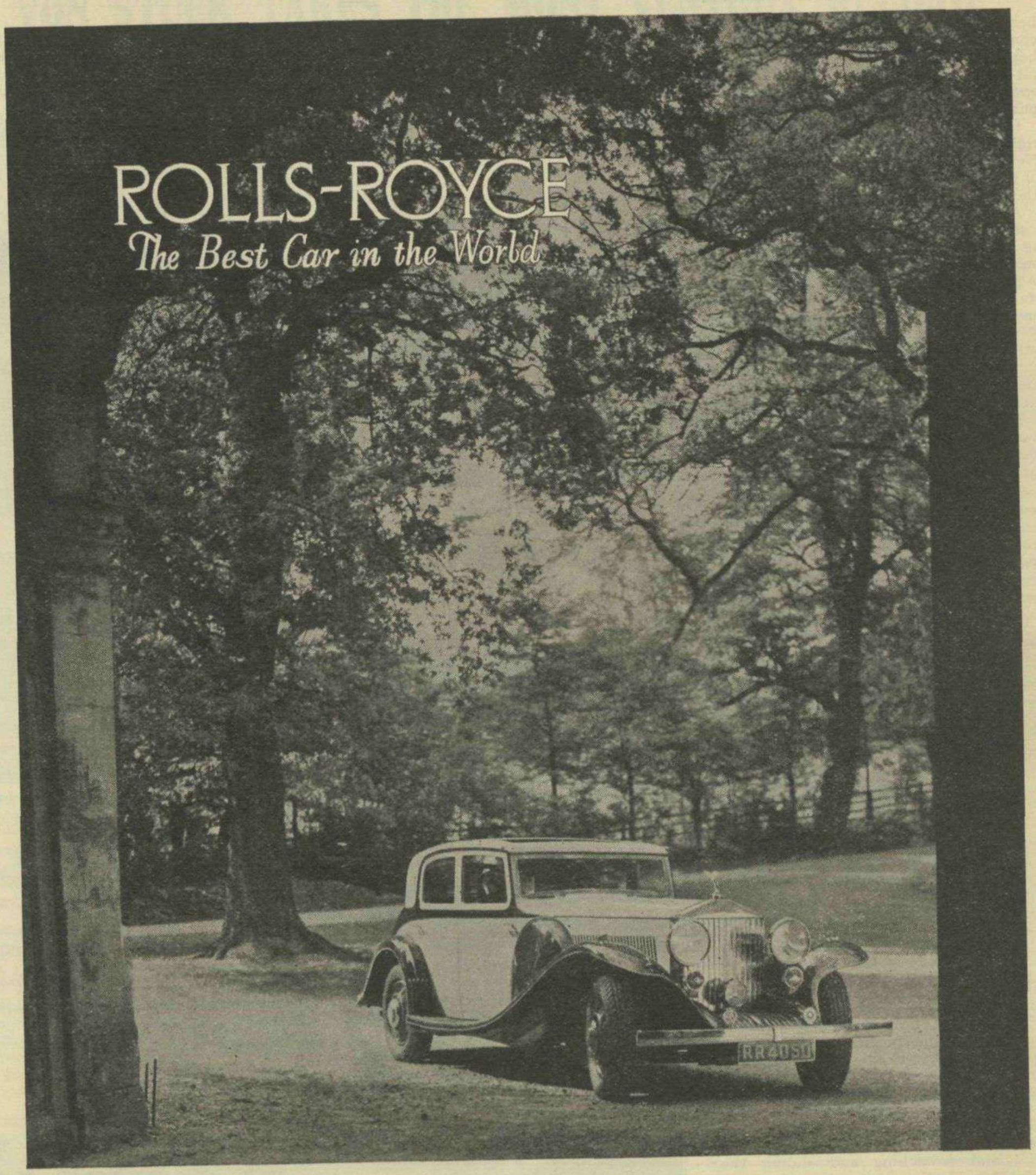
Hall quickly rigged the great square petrol funnel and emptied in eight gallons, but the mechanics got rather confused with the wheel changing, and nearly three minutes was taken for the job, and Brian Lewis was only 20 yards behind when Hall finally pulled out. This was the beginning of a Homeric struggle which lasted for the next five laps, but before describing it, Hall's position is worth considering. Just before he came in the leader board showed him 26 seconds



Earl Howe (105 Talbot) corners closely on the second bend of Bradshaw's Brae.



The V8 Fords made their British racing debut at Ulster. Here is A. S. Wright on Bradshaw's Brae.



"Another surprising feature about Rolls-Royce cars is their uncanny ability to travel uphill just as quickly as they go along the flat. I am, of course, referring to ordinary main road hills such as the famous gradient out of Henley on the road to Maidenhead. Nothing ever becomes fussy, and the tremendous power conveyed to the transmission is so soft and irresistible that one is apt to imagine that nothing very much is happening."—*The Sphere*

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THE ULSTER T.T. RACE—continued.

behind on handicap, while after his wheel-change he was actually about 4 minutes behind Dodson on the road. The slow pit-stop had made his task difficult enough, but before he could set off in pursuit of Dodson, Brian was on him.

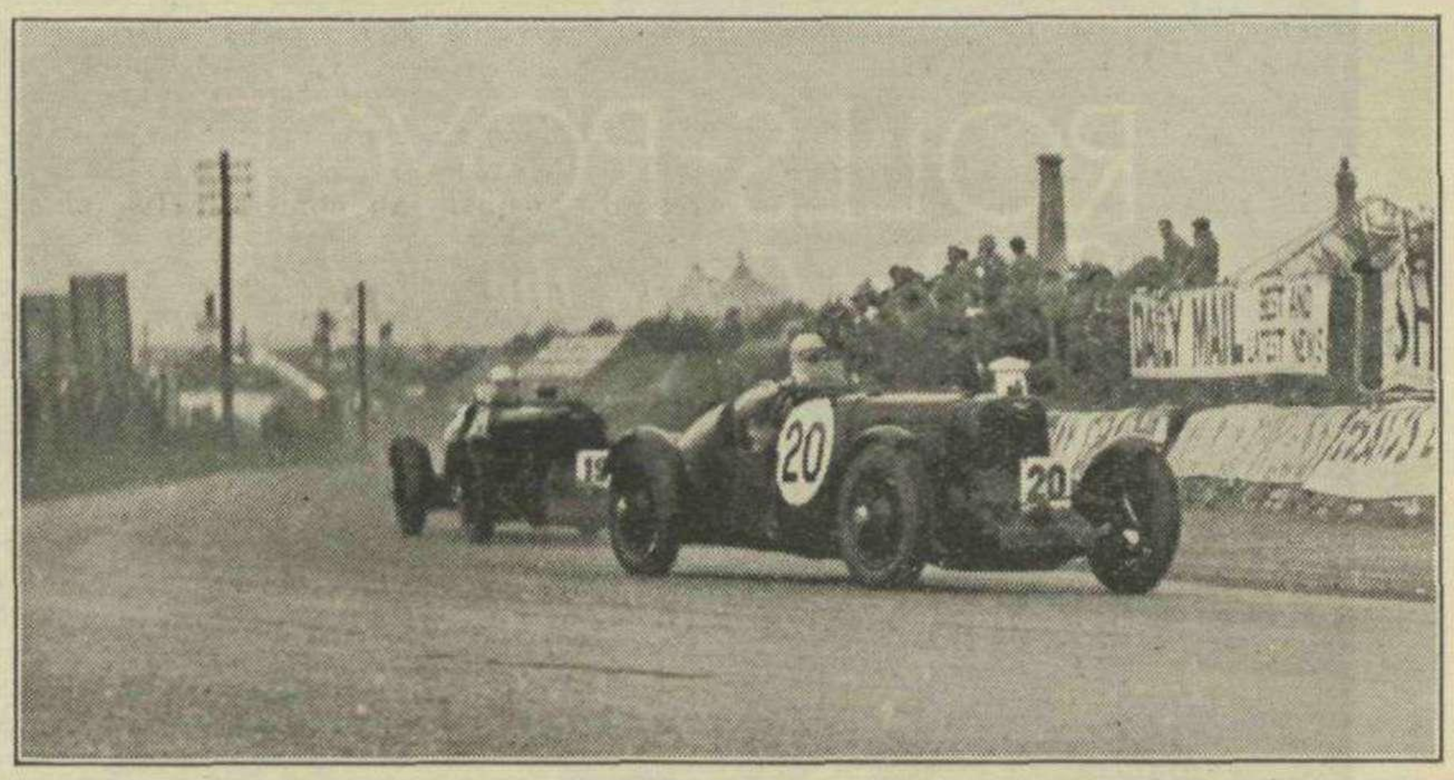
On Bradshaw's Brae the red car was right on the Bentley's tail, and on the Newtownards the slightly superior speed of the Lagonda told, and " No. 1 " gained the lead.

At the stand all eyes were fixed on the last bend, and much waving of blue ag s proclaimed that the fight was still on. Round they came, the red car almost overlapping, and right in front of the stand Lewis overhauled his rival. He was en yards ahead at Bradshaw's, five at Newtownards, a bare length at Comber and only a yard at Ballystockart. Almost abreast they took Dundonald and passed the stand a second time, but Lewis increased his lead, a yard at a time as it seemed from the excited messages which came from the different telephone boxes round the course. The struggle of a lifetime !

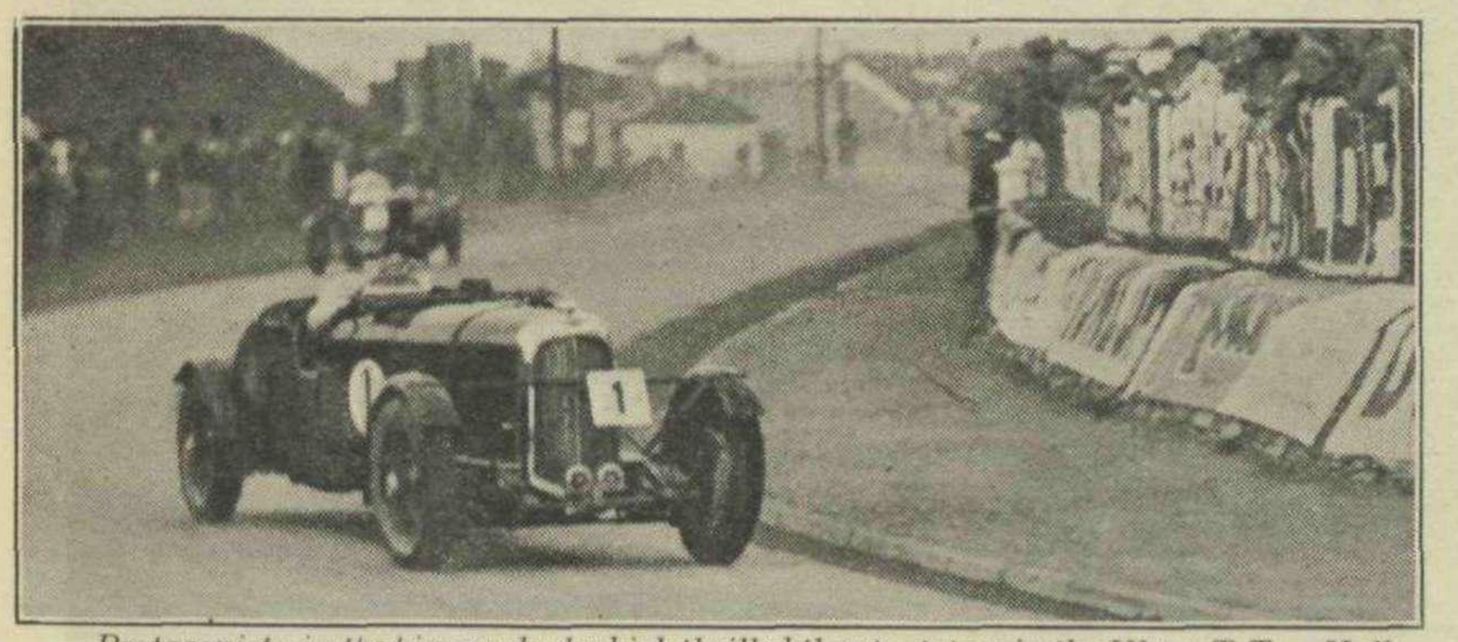
So intense was the excitement that few people had time to study the 4 o'clock positions, but the board showed Dodson now with a lead of 46 seconds over Lewis and 47 over Hall. Neither driver had been given the all-out signal, though it was learnt after the race that Lewis actually had his foot hard down between Ards and Comber. Hall's acceleration was not sufficiently superior as to allow him to pass his rival on the winding section, at any rate until he was given the " all-out " signal. For two more laps the cars were never more than four lengths apart, and on the fifth Lewis roared through Comber still with this advantage. Hall had, however, by this time received " the gun " and wrenching and sliding the submissive Bentley along the snaky and dangerous section towards Dundonald, at last caught the Lagonda, and taking the now-slippery hair-pin as fast as he dared, roared on past the Stands to set up a record lap of 10 mins. 8 secs., or 81.15 m.p.h.

The neck-and-neck struggle was at an end, for there was a patch of white on the Lagonda's near-side tyres, gradually spreading though Lewis eased his furious pace, till with only two laps to go he had to pull into his pits for a second change of tyres. Hall had won the fight, but could he catch the flying Dodson ? On handicap he was 16 seconds behind at 4.30, but on the road 1 mins. 42 secs., with three laps to go. 34 seconds a lap would have been possible at the speeds the cars were travelling, even though Dodson had opened up a little more, and was skating round the corners like one possessed. Eyston, incidentally, had dropped out near Newtownards with engine trouble.

In the excitement of watching the two leading ones one almost forgot what was going on lower down the list. Lewis's pit-stop cost him several places, but by some very rapid driving won back to fourth, just over a minute behind Fothringham who had held that position up to the last half-hour, with Hindmarsh steadily fifth.



Penn Hughes and Driscoll, two members of the successful Aston-Martin team, in action on Quarry Corner.



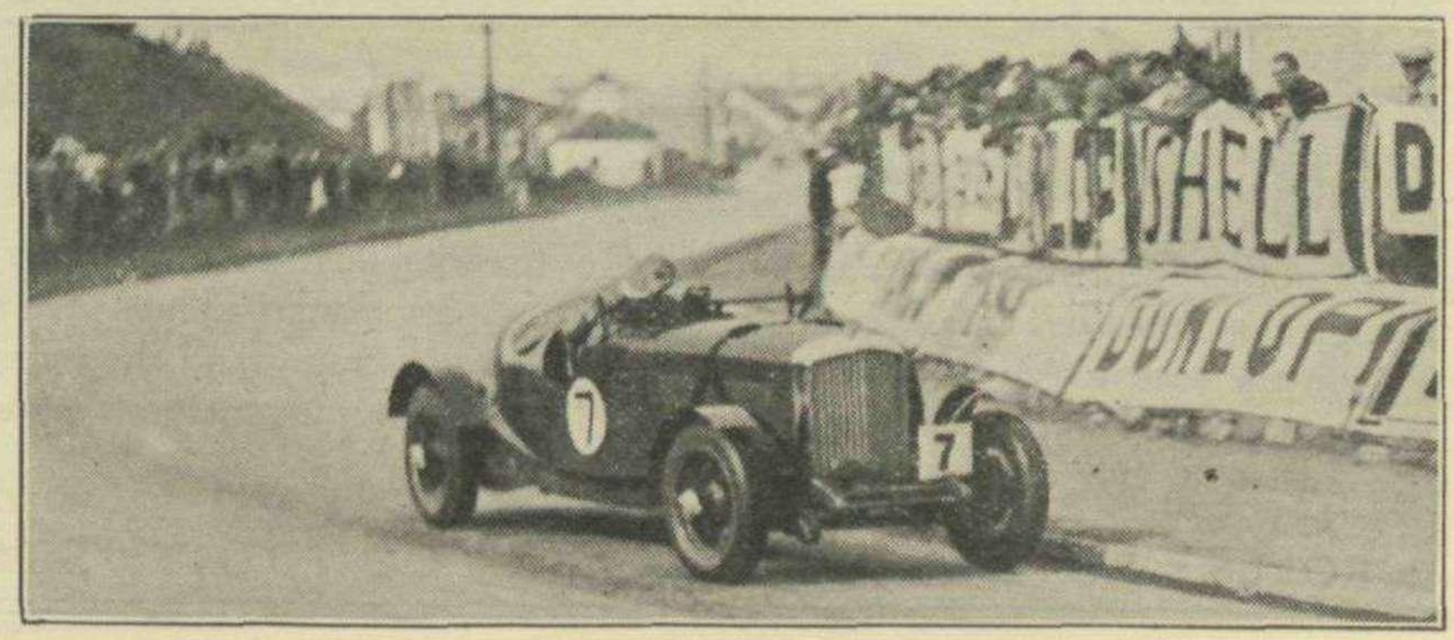
Protagonists in the big-car duel which thrilled the spectators in the Ul ter T.T. Hall (No. 7) on the Bentley and the Hon. Brian Lewis on Lagonda No. 1.

RESULTS.

1. C. J. P. Dodson (1,287 c.c. M.G. Magnette), 6h. 13m. 24s., 74.65 m.p.h.
2. E. R. Hall (3,669 c.c. Bentley), 6h. 13m. 41s., 78.40 m.p.h.
3. T. Fothringham (1,495 c.c. Aston-Martin), 6h. 16m. 15s., 74.53 m.p.h.
4. Hon. Brian Lewis (4,429 c.c. Lagonda), 6h. 17m. 31s., 77.57 m.p.h.
5. J. S. Hindmarsh (4,429 c.c. Lagonda), 6h. 18m. 29s., 77.38 m.p.h.
6. L. P. Driscoll (1,495 c.c. Aston-Martin), 6h. 18m. 47s., 74.03 m.p.h.
7. C. Penn-Hughes (1,495 c.c. Aston-Martin), 6h. 20m. 5s., 73.78 m.p.h.
8. John Cobb (4,429 c.c. Lagonda), 6h. 32m. 23s.,, 74.58 m.p.h.
9. A. W. K. Von der Becke (1,087 c.c. Riley), 6h. 33m. 27s., 70.32 m.p.h.
10. T. E. Rose-Richards (2,969 c.c. Talbot), 6h. 34m. 56s., 73.76 m.p.h.
11. E. McClure (1,087 c.c. Riley), 6h. 37m. 0s., 69.68 m.p.h.
12. P. G. Fairfield (1,087 c.c. Riley), 6h. 43m. 28s., 68.54 m.p.h.
13. The Earl Howe (2,969 c.c. Talbot), 6h. 46m. 20s., 71.67 m.p.h.
14. A. P. Hamilton (1,287 c.c. M.G. Magnette), 6h. 48m. 28s., 68.24 m.p.h.
15. The Hon. Mitchell-Thompson (1,496 c.c. Frazer-Nash), 6h. 48m. 41s., 68.58 m.p.h.
16. S. H. Newsome (1,087 c.c. Riley), 6h. 49m. 8s., 67.57 m.p.h.
17. N. A. Berry (1,496 c.c. Frazer-Nash), 6h. 52m. 22s., 67.95 m.p.h.

TEAM PRIZE.

Aston-Martin.



VON STUCK TAKES THE MONT VENTOUX RECORD

THE Mont Ventoux Hill Climb is one of the longest in the world, being 21 kilometres 600 metres in length. It starts at the pretty little village of Bédoin, at which point the road is 206 metres above sea level. The finish is at the Observatory, at a height of 1,689 metres. For six kilometres the road is fairly level and straight, but at St. Estève the first bad corner is met, and the gradient begins at a degree of 9%. Then it falls a little, only to rise to 10%, finishing at 13% for the last stretch. From St. Estève to the finish there are innumerable corners.



The position of these spectators at the Mont Ventoux Hill Climb is not a matter for congratulating the organisers, but good driving prevented any accidents from occurring. The car is Whitney Straight's Maserati, which made second fastest time of the day.

Last year Whitney Straight astonished everyone by breaking the record with a time of 14 mins. 31.6 secs. The previous record was 15 mins. 12.4 secs., made by Caracciola with a 2.6-litre Monoposto Alfa-Romeo. This year Straight was again on the scene, this time to defend his record against all comers. His chief rival was Hans von Stuck, with an Auto Union, a driver who built up his reputation at hill-climbing before taking a place in the Auto Union team this year.

The weather has played havoc with many events this year, notably the Klausen Hill climb, and sure enough it broke up badly on the day of the Mont Ventoux hill climb. First of all there was sunshine, and this was followed by torrential showers. When the rain stopped a heavy mist rose from the ground, reducing the visibility.

Von Stuck beat Straight's record by nearly a minute with a time of 13 mins. 38.6 secs. Straight himself gave a wonderful display of driving in getting down to 13 mins. 58.8 secs., for his car has not the power of the 16-cylinder Auto Union. A lot of drivers found the slippery state of the corners a treacherous handicap, and made sensational broadsides and circles. No one hurt themselves, however, so there was nothing to worry about.

R. Seaman followed up his success in the Voiturette Class of the Swiss Grand Prix by beating the record in the 1,100 c.c. racing class with a time of 16 mins. 5.8 secs. this being faster than the 1,500 c.c. and 2-litre class winners. He was also faster than Balestrero on a sports type 2.3-litre Alfa-Romeo, who made fastest sports car time in 16 mins. 16 secs.

RESULTS.

Sports.

Over 2-litres.—1, Balestrero (Alfa-Romeo), 16m. 16s., record; 2, Mllé. Hellé-Nice (Alfa-Romeo), 16m. 43 1/5s.; 3, Trintignant (Hudson), 17m. 54.3/5s.

2-litres.—1, Hilsum (Citroën), 19m. 58s.; 2, Genas (Citroën), 20m.; 3, Dumacay (Citroën), 20m. 47.1/5s.

1,500 c.c.—1, Challe (Bugatti), 19m. 31.4/5s.

1,100 c.c.—1, Maillard Brune (M.G.), 18m. 14s., record; 2, Jourdan (Salmson), 18m. 41.3/5s.; 3, Moritz (M.G.), 19m. 2.1/5s.; 4, Nazzaro (Fiat), 19m. 22.1/5s.; 5, Aubert (Aubert), 21m. 12.4/5s.; 6, Del Vigna (Fiat), 24m. 54.3/5s.

Racing.

1,100 c.c.—1, Seaman (M.G.), 16m. 5.4/5s., record; 2, Fenouil (Rosengart), 18m. 58s.; 3, Waltrow (M.G.), 19m. 14.2/5s.; 3, Herkulyns (M.G.), 20m. 18.3/5s.

1,500 c.c.—1, Barowski (Bugatti), 17m. 17s.; 2, Jouve (Miller), 20m. 1.4/5s.

2-litres.—1, Martin (Bugatti), 17m. 50.1/5s.; 2, Moulin (Bugatti), 20m. 24.1/5s.

Over 2-litres.—1, Von Stuck (Auto Union), 13m. 38.3/5s., record 94 km. 380; 2, Straight (Maserati), 13m. 58.4/5s.; 3, Falchetto (Maserati), 14m. 14.2/5s.; 4, Zanelli (Pescara), 14m. 21s.; 5, Delmo (Bugatti), 15m. 6.1/5s.; 6, Rolland (Bugatti), 15m. 14.1/5s.; 7, Delorme (Bugatti), 16m. 42.2/5s.



Whitney Straight's example of using twin rear wheels was emulated at Mont Ventoux Hill Climb by Renoit Falchetto, here seen cornering with his Maserati.

A Disastrous Race in Portugal.

A terrible accident occurred in the first race held on the Circuit of Esponho, in Portugal. A car driven by a man named Canedo collided with another competitor, whereupon it charged into the crowd. Three spectators were killed outright, and twelve others were gravely injured. Canedo himself was uninjured, but the driver of the other car was pretty badly hurt.

Good Road-holding.

Although they have had a good deal of trouble with their engines this year, no one can possibly find fault with the road-holding of the racing Bugattis. All who saw the Grand Prix of Switzerland will remember how fast Dreyfus was on the corners, and I hear that this was largely due to the employment of a hydraulic shock absorber designed by a French engineer named M. de Ram. So impressed were the Ferrari people by the Bugatti suspension that they sent for M. de Ram and gave him instructions for their 3-litre Alfa-Romeos to be similarly equipped in time for the Spanish Grand Prix.

MAKING FAST CARS FASTER

THE modern small sports car is an amazing piece of work. Not only is it extraordinarily fast for a machine of its size, but also it will stand up to the much higher speeds resulting from expert tuning.

This state of affairs was strongly brought home to the writer on a recent visit to the premises of Messrs. Morgans, Ltd., 172, Harrow Road, London. From this tuning works emanated the remarkable M.G. Midget driven by J. Hutton-Potts in the Relay Race, in which it gained a special award for covering 58 laps of Brooklands Track at a speed of 70.84 m.p.h. Another prodigy we saw was the Singer Nine, handled in competitions by E. Hodges. This Le Man's model has lapped Brooklands Track at 86 m.p.h. reaching 90 m.p.h. on the Railway Straight.

With racing cars Messrs. Morgans are just as successful and we saw a very nice Bugatti there (the property of the J.R.D.C.), the very fast little single-seater Austin which had a field day in acceleration races at Brooklands recently, an Invicta, and one of the Crossley Tens which has been fitted with a completely new head.

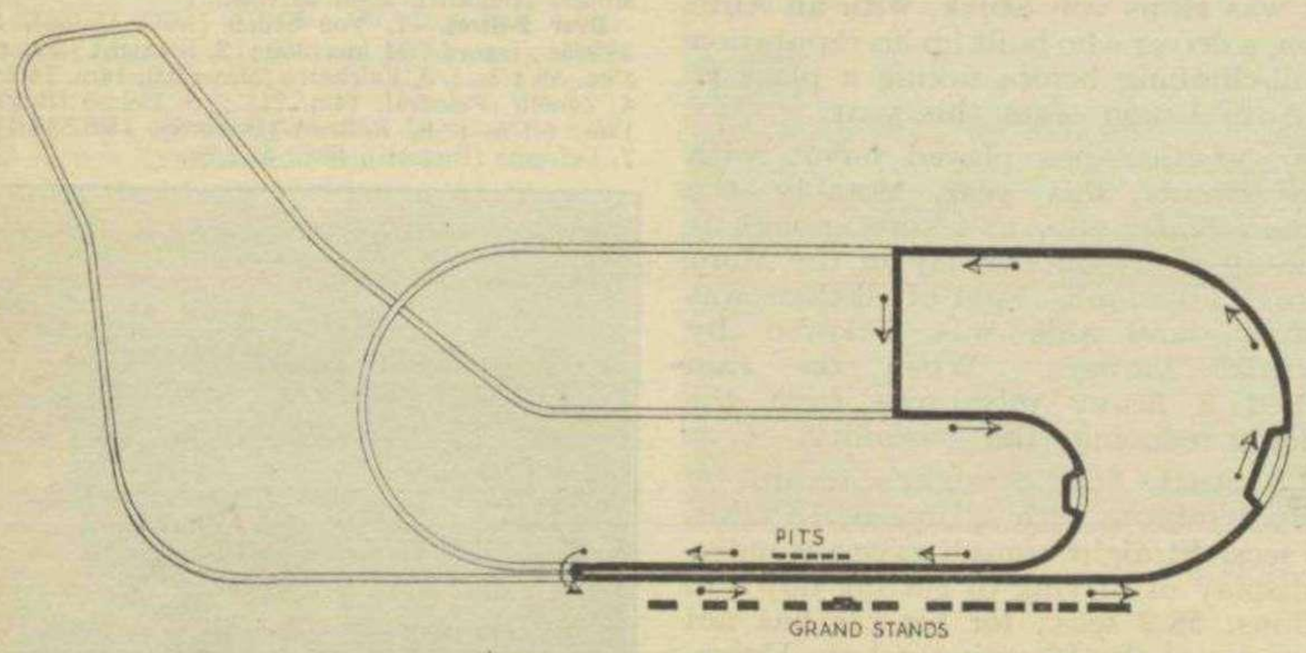
The man responsible for extracting those valuable extra " horses " from cars is Mr. Alec Francis, who has been closely connected with racing since he designed the Beardmore with which Cyril Paul held the Shelsey Walsh record ten years ago. In the intervening years he has been responsible for such cars as Widengren's Amilcar, Humphrey's Amilcar and Bartlett's Salmson, among others. Mr. R. Morgan himself, of course, has been a regular competitor in motor races for many years.

Here is a firm catering for sports car owners, backed up by long experience and first class equipment. Judged purely on results, they are definitely capable of making fast cars faster.

GERMAN SUCCESSES IN ITALIAN GRAND PRIX

CARACCIOLA-FAGIOLI (MERCÉDÈS) AND STUCK-LEININGEN (AUTO-UNION) SECURE FIRST TWO PLACES ON MONZA "OBSTACLE-CIRCUIT"—A FORMIDABLE TEST OF MAN AND MACHINE.

THE dangerous nature of the Monza circuits has been shown very clearly on many occasions, and was emphasised by the fatal accidents in last year's Italian Grand Prix. In order to avoid the much higher speeds which would have been attained by the latest "Bolides" a new course was devised for 1934, taking in the slightly banked south curves of the road and track circuits, which were slowed down by artificial kinks, and finishing up round an acute hairpin at the top end of the wide part of the track between the stands and the pits. The course measured 4.31 kilometres and had to be covered 116 times, giving a total distance of 496 kilometres or 312.5 miles. As events showed, the severity of the obstacles was excessive, and the racing cars, thoroughbreds all, had little chance to demonstrate their qualities of speed and stability.



Plan of the Course.

The entry list was one to cheer the heart of any organiser, and comprised 16 cars, made up as follows :—

Mercéd's-Benz.—Drivers Caracciola, Fagioli and Henne.

Auto-Union.—Drivers Stuck, Momberger and Leiningen.

Alfa-Romeo.—Drivers Varzi, Trossi, Chiron and Comotti.

Maserati.—Drivers Nuvolari, Zehender, Straight and Ruesch.

Bugatti.—Drivers Brivio and Lord Howe.

Nuvolari had a new six-cylinder car of 3½-litres capacity, and the only car of the 16 which did not start was Brivio's Bugatti, on which the supercharger gearing had failed during practising.

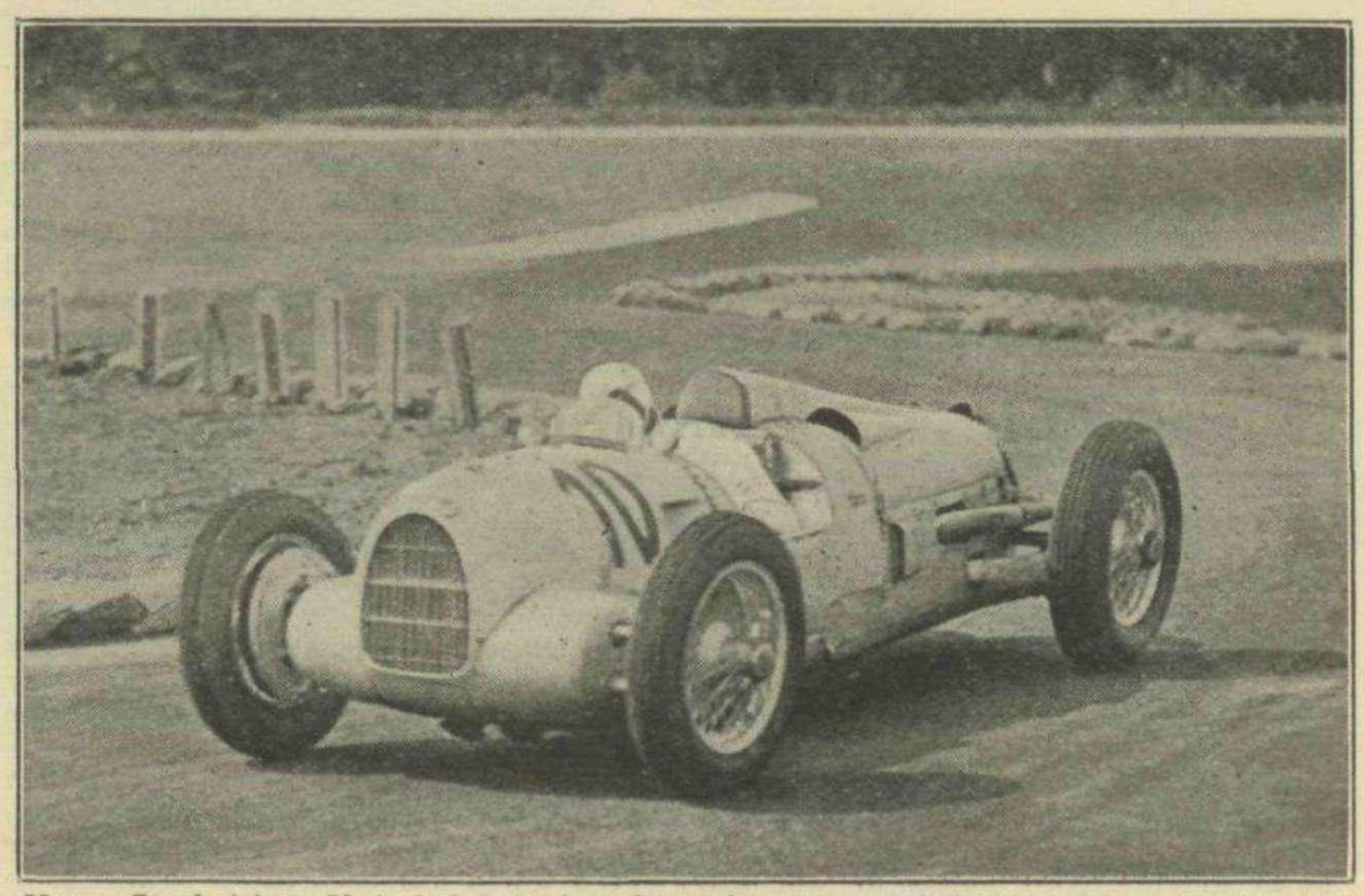
There was little prospect of an Italian victory, but nevertheless immense throngs poured into the Royal Park from an early hour, and the spectators in the stands were roused to a fine pitch of enthusiasm as the cars, their drivers, and their mechanics filed past on their way to the starting line, led by the Alfa-Romeo team, followed by the Auto-Unions, as Stuck had made the record lap of 2 mins. 15 secs. or 71.22 m.p.h. Each group as they passed the official stand raised their arms in the Fascist salute, while a massed band played the appropriate national anthem.

The starting order had been determined by ballot, and the cars were drawn up by threes and twos. Caracciola and Varzi were alone in the front row, as Brivio was a non-starter, then came Nuvolari and Henne, on the third Mercédès, who had already been in trouble at one of the "kinks," turned round at the hairpin just in front of Chiron and Straight, and hit the tail of Trossi's Alfa, which also turned round and stalled in the fairway. The radiator of the Merc. was damaged and Henne retired a few laps later to the relief of all concerned.

On the second lap Stuck was drawing away from Varzi, and Caracciola was challenging Nuvolari for third place. He passed him a lap later but was overtaken again, but by the fifth lap he forced his way into second place, with Varzi and Nuvolari fourth and fifth. These two engaged in a wheel-to-wheel struggle for the next few laps, and the six-cylinder Maserati showed itself quite the equal of the Alfa, but on the tenth lap their private battle was interrupted by Leiningen, who overtook them both, thus securing the first three places for Germany. The times for the first ten laps were Stuck (Auto-Union) 23 mins. 46 secs. (67.95 m.p.h.), Caracciola 24 mins. 6 secs., Leiningen 24 mins. 12 secs., Nuvolari 24 mins. 15 secs., Varzi 24 mins. 19 secs., Fagioli 24 mins. 34 secs.

Stuck found no difficulty in drawing away from Caracciola, and after a record lap by the former in 2 mins. 13⅗ secs. (72.59 m.p.h.) both of them settled down to a slower pace; on the 11th lap Fagioli retired with engine trouble, leaving "Caratsch" the only representative of the Mercédès team still running. Leiningen then began to press him, while Momberger on the third Auto-Union was closing up fast on the warring Nuvolari and Varzi, and on the 19th lap passed both, so that the Germans now held the first four places.

Momberger dropped back to 8th on the 38th lap, when he came in to adjust his brakes and hand over to Sebastian, and Nuvolari made a rapid refill and changed two tyres in 1 min. 14 secs. Stuck kept steadily on his way and lapped Varzi on his 42nd lap, but his brakes were slowing him. Zehender was at the pits with faulty brakes, and Comotti's engine backfired and started to blaze, but the flames were quickly put out. The order at the 50th lap was as follows :—Stuck 1 hr. 58 mins. 56 secs. (67.92 m.p.h.), Caracciola 1 hr. 59 mins. 48 secs., Leiningen 2 hrs. 9 secs., Varzi 2 hrs. 1 min. 50 secs., Trossi 2 hrs. 2 mins. 29 secs., Momberger-Sebastian 2 hrs. 4 mins. 39 secs., Nuvolari 2 hrs. 4 mins. 53 secs., Straight 2 hrs. 5 mins. 50 secs., Comotti, 2 hrs. 6 mins. 25 secs., Ruesch 2 hrs. 7 mins. 35 secs., Chiron 2 hrs. 9 mins. 17 secs., Zehender 2 hrs. 12 mins. 47 secs., Howe 2 hrs. 19 mins. 35 secs.



Hans Stuck (Auto-Union) led during the early stages and finished 2nd. He has just left the slightly banked track and is negotiating on the artificial bends created for the Italian Grand Prix.

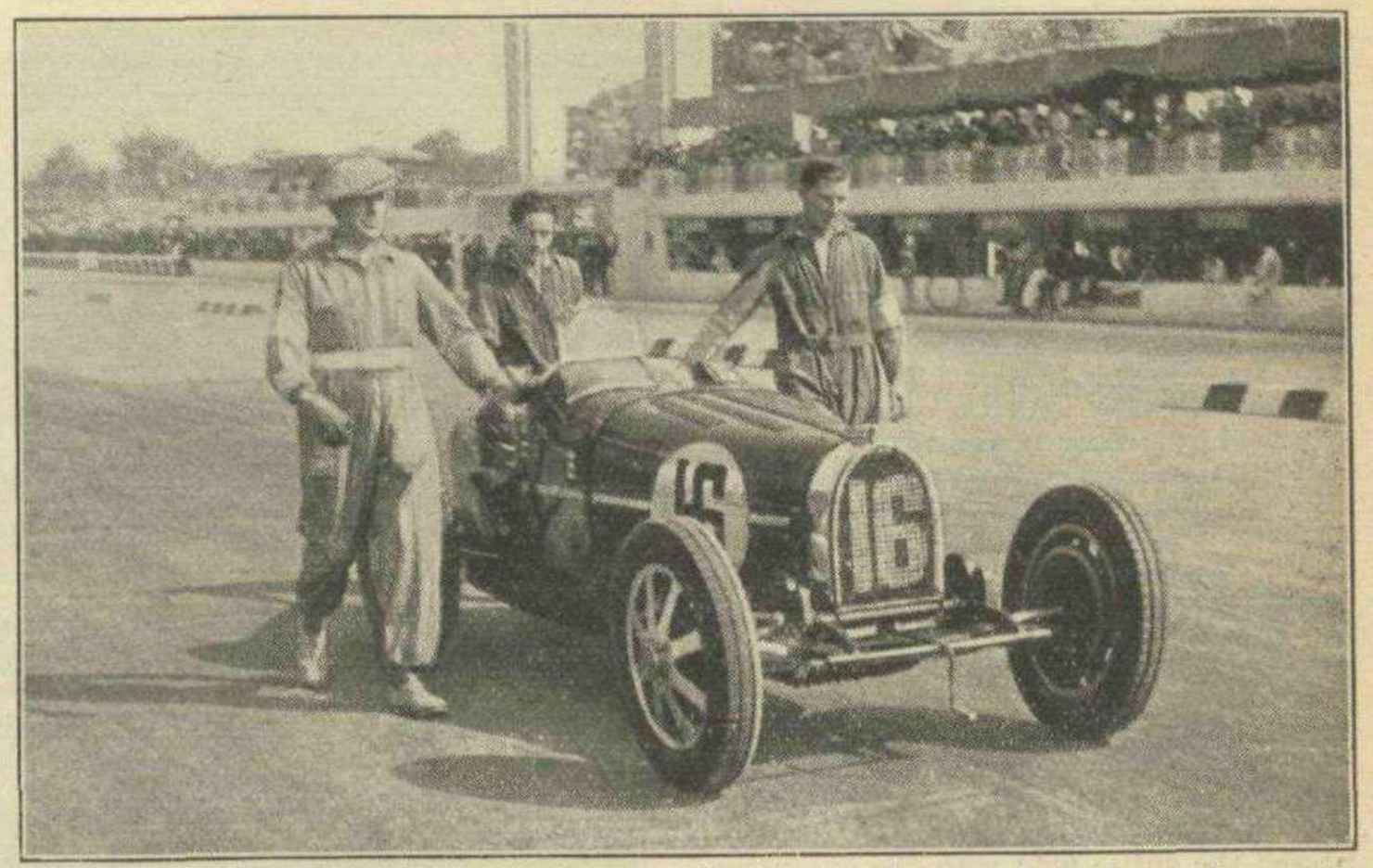
GERMAN SUCCESSES IN THE ITALIAN G.P.—continued.

Most of the cars refuelled at half-distance, and seconds lost in this operation were to prove vital later on. Trossi and Sebastian filled up and changed all tyres in, respectively, 2 mins. 23 secs. and 2 mins. 20 secs., but Stuck was more leisurely and took 2 mins. 43 secs.; the Mercédès pit hummed like a beehive two laps later, and Fagioli was at the wheel and away in 2 mins. 12 secs., an advantage which Stuck could ill-afford to yield. Leiningen ran out of petrol and retired, which let Varzi into third place. Then Stuck was again called into the pit, and handed over to Leiningen, but over two minutes was lost in restarting the engine, and this and the Auto-Union's weakening brakes still further reduced its chances of catching Fagioli. Varzi now took second place, which raised for a time the hopes of the Italians, but as had been feared, the extra power which his car was developing proved too much for the gearbox, and he retired some 15 laps before the end. Trossi was going well, but Nuvolari's brakes had failed completely, and he depended entirely on his gearbox to slow him down on the corners.

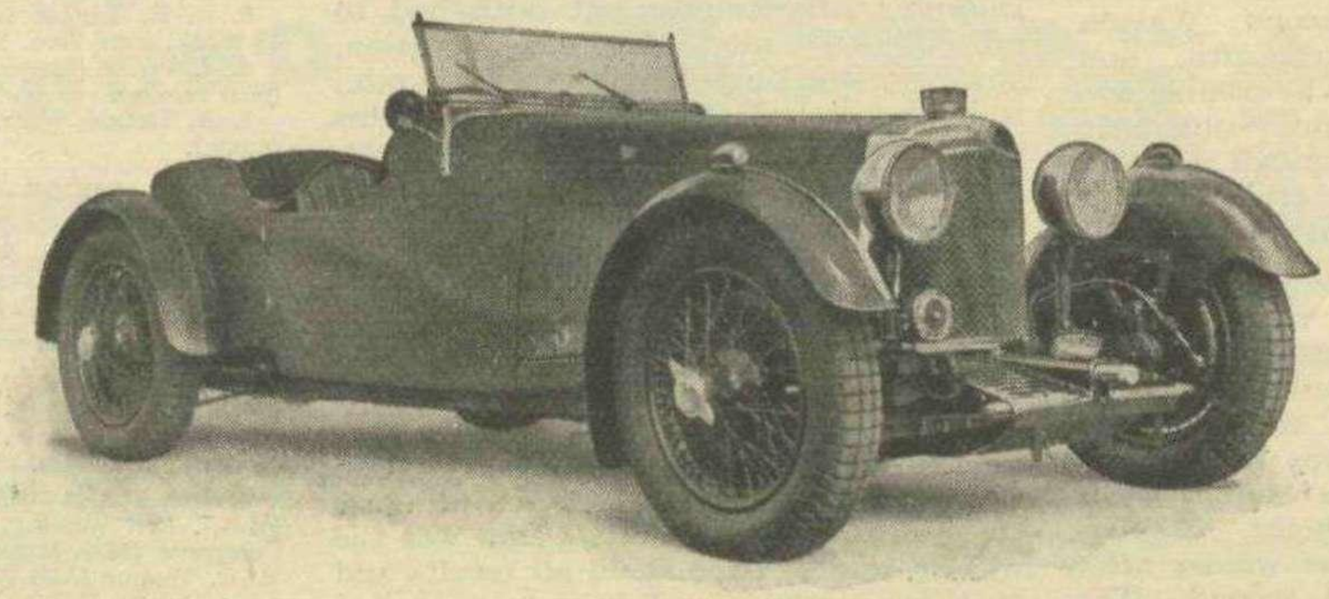
The final stages of the race were uneventful. Fagioli slowed down and finished comfortably in the lead, Stuck passed Trossi to secure second place as the latter was handing over to Comotti, and Nuvolari achieved a well-deserved fourth place. Rarely have brakes—or drivers either—received such a testing, and Caracciola's right leg had almost given under the strain, while Stuck was in considerable pain during the last part of the race owing to being scorched by oil which sprayed over his leg from a leaky pipe. All credit therefore to the five, Chiron, Nuvolari, Straight, Ruesch, and Lord Howe, who drove single-handed throughout the race.

THE FINISHERS.

1. R. Caracciola—L. Fagioli (3-8-litre Mercédès-Benz), 116 laps in 4 hrs. 45 mins. 47 secs. (65.37 m.p.h.).
2. H. Stuck—P. von Leiningen (5-litre Auto-Union), 115 laps, 4 hrs. 47 mins. 25⅕ secs. (64.31 m.p.h.).
3. F. Trossi—Comotti (3-litre Alfa-Romeo), 114 laps, 4 hrs. 45 mins. 49 secs. (64.12 m.p.h.).
4. L. Chiron (3-litre Alfa-Romeo), 114 laps, 4 hrs. 45 mins. 59⅛ secs. (64.06 m.p.h.).
5. T. Nuvolari (3½-litre Maserati), 113 laps, 4 hrs. 46 mins. 45⅝ secs. (63.45 m.p.h.).
6. F. Comotti-Marinoni (3-litre Alfa-Romeo), 113 laps, 4 hrs. 47 mins. 27 secs. (63.19 m.p.h.).
7. Momberger—Sebastian (5-litre Auto-Union), 112 laps, 4 hrs. 47 mins. 27⅛ secs. (62.63 m.p.h.).
8. W. Straight (3-litre Maserati), 112 laps, 4 hrs. 47 mins. 27⅜ secs. (62.62 m.p.h.).
9. H. Ruesch (3-litre Maserati), 105 laps, 4 hrs. 48 mins. 20 secs. (58.72 m.p.h.).
10. Earl Howe (2.3-litre Bugatti), 104 laps, 4 hrs. 48 mins. 28 secs. (58.19 m.p.h.).



Earl Howe, the only English competitor, passing the crowded grand-stands on the way to the starting line. The pits, which are handsome concrete structures, will be noticed in the background.



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LAP-SCORING INACCURACIES IN BOTH JUNIOR AND SENIOR RACES SPOIL AN OTHERWISE ENJOYABLE DAY'S SPORT—FINE DRIVING BY G. F. A. MANBY-COLEGRAVE (M.G. MAGNETTE).

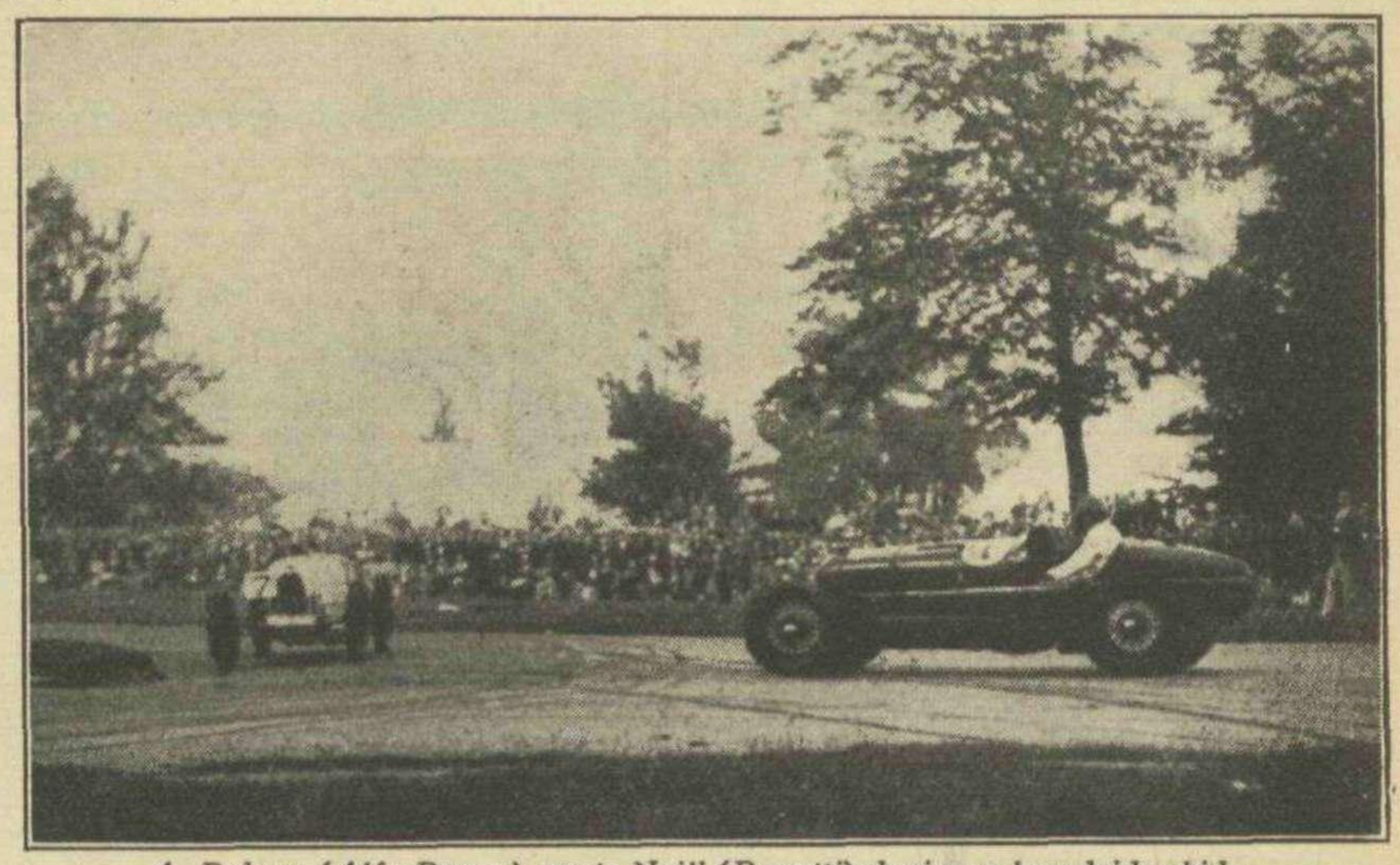
A REALLY bad mistake in lap scoring seldom occurs in motor-races, and at most it is generally confined to the position of one or two cars. But at Phœnix Park last month every car in both races of the programme was involved, and at one juncture the Junior race was in danger of being declared void. The Irish Motor Racing Club, who organised the event, came in for a good deal of criticism both from the drivers and the spectators, particularly as neither race had a large field and the number of laps was only small.

In the Junior event there were 19 starters, with W. F. Earney's Amilcar as limit man and G. F. A. Manby Colegrave's M.G. Magnette on scratch. The latter had to cover 18 laps, and the handicap was arranged by means of credit laps. At the half-distance Earney was still in the lead, followed by C. W. Taylor (Singer), F. O'Connor (Singer), D. Yule (Austin) and J. Wasson (Singer) in a close group. Manby Colegrave was extremely fast, however, and his Magnette quickly began to overhaul the stragglers. Taylor fell out with brake trouble, allowing A. P. Huet (M. G. Midget) to take 4th place. It soon became evident that Manby-Colegrave would win through from scratch, and on the 16th lap he had passed the entire field with the exception of Earney's old Amilcar. He made a new lap record at a speed of 88.7 m.p.h. Then came sensation! The chequered flag was produced and waved at all the passing cars. Now this made Earney first, Manby-Colegrave second, Wasson third, Yule fourth, Huet fifth, and Flt. Lieut. Briggs sixth. The trouble was that Manby-Colegrave would obviously have caught Earney if the full distance had been covered, and the other placings might easily have been modified.

The utmost confusion in the minds of everyone followed, and the Stewards hastily declared the race void. But this wouldn't do, and the result of the race was deferred for further consideration. For the spectators this was exceedingly disappointing, because the result was not announced until late that night. Manby-Colegrave was declared the winner after all, with Earney a good second. The race was marred by a bad accident when the cars driven by "A. Corry" and A. R. Finlay collided, the latter's machine charging the crowd and injuring six spectators.

This initial error seemed to upset the timekeepers completely, and only led them to falter again in the Senior Race. There were 29 starters, and for over half the race the lead was held by two stripped Chryslers piloted by J. M. Smith and J. G. Bailey. The two fastest cars were Manby Colegrave's Magnette and A. Dobson's Alfa-Romeo, but both had to call at the pits. On one occasion, however, Dobson did a lap at 94.7 m.p.h., which is the fastest ever recorded on this circuit. The race was devoid of accidents, which was extremely fortunate in view of the disaster earlier in the day, but Manders's Delage was very effectively burnt out.

Bailey's Chrysler led until near the end, when a big end went. He then gave the lead to Delap's Riley. The race was over a distance of 24 laps, and the first man to be flagged in was M. J. Hynes on the rapid Statham-Ford. According to the timekeepers, however, Delap was the winner, and so once again all results and previous communications were cancelled to allow a thorough investigation to be held. After a heated discussion the revised results were announced, showing Hynes to be the winner at a speed of 80.2 m.p.h.



A. Dobson (Alfa-Romeo) meets Neill (Bugatti) during a broadside skid.

RESULTS.

Wakefield Trophy (for the best performance of the day on handicap): 1, G. F. A. Manby-Colegrave (M.G. Magnette); 2 (on handicap), F. W. Earney (Amilcar); 3 (on handicap), M. J. Hynes (Statham-Ford).

FINISHING TIMES SENIOR RACE (100 MILES).

1. M. J. Hynes (Statham-Ford), handicap 3 laps 1 min., gross time 68m. 30s. (80.2 m.p.h.)
2. Alan Corry (M.G. Magna), handicap 4 laps 30 secs., time 68m. 49s. (76.5 m.p.h.).
3. R. E. Tongue (Aston-Martin), handicap 3 laps 1½ mins., time 70m. 55s. (76.85 m.p.h.).
4. J. Wasson (Singer), handicap 6 laps, time 71m. 17s. (66.9 m.p.h.).
5. A. Dobson (Alfa-Romeo), time 71m. 40s. (88.7 m.p.h.).

JUNIOR RACE (75 MILES).

1. G. F. A. Manby-Colegrave (M.G. Magnette), scratch, time 50 m. 57s. (87.5 m.p.h.).
2. F. W. Earney (Amilcar), handicap 6 laps, time 51m. 40s. (56.2 m.p.h.).
3. J. Wasson (Singer), handicap 3 laps, time 54m. 3s. (67.0 m.p.h.).
4. D. Yule (Austin), handicap 3 laps, time 54m. 4s. (66.99 m.p.h.).
5. Flight Lt. L. R. Briggs (M.G.), handicap 2 laps 1½ mins., time 54m. 22s. (69.1 m.p.h.).

Scratch Classes—850 c.c.: Flight Lt. L. R. Briggs (M.G.), 69.1 m.p.h. **1,100 c.c.:** G. F. A. Manby-Colegrave (M.G. Magnette), 87.5 m.p.h. **2,000 c.c.:** R. E. Tongue (Alfa-Romeo), 76.8 m.p.h. **Over 2,000 c.c.:** Austin Dobson (Alfa-Romeo), 88.7 m.p.h.

Record laps.—3,000 c.c.: Dobson (Alfa-Romeo), 94.7 m.p.h. **2,000 c.c.:** McCalla (Sunbeam), 84.7 m.p.h. **1,100 c.c.:** Manby-Colegrave (M.G. Magnette), 88.7 m.p.h.

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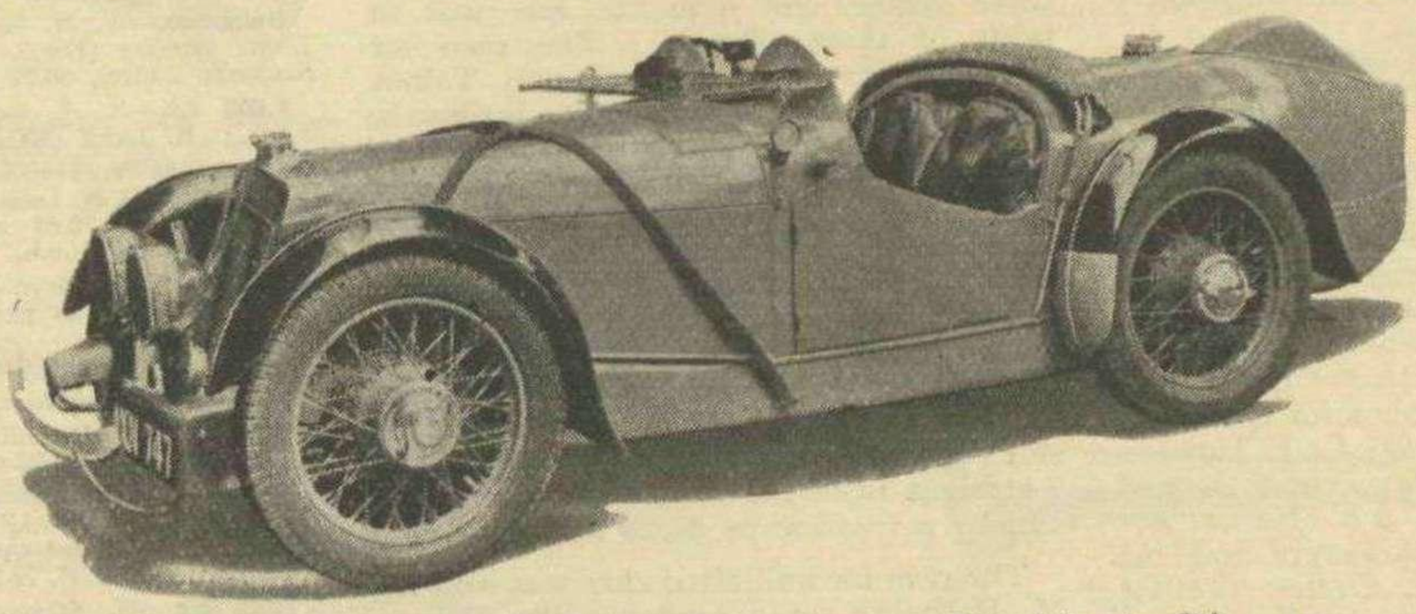
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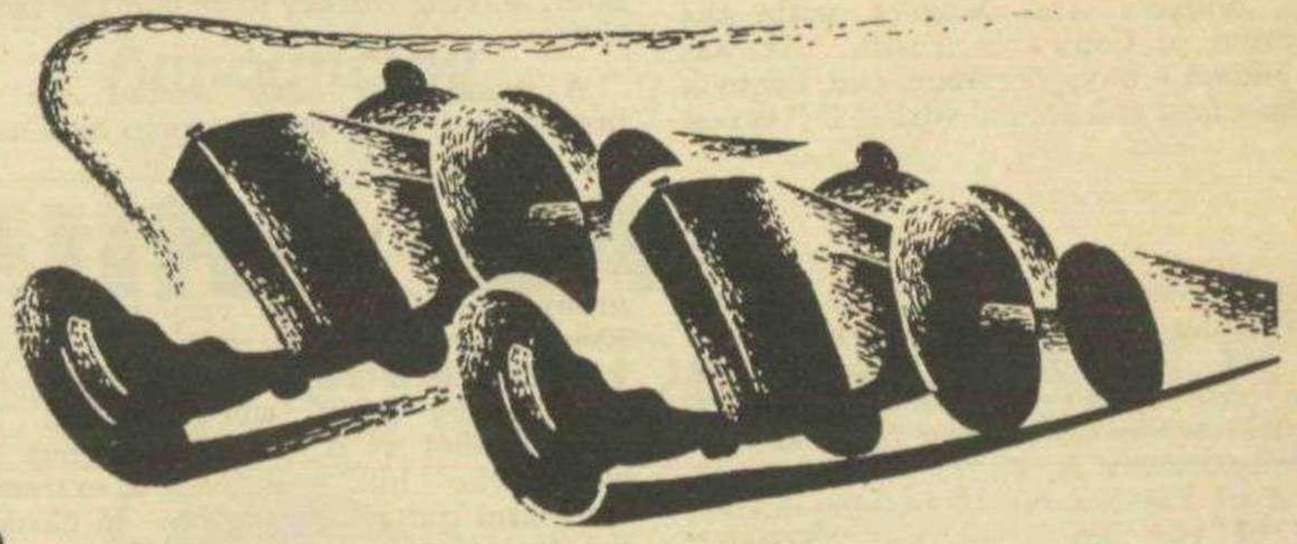


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THE M.C.C. ANNUAL "BLIND"

ONCE a year the members of the M.C.C. congregate in force at Brooklands Track for a meeting of their own, at which the chief events are the One-Hour Trials. There used to be only one of these Trials on the programme, but so popular have they become in the last year or so that the huge entry has to be split into two.

Fifty cars lined up in rows at the Fork on September 8th, and at 11 o'clock the pack was unleashed. Soon they were strung out all round the outer circuit, most of them trying as hard as they could to put as many miles behind them as possible. Although these Trials are not races, it is difficult indeed for proud owners to resist a combat with a rival *marque*, with the result that "dog-fights" were waged by little groups for the whole hour. The fastest car was C. J. Turner's 4½-litre Le Mans Bentley, which lapped for some time at 103 m.p.h. He did not maintain this speed, however, and his retirement gave W. M. Couper (Talbot 105) the honour of making the fastest average of the First Trial at 85.06 m.p.h.

The rest of the morning was given up to a series of 2-lap handicaps, all of which provided good sport. W. M. Couper again distinguished himself by winning the first of these races from the 25 secs. mark, beating G. E. Ferguson's speed Twenty Alvis by a narrow margin. The afternoon programme opened with some very interesting 1-lap scratch races, which brought together many sports cars of similar capacity. There was a terrific field in the 1,100 c.c. race, all M.G. Midgets and Singers with the exception of Conway's Austin. It was the Midget's day, Toulmin and Bastock finishing first and second with "P" types.

The 1,300 c.c. race was a walk-over for the two "N" type M.G. Magnettes, driven by R. C. Elwes and A. N. L. Maclachlan, which romped home a long way ahead of the rest. The 1,650 c.c. race turned out to be a Frazer Nash-Singer duel, and after a ding-dong struggle three Nashes got over the line just in front of three Singers. The race for Lagonda, Terraplane, Ford and Talbot cars, was most instructive. The Railton's, handled by Marker and Strang, seemed to lead slightly at the start, with Whalley's Ford and Couper's Talbot close behind. On the Railway Straight, Marker had a clear lead from Strang, but Couper was slowly drawing up. Yard by yard he gained ground, and soon passed Strang. Marker was still ahead at the Aeroplane Sheds, and the two came off the Byfleet side by side. Then the green Talbot, "straight from the Alps," scraped by to win by a fraction at 80.20 m.p.h.

The race for unlimited cars was won by M. Bardolph on a workmanlike 6½-litre Speed Six Bentley, with a white body similar to that of the 2-seater S.S.K. Mercédes-Benz. His speed of 81.77 m.p.h. was the fastest recorded in the series. Then came the second One-Hour Trial, and for sixty minutes the track was sprinkled with revving sports cars of all sizes. A. B. Gilbert led the field for several laps on his Talbot 105, but then H. J. Aldrington (Frazer Nash), slipped by and stayed in front for the rest of the time. The latter pulled in when he was two laps in hand, not waiting to complete the hour, leaving Gilbert to record the fastest time.

A team-relay race wound up the proceedings, and turned out to be a hand-some victory for the three Railton Terraplanes, driven by Strang, Marker and Cushman.

ABBREVIATED RESULTS.

First One-Hour Trial.

Three fastest cars in each class.

Unlimited.—W. M. Couper (Talbot), 85.06 m.p.h.; J. W. Whalley (Ford), 81.09 m.p.h.; A. D. Jaffe (Lagonda 2-litre), 80.72 m.p.h.

1,600 c.c.—R. J. Barton (Aston-Martin), 82.40 m.p.h.; H. Laird (McEvoy Special), 79.84 m.p.h.; D. A. Aldington (Frazer Nash), 79.43 m.p.h.

1,100 c.c.—D. N. Leon (M.G.), 73.46 m.p.h.; L. A. Dennis (Riley), 72.64 m.p.h.; J. H. Whittindale (Triumph), 69.17 m.p.h.

850 c.c.—V. H. Seyd (M.G.), 79.36 m.p.h.; J. C. Elwes (M.G.), 74.33 m.p.h.; R. D. Tong (M.G.), 68.50 m.p.h.

Second One-Hour Trial.

Three fastest cars in each class.

Unlimited.—A. B. Gilbert (Talbot), 86.79 m.p.h.; P. Hardy (Talbot), 84.27 m.p.h.; H. A. Nash (Talbot), 82.32 m.p.h.

1,600 c.c.—H. J. Aldington (Frazer Nash), 86.77 m.p.h.; C. H. Wood (Aston Martin), 78.43 m.p.h.; J. D. Barnes (Singer), 78.37 m.p.h.

1,100 c.c.—H. Stevenson (M.G.), 74.49 m.p.h.; R. M. Andrews (Triumph), 70.28 m.p.h.; F. R. Gerard (Riley), 70.14 m.p.h.

850 c.c.—H. G. Symons (M.G.), 73.07 m.p.h.; G. H. R. Chaplin (Austin), 70.64 m.p.h.; D. Clare (M.G.), 68.60 m.p.h.

WINNERS OF TWO-LAP HANDICAPS.

W. M. Couper (2,970 c.c. Talbot), 25s., 86.62 m.p.h.
T. L. Goozee (3,622 c.c. Ford), 35s., 78.67 m.p.h.
C. W. Sewell (2,511 c.c. Alvis), 6s., 76.15 m.p.h.
F. H. Dupre (2,565 c.c. Rover), 4s., 73.67 m.p.h.
C. W. E. Windsor-Richards (4,234 c.c. Vauxhall), scratch, 71.05 m.p.h.

WINNERS OF ONE-LAP SCRATCH EVENTS.

J. M. Toulmin (847 c.c. M.G.), 65.52 m.p.h.
R. C. Elwes (1,286 c.c. M.G.), 68.22 m.p.h.
H. E. R. Torin (1,496 c.c. Frazer Nash), 70.24 m.p.h.
W. M. Couper (2,969 c.c. Talbot), 80.20 m.p.h.
M. Bardolph (6,597 c.c. Bentley), 81.77 m.p.h.

WINNERS OF THREE-LAP TEAM RELAY.

R. R. K. Marker, R. M. Strang, and L. A. Cushman (Railton Terraplanes), 79.68 m.p.h.

BUGATTI OWNERS AT LEWES

SOME very fast speeds were put up at the Race Hill, Lewes, on Saturday, September 8th, the occasion being the meeting organised by the Bugatti Owners Club. For the first time in many moons R. G. J. Nash was deprived of the honour of making fastest time of the day, and his "Spook" Anzani-Nash had to bow the knee to J. Lemon Burton, C. E. C. Martin, and A. H. L. Eccles, all on Bugattis.

After the touring and sports classes had had their fun, the racing cars began to show what speed really was. Davis's G.P. Delage, Burton and Nash all went well, with Burton taking this 1,500 c.c. class in 21.51 secs. There were only two categories, and the 1,500 c.c.-5,000 c.c. group produced some very close times. Esson Scott's black two-litre Bugatti was impressive in recording 21.08 secs., assisted by twin wheels. Nash had another shot at it, but petered out half way up the "hill." Eccles was extremely fast—and quite unobtrusive—in clocking the fastest time so far, 20.35 secs., but he was eclipsed by Charles Martin, whose "2.3" snaked off the mark to record 20.13 secs. The record for the course, by the way, is 20 secs. dead, made by Nash on the "Terror."

The Novices Class went to L. E. Bachelier, with Joyce Houldsworth second, while the Handicap event was won by S. R. Mitchell (Marendaz Special). An enjoyable meeting, well run and keenly contested.

RESULTS (Times in Seconds).

1,500 c.c. Touring.—1, J. Ogle (Bugatti), 32.31; 2, E. C. W. Stapleton (Invicta S), 35.12.

Unlimited Touring.—1, G. M. Giles (Bugatti), 28.71.

1,500 c.c. Sports.—1, G. Weldon (Frazer-Nash), 28.52; 2, R. M. Nevile (Lea-Francis S), 30.54; 3, J. A. Driskell (B.N.C. S), 30.55.

1,500-5,000 c.c. Sports.—1, L. G. Bachelier (Bugatti S), 23.6; 2, L. G. Bachelier (Bugatti S), 24.71; 3, E. K. Rayson (Bugatti S), 26.56.

1,500 c.c. Racing.—1, J. Lemon-Burton (Bugatti S), 21.51; 2, R. G. J. Nash (Anzani-Nash), 21.70; 3, J. C. Davis (Delage S), 22.70.

1,500-5,000 c.c. Racing.—1, *C. E. C. Martin (Bugatti S), 20.13; 2, A. H. L. Eccles (Bugatti S), 20.35; 3, A. Esson-Scott (Bugatti S), 21.08.

Novices' Class.—1, L. E. Bachelier (Bugatti S), 28.67; 2, Joyce Houldsworth (Bugatti), 31.23; 3, Miss Enid Fawcett (Bugatti), 31.97.

Handicap.—1, S. R. Mitchell (Marendaz Special S), 21.29 (handicap 7s.); 2, F. Lycett (Bentley), 24.22 (scr.); 3, G. M. Giles (Bugatti), 24.88 (handicap 3.3s.).
S = Supercharged. * Fastest time of the day.

THE MOUNT VENUS HILL CLIMB

THE Mount Venus Hill Climb, organized by the Dublin University Motor Club, was held on September 8th, and was well supported by a representative array of 70 sports and racing cars. The previous record for the hill was 37.4 secs., made by a supercharged Austin, but this year the course was lengthened by 80 yards, so that the fastest time of the day (38.2) made by C. H. W. Manders (Bugatti) really counts as a new record. The same Bugatti was driven by M. Barrington, who clocked 38.1 secs.

Here are the full results :—

Open Handicap.—1, W. Fitzsimons (2,000 c.c. Delage), actual time 49⅘ secs., handicap time 33⅘ secs.; 2, C. H. W. Manders (1,990 c.c. Bugatti), actual 38⅕ secs., handicap 36-7/10 secs.; 3, G. White (1,250 c.c. M.G. Magna), actual 47 secs., handicap, 38 secs.; W. T. McCalla (1,998 c.c. Sunbeam), actual 40 secs., handicap 38 secs.

White and McCalla tied for third place, White winning run off; fastest speed by Manders at 47.11 m.p.h.

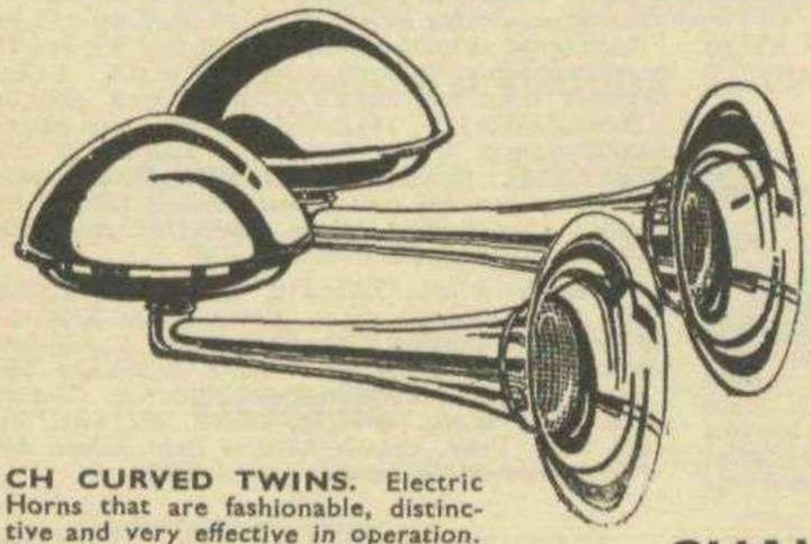
Up to 1,500 c.c. Handicap.—1, J. B. Jenkins (1,271 c.c. M.G. Magna), actual time 45⅕ secs., handicap 34⅘ secs.; 2, G. White (1,250 c.c. M.G. Magna), actual 47⅕ secs., handicap 37⅕ secs.; 3, D. P. Harris (1,496 c.c. Frazer-Nash), actual 43⅘ secs., handicap 38⅘ secs. Fastest speed, Harris 41.09 m.p.h.

Open Scratch Event.—1, M. Barrington (1,990 c.c. Bugatti), 38⅘ secs; 2, C. H. W. Manders (1,990 c.c. Bugatti), 38⅘ secs.; 3, W. T. McCalla (1,998 c.c. Sunbeam S.), 40⅘ secs. Winner's speed, 46.88 m.p.h.

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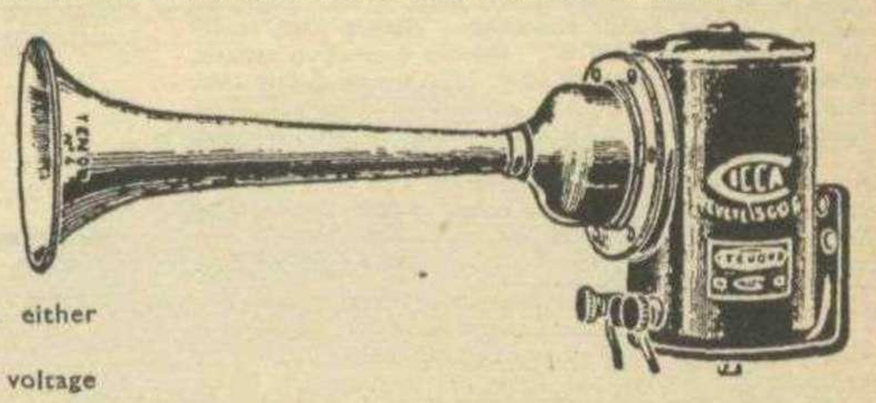
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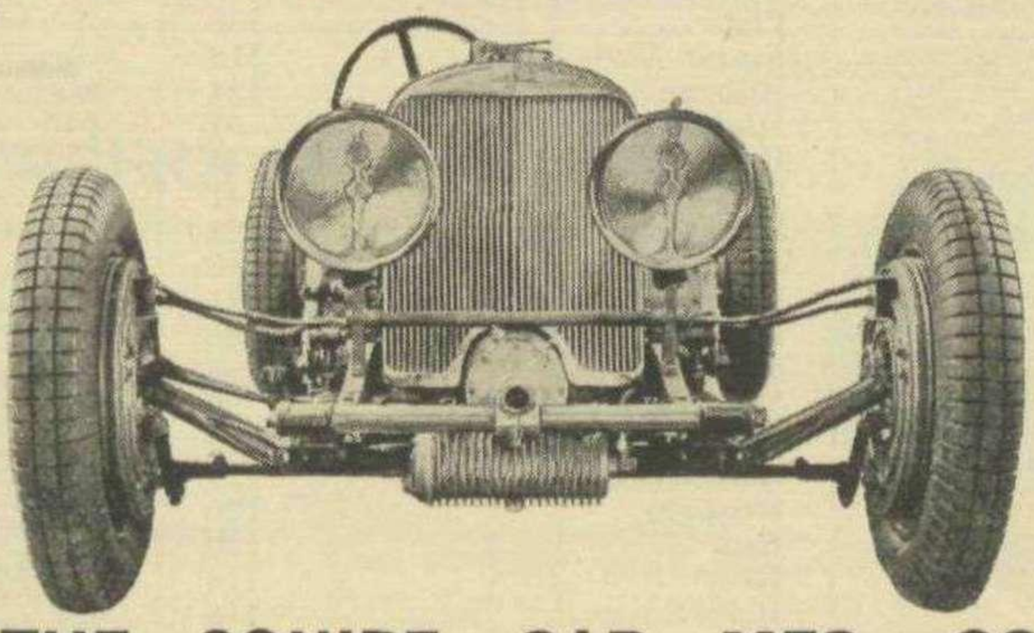
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A GUIDE TO 1935 HIGH PERFORMANCE CARS

THIS LIST OF SPECIFICATIONS AND DATA HAS BEEN COMPILED TO ASSIST THE PROSPECTIVE PURCHASER OF A FAST CAR IN THE DIFFICULT MATTER OF CHOOSING HIS MOUNT FOR THE COMING SEASON.

A.C.

British. A.C. (Acedes) Cars, Ltd., Thames Ditton, Surrey.

16/56 h.p. Ace. 6 cyl., 65 × 100, 1,990 c.c. 15.7 h.p. Tax £16. O.h.c. Comp. ratio 5.75 to 1. 5 bearing crankshaft. 56 b.h.p. at 3,500 r.p.m. Pump and fan cooling. One Stromberg carburetter. Rubber engine mounting. S.d.p. clutch. 4 speed gearbox (*preselective type £35 extra*), central control. Ratios, 17.7, 9.31, 6.41, 4.66 to 1. Road speed at 1,000 r.p.m., 1st 4.6, 2nd 8.9, 3rd 13, top 17.9 m.p.h. Open prop. shaft. Spiral bevel *final drive*. ½-elliptic springs. Andre shock absorbers. Bishop cam steering. Turning circle 36′ 6″. Bendix duo-servo brakes, cable operated. Battery 12 v. 72 a.h. 10 *gallon rear* tank, pump feed. Consumption 22-27 m.p.g. Wire wheels. Tyres 19 × 3. Wheelbase 9′ 7″. Track 4′ 2″ (Family saloon 4′ 8″). Ground clearance 7″. Weight of complete car, average 22 cwt. Price: chassis £320, Drop head coupe £435, Greyhound 2-door saloon £435, coupe de ville £440, 2-door aero *saloon £465, 5 seater family saloon £475*. 16/66 h.p. can be obtained £45 extra.

16/16 h.p. Ace. Same specification as 16/56, but *with following exceptions*: Comp. ratio 6.25 to 1. 66 b.h.p. at 3,500 r.p.m. 3 S.U. carburetters. Alternative gear ratios, 17.7, 9.3, 6.4, 4.66 to 1, or 16.5, 8.7, 5.9, 4.33 to 1, *giving respective* road speeds at 1,000 r.p.m. of 4.6, 8.9, 13, 17.9 m.p.h. or 5, 9.6, 14, 19.2 m.p.h. Price: chassis £365, open 4 seater sports £450.

The A.C. is one of the leading cars of its type, namely the 2-litre "light six" category, of which it was actually the originator. They appeal to many motorists, who enjoy motoring as a hobby, by virtue of their good quality and first-class workmanship. The handling of such cars will always be different from that of mass-produced vehicles.

The 16/66 h.p. sports model is a genuine 80 m.p.h. car, with good acceleration and road holding.

ALTA.

British. Alta Car and Engineering Co., Ltd., Fullers Way, Kingston-by-Pass, Surbiton.

9 h.p. Sports. 4 cyl., 60 × 95, 1,074 c.c., 8.7 h.p. Tax £9. Twin o.h.c. Comp. ratio 6.8 to 1. 3 bearing crankshaft. 50 b.h.p. at 5,500 r.p.m. Two S.U. carburetters. Rigid 3 point engine mounting. Bond clutch. Pre-selector gearbox, central gear level with visible gate. Ratios 16, 8, 6.4, and top 4.77 to 1. Road speed in top at 1,000 r.p.m., 18½ m.p.h. Maximum speeds, 1st 35, 2nd 55, 3rd 70, top 85 m.p.h. Open prop. shaft. Spiral bevel rear axle. Semi-elliptic front springs, ¼ elliptic rear. Hydraulic shock absorbers. Bishop cam steering, Turning circle 35′. Cable operated brakes. Battery 12 v. 60 a.h. 10 gallon *rear tank, electric* pump. Rudge wire wheels. Tyres 18 × 4.75. Wheelbase 8′. Track 4′ 2″. Ground clearance 7″. Weight of complete car 14 cwt. Price: 2-seater Sports, £365; Competition 2-seater, £385; 4-seater Sports, £375; Supercharged, add £50 to above.

9 h.p. Racing. Specification same as Sports, with following *exceptions*: Supercharged, 100 b.h.p. at 6,000 r.p.m. One S.U. carburetter. Gear ratio to choice. Maximum speeds, 1st 35, 2nd 65, 3rd 80, top 110 m.p.h. Straight or spiral bevel rear axle. No battery. Consumption 70 m.p.g. Tyres 18 × 5.25. Weight of complete car 13 cwt. Price, with guaranteed speed and racing service, £495.

15 h.p. Racing. 4 cyl. supercharged, 79 × 100, 1,996 c.c. 15 h.p. Tax £15. O.h.c. Comp. ratio 7 to 1. 3 bearing *crankshaft*. 160 b.h.p. at 5,200 r.p.m. Pump cooling. One S.U. carburetter. 3 point rigid engine mounting. Bond clutch. Pre-selector gearbox, central change. 4 *optional* ratios. Road speed at 1,000 r.p.m. on top, 22 m.p.h. Maximum speeds, 1st 45, 2nd 70, 3rd 95, top 130 m.p.h. Open prop. shaft. Straight bevel rear axle. ½ elliptic front springs, ¼ elliptic rear. Hydraulic shock absorbers. Bishop cam steering, turning circle 35′. Cable operated brakes. No battery or electrical equipment. *18 gallon* rear tank, mechanical pump. Rudge wheels. Tyres 17 × 6. Wheelbase 8′ 6″. Track 4′ 2″. Ground clearance 7″. Weight of complete car 14 cwt. Price, with guaranteed speed and racing service, £750.

An interesting newcomer to the racing field is the 2-litre Alta, which has a guaranteed maximum of 130 m.p.h. In general design it follows the 1,100 c.c. model, which is continued unchanged. An innovation is the 12 months racing service included in the purchase price, the only limitations to this service being palpable over-revving and accidents.

ALVIS.

British. The Alvis Car & Engineering Co., Ltd., Coventry.

Speed Twenty. 6 cyl., 73 × 110, 2,762 c.c., 19.82 h.p. Tax £20. Pushrod o.h.v. Comp. ratio 6.48 to 1. 4 bearing crankshaft. Pump and fan cooling. 3 S.U. carburetters. Special 3 point flexible engine mounting. S.d.p. clutch. All-synchromesh gearbox, central change. Ratios 14.33, 9.24, 6.53, top 4.55 to 1. Road speed at 1,000 r.p.m. 1st 6.07, 2nd 9.4, 3rd 13.3, top 19.1 m.p.h. Maximum speed 85 m.p.h. Hardy Spicer enclosed prop. shaft. Fully floating spiral bevel rear axle. Springs, transverse independent front, ½-elliptic rear. Telecontrol shock absorbers. Turning circle 38′. Alvis *self-energising* brakes. Battery 12 v. 63 a.h. 16½ gallon rear tank, pump feed. Consumption 17/19 m.p.g. Wire wheels. Tyres 5.50 × 19. Wheelbase 10′ 4″. Track 4′ 8″. *Ground clearance* 7″. Weight, saloon 31½ cwt., open 27 cwt. Price, chassis £600, 4-door saloon £850, D.H. coupe £850, 4-seater sports £700.

Silver Eagle. 6 cyl., 67.5 × 110, 2,362 c.c., 16.95 h.p. Tax £17. Pushrod o.h.v. Comp. ratio 5.87 to 1. Other details as Speed Twenty, with *following* exceptions: Gear ratios, 16.45, 10.60, 7.49, 5.22 to 1. Road speed at 1,000 r.p.m., 1st 5.28, 2nd 8.2, 3rd 11.6, top 16.6 m.p.h. Maximum speed 75 m.p.h. ½-elliptic springs front and rear. Hartford shock absorbers. Turning circle 40′. 14½ gallon rear tank. Consumption 19/22 m.p.g. Tyres 5 × 20. Wheelbase 9′ 10½″. Track 4′ 4″. *Ground clearance* 6½″. Weight, saloon 29 cwt., open 25½ cwt. Price, chassis £485, 4 light saloon £598, 6 light saloon £598, D.H. coupe £598, 4-seater sports £585.

Firebird. 4 cyl., 73 × 110, 1,842 c.c., 13.22 h.p. Tax £14. Pushrod o.h.v. Comp. ratio 5.89 to 1. 3 bearing crankshaft. *Pump cooling.* 1 semi-down-draught S.U. carburetter. Other details as Silver Eagle, except: Maximum speed 70 m.p.h. Consumption 22.24 m.p.g. Weight, saloon 26½ cwt., open 23½ cwt. Price, chassis £410, 4 light saloon £510, D.H. coupe £510, 4-seater sports £490.

Three sports models have been concentrated upon by the Alvis concern for the coming season, namely the "Speed Twenty," the "Silver Eagle" and the "Firebird." The first named has been improved by means of an entirely new chassis frame. The steering and front suspension have also been slightly modified. The new "Silver Eagle" is a fast, stoutly made car which will find many adherents, and the old "Firefly" has now grown up into the new "Firebird." The engine size is 1,842 c.c. instead of the previous 1,496 c.c., and the performance is characteristic of an efficient 4-cylinder design.

ARMSTRONG SIDDELEY.

British. Armstrong Siddeley Motors Ltd., Coventry.

Siddeley Special. 6 cyl., 88.9 × 133.4, 4,960 c.c., 30 h.p. Tax £30. Pushrod o.h.v. 7 bearing crankshaft. Pump and fan cooling. Two S.U. carburetters. Rubber *engine mounting*. No clutch, self-changing gearbox, steering column control. Gear ratios 13.37, 7.74, 5.03, 3.63 to 1. Torque tube. Spiral bevel rear axle. ½-elliptic springs, Luvax shock absorbers. Bendix brakes. Battery 12 v. 75 a.h. 20 gallon rear tank, A.C. pump. Wire wheels. Tyres 6.50 × 19. Wheelbase 11′ or 12′. Track, front 4′ 8″, *rear* 4′ 10″. Price, from £950.

20 h.p. 6 cyl., 73 × 127, 3,190 c.c., 20 h.p. Tax £20. *Pushrod o.h.v.* 4 bearing crankshaft. Rest of specification as Siddeley Special, with following exceptions: 1 Claudel Hobson carburetter. Gear ratios 17.85, 10.37, 6.47, 4.36 to 1. *Battery* 12 v. 63 a.h. 16 gallon tank. Tyres 5.55 × 19. Wheelbase 10′ 2½″. Track 4′ 8″. Price, from £550.

15 h.p. 6 cyl., 63 × 5 × 119, 2,169 c.c., 15 h.p. Tax £15. Side valves. 4 bearing crankshaft. Pump and fan cooling. 1 Claudel Hobson carburetter. Rubber engine mounting. No clutch. Wilson self-changing gearbox. Steering wheel control. Gear ratios 22, 12.57, 8.1, 5.5 to 1. Torque tubes. Spiral bevel rear axle. ½-elliptic springs. Luvax shock absorbers. Bendix brakes. Battery 12 v. 51 a.h. 12 gallon rear tank, A.C. pump. Wire wheels. Tyres 5.25 × 19. Wheelbase 9′ 7″. Track 4′ 8″. Price, *from £435*.

12 h.p. 6 cyl., 56.5 × 95.25, 1,434 c.c., 12 h.p. Tax £12. Rest of specification as 15 h.p. with following exceptions: Gear ratios 20.28, 11.75, 7.91, 5.55 to 1. 8 gallon tank. Tyres 4.75 × 18. Wheelbase 8′ 1″. Track 3′ 10″. Price, from £265.

THE STAND NUMBERS AT THE SHOW.

A.C.	93
Alfa-Romeo	119
Alvis	96
Armstrong-Siddeley ...	128
Aston-Martin	144
Austin	108
Bentley	91
Bugatti	107
Chrysler	117
Citroen	157
Crossley	100
Daimler	138
Delage	102
Dodge	104
Essex...	141
Fiat	136
Frazer Nash Cars	113
Hillman	124
Hispano-Suiza	97
Hotchkiss	145
Hudson	141
Humber	122
Lagonda	143
Lanchester	121
Lancia	98
M.G.	95
Minerva	99
Morris	109
O.M.	125
Renault	130
Reo	120
Riley	118
Rolls-Royce	116
Rover	103
Singer	115
Standard	111
S.S.	140
Sunbeam	134
Talbot	112
Triumph	135
Vauxhall	101
Wolseley	127

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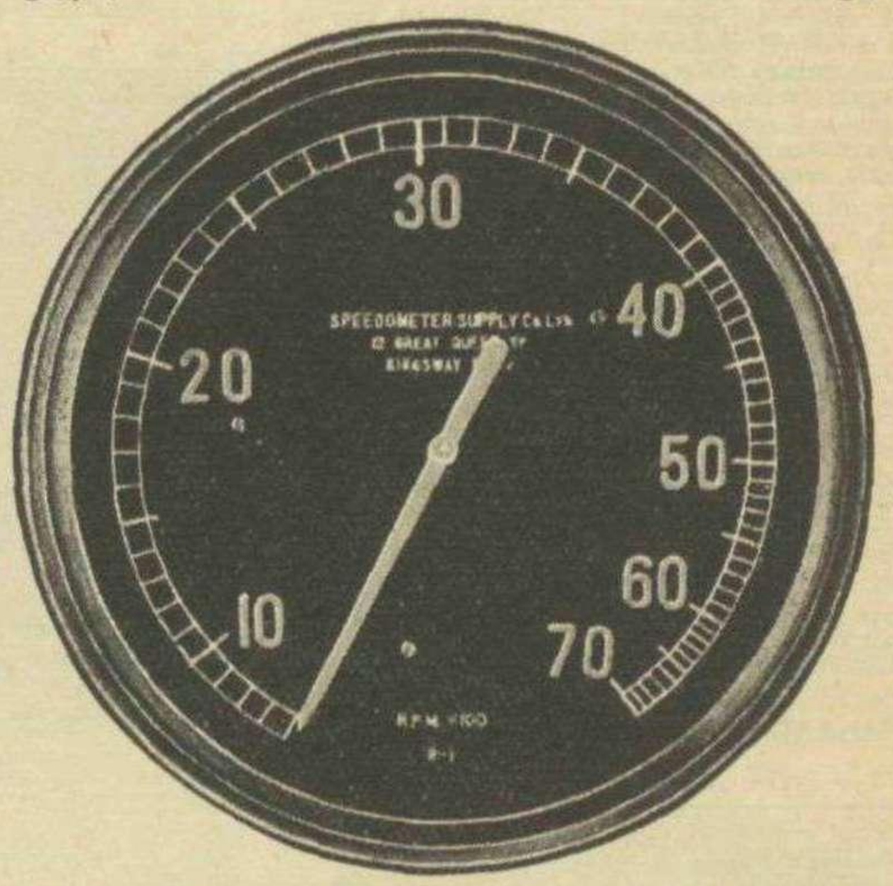
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A GUIDE TO 1935 HIGH PERFORMANCE CARS—continued.

There is very little change to be noticed in the Armstrong Siddeley programme. The 12-h.p. sports model has a little more body space, particularly in the popular coupé body, and has been reduced in price. For the rest, these cars are typical examples of high-class British workmanship, all possessing wearing qualities out of the ordinary, and providing comfortable, fast touring for many years.

ASTON-MARTIN.

British. Aston-Martin Ltd., Feltham, Middlesex.

Mark II. 4 cyl., 69 × 99, 1,496 c.c., 11.9 h.p. Tax £12. O.h.c. Comp. ratio 7.5 to 1. 3 bearing crankshaft. 70 b.h.p. at 4,750 r.p.m. Pump and thermo-syphon cooling. Two S.U. carburetters. 4 point Floatex engine mounting. S.d.p. clutch. 4 speed straight tooth sliding gearbox. Central change. Ratios, 12.97, 8.11, 5.91, 4.66 to 1. Road speed at 1,000 r.p.m., 1st 6.35, 2nd 10.3, 3rd 13.95, top 17.7 m.p.h. Maximum speeds: 1st 30, 2nd 49, 3rd 66, top 84 m.p.h. Hotchkiss drive. Spiral bevel rear axle. ½-elliptic springs. Hartford Duplex shock absorbers. Cam type steering. Turning circle: 2/4 seater 40′, 4 seater and saloon 42′. Directly operated brakes through cables and rods. Battery 12 v. 60 a.h. Rear tank, 2/4 seater 13 gallons, 4 seater and saloon 11 gallons. 2 S.U. electric pumps. Consumption 25/30 m.p.g. Rudge wire wheels. Tyres 5.25 × 18. Wheelbase, 2/4 seater 8′ 7″, 4 seater and saloon 10′. Track 4′ 4″. Ground clearance 6″. Weight of complete car, 2/4 seater 19 cwt., 4 seater 20 cwt., saloon 22 cwt. Price, 2/4 seater £610, 4 seater £640, saloon £700.

The Aston-Martin is one of those cars, so rare nowadays, which the designers and manufacturers regard in the light of an ideal. Basically unaltered for many years, it is nevertheless added to and improved from the data obtained by racing and general competition work, and it now represents the high-water mark of 1½-litre sports car production.

For 1935 one model only will be available, the Mark II, carrying three different body styles, a 2-4 seater, a full 4-seater, and a sports saloon. There are many minor alterations in the Mark II chassis. The crankshaft is now fully counterbalanced, in conjunction with the pistons and con. rods; wider timing wheels are used, and a new type of valve rocker, a new dynamo-drive coupling, and a still more efficient cylinder head; the petrol tank is now slung in metal straps; the engine mounting has been improved; the frame has been strengthened; the front shock absorbers are now mounted transversely; the steering layout has been modified; the propellor shaft universals now have needle roller bearings; and finally larger tyres on smaller wheels are fitted.

AUSTIN.

British. The Austin Motor Co., Ltd., Longbridge, Birmingham.

Newbury. 6 cyl., choice of 65.5 × 84.63, 1,711 c.c., 15.9 h.p., tax £16, or 61.25 × 84.63, 1,496 c.c., 13.9 h.p., tax £14. S.v. 4 bearing crankshaft. B.h.p. 15.9 h.p. 30 at 2,600 r.p.m., 13.9 h.p. 26 at 2,600 r.p.m. Thermo-syphon and fan cooling. Single carburetter. 4 point insulated engine mounting. S.d.p. clutch. 4 speed gearbox, synchromesh 2nd, 3rd and top, central change. Ratios 18.26, 11.88, 7.59, top 5.5 to 1. Road speed at 1,000 r.p.m., 1st 4.47, 2nd 6.87, 3rd 10.74, top 14.83 m.p.h. Open propeller shaft. ¾ floating rear axle, spiral bevel. Semi-elliptic springs. Luvax hydraulic shock absorbers in front, friction type at rear. Worm and worm wheel steering. Turning circle 42′ 2″. Direct-operated brakes. Battery 12 v. 50 a.h. 8 gallon rear tank, pump feed. Magna wire wheels. Tyres 4.75 × 19. Wheelbase 8′ 10″. Track 4′ 8″. Ground clearance 8′. Price: Newbury sports tourer, £275; Kempton sports saloon, £305.

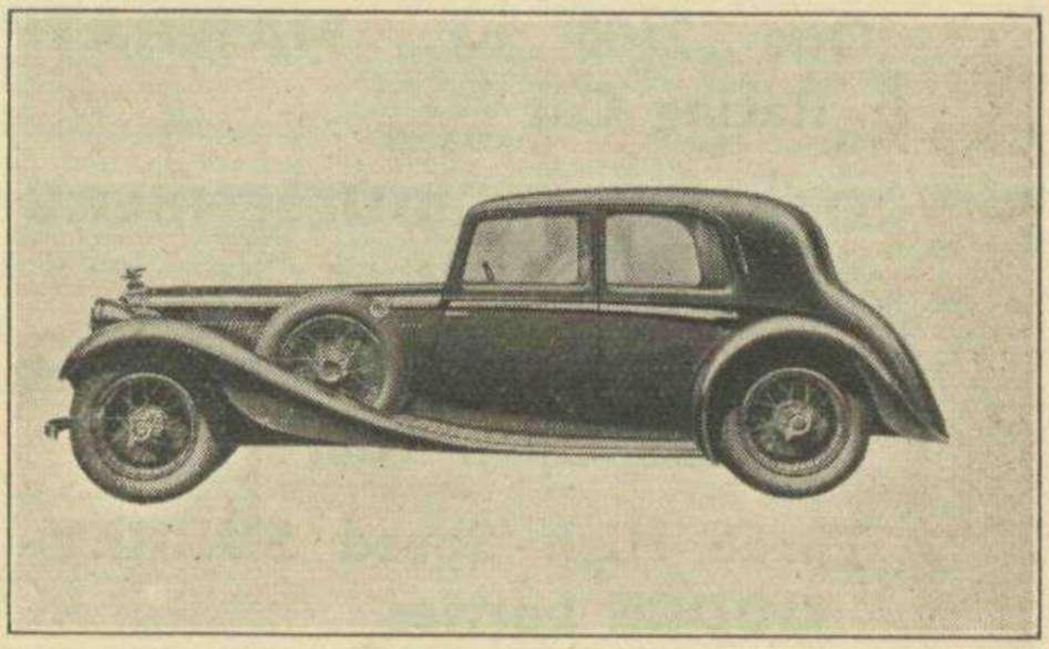
Ripley. 4 cyl., 63.5 × 89, 1,125 c.c., 9.9 h.p. Tax £10. S.v. High comp. head. 3 bearing crankshaft. 30 b.h.p. at 3,800 r.p.m. Thermo-syphon and fan cooling. One Zenith down-draught carburetter. 3 point insulated engine mounting. S.d.p. clutch. 4 speed gearbox, synchromesh 2nd, 3rd and top, central change. Ratios 18.9, 11.39, 7.19, and top 5.25 to 1. Road speed at 1,000 r.p.m., 1st 4.03, 2nd 6.69, 3rd 10.58, top 14.50 m.p.h. Open prop. shaft. ¾ floating rear axle, spiral bevel. Semi-elliptic springs, friction shock absorbers. Worm and worm wheel steering. Turning circle 37′ 9″. Direct operated brakes. Battery 12 v. 51 a.h. 6 gallon rear tank, pump feed. Magna wheels. Tyres 4.50 × 18. Wheelbase 7′ 9″. Track 3′ 9″. Ground clearance 7″. Price: Open sports tourer, £215.

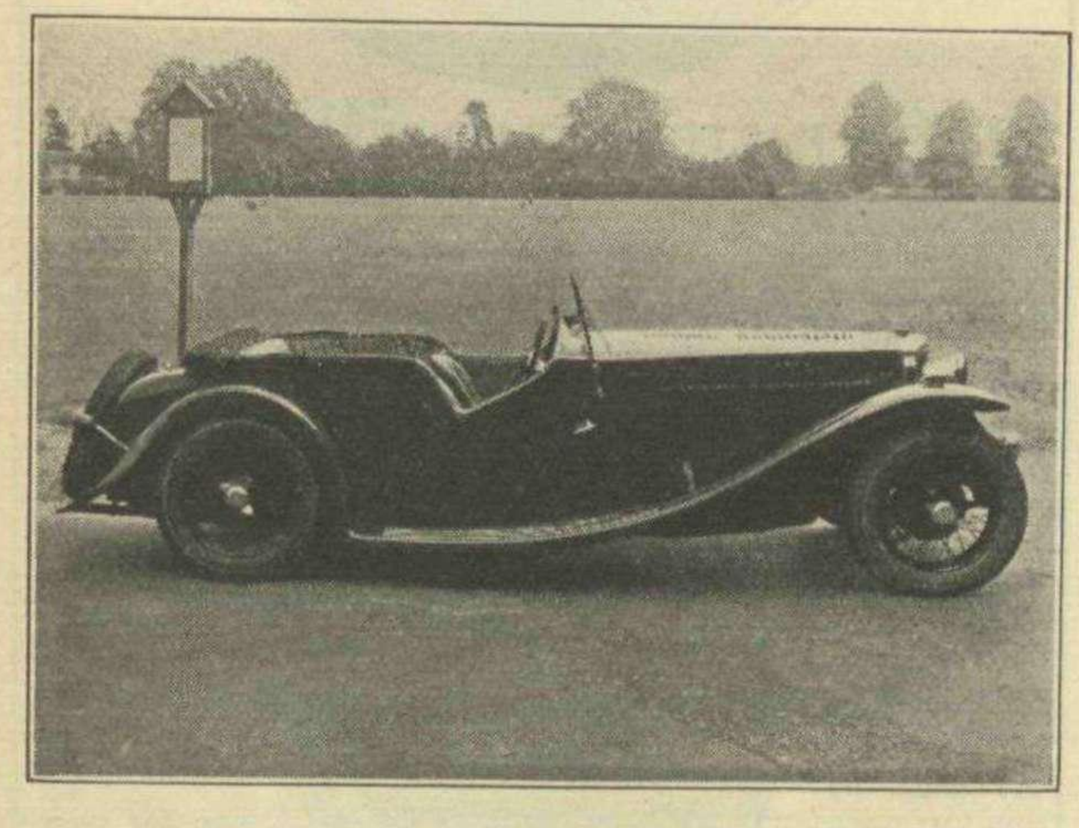
Nippy. 4 cyl., 56 × 76, 747.5 c.c., 7.8 h.p. Tax £8. S.v. 2 bearing crankshaft. 21 b.h.p. at 4,400 r.p.m. Thermo-syphon and fan cooling. One Zenith down-draught carburetter. 4 point insulated engine mounting. S.d.p. clutch. 4 speed gearbox, synchromesh 2nd, 3rd and top, central change. Ratios 21.9, 13.3, 8.38, 5.6 to 1. Road speed at 1,000 r.p.m., 1st 3.29, 2nd 5.69, 3rd 9.02, top 13.44 m.p.h. Shaft and torque tube transmission. ¾ floating rear axle, spiral bevel. Springs, front semi-elliptic transverse, rear quarter-elliptic. Friction shock absorbers. Worm and worm wheel steering. Turning circle 38′ 2″. Direct operated brakes. Battery 6 v. 51 a.h. 5 gallon rear tank, pump feed. Wire wheels. Tyres 3.50 × 19. Wheelbase 6′ 9″. Track 3′ 7″. Ground clearance 7″. Price: Sports 2-seater, £142.

Speedy. Specification as "Nippy" with following exceptions: 23 b.h.p. at 4,800 r.p.m. Full pressure lubrication. Gear ratios 20.48, 12.39, 7.82, top 5.25 to 1. Road speed at 1,000 r.p.m., 1st 3.69, 2nd 6.1, 3rd 9.67, top 14.4 m.p.h. Price: Sports 2-seater, £172.

The point which will particularly commend Austin sports models to discerning motorists is their ability to withstand hard usage with a minimum of wear. A considerable amount of racing experience has been at the disposal of the factory, and this is bound to find its place in the sports productions. The coachwork of all models is comfortable and well equipped.

Perfectly proportioned lines are possessed by the Alvis Speed Twenty 4-door Saloon. The car can be painted in a choice of twelve lovely colours, and sells for £850.





There is an air of well-bred raciness about the 16/66 h.p. A.C. Sports tourer. All the weight is carried well inside the wheelbase, and the road holding is excellent right up to the maximum of 80 m.p.h.

BENTLEY.

British. Bentley Motors (1931), Ltd., 16, Conduit Street, London, W. 1.

3½ litre. 6 cyl., 3½″ × 4½″, 3,669 c.c., 25.3 h.p. Tax £26. O.H.V. Pump and fan cooling. 2 S.U. special carburetters. S.d.p. clutch 4-speed gearbox, synchromesh, right-hand change. Ratios 11.3, 7.088, 5.104, 4.1 to 1. Open prop. shaft. Fully floating back axle, hypoid gears with base differential. Semi-elliptic springs. Hydraulic shock absorbers of Rolls-Royce design. Worm and nut steering. Turning circle, right 40′ 11″, left 39′ 7″. Servo foot brake on four wheels, independent hand brake on rear only. 12 v. battery. 18 gallon rear tank, electric pump. Wire wheels. Tyres 18″ × 5.50″. Wheelbase 10′ 6″. Track 4′ 8″. Weight of chassis 2,510 lbs. Price, chassis £1,100.

The 3½-litre Bentley is undoubtedly one of the most remarkable cars in all motoring history, combining to a degree hitherto considered impossible speed, silence, medium dimensions and consequent ease of control. There is nothing startling nor revolutionary in its design, and yet it can compete equally with noisy supercharged sports models on the score of speed, as with luxurious town-carriages—in regard to silent comfort. Truly a superlative car.

MERCEDES-BENZ.

German. British Mercédès-Benz Ltd., Grosvenor Road, London, S.W. 1.

Type 500. 8 cyl. supercharged, 86 × 108, 5,018 c.c., 36.98 h.p. Tax £37. Pushrod o.h.v. Comp. ratio 5.5. to 1. 100 b.h.p. without supercharger, 160 b.h.p. with supercharger at 3,400 r.p.m. 5 bearing crankshaft. Pump and fan cooling. Two Mercédès car.

A GUIDE TO 1935 HIGH PERFORMANCE CARS—continued.

buretters. 4 point elastic engine mounting. S.d.p. clutch. 4 speed gearbox, with over-top, silent third and second, central change. Ratios, 1st 3.2, 2nd 1.6, 3rd 1.1, top direct, over-top 0.62 to 1. Rear axle ratios, direct top 4.88 to 1, over-top 3.03 to 1. Maximum speed 109 m.p.h. Prop. shaft. Semi-floating, spiral bevel rear axle. Independent coil springing front and rear. Hydraulic shock absorbers and oscillation dampers. Worm and nut steering, each wheel individually. Turning circle 42'. Lockheed brakes, servo assisted. Battery 12 v. 60 a.h. 24¼ gallon rear tank, pump feed, 1¼ reserve under dash. Consumption 10.10¾ m.p.h. Wire wheels. Tyres 6.50 × 17. Wheelbase 10' 9½". Track 4' 11". Ground clearance 7½". Weight of complete car 40 cwt. Price, chassis £1,395, with any standard body £1,890.

Type 290. 6 cyl., 78 × 100, 2,867 c.c., 22.6 h.p. Tax £23. Side valves. Comp. ratio 5.75 to 1. 7 bearing crankshaft. 60 b.h.p. at 3,200 r.p.m. Pump and fan cooling. One Solex carburetter. 4 point rubber engine mounting. S.d.p. clutch. Maybach-Mercédès gearbox, central change. Ratios, 1st 3.6 to 1, 2nd 1.75 to 1, 3rd direct, over-top 0.75 to 1. Rear axle ratios, direct 5.66 to 1, over-top 4.25 to 1. Maximum speed 67 m.p.h. Prop. shaft. Semi-floating, spiral bevel rear axle. Independent springing, front by transverse, rear by coil. Hydraulic shock absorbers. Individual wheel steering. Turning circle 45' 7". Lockheed brakes. Battery 12 v. 42 a.h. 12 gallon rear tank, pump feed. Wire wheels. Tyres 6.50 × 17. Wheelbase 10' 6", Sports 9' 5". Track 4' 9". Ground clearance 6". Weight of complete car 30 cwt. Price, standard chassis £650, saloon £785, cabriolet £930, long chassis £715, Pullman limousine £920, cabriolet £1,060.

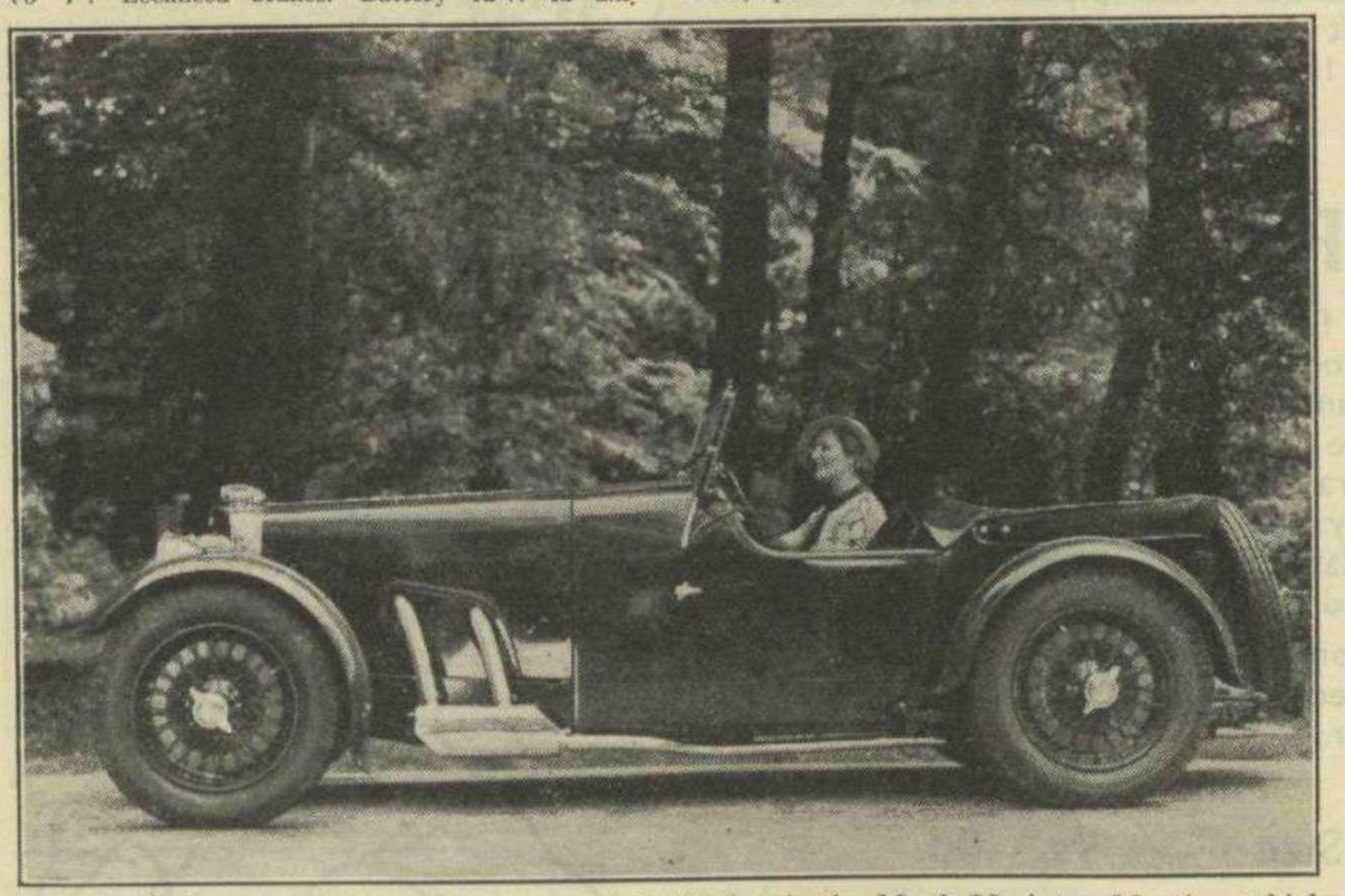
Type 130. Rear engine, 4 cyl. 70 × 85, 1,308 c.c., 12 h.p. Tax £12. Side valves. Comp. ratio 6 to 1. 3 bearing crankshaft. 26 b.h.p. at 3,400 r.p.m. Pump and fan cooling. One Solex carburetter. Engine, gearbox and diff. in one unit, rubber mounted. S.d.p. clutch. Over-top gearbox with two silent ratios. Ratios, 1st 3.7, 2nd 1.75, top direct, over-top 0.0645 to 1. Maximum speed 62.5 m.p.h. Final drive ratios, top 6.75 to 1, over-top 4.35 to 1. Worm drive, semi-floating axle. Springs, independent coil at rear, transverse front. Hydraulic shock absorbers. Individual wheel steering. Turning circle 33'. Lockheed brakes. Battery 6 v. 75 a.h. 7½ gallon rear tank, pump plus granty feed. Consumption 30 m.p.g. Disc wheels. Tyres 4.75 × 17. Wheelbase 8' 2½". Track 4' 1¼". Ground clearance 6½". Weight of saloon complete 16 cwt. Price, saloon £425, cabriolet-limousine £445.

The Mercédès-Benz products for 1935 represent the latest development in automobile design. The outstanding model is, of course, the Type 500, with its supercharged 5-litre 8-cyl. engine, independent springing all round, over-top gearbox, and maximum speed of 109 m.p.h. The Type 290 is a pleasant machine, not particularly fast, but a real thoroughbred. The small Type 130, rear engined and ultra streamlined, is a most interesting job. There are two other models, not shown here, both of the family touring class, namely the Types 170 (1,700 c.c., 6 cyl.) and 200 (2,000 c.c. 6 cyl.).

CROSSLEY.

British. Crossley Motors, Ltd., Gorton, Manchester.

2 litre. 6 cyl., 65 × 100, 1,991 c.c., 15.7 h.p. Tax £16. Push-rod o.h.v. Comp. ratio 6.5 to. 1. 4 bearing crankshaft. 60 b.h.p. at 4,500 r.p.m. Pump cooling. 1 Zenith carburetter. 4 pt. rubber engine mounting. S.d.p. clutch. Pre-selective gearbox, steering wheel control. Ratios: 17.55, 10.03, 6.75, 4.56 to 1. Road speed at 1,000 r.p.m.: 1st 5, 2nd 7½, 3rd 12, top 20 m.p.h. Maximum speeds: 1st 23, 2nd 34, 3rd 55, top 80 m.p.h. Hardy-Spicer transmission. Semi-floating rear axle. ½-elliptic springs. Hydraulic shock absorbers. Worm and lever steering. Turning circle 43'. Perrot-Bendix brakes. Battery 12v. 66 a.h. 18 gall. rear tank, vacuum feed. Wire knock-on wheels. Tyres 5.25" × 20". Wheelbase 10' 2½". Track 4' 8". Ground clearance 7". Weight of complete car 31½ cwt. Price, sports saloon £695.



One of the finest 1½-litre sports cars available to-day is the Mark II Aston-Martin, which has been developed to its present pitch by years of racing.

Regis. 4 cyl., 63 × 90, 1,122 c.c., 9.8 h.p. £10. Inlet o.h. exhaust s.v. Comp. ratio 5.8 to 1. 3 bearing crankshaft. 35 b.h.p. at 4,500 r.p.m. Thermo-syphon cooling. 1 Solex carburetter. 4 pt. rubber engine mounting. S.d.p. clutch. Pre-selective gearbox, steering wheel control. Ratios, 18.12, 10.66, 7.14, 5.33 to 1. Road speed at 1,000 r.p.m., 1st 4½, 2nd 7, 3rd 11, top 16 m.p.h. Maximum speeds, 1st 20, 2nd 34, 3rd 50, top 67 m.p.h. Transmission, springs, shock absorbers, steering and brakes as on 2 litre. Turning circle 40'. Battery 12v. 44 a.h. 7 gall. rear tank, electric pump. Wire wheels. Tyres 4.75 " × 18". Wheelbase 9' 0½", Track 4'. Ground clearance 8". Weight of complete car 20½ cwt. Price, saloon £325.

The Crossley Ten has been entirely re-designed for 1935, and is now known as the Regis. It is a comfortable and efficient 10 h.p. car carrying roomy coachwork. With a maximum speed of 67 m.p.h. it should be capable of good average speeds, assisted by a pre-selective gearbox.

The 2-litre sports saloon continues unchanged, and is a good example of cars of this capacity. It has a fine turn of speed, and is designed on well-tried lines.

FRAZER NASH.

British. A.F.N. Ltd., Falcon Works, London Road, Isleworth.

Boulogne II. 4 cyl., 69 × 100, 1,496 c.c., 11.9 h.p. Tax £12. Pushrod o.h.v. Comp. ratio 6.5 to 1. 3 bearing crankshaft. 50 b.h.p. at 4.000 r.p.m. (minimum guaranteed). Chain-drive, alternative ratios, 1st 11.75 or 10, 2nd 7, 3rd 5.4 or 4.8, top 4.1 or 3.8 to 1, right-hand gear change. ¼-elliptic springs, front and rear. Hartford shcok absorbers. 12" brake drums, directly operated. 12 v. battery. 12 gallon rear tank, electrical pump or hand feed. Price, 2 seater £475. Modified engine available, 70 b.h.p. Price up to £50. Alternative engine available, o.h.c., 6 cyl., 50 b.h.p. at 4,000 r.p.m. Price, 2 seater £495.

T.T. Replica. 4 cyl., 69 × 100, 1,496 c.c., 11.9 h.p. Tax £12. Single o.h.c. 3 bearing crankshaft. 70 b.h.p. Pump cooling. Two S.U. carburetters. 3 point engine mounting. Chain drive, right-hand change. Standard ratios, 11.75, 7, 4.8 and 3.8 to 1. Others to choice. Live axle. Double Hartford shock absorbers. 12 v. battery. 12 gallon rear tank (1½ gallon reserve under dash, gravity). Electrical or hand pump. Turning circle 36'. Wheelbase 9'. Track, front 4', rear 3' 6". Price, 2 seater £650. 12 h.p. turn camshaft 6 cyl. engine also available at same price.

Sheisbey. Supercharged 4 cyl. with two blowers. Specification as T.T. Replica. Maximum speed 105 m.p.h. Price, 2 seater £850. This model can be obtained in unsupercharged form with either 4 cyl. o.h.c. or 6 cyl. twin o.h.c. engines at £750.

Byfleet I. 6 cyl., 60×97.9, 1,657 c.c., 13.9 h.p. Tax £14. Twin o.h.c. 5 bearing crankshaft. 65 b.h.p. Pump cooling. 3 S.U. carburetters. 3 point silent bloc engine mounting. Chain-drive. Andre Telecontrol shock absorbers at rear. Battery 12 v. Price, 2/3 seater £595.

Byfleet II. Specification as above, but with T.T. Replica body. Price £570.

A full range of high-performance four and six cylinder Frazer Nash sports cars is continued for 1935. A choice of three engines is available, and the coachwork is interchangeable to the extent that owners can order cars to their precise requirements. There is nothing in these cars that has not been tested and developed by severe competition and racing, so that for the enthusiast the Frazer Nash fulfills all requirements as to speed, reliability, roadholding, and real control.

GRAHAM.

American. Cleverlys, Ltd., 12, Berkeley Street, London, W. 1.

Model 67. 8 cyl., 3½" × 4", 3,960 c.c., 31.25 h.p. Tax £32. S.V. comp. ratio 6.7 to 1. 5-bearing crankshaft. 95 b.h.p. at 3,400 r.p.m. Pump and fan cooling. One Stromberg up-draught carburetter. Flexible engine mounting. S.D.P. clutch. 3-speed gearbox, synchromesh 2nd central change. Ratios 12.04, 6.83, 4.27 to 1. Speeds 1st 25, 2nd 60, top 80 m.p.h. Spiral bevel rear axle. Semi-elliptic springs. Hydraulic shock absorbers, rubber cushioned. Turning circle 42'. Lockheed brakes. Battery 6 v., 125 a.h. 15 gallon rear tank, electric pump. Consumption 14 m.p.g. Steel artillery wheels. Wheelbase 123". Track 5' 1". Ground clearance 8½". Weight of complete car 35 cwt. Prices, from £460 to £512.

Model 68. 6 cyl., 3½" × 4½", 3,679 c.c. 25.35 h.p. Tax £26. S.V. 7 bearing crankshaft. Comp. ratio 6.5 to 1. 85 b.h.p. at 3,400 r.p.m. Rest of chassis as Model 67 with following exceptions: Speed on gears, 1st 25, 2nd 60, 3rd 75 m.p.h. Battery 6 v., 90 a.h. Consumption 20 m.p.g. Tyre sizes 6.50" × 16". Wheelbase 116". Weight 30 cwt. Prices, from £385 to £453.

Model 69. 8 cyl., supercharged, 3½" × 4", 4,350 c.c., 33.8 h.p. Tax £34. Rest of specification as Model 67, with following exceptions: 135 b.h.p. at 4,000 r.p.m. Gear ratios 12.22, 7.02, 4.27 to 1. Speeds, 1st 30, 2nd 70, 3rd 95 m.p.h. Tyre sizes 7" × 16". Prices £565 to £603.

The outstanding model in the Graham range is the supercharged 8 cylinder car, capable of speeds up to 95 m.p.h. Both the 8 cylinder " plain " and the Standard Six saloons are remarkably efficient, well designed cars in the front rank of American cars. They are fast, silent, and restful to drive, thus making them particularly suitable for really long main-road journeys. The quality of the material used is in keeping with the advanced design, so that reliability and endurance can be expected from all Graham cars.

The Greatest News in Years

for the "Cold Weather" Motorist

BLANKED-off radiators, rugs and all other make-shift remedies for the freezing-up problem have at last been swept aside by the introduction of Bluecol —*the new non-corrosive anti-freeze.*

Bluecol gives **absolute** protection in the coldest weather. It does **not** attack joints or rubber water pipes. It is non-tacky and flows freely. It is coloured blue so that the presence of anti-freeze in the radiator can be immediately identified.





IMPORTANT

For cars fitted with a Thermostat in the cooling system, Bluecol is more than ever necessary, as there is a grave risk of freezing the base of the radiator due to the fact that very little water passes into the radiator whilst warming up from cold.

Our recommendation chart gives the correct quantity of Bluecol for every car.

PRICES.

No. 1 Size	-	**9s. 0d.**
No. 2 Size	-	**17s. 6d.**
No. 3 Size	-	**32s. 6d.**

SMITH'S BLUECOL

The New Non-Corrosive Anti-Freeze Mixture

S. SMITH & SONS (Motor Accessories) LTD., CRICKLEWOOD, LONDON, N.W. 2.

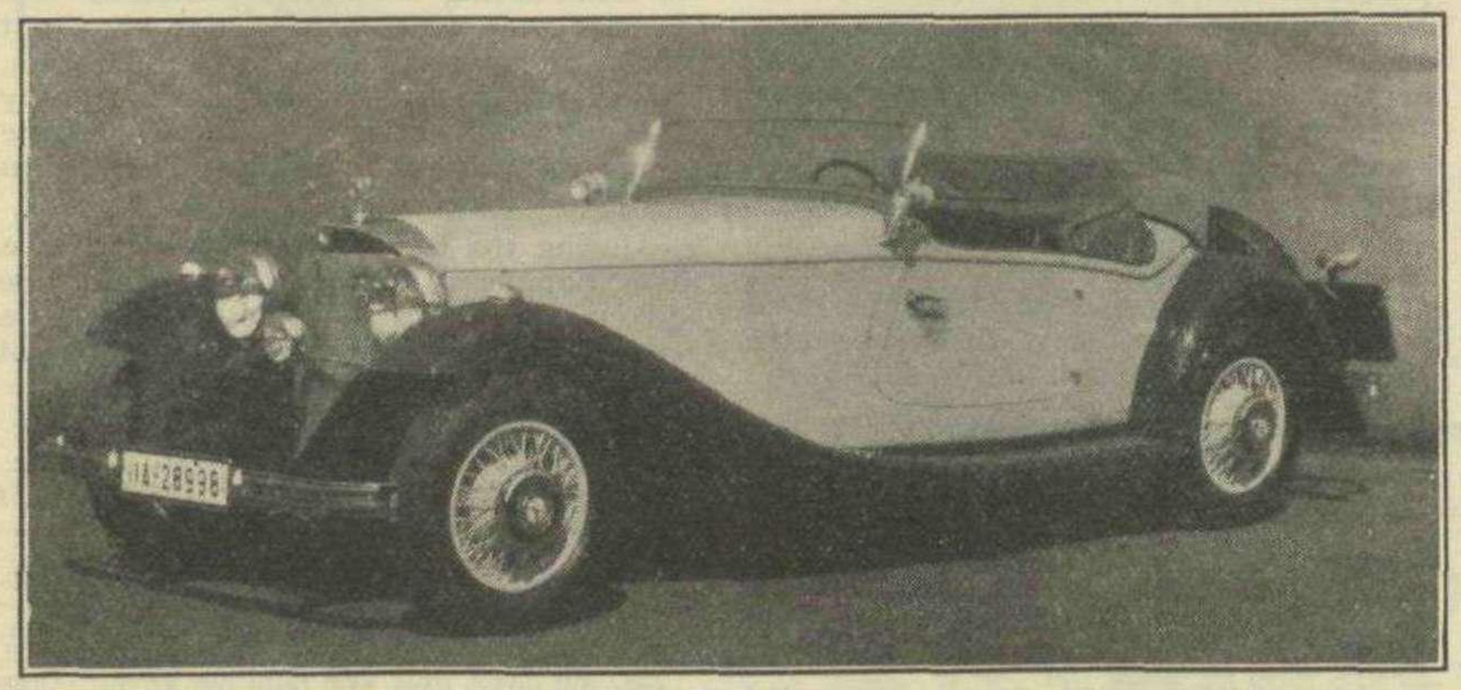
A GUIDE TO 1935 HIGH PERFORMANCE CARS—continued.

HILLMAN.

British. The Hillman Motor Car Co., Ltd., Coventry.

Minx. 4 cyl., 63 × 95, 1,185 c.c., 9.8 h.p. Tax £10. S.v. Comp. ratio 5.6 to 1. 3 bearing crankshaft. 28 b.h.p. at 4,200 r.p.m. Thermo-syphon and fan cooling. One Solex carburetter. 3 point rubber engine mounting. S.d.p. clutch. 4 speed gearbox, synchromesh all gears, central change. Ratios 20.3, 13.5, 8.4, 5.62 to 1. Maximum speeds, 3rd 48, top 60 m.p.h. Hardy-Spicer open shaft, needle bearing universals. Spiral bevel rear axle. Semi-elliptic springs. Luvax hydraulic shock absorbers. Worm and nut steering. Turning circle 34′. Bendix brakes, cable operated. Battery 6 v. 63 a.h. 6¾ gallon rear tank, pump feed. Consumption 35 m.p.g. Wire wheels. Tyres 18 × 4.5. Wheelbase 7′ 4″. Track 4′. Ground clearance 8″. Weight of complete car 17¾ cwt. Price: Sports tourer, £190; Sports saloon, £225.

Aero Minx. Specification as Minx, with following exceptions: Comp. ratio 6.3 to 1. One Stromberg down-draught carburetter. Gear ratios 18, 12.6, 7.5 and 5 to 1. Road speed at 1,000 r.p.m., 1st 4.25, 2nd 6, 3rd 10.2, top 15.5 m.p.h. Maximum speeds, 1st 20, 2nd 30, 3rd 50, top 70 m.p.h. 8 gallon rear tank. Consumption 30 m.p.g. Rudge wire wheels. Ground clearance 5½″. Weight of complete car 16½ cwt. Price: Streamlined saloon £245, tourer £225, foursome £255, Burlington coupé £280, Cresta saloon £265, Streamlined two-seater £225.



The latest supercharged 5-litre Mercédès is a worthy successor to the famous "38-250."

Detail improvements only have been made to the Minx and Aero Minx sports models for 1935, the most notable of these being a new all-synchromesh gearbox, extra leaves under the springs which come into play when a heavy load is being carried, a new type of worm and nut steering, and the removal of the radiator filler to the under-side of the bonnet.

HOTCHKISS.

French. Hotchkiss Automobiles. 64/70, Vauxhall Bridge Road, London.

3½-litre. 6 cyl., 86 × 100, 3,485 c.c., 27.5 h.p. Tax £28. Pushrod o.h.v. Comp. ratio 6.8 to 1. 7 bearing crankshaft. Pump cooling. Solex twin carburetters. Rubber engine mounting, 4 point. S.d.p. clutch. 4 speed synchromesh gearbox, central change. Open prop. shaft. ¾-floating rear axle. Houdaille shock absorbers. Worm and nut steering. Turning circle 38′. Bendix brakes. Battery 12 v. 80 a.h. 18 gallon rear tank, A.C. pump. Consumption 17 m.p.g. Wire wheels. Tyres 6 × 19. Wheelbase 10′ 4½″. Track 4′ 8½″. Ground clearance 9″. Price, chassis £750.

2½-litre. 6 cyl., 75 × 100, 2,650 c.c., 20.8 h.p. Tax £21. Pushrod o.h.v. Comp. ratio 6.8 to 1. 7 bearing crankshaft. Pump cooling. Twin Solex carburetters. S.d.p. clutch. Synchromesh 4 speed gearbox, central change. Open prop. shaft. ¾-floating rear axle. ½-elliptic spring, Houdaille shock absorbers. Worm and nut steering. Turning circle 38′. Bendix brakes. Battery 12 v. 80 a.h. 18 gallon rear tank. Consumption 20 m.p.g. Wire wheels. Tyres 5.50 × 18. Wheelbase 10′ 1″. Track 4′ 8″. Ground clearance 9″. Weight of complete car 29 cwt. Price, chassis £650.

Paris-Nice Speed Model. Tuned 3½-litre engine in modified 2½-litre chassis. Engine modifications: 2 Solex carburetters, redesigned inlet manifold, bigger exhaust system, higher compression, special camshaft. Clutch and rear axle as in 3½-litre. Maximum speed approx. 90 m.p.h.

The outstanding feature of the Hotchkiss programme is the Paris-Nice speed model. This car is likely to be one of the finest sports cars on the market, with a cruising speed of 75 m.p.h. The worth of Hotchkiss cars has been proved by constant competition in such events as the Monte Carlo Rally and the Alpine Trial, and notably by long-distance record attempts at Montlhéry track. The 3½-litre and 2½-litre models are not changed.

LAGONDA.

British. Lagonda Ltd., Staines, Middlesex.

4½-litre Standard. 6 cyl., 88.5 × 120.64, 4,467 c.c., 29.13 h.p. Tax £30. Pushrod o.h.v. 4 bearing camshaft. Pump and fan cooling. Two S.U. carburetters. Floatex engine mounting. S.d.p. clutch. 4 speed gearbox, silent third, right-hand change. Ratios, 2nd 7.35, 3rd 4.75, top 3.66 to 1. Open prop. shaft. Spiral bevel rear axle. ½-elliptic springs. Cam steering, turning circle 43′. Servo brakes. Battery 12 v. 90 a.h. 20 gallon rear tank, electric pump. Wire wheels. Tyres 19 × 6. Wheelbase 10′ 9″. Track 4′ 10″. Ground clearance 7″. Weight of chassis 27 cwt. Price, chassis £675.

4½-litre Rapide. Same specification as Standard, with following modification: Gear ratios, 2nd 6.6, 3rd 4.2, top 3.3 to 1. Turning circle 42′. Girling brakes. Wheelbase 10′ 3″. Chassis weight 25½ cwt. *Price, chassis £825.*

3½-litre. 6 cyl., 80 × 120, 2,819 c.c., 23.82 h.p. Tax £24. Pushrod o.h.v. 7 bearing crankshaft. Pump and fan cooling. Two S.U. carburetters. S.d.p. clutch. 4 speed gearbox, silent third, right-hand change. Ratios, 2nd 7.35, 3rd 4.75, top 3.6 to 1. Open prop. shaft. Spiral bevel rear axle. ½-elliptic springs. Hartford shock absorbers. Cam steering. Turning circle 42′. Girling brakes. Battery 12 v. 90 a.h. 20 gallon rear tank, mechanical pump. Wire wheels. Tyres 19 × 6. Wheelbase 10′ 3″. Track 4′ 10″. Ground clearance 7″. Chassis weight 26½ cwt. Price, chassis £550.

3-litre. Same specification as 3½-litre, with following modifications: 75 × 120, 3,181 c.c. 20.94 h.p. Tax £21. Comp. ratio 6.43 to 1. 79 b.h.p. at 3,800 r.p.m. Gear ratios, 2nd 8.05, 3rd 5.15, top 4.1 to 1. Turning circle 43′. Mechanical brakes. Wheelbase 10′ 9″. Price, chassis £550.

16/80 Special Six. 6 cyl., 65 × 100, 1,991 c.c. 15.7 h.p. Tax £16. Pushrod o.h.v. Comp. ratio 6.5 to 1. 4 bearing crankshaft. 61 b.h.p. at 4.500 r.p.m. Pump and fan cooling. Two S.U. carburetters. Rubber engine mounting. S.d.p. clutch. Wilson pre-selector gearbox, right-hand change. Top gear ratio 4.66 to 1. Open prop. shaft. Semi-floating rear axle. ½-elliptic springs, Hartford shock-absorbers. Cam steering. Turning circle 40′. Mechanical brakes. Battery 12 v. 76 a.h. 14 gallon rear tank, electric pump. Wire wheels. Tyres 5.5 × 18. Wheelbase 10′. Track 4′ 8″. Ground clearance 6″. Chassis weight 22½ cwt. Price, chassis £475.

Rapier. 4 cyl., 62.5 × 90, 1,104 c.c., 9.6 h.p. Tax £10. O.h.c. Comp. ratio 7.5 to 1. 3 bearing crankshaft. 45 b.h.p. at 5,400 r.p.m. Pump cooling. Two S.U. carburetters. Silent bloc engine mounting. S.d.p. clutch. Wilson pre-selector gearbox, right-hand change. Top gear ratio 5.28 to 1. Open prop. shaft. ¾-floating rear axle. ½-elliptic springs, Hartford shock absorbers. Cam steering. Turning circle 35′. Girling brakes. Battery 12 v. 63 a.h. 8 gallon rear tank, electric pump. Wire wheels. Tyres 4.5 × 19. Wheelbase 8′ 4″. Track 4′ Ground clearance 5½″. chassis weight 13 cwt. Price, chassis £270.

Two new models appear in the Lagonda range for 1935. These are the 4½-litre Rapide and the 3½-litre. The first is an outcome of the cars entered for the recent T.T., when they proved themselves to be as fast as any car in the race. The open sports model sells at £1,000 complete. The 3½-litre model is not unlike the Rapide in general layout, and supplements the successful 3-litre car which has many admirers. The Standard 4½-litre, the "16/80" and the Rapier continue unchanged except for a few detailed improvements resulting from the experience gained during the past year.

LANCIA.

Italian. Lancia (England) Ltd., Alperton, Near Wembley.

Augusta. 4 cyl., 69.85 × 78, 1,196 c.c., 12.1 h.p. Tax £13. O.h.c. Comp. ratio 5.4 to 1. 3 bearing crankshaft. 34 b.h.p. at maximum revs. Pump and fan cooling. 1 Zenith carburetter. Engine mounted on laminated springs with shock absorbers. Dry mono-disc clutch. 4 speed gearbox, silent third, free wheel, central change. Ratios 15.5, 9.9, 7.21, 4.87 to 1. Road speed at 1,000 r.p.m., 1st 8, 2nd 10, 3rd 12, top 18 m.p.h. Maximum speeds, 1st 20, 2nd 35, 3rd 50, top 70 m.p.h. Single tubular prop. shaft. Hypoid rear drive. Springs, front independent, rear ½-elliptics, Friction shock absorbers. Worm and sector steering. Turning circle 34′. Lockheed brakes, independent hand brake. Battery 6 v. 60 a.h. 10 gallon rear tank, automatic feed. Consumption 28/30 m.p.g. Rudge wheels. Tyres 140 × 40. Wheelbase 8′ 8¼″. Track 3′ 11½″. Weight of saloons and drop-head coupés 17 cwt. Price, chassis £325, standard pillarless saloon £390, de luxe saloon £430, "March" special sports 4 seater £450, coach-built saloon with sliding roof £475, 4 seater cabriolet £475.

Artena. 4 cyl., 82.55 × 90, 1,924 c.c., 16.9 h.p. Tax £17. O.h.c. Comp. ratio 5.25 to 1. 3 bearing crankshaft. 54 b.h.p. Pump and fan cooling. One Zenith carburetter. Engine mounted on laminated springs with rubber dampers. Dry mono-disc clutch. 4 speed gearbox, silent 3rd, central change. Ratios 16.4, 10.3, 6.09, 4.7 to 1. Maximum speeds, 1st 20, 2nd 35, 3rd 50, top 70 m.p.h. Two-section prop. shaft. Hypoid rear drive. Springs, front independent, rear ½-elliptic. Friction shock absorbers. Worm and sector steering. Turning circle 33′ 6″. Mechanical brakes. Battery 12 v. 60 a.h. 14 gallon rear tank, electric pump. Consumption 27 m.p.g. Disc wheels. Tyres 14 × 4.5. Wheelbase, long 10′ 3½″, short 9′ 8″. Track 4′ 7½″. Ground clearance 8½″. Weight of complete car 22½ cwt. Price, chassis £495, 4-door 4 light saloon £675, 6 light saloon £695.

Astura. 8 cyl., 74.6 × 85, 2,972 c.c., 27.6 h.p. Tax £28. O.h.c. Comp. ratio 5.35 to 1. 2 bearing crankshaft. 80 b.h.p. Pump and fan cooling. One Zenith carburetter. Engine mounted on laminated springs with rubber buffer. Dry mono-disc clutch. 4 speed gearbox, silent third, central change. Ratios 15.83, 9.92, 6.46, 4.54 to 1. Maximum speeds, 1st 25, 2nd 40, 3rd 60, top 85 m.p.h. Two-section prop. shaft. Hypoid gears rear drive. Springs, front independent, rear ½-elliptic. Telesnub shock absorbers. Worm and sector steering. Turning circle 35′. Servo brakes. Battery 12 v. 60 a.h. 14 gallon rear tank, electric pump. Consumption 18 m.p.g. Rudge wheels. Tyres 15 × 4.5. Wheelbase, long 10′ 10″, short 10′ 2″. Track 4′ 7½″. Ground clearance 8½″. Weight of complete car 28½ cwt. Price, chassis £695, 4-door 4 light saloon £875, 6 light saloon £895.

Dilambda. 8 cyl., 79.37 × 100, 3,960 c.c., 31.2 h.p. Tax £32. Pushrod o.h.v. Comp. ratio 5.25 to 1. 5 bearing crankshaft. 102 b.h.p. Pump and fan cooling. 1 *Zenith double-type* carburetter. *Engine* mounted on laminated springs and rubber buffers. Dry mono-disc clutch. 4 speed gearbox, silent third, central change. Ratios 13.62, 8.86,, 6.28, 4.58 to 1. Maximum speeds, 1st 25, 2nd 40, 3rd 60, top 85 m.p.h. Two-section prop. shaft. Hypoid gears, rear drive. Springs, front independent, rear ½-elliptics, Telesnub shock absorbers. Worm and sector steering. Turning circle 38′ 9″. Servo brakes. Battery 12 v. 75 a.h. 22 gallon rear tank, autopulse feed. Consumption 15/16 m.p.g. Rudge wheels. Tyres 16 × 45. Wheelbase, long 11′ 5″, short 10′ 9½″. Track 4′ 8½″. Price, chassis £935. Special bodies to order from £250.

A GUIDE TO 1935 HIGH PERFORMANCE CARS—continued.

One of the most individual cars ever manufactured, the Lancia holds a high place in the esteem of all discerning motorists. It has road-holding and steering second to none, providing controllability which is extraordinarily satisfactory to the driver. The existing range covers the whole field of size, from the 12 h.p. Augusta to the 32 h.p. Dilambda. All models have the same underlying principles of suspension and weight distribution, and the workmanship is of the finest Italian degree.

M.G.

British. The M.G. Car Co., Ltd., Abingdon-on-Thames.

Midget P Type. 4 cyl., 57 × 83, 847 c.c., 8.08 h.p. Tax £8. O.h.c. Comp. ratio 6.4 to 1. 3 bearing crankshaft. Thermo syphon cooling. Two S.U. carburetters. 3 point rubber engine mounting. S.d.p. clutch. Normal gearbox, central change. Ratios, 22.47, 12.47, 7.31, 5.375 to 1. Road speed at 1,000 r.p.m., 1st 3.52, 2nd 6.34, 10.8, 14.7 m.p.h. Maximum revs. 5,500 r.p.m. Hardy Spicer prop. shaft. ¾ floating 4-star diff., spiral bevel. Semi-elliptic springs. Hartford shock absorbers front, Luvax rear. Bishop cam steering. Turning circle 34′. Cable brakes 12″ drums. Battery 12 v. 41 a.h. Rear tank, 12 gallon 2 seater, 10 gallon 4 seater, 6 gallon coupe. Rudge wire wheels. Tyres 19 × 4. Wheelbase 7′ 3½″. Track 3′ 6″. Ground clearance 6″ Weight, 2 seater 14½ cwt., 4 seater 15½ cwt., airline coupe 15¾ cwt. Price, chassis £175, 2 seater £222, 4 seater £240, airline coupe £290.

Midget Q Type. Supercharged 4 cyl., 57 × 73, 746 c.c., 8.05 h.p. Tax £8. O.h.c. Comp. ratio, 6.4 to approx. 3 bearing crankshaft. Pump cooling. 1 S.U. carburetter. 3 point engine mounting. Preselector gearbox, central change. Ratios, 15.30, 9, 6.12, 4.5 to 1. (Optional rear axle ratio 4.875 to 1.) Road speed at 1,000 r.p.m., 1st 5, 2nd 8.7, 3rd 12.7, top 17.4 m.p.h. Maximum revs. 5,500 r.p.m. Hardy Spicer prop. shaft, metal universals. ¾ floating, 5 star diff., straight bevel. Semi-elliptic springs. Hartford shock absorbers front, Luvax rear. Bishop cam steering. Turning circle 30′. Cable operated brakes, 12″ drums. 26 v. batteries, 12 v. at 51 a.h. 19 gallon rear tank. Twin electric pumps. Rudge wheels. Tyres 18 × 4.75. Wheelbase 7′ 10″. Track 3′ 9″. Ground clearance 6″. Weight of complete car 13¼ cwt. Price, 2 seater racing body £550.

Magna L Type. 6 cyl., 57 × 71, 1,086 c.c., 12.08 h.p. Tax £12. O.h.c. Comp. ratio 6.4 to 1. 4 bearing crankshaft. Pump cooling. 2 S.U. carburetters. 3 point engine mounting. Multiple dry plate clutch. Normal gearbox, central change. Ratios, 19.24, 11.5, 7.31, 5.375 to 1. Road speed at 1,000 r.p.m., 1st 4.3, 2nd 7.18, 3rd 11.3, top 15.4 m.p.h. Maximum revs. 5,500 r.p.m. Hardy Spicer prop. shaft. ¾ floating 2 pin. diff. spiral bevel. Semi-elliptic springs. Hartford shock absorbers. Marles steering. Turning circle 36′. Cable brakes. Battery 12 v. 51 a.h. 13 gallon rear tank, electric pump. Consumption 25 m.p.g. Rudge wheels. Tyres 19 × 4.50. Wheelbase 7′ 10″. Track 3′ 6″. Ground clearance 6″. Weight of coupe 16¾ cwt. Price, Continental coupe only available £350.

Magnette N Type. 6 cyl., 57 × 84, 1,287 c.c., 12.08 h.p. Tax £12. Other details as Magna, with following: Rubber engine mounting. Single dry plate clutch. Gear ratios 21.42, 11.89, 6.96, 5.125 to 1. Road speed at 1,000 r.p.m., 1st 3.8, 2nd 6.83, 3rd 11.67, top 15.86 m.p.h. 4 star diff. Shock absorbers, Hartford front, Luvax rear. Bishop cam steering. Turning circle 30′. Two 6 v. batteries, 63 a.h. 10 gall. rear tank on 2 and 4 seaters, 6 gallon on coupe. Consumption 24/28 m.p.g. Tyres 18 × 4.75. Wheelbase 8′. Track 3′ 9″. Weight of 2 and 2/4 seaters 17½ cwt., 4 seater 18¼ cwt., airline coupe 18½ cwt. Price, chassis £240, 2 seater £305, 4 seater £335, 2/4 seater £360, airline coupe £385.

Magnette KN Type. Same as N type, with following modifications: Gear ratios, 24.15, 13.4, 7.86, 5.785 to 1. Road speed at 1,000 r.p.m., 1st 3.38, 2nd 6.1, 3rd 10.4, top 14.12 m.p.h. Turning circle 43′. 11 gallon rear tank. Consumption 20-24 m.p.g. Tyres 19 × 4.75. Wheelbase 9′. Track 4′. Weight of saloon 21 cwt. Price, chassis £295, saloon £399.

Magnette K 3. Supercharged. Same as Q-type Midget details, with following exceptions: 6 cyl., 57 × 71, 1,086 c.c., 12.08 h.p. Tax £12. Comp. ratio 6.1 to 1. 4 bearing crankshaft. Gear ratios, 16.62, 9.78, 6.65, 4.89 to 1. (Optional final drives 4.89, 4.33, 5.78 to 1.) Road speed at 1,000 r.p.m., 1st 5.2, 2nd 8.8., 3rd 13, top 17.6 m.p.h. Hartford shock absorbers front and rear. Turning circle 36′. 13″ brake drums. 27½ gallon rear tank. Tyres 19 × 4.75. Track 4′. Weight of complete car 17¾ cwt. Price, 2 seater racing body £795.

The M.G. programme has been in production for some time, and consists of Midgets, Magnas, and Magnettes. The normal models are high-speed sports cars, suitable for long-distance touring and ordinary competition work. For racing pure and simple, the Q Midget and the K3 Magnette are provided, both being genuine racing cars with splendid records in the important races of this season. No firm has done more to foster motor sport than the M.G. Car Co., and their own productions are a direct result of constant participation in racing and reliability events. Their quality can be gauged by their successes, and the great popularity of M.G. cars throughout the country is indeed well merited.

MORRIS.

British. Morris Motors Ltd., Cowley, Oxford.

Ten-Six Special. 6 cyl., 57× 90, 1,378 c.c., 12.08 h.p. Tax £12. S.V. comp. ratio 5.8 to 1. 4 bearing crankshaft. 31 b.h.p. at 4,200 r.p.m. Thermo-syphon and fan cooling. 2 S.U. carburetters. Rubber engine mounting. S.p. clutch. 4-speed gearbox. Synchromesh central change. Ratios 22.2, 13.09, 8.49, and 5.55 to 1. Road speed at 1,000 r.p.m., 1st 3.5, 2nd 5, 3rd 9.5, top 14.5 to 1. Maximum speed 70 m.p.h. Open prop. shaft. ¾ floating spiral bevel rear axle. Semi-elliptic springs. Armstrong hydraulic shock absorbers. Bishop cam steering. Turning circle 40′ 6″. Lockhead hydraulic foot brake, mechanical hand lever. Two 6 v. batteries, 50 a.h. 6½ gallon rear tank. S.U. electric pump. Magna wire wheels, 3.00 w.b. × 18. Tyres 4.75″ × 18″. Wheelbase 102″. Track 48″. Ground clearance 8″. Chassis weight 21½ cwt. Price, chassis £164 10s., open 4 seater sports £230.

The Ten-Six Special is the only sports model marketed by Morris Motors for 1935, and is a specially tuned version of the Ten-Six which has been so popular throughout the past year. It differs from standard in having twin S.U. carburetters, special manifolding, a high-lift camshaft, an over-size exhaust pipe, and, of course, is carefuly assembled to give the smoothest working surfaces. The 4-seater body is comfortable, and equipped with a snug hood and side curtains.

RAILTON TERRAPLANE.

Anglo-Canadian. Fairmile Engineering Co., Cobham, Surrey.

8 cyl. 75 × 114, 4,164 c.c., 28.8 h.p. Tax £29. S.v. Comp. ratio 5.75 to 1. 5 bearing crankshaft. 113 b.h.p. Pump cooling. 1 Carter carburetter. Rubber engine mounting. S.d.p. clutch. Synchromesh gearbox. Central change. Ratios, 9.9, 6.6, 4.1 to 1. Road speed at 1,000 r.p.m., 1st 8, 2nd 12.5, top 20 m.p.h. Maximum speeds, 1st 31, 2nd 56, top 82-86 m.p.h. Open prop. shaft. Spiral bevel final drive. Semi-elliptic springs. Both hydraulic and friction shock absorbers. Turning circle 40′. Bendix brakes, cable operated. Battery 6 v. 120 a.h. 13 gall. rear tank, mechanical pump. Consumption 18 m.p.g. approx. Wire wheels. Tyres 16 × 6.25. Wheelbase 116″. Track 4′ 8″. Ground clearance 8½″. Weight of saloon 24½ cwt. Price: tourer £530, asloon £560, sports coupe £625, drop-head coupe £595.

There is no change in the Railton Terraplane for 1935. It remains a machine of outstanding character, possessed of a performance which places it in the front rank of sports cars. In acceleration, speed, and general behaviour it is frankly sporting, and yet it also has the silence and ease of control of the refined town car.

During the last year it has attained a firm popularity, and that it would be difficult to improve upon can well be vouched for by any owner. The range of body styles is particularly attractive.

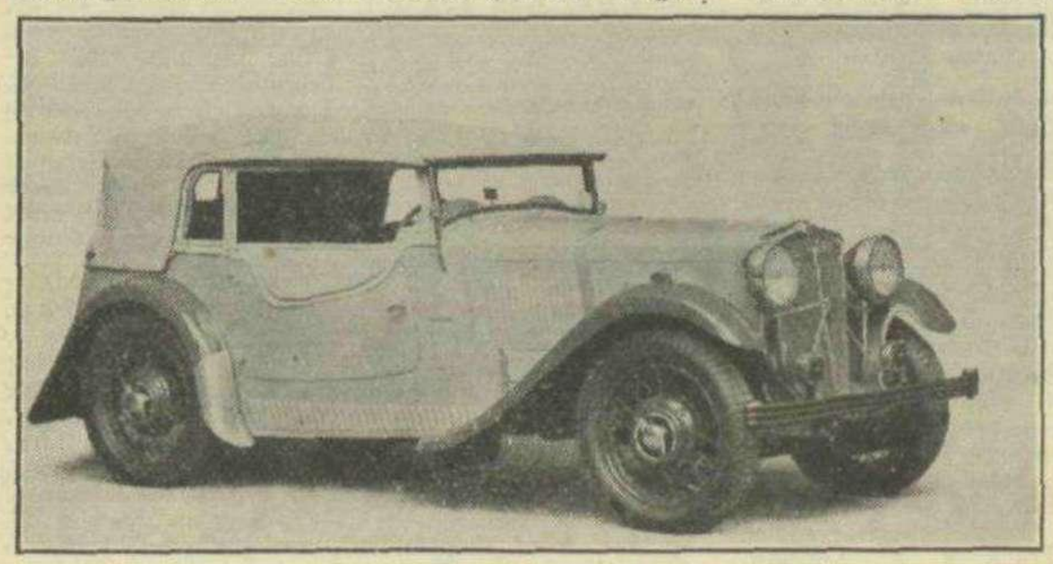
ROLLS-ROYCE.

British. Rolls-Royce, Ltd., 14-15, Conduit Street, London, W. 1.

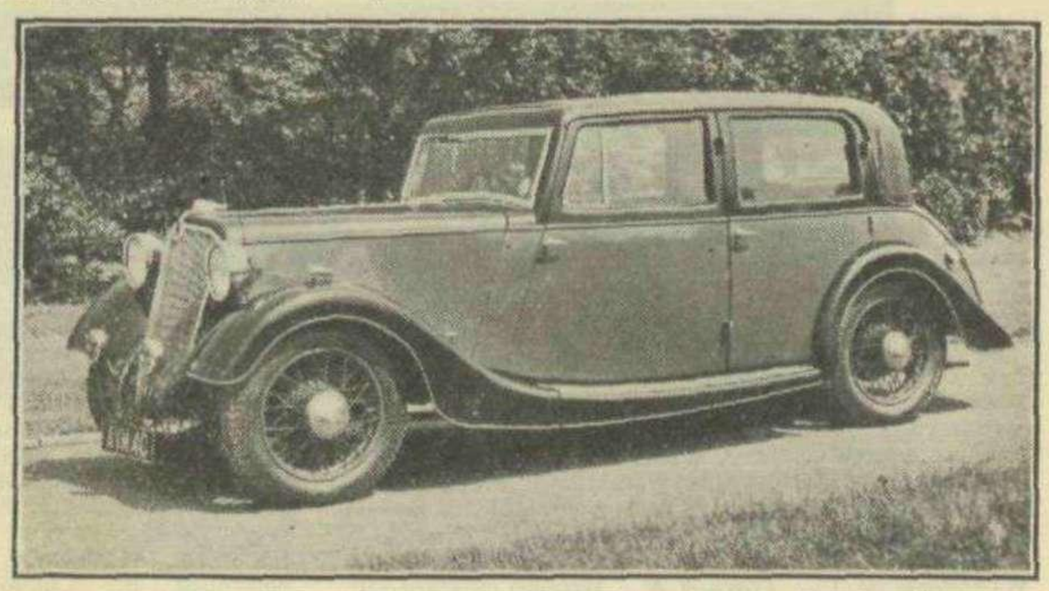
40/50 h.p. 6 cyl., 4¼″ × 5½″, 7,668 c.c. 43.3 h.p. Tax £44. O.h.v. Pump and fan cooling. 1 Rolls-Royce carburetter. S.d.p. clutch. 4 speed gearbox, synchromesh, right-hand change. Ratios 3.487, 2.003, 1.335, top direct (rear axle ratio not given). Open prop. shaft. Fully floating rear axle, hypoid gears. Rolls-Royce hydraulic shock absorbers. Semi-elliptic springs. Turning circle, right 27′ 11″, left 25′ 3″. Servo foot brake on 4 wheels, hand on rear wheels only. 12v. battery. 28 gall. rear tank, vacuum engine-driven pump. Wire wheels. Tyres 31″ × 6.75″. Wheelbase 12′ 6″. Track, front 58.75″, rear 60.25″. Ground clearance 8½″. Chassis weight 31¼ cwt. Price, long chassis £1,800, short chassis £1,750.

20/25 h.p. 6 cyl., 3¼″ × 4½″, 3,669 c.c., 25.3 h.p Tax £26. Rest of specification as 40/50 h.p., with following exceptions: Gear ratios 3.307, 1.709, 1.374, top direct. Rear axle, spiral bevel. 18 gall. rear tank. Tyres 31″ × 6″. Wheelbase 11′. Track 56½″. Chassis weight 23¼ cwt.

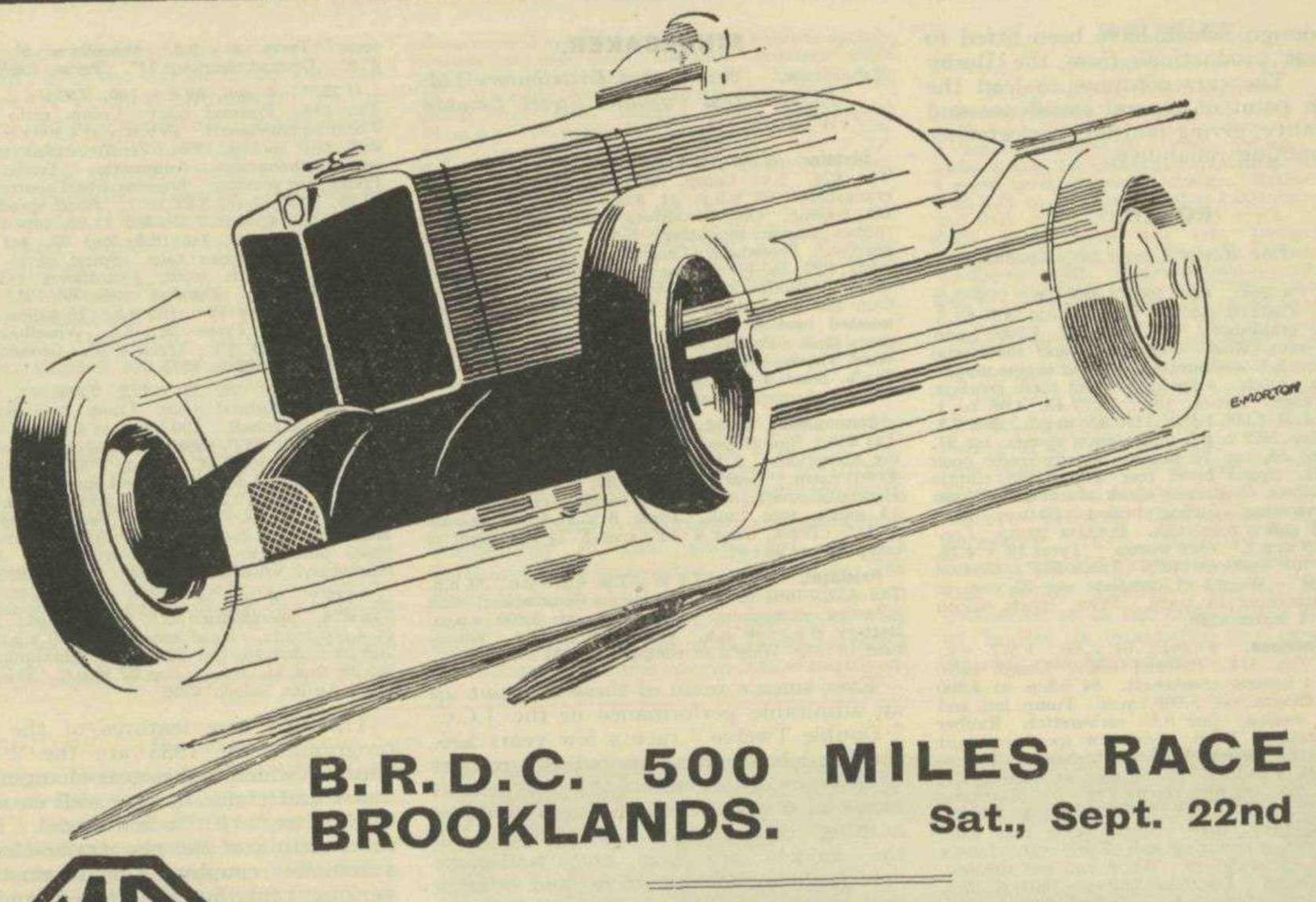
The Rolls-Royce programme shows no change from last year, only minor improvements being included, such as the special variable shock absorbers of Rolls-



The Morris Ten-Six Special is one of the lowest priced sports cars on the market, selling at £230. It has a maximum speed of 70 m.p.h., and is extremely well equipped.



The Crossley Ten "Regis" Saloon, which is fitted with self-changing gearbox, sliding roof and full equipment is selling for £325.



B.R.D.C. 500 MILES RACE
BROOKLANDS. **Sat., Sept. 22nd**

MG

3rd M.G. MAGNETTE
Major A. T. G. GARDNER and Dr. J. D. BENJAFIELD
97·85 m.p.h.

4th M.G. MAGNETTE
W. G. EVERITT and T. H. WISDOM
97·37 m.p.h.

5th M.G. MAGNETTE
G. F. A. MANBY-COLEGRAVE
97·27 m.p.h.

7th M.G. MAGNETTE
C. E. C. MARTIN and G. DULLER
93·35 m.p.h.

1st in Class G
M.G. MAGNETTE
(Subject to official Confirmation.)

4 out of 7 finishers were M.G's.

ISSUED BY THE M.G. CAR CO. LTD. ABINGDON-ON-THAMES

A GUIDE TO 1935 HIGH PERFORMANCE CARS—continued.

Royce design, which have been fitted to the latest productions from the Derby factory. The cars continue to lead the world in point of general excellence and high quality, giving faultless performance with unfailing reliability.

ROVER.

British. The Rover Co., Ltd., Coventry.

Twelve. 4 cyl., 69 × 100, 1,485 c.c., 11.9 h.p. Tax £12. Pushrod o.h.v. Comp. ratio 5.7 to 1. 3 bearing crankshaft. 48 b.h.p. at 4,200 r.p.m. Maximum revs. 5,200. Pump, fan and thermostat cooling. One S.U. carburetter. Rubber engine mounting. S.d.p. clutch. 4 speed constant mesh gearbox, central change. Ratios, 19.8, 11, 7.45, 4,88 to 1. Road speed at 1,000 r.p.m., 1st 3.9 m.p.h., 2nd 7.2, 3rd 10.6, top 16.2 m.p.h. Maximum speeds, 1st 21, 2nd 37, 3rd 55, top 70 m.p.h. Hardy-Spicer open prop. shaft. Spiral bevel rear axle. Half elliptic springs. Luvax hydraulic shock absorbers. Worm and nut steering. Girling brakes. Battery 12 v. 53 a.h. 9¾ gallon rear tank. Positive pump. Consumption 28 m.p.g. Wire wheels. Tyres 18 × 4.75. Wheelbase 105″ (saloons 112″). Track 51½″. Ground clearance 6½″. Weight of complete car 22 cwt. to 25 cwt., according to body. Price, sports saloon £298, open 4 seater £288.

Speed Fourteen. 6 cyl., 61 × 90, 1,577 c.c., 13.8 h.p. Tax £14. Pushrod o.h.v. Comp. ratio 6.7 to 1. 4 bearing crankshaft. 54 b.h.p. at 4,800 r.p.m. Maximum revs. 5,600 r.p.m. Pump, fan, and thermostat cooling. One S.U. carburetter. Rubber engine mounting. S.d.p. clutch. 4 speed constant mesh gearbox, free-wheel. Central change. Ratios, 19.8, 11, 7.45, 4.88 to 1. Road speed at 1,000 r.p.m., 1st 3.9, 2nd 7.2, 3rd 10.6, top 16.2 m.p.h. Maximum speeds, 1st 21, 2nd 40, 3rd 59, top 80 m.p.h. Hardy-Spicer open prop. shaft. Spiral bevel rear axle. Independent front springing, half-elliptic rear. Luvax hydraulic shock absorbers. Worm and nut steering. Turning circle 38′. Lockhead brakes. Battery 12 v. 53 a.h. 9¾ gallon rear tank. Positive pump. Consumption 24 m.p.g. Rudge wire wheels. Knock-off hubs. Tyres 18× 4.75. Wheelbase 112″. Track 51½″. Ground clearance 6½″. Weight of complete car, from 22cwt. to 25 cwt. Price, open 4 seater £405, streamline coupe £415.

The Rover Company has concentrated on making detail improvements to its models for 1935, among which are the "Bijur" system of automatic chassis lubrication, automatic thermostat in the water circulation, and automatic battery-charging control. The "Twelve" is available as an attractive open four-seater or as a sports saloon, while the Streamline Saloon on the Speed Fourteen chassis is in accordance with the latest coachbuilding ideals. Indeed Rover coachwork is outstandingly good, as witness the awards gained by the *marque* in the R.A.C. Rally.

SQUIRE.

British. The Squire Car Manufacturing Co., Ltd., Remenham Hill Works, Henley-on-Thames.

Supercharged. 4 cyl., 69 × 100, 1,496 c.c., 11.9 h.p. Tax £12. Twin o.h.c. 3 bearing crankshaft. Two water pumps. 1 S.U. carburetter. Preselective 4-speed gearbox, steering column control. Top gear ratio, long chassis 4 to 1, short chassis 3.6 to 1. Semi-floating spiral bevel rear axle. Semi-elliptic springs. Thermostat shock absorbers. Marles Weller steering. Lockheed brakes. Two 6 v. batteries. 15 gallon rear tank. Wire wheels. Tyres, short 5 × 18, long 5.25 × 18. Wheelbase, short 8′ 6″, long 10′ 3″. Track 4′ 6″. Ground clearance 6″. Chassis weight, long 15½ cwt., short 15 cwt. Price, short £950, long £975.

A newcomer to the ranks of sports cars, the Squire is claimed to be one of the most advanced designs of to-day. It is a 1½-litre car of the highest efficiency, giving a terrific performance. A full description of this interesting car appears on another page of this issue.

STUDEBAKER.

American. Studebaker Distributors Ltd., 155-7, Great Portland Street, London, W. 1.

Dictator. 6 cyl., 82.5×104.7, 3,357 c.c., 25.4 h.p. Tax £26. S.v. Comp. ratio 6.3 to 1. 4 bearing crankshaft. 88 b.h.p. at 3,600 r.p.m. Pump and fan cooling. One Stromberg carburetter. 4 point rubber engine mounting. S.d.p. clutch. 3 speed gearbox. Freewheel. Central change. Ratios 12.04, 6.83, 4.27 to 1. Torque tube. Semi-floating rear axle. ½-elliptic springs. Delco shock absorbers. Cam and lever steering. Turning circle 38′. Power assisted brakes. Battery 6 v. 102 a.h. 12 gallon rear tank. Pump feed. Consumption 22 m.p.g. Wire wheels. Tyres 5.50× 17. Wheelbase 9′ 6″. Track, front 4′ 10″, rear 5′. Ground clearance 8″. Weight of complete car 26 cwt.

Commander. 8 cyl., 77.5×95.2, 3,619 c.c., 30 h.p. Tax £30. Rest of specification as Dictator, with following exceptions: 9 bearing crankshaft, 103 b.h.p. at 4,000 r.p.m. Gear ratios, 12.22, 7.02, 4.27 to 1. Houdaille shock absorbers. Turning circle 39′ 6″. 14 gallon rear tank. Tyres 6 × 17.4. Wheelbase 9′ 11″. Track, front 4′ 11″, rear 5′ 1¼″. Weight of complete car 28 cwt.

President. 8 cyl., 77.5 × 107.9, 4,095 c.c., 30 h.p. Tax £30. Rest of specification as Commander, with following exceptions: 110 b.h.p. at 3,800 r.p.m. Battery 6 v. 136 a.h. Tyres 6.50 × 17.4. Wheelbase 10′ 3″. Weight of complete car 31 cwt.

Ever since a team of these cars put up an admirable performance in the J.C.C. "Double Twelve" race a few years ago, the Studebaker has merited the respect of all lovers of fast motoring. The present range of 6 and 8 cylinder cars contains nothing revolutionary in design, but all the models are fast and well-made vehicles, effortless to drive, and offering long trouble-free service.

SUNBEAM.

British. The Sunbeam Motor Car Co., Ltd., Wolverhampton.

Twenty-one Sports. 6 cyl., 80 × 110, 2,916 c.c., 20.9 h.p. Tax £21. Pushrod o.h.v. Comp. ratio 5.9 to 1. 4 bearing crankshaft. Pump and fan cooling. 1 Zenith carburetter. 4 point rubber engine mounting. S.d.p. clutch. Choice of synchromesh or preselective gearbox. Ratios (synchromesh) 17.8, 11.66, 7.18, top 4.9 to 1, (preselective) 20.04, 2nd 11.64, 3rd 7.26, top 4.9 to 1. Central change for synchromesh, steering column for preselective. Torque tube on synchromesh model, open shaft on preselective. Semi-floating spiral bevel drive. Semi-elliptic springs. Luvax thermostat shock absorbers. Worm and nut steering. Turning circle 44′ 6″. Hydraulic brakes. Battery 12 v. 75 a.h. 14 gallon rear tank, pump feed. Wire wheels. Tyres 6 × 18. Wheelbase 10′. Track 4′ 7⅞″. Ground clearance 7″. Price, chassis, synchromesh, £525, coupe £825, preselective chassis £560, coupe £860.

The Sunbeam "Twenty-One Sports" has been developed over a period of several years, and in its present form it is a car of impressive performance, capable of sustaining an unusually high cruising speed with the smooth riding comfort expected from this *marque*. A patented interlocking mechanism is used on the preselective gearbox whereby when the neutral gear is engaged the clutch is automatically withdrawn and the engine entirely disconnected from the gearbox.

TALBOT.

British. Clement-Talbot Ltd., Barlby Road, London, W. 10.

"65." 6 cyl., 61 × 95, 1,666 c.c., 13.8 h.p. Tax £14. Pushrod o.h.v. Comp. ratio 6.5 to 1. 4 bearing crankshaft. 45 b.h.p. at 4,500 r.p.m. Thermo syphon cooling. One Zenith carburetter. Rigid engine mounting. Preselector gearbox (de luxe model has automatic coupling). Steering wheel control. Ratios, 23.5, 13.33, 8.69, 5.87 to 1. Road speed at 1,000 r.p.m., 1st 3.75, 2nd 6.5, 3rd 10, top 15 m.p.h. Maximum speeds, 1st 17, 2nd 29, 3rd 44.5, top 66 m.p.h. Torque tube. Spiral bevel rear axle. Springs, front half-elliptic, rear ½ cantilever. Hartford shock absorbers. Turning circle 37′. Self-servo brakes. Battery 12 v. 90 a.h. 16 gallon rear tank. Pump feed. Tyres 29 × 5.5. Wheelbase 9′ 6″. Track 4′ 8″. Ground clearance 7½″. Prices, £395 to £460.

"75." 6 cyl., 69.5 × 100, 2,276 c.c. 17.9 h.p. Tax £18. Pushrod o.h.v. Comp. ratio 6.5 to 1. 7 bearing crankshaft. 70 b.h.p. at 4,500 r.p.m. Pump and fan cooling. One Zenith carburetter. Rigid engine mountings. Automatic "Traffic" clutch. Preselector gearbox. Steering wheel control. Ratios, 19.26, 10.57, 7.15, 5.22 to 1. Road speeds at 1,000 r.p.m., 1st 4, 2nd 7.25, 3rd 11.25, top 16.5 m.p.h. Maximum speeds, 1st 18.5, 2nd 32, 3rd 50.5, top 74.5 m.p.h. Torque tube. Spiral bevel rear axle. Springs, ½-elliptic front, ½-cantilever rear. Luvax shock absorbers. Turning circle 39′ 10″. Self-servo brakes. Battery 12 v. 105 a.h. 16 gallon rear tank, pump feed. Tyres 29 × 5.5. Wheelbase 10′ 6″ (short chassis 9′ 6″). Track 4′ 8″. Ground clearance 7½″. Price, £525 to £575.

"105." 6 cyl. 75 × 112, 2,969 c.c., 20.9 h.p. Tax £21. Pushrod o.h.v. Comp. ratio 6.6 to 1. 7 bearing crankshaft. 100 b.h.p. at 4,500 r.p.m. Specification as "75" with following exceptions: Gear ratios 13.6, 7.56, 5.44, and top 4 to 1, or 14.83, 8.24, 5.93, and top 4.36 to 1. Road speed at 1,000 r.p.m. 1st 5.75, 2nd 10.25, 3rd 16, and top 19.75 m.p.h. Maximum speeds, 1st 26, 2nd 47, 3rd 65.5, top 88 m.p.h. Hartford shock absorbers, plus Luvax hand-controlled shock absorbers. Battery 12 v. 150 a.h. 19½ gallon rear tank. Wheelbase 10′ 0¾″. Price, £695 to £750.

"110." 6 cyl., 80 × 112, 3,377.8 c.c., 23.8 h.p. Tax £24. Specification as "105" except: 120 b.h.p. at 4,500 r.p.m. Road speed at 1,000 r.p.m., 1st 6, 2nd 11.5, 3rd 16, top 22 m.p.h. Maximum speeds, 1st 28, 2nd 51, 3rd 71, top 97 m.p.h. Price, Tourer £795, Airline Saloon £850.

The two new features of the Talbot programme for 1935 are the "Traffic-clutch," which makes gear-changing automatic and traffic driving still easier, and the 3½-litre "110," a new model. Briefly, the function of the new traffic-clutch, or automatic coupling, as distinct from various centrifugal clutches and fluid transmissions, is that while the clutch pedal never need be used in traffic the engine is nevertheless always positively and solidly driven by the vehicle.

The new "110" Airline Saloon is a magnificent car, capable of close on 100 m.p.h. The touring body is similar to that well known on the "105."

TRIUMPH.

British. The Triumph Co., Ltd., Coventry.

Gloria 4 cyl. Vitesse. Choice of engines, 66 × 90, 1,232 c.c., 10.8 h.p, Tax £11; or 62 × 90, 1,087 c.c., 9.53 h.p., Tax £10. O.h. inlet, side exhaust valves. Comp. ratio 6.8 to 1. 44 b.h.p. at 4,500 r.p.m. Pump and fan cooling. 2 S.U. carburetters. 3 point resilient engine mounting. S.d.p. clutch. Silent third gearbox with freewheel and automatic reverse connector. Central change. Ratios 20.35, 12.41, 8, and 5.22 to 1. Road speed at 1,000 r.p.m., 1st 3.83, 2nd 6.28, 3rd 9.74, top 14.93 m.p.h. Maximum speeds, 1st 18, 2nd 30, 3rd 45, top 65-70 m.p.h. Open prop. shaft. ¾-floating rear axle, spiral bevel. ½-elliptic springs. Luvax hydraulic shock absorbers. Turning circle 38′. Hydraulic brakes. Battery 12 v. 53 a.h. 10½ gallon rear tank (2 seater 15 gallon), electric pump. Wire wheels. Tyres 5 × 17. Wheelbase 9′ standard. 8′ coupe or 2 seater. Track 4′ 2″. Ground clearance, 6¾″. Weight of tourer 20½ cwt. Price: tourer £320, saloon £320, coupe £310, Monte Carlo tourer £335.

Gloria Six Vitesse. 6 cyl., 65 × 100, 1,991 c.c., 1,572 h.p. Tax £12. O.h. inlet, side exhaust valves. Comp. ratio 6.9 to 1. 4 bearing crankshaft. 64 b.h.p. at 4,750 r.p.m. Pump and fan cooling. Two Solex carburetters. 5 point resilient engine mounting. S.d.p. clutch. Silent third gearbox, with free wheel, central change. Ratios, 18.5, 11.29, 7.28, 4.75 to 1. Road speed at 1,000 r.p.m., 1st 4.26, 2nd 7, 3rd 10.8, top 16.6 m.p.h. Maximum speeds, 1st 20, 2nd 33, 3rd 55, top 70-75 m.p.h. Transmission springs, brakes and steering as 4 cyl. 12 gallon rear tank, electric pump. Battery 12 v. 53 a.h. Wire wheels. Tyres 5.25 × 17. Wheelbase 9′ 8″ standard, 8′ 8″ coupe. Track 4′ 2″. Ground clearance 6¾″. Weight of complete car, saloon 23½ cwt., tourer 21½ cwt. Price: tourer £385, saloon £385, coupe £375, Monte Carlo tourer £398.

Dolomite. 8 cyl., supercharged 2,000 c.c. Details not available on going to press.

When a firm sets about building up its reputation by entering standard cars in

A GUIDE TO 1935 HIGH PERFORMANCE CARS—continued.

such arduous competitions as the Monte Carlo Rally and the Alpine Trial, one can only have the greatest admiration for the enterprise of those concerned—and respect for their products on emerging successfully from the ordeal. Such is the case with the Triumph Company, and under the care of Mr. Donald Healey the cars proved their worth to the hilt. The sports editions of the "Glorias" are known as Vitesse models, and are all specially assembled.

The new "Dolomite," on which work has been carried on for the past year, will be one of the sensations of the Motor Show.

VALE SPECIAL.

British. Vale Engineering Co., Ltd., Portsdown Road, London, W. 9.

10 h.p. 4 cyl., 60 × 90, 1,098 c.c., 9.8 h.p. Tax £10. O.h. inlet, side exhaust valves. Comp. ratio 8.5 to 1. 3 bearing crankshaft. 47 b.h.p. at 4,250 r.p.m. Pump and fan cooling. 2 Solex carburetters. 4 point Silent bloc engine mounting. S.d.p. clutch. 4 speed gearbox, silent third, central charge. Final drive to choice, from 4.5 to 5.25 to 1. Maximum speeds, 1st 30, 2nd 42, 3rd 65, top 85 m.p.h. Hardy-Spicer needle-bearing open propeller shaft. Underslung worm or spiral bevel rear axle. ½-elliptic springs, floating at rear ends. Multiplex Hartford shock absorbers. Worm and nut steering. Turning circle 33'. Hydraulic brakes. Battery 12 v. 60 a.h. 12 gallon rear tank. Electric pump. Consumption 35 m.p.g. Wire wheels. Tyres 5.25 × 18. Wheelbase 7' or 8' 6". Track, front 3' 10½", rear 3' 7½". Ground clearance 6". Weight of complete car 13 cwt. Price, from £325.

12 h.p. 4 cyl., 69 × 100, 1,496 c.c., 11.9 h.p. Tax £12. Rest of specification as 10 h.p., with following exceptions: 53 b.h.p. at 4,250 r.p.m. Maximum speed 90 m.p.h. Petrol consumption 30 m.p.g. 15 gallon rear tank. Weight of complete car 15 cwt. Price, from £365.

12 h.p. 6 cyl., 59 × 100, 1,476 c.c. Rest of specification as 12 h.p. 4 cyl., with following exceptions: 5 bearing crankshaft. Over 60 b.h.p. Wheelbase 8' 6". Weight of complete car 16 cwt.. Price, from £395.

In addition to the models given in the above summaries, the old type 750 c.c. Vale Specials can be converted to 10 h.p. or 12 h.p. models at a cost of £150. This figure includes a complete stripping and reassembly of the whole car, and a further year's guarantee. Those who like their cars to be really "special," can submit their own designs and have cars built accordingly, the cost being in strict accordance with the specification required.

WOLSELEY.

British. Wolseley Motors (1927) Ltd., Ward End, Birmingham.

Hornet Special. 6 cyl., 61.5 × 90, 1,604 c.c., 14.06 h.p. Tax £15. O.h.c. Comp. ratio 6.4 to 1. 4 bearing crankshaft. Pump cooling. Two S.U. carburetters. Flexible engine mounting. S.d.g. clutch. 4 speed gearbox, central change. Ratios 20.4,11.32. 6.64, 4.89 to 1. Road speed at 1,000 r.p.m., 1st 3.84, 2nd 6.95, 3rd 11.85, top 16.15 m.p.h. Open prop. shaft. Spiral bevel rear axle. ½-elliptic springs, friction shock absorbers. Warm and segment steering, turning circle 38'. Hydraulic brakes. 12 v. battery, 8 gallon rear tank, pump feed. Wire wheels. Tyres 4.75 × 18. Wheelbase 7' 11". Track 3' 9". Ground clearance 6". Price, chassis only supplied, £180.

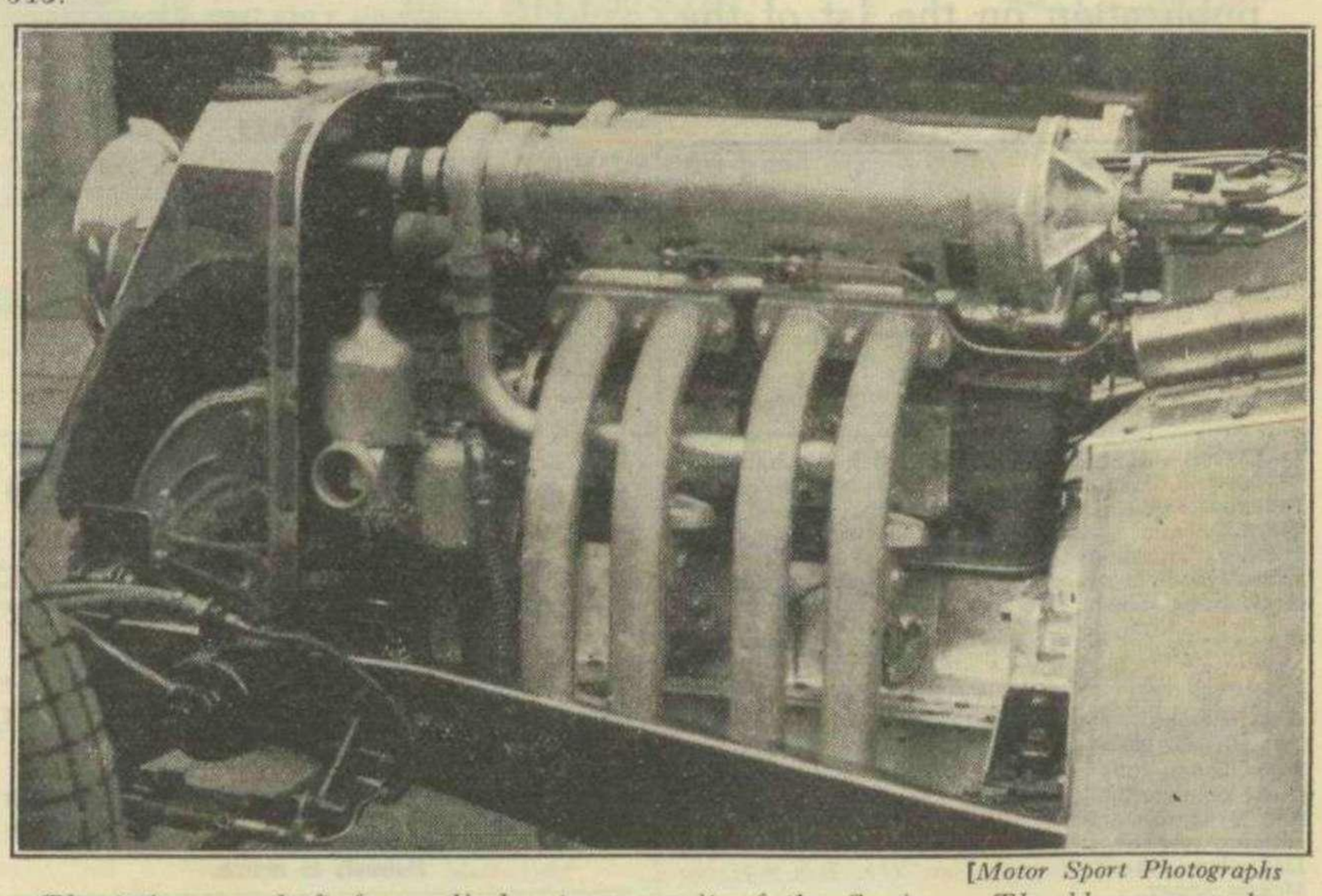
The Wolseley Company has taken advantage of the new 15s. per h.p. tax to increase the size of the engine in the Hornet Special to 1,604 c.c., with a revised rating of £10 per annum. The wisdom of this policy will be endorsed by all who appreciate the enjoyment of a good power reserve without the accompaniment of excessive "revs," and the new Hornet Special should prove to be a comfortable and rapid vehicle. Chassis only are available, as in the past, but a wide range of bodies is marketed by many well-known coachbuilders.

THE SQUIRE CAR—continued from page 543.

rear engine mounting. Apart from the tie-rods at the extremities of the chassis, there is a double tubular bracing in front of the radiator, a strutted box member to carry the front of the engine, a tube which passes under the flywheel and finally an X member amidships combined with two cross-members. The steel dash also helps to brace the centre section. Mr. Squire has left nothing to chance!

The semi-elliptic springs are pivoted at their inner ends and work in trunnions at the outer ends. Houdaille hydraulic shock-absorbers are used all round with the forward ones mounted behind the axle, so that the swing of the arms coincides with that of the springs, and really efficient rebound leaves are used in front. In this way it has been possible to provide a rigid suspension which is not jerky at low speeds. The springs, their pivots, the steering connections and other chassis points are lubricated through pipes from a pendulum pump mounted in the dash tank.

Like Caesar's wife the brakes on a fast sports car must be above suspicion, and those on the Squire, which are of the Lockheed hydraulic type, certainly should deal with every emergency. The drums and back-plates are of light alloy, specially heat-treated to "age" them. The beautifully-ribbed drums are shrunk over the steel brake liners, and are then immovably held by a series of set-screws, while the operating pipes are of a specially strong type developed for the Mercédès racing cars. The hand-brake operates cams in the back drums through compensated cables. A dashboard control takes up the slack in the hand-brake control, forces the back shoes apart, and thus by bringing back the pedal to its original position acts as a main adjustment. When all this is used up, the brakes are adjusted by the usual set-screws on each drum.



[*Motor Sport Photographs*

The twin camshaft four-cylinder power unit of the Squire. The blower can be seen in front, behind the S.U. carburetter.

Two other points worthy of mention are the petrol tank with its baffles strengthening it at the four points at which it is carried on silentbloc bushes, and the comprehensive silencing system consisting of a Brooklands silencer, a touring silencer, and a Brooklands fishtail.

In spite of the sturdy construction of the chassis the weight complete is only 15 cwt., so that with an engine which must develop about 100 h.p. the acceleration should be formidable. Two models will be made, a short one for two-seater bodies which costs £950, and a long chassis which costs £975. The wheelbase is respectively 8 ft. 6 in. and 10 ft. 3 in., and the track is in each case 4 ft. 8 in. We look forward to publishing a road-test at an early date.

ENFIELD AND DISTRICT MOTOR CYCLING CLUB

The Enfield and District Motor Cycling Club are holding their Annual Guy Fawkes Trial on November 4th from The Roebuck Inn, Broadwater, 3½ miles past Welwyn on the Great North Road, at 12 noon. The course is of 50 miles and entries are acceptable to all South Midland Centre Clubs. Applications for entry forms should be made to Mr. E. Pottier, 48, Shern Hall Street, Walthamstow, E.

Last year the amazing entry of 161 was received, and it is hoped by all those connected with the Club that this figure will be beaten.

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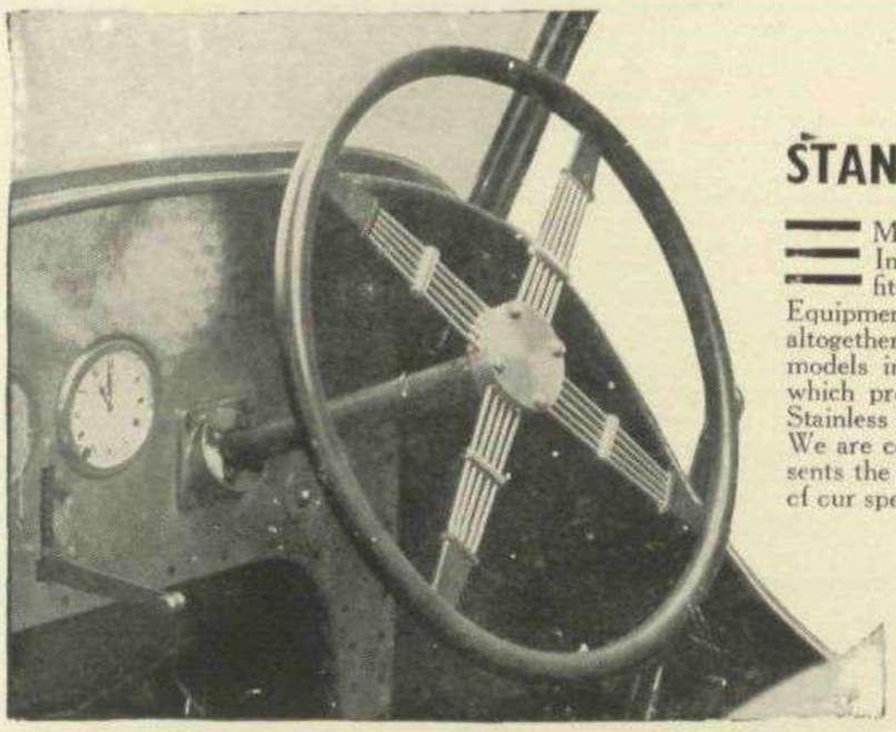
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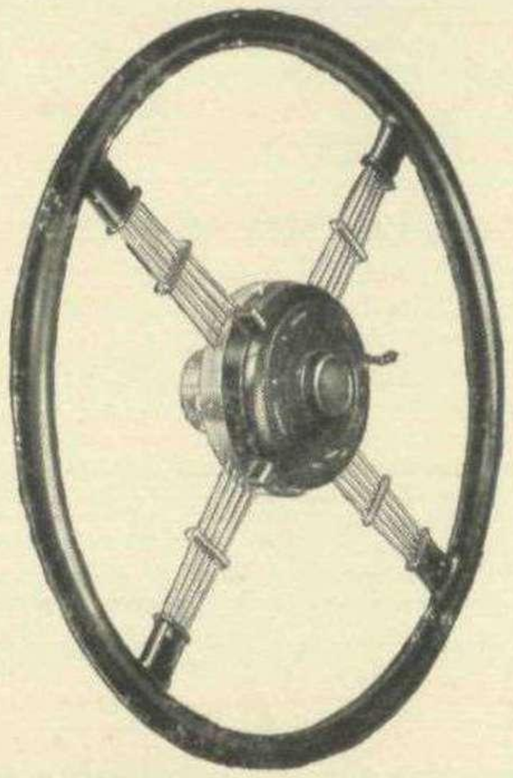
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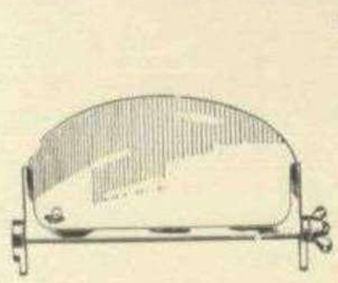
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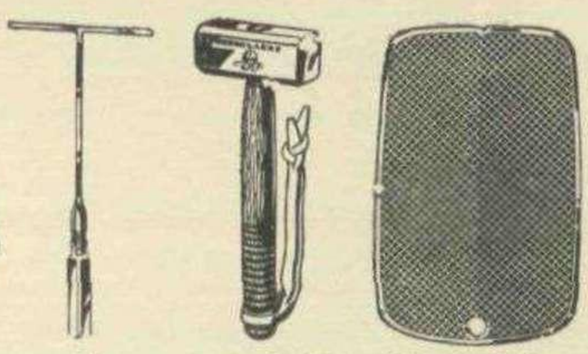
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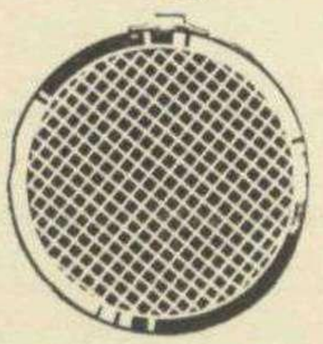


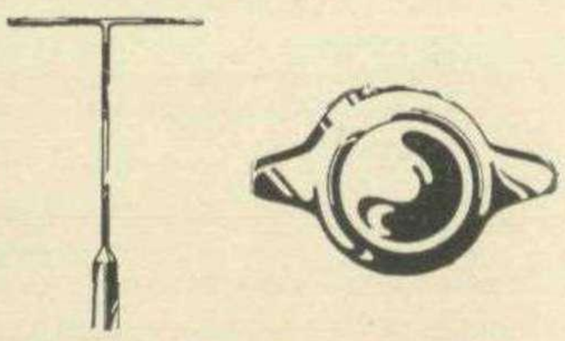
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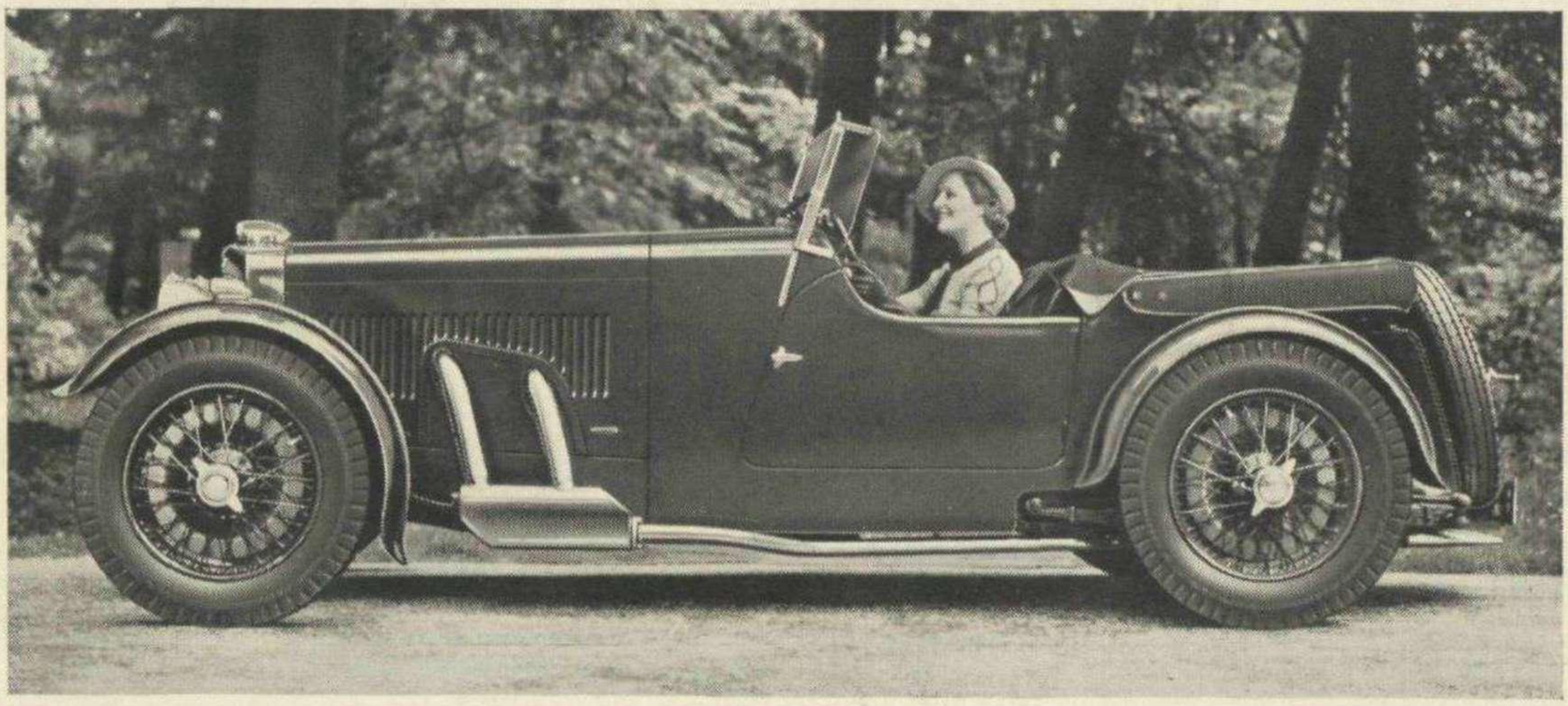
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INDEX TO ADVERTISERS

	PAGE
Ashby, F., & Sons, Ltd.	inside back cover
Aston-Martin, Ltd.	back cover
Acheson, E. G., Ltd.	571
Alvis Car & Engineering Co., Ltd....	551
Bellevue Garage & Service Station	542
Booth's Dry Gin	547
British Jaeger Instruments	538
C. & H. Accessories	573
Cleveland Discol	556
Cresta Motor Co.	569
Donington Park Motor Races	555
Dunlop Rubber Co., Ltd.	530
Ferodo, Ltd.	front cover
Follett, Ltd.	inside front cover
Fowlis, G. T., & Co.	553
Garner, H., Ltd.	536
Hallam, F.	535
Lucas, J., & Co., Ltd.	529

	PAGE
M.G. Car Co., Ltd.	581
Marshall's Super-Chargers, Ltd.	548
Morgan's Garage	542
Price's Motorine	560
Railton Terraplanes	545
Robinson, L., & Co., Ltd.	559
Rolls-Royce, Ltd.	565
S. U. Carburetter Co., Ltd.	541
Smith, S., & Sons, Ltd.	578
Squire Motors	573
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