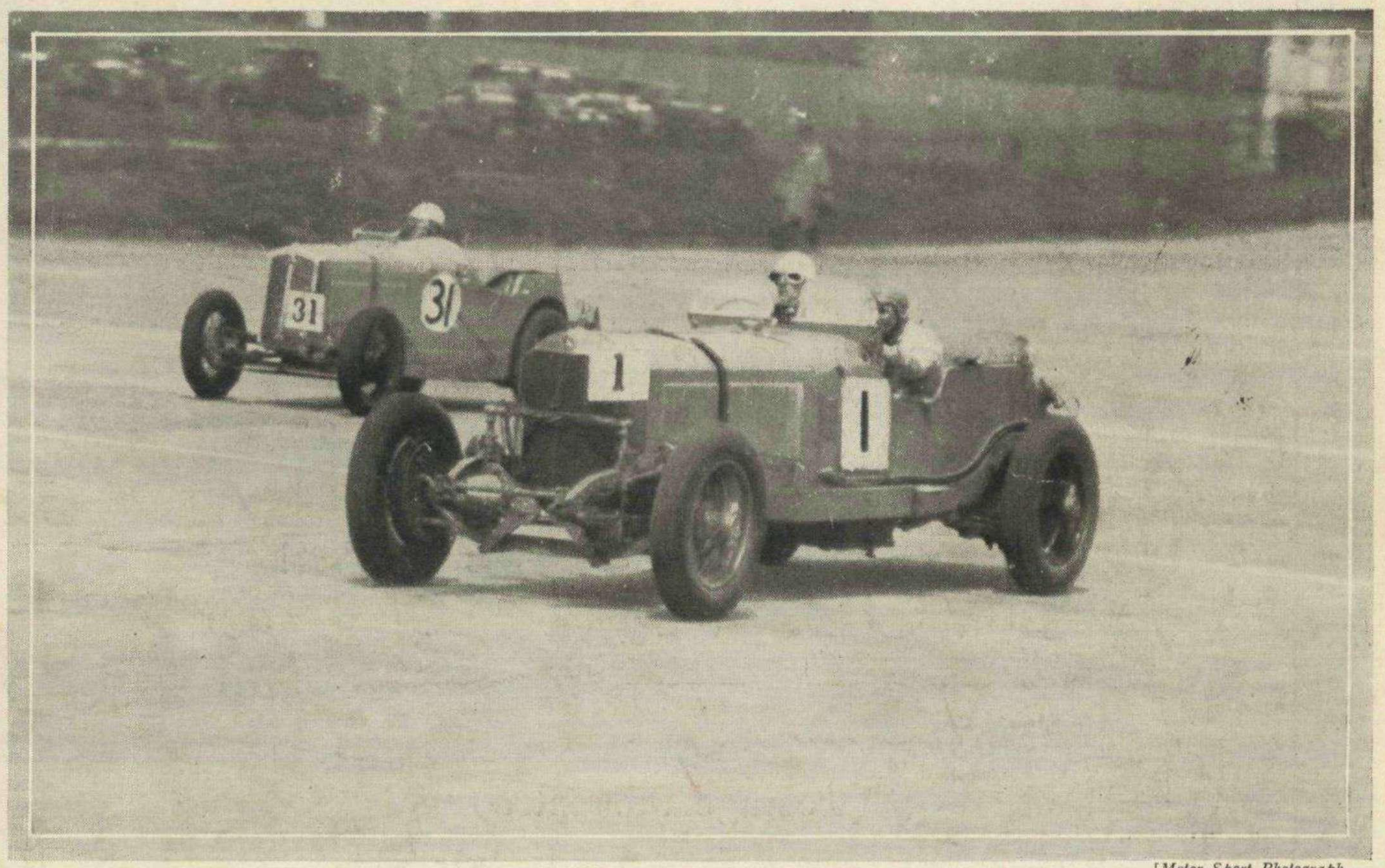
Vol. VIII. No. 9 *July, 1932*

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SIXPENCE MONTHLY



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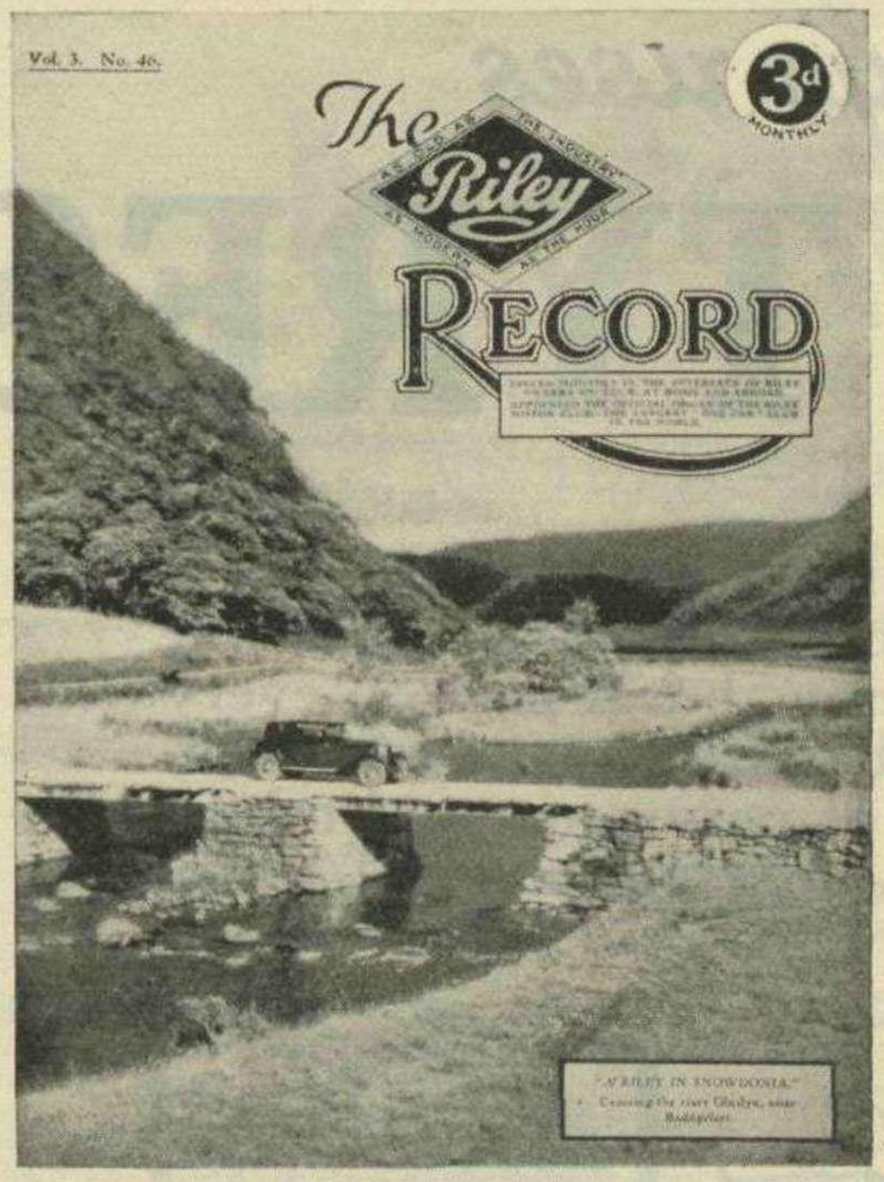
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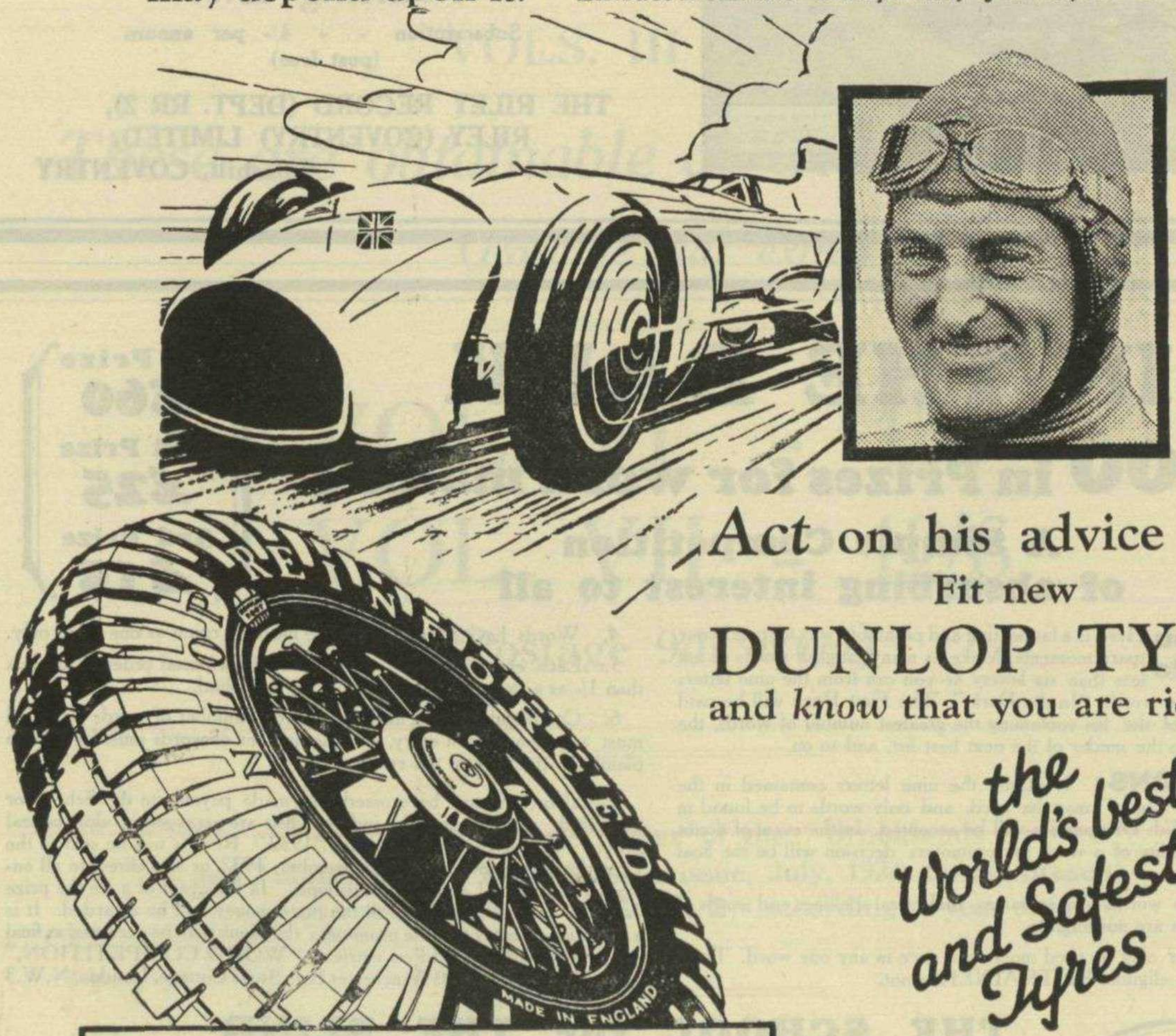
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EDITORIAL.

"Sports" Car Racing at Brooklands

THE first British 1,000 Miles Race failed to fulfil the primary function of a motor race, that is, to be sufficiently entertaining to draw a moderate crowd of spectators. Motor racing is only made possible by the public paying for admission to witness a race, and spectators are perfectly within their rights in demanding good entertainment. This fact has to be faced, although many extenuating arguments can be put forward to account for the small attendance at the 1,000 Miles Race. For example, several interesting cars were scratched at the last moment; Leeson's tragic accident cast a gloom over the proceedings, at any rate on the first day; and the race lacked the spectacular interest of a massed start. True, but we think that the real reason is a more fundamental one.

We are of the opinion that long distance races of anything over 500 miles with "sports" cars can never be a success at Brooklands. Speeds are not high enough, the only corner is out of sight of the general public, and there is an absence of the spirit of a *race* which make these events uninteresting to all but the most ardent enthusiasts.

What kind of races for "sports" cars, then, should be staged at Brooklands? There are two alternatives. First, we suggest a revival of the Six-Hour Race, over the original circuit, that is anti-clockwise, with sandbanks in the Finishing Straight. This race would be short enough to prevent it from degenerating into a trial of comparative performances, and if run on a simple form of handicap, with credit laps for the smaller cars, and a massed start, it would contain sufficiently attractive elements to draw a considerable crowd.

Secondly—and this idea could with advantage be duplicated for racing cars—we suggest a Mountain Championship Meeting. Easily the most popular items on the programme of the B.A.R.C. Meetings, both from the drivers' and the spectators' points of view, are the Mountain races. The corners produce the definitely thrilling spectacle of cars *racing* wheel to wheel, their drivers straining every nerve to gain a few inches on their rivals. And remember that cornering does not show up the inferior speed of "sports" cars as track racing does. We suggest, then, a Mountain Championship Meeting of scratch races, to be run in classes, the winners to earn the title of Sports or Racing Mountain Champion of Brooklands. We realise that the shortness of the circuit could be put forward as a possible disadvantage of this idea, but if the classes were run separately we do not think that many cars would be so fast as to cause confusion through gaining a whole lap on their rivals. In any case, the race would be easier to follow than the complicated handicap events which are run to-day.

The path of pioneers has always been a hard one. While criticising the 1,000 Miles Race, one must not forget the magnificent record of its organisers, the Junior Car Club, to whom the motor racing public of Britain owe a lasting debt of gratitude. We can only regret that their splendid talents of efficient organisation should not have reaped more satisfactory results.

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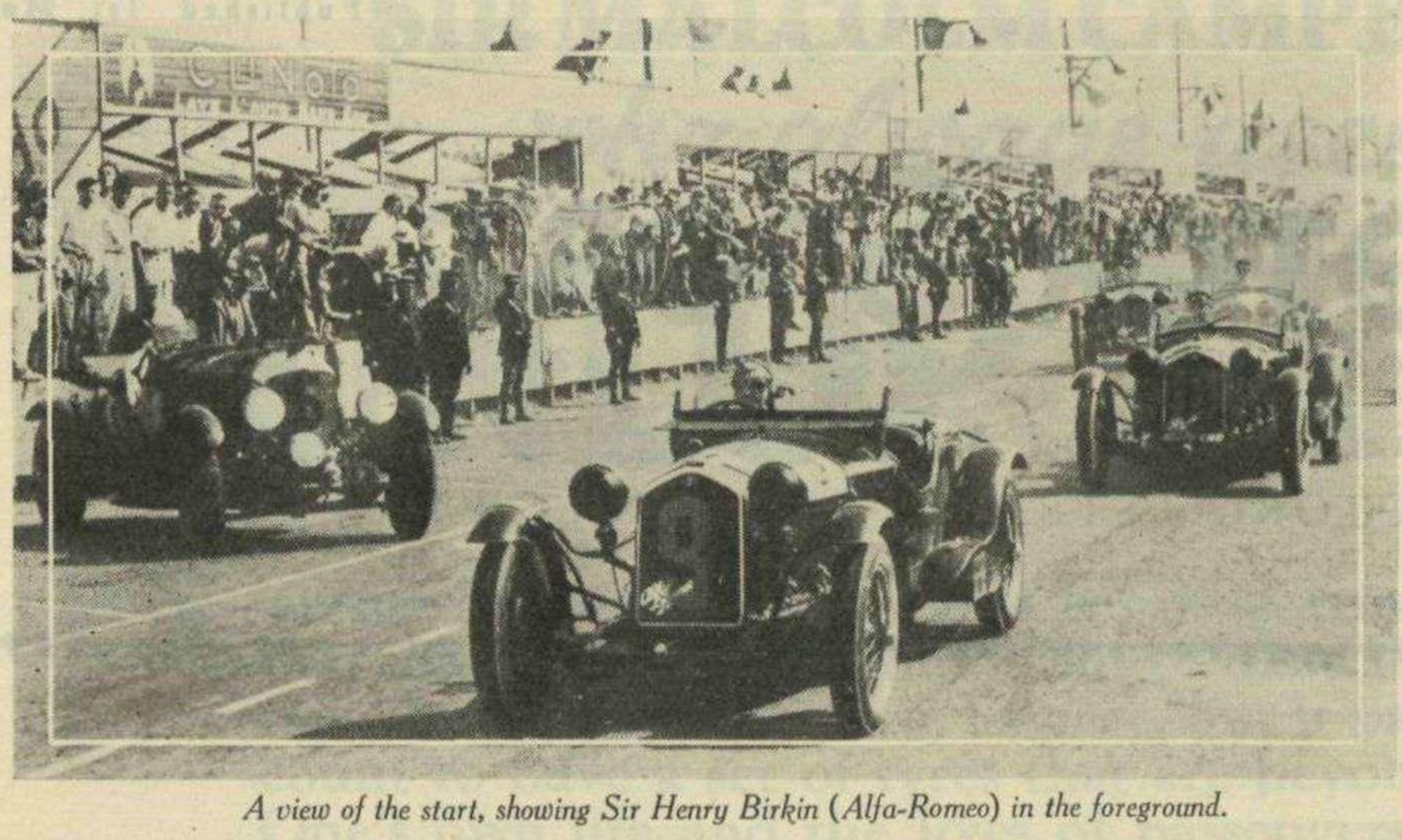
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A view of the start, showing Sir Henry Birkin (Alfa-Romeo) in the foreground.

ALFA-ROMEO COVERS GREATEST DISTANCE :

BIENNIAL CUP WON BY ASTON MARTIN

THE GRAND PRIX D'ENDURANCE

LE MANS! What wonderful memories these two magic words conjure up in the minds of motor-racing enthusiasts! Burning sun, cool pine trees and the sweet scent of heather, swarming crowds of excited people, nightfall, the long beams of headlights swinging into the straight past the *tribunes*, dawn and a renewal of excitement, cars falling out after long hours of battle, the short stacatto announcement of the loud speakers, "Allo! Allo!" intense heat, the yellow flag—and Le Mans is over for another year!

This year's race—the tenth of the series—held every indication of being the best ever run. The quality of the cars which started left nothing to be desired, 7 Alfa-Romeos, 2 Bugattis, a Mercedes-Benz, a Talbot, 3 Aston Martins, a Stutz, and numerous small French cars, while the drivers, including such names as Earl Howe, Sir Henry Birkin, Louis Chiron, Brian Lewis, Minoia, Brisson, and Count Czaikowski, could be relied on to provide a spectacle worthy of the Le Mans tradition.

Half the secret of success in a long-distance race is to arrive in plenty of time before the event, and it was no surprise to see such an experienced driver as Lord Howe among the very first arrivals at the Hotel de Paris, where he was joined a day later by his co-driver, Sir Henry Birkin. Practising started in earnest, both Howe and Birkin being seen constantly on the course at all hours of the day and night. Another early arrival was Count Czaikowski, who, with his driving-partner, Friedrich, put up at the Pavillon de Saint-Hubert. We drove out one evening to this charming house, which is situated in the heart of a forest about 10 miles from Mulsanne and we were greatly impressed by its delightful surroundings.

Then the Alfa-Romeo team arrived, the cars having been driven up by road from Milan. The Managing Director, Signor Gianferarri, and the designer, Signor Jano, had been at Le Mans since the previous Friday, but now the team personnel took up their headquarters at Arnage, under the eagle eye of the *chef d'equipe*, Signor Giovanni.

Practice times were so high that everyone predicted that the record time for the race would be comfortably beaten. Historic irony! The Bugattis were just as fast as the Alfas, while a driver who seemed to be lapping very quickly was Fourcet, on his Mercedes-Benz.

On collecting their new Alfa-Romeo, Earl Howe and Sir Henry Birkin decided that the mud-guards, head-lamps and windscreen were not sufficiently rigid to withstand the pounding the car was bound to receive. In addition, the shape of the screen was all wrong, as it merely sucked dust into the cockpit, and the gauze of the windscreen would quickly become solid with dust and flies. How true their fears were, was quickly borne out as the race progressed, when the Alfa drivers were nearly blinded with dust, and in order to see where they were going had to look over the top of their windscreens—to say nothing of the fact that at the end of the race the mudguards were entirely held on by straps and rope. The Alfa-Romeo people were adamant in their opinion that the cars were alright as they were—had they not won the 1 000 Miles Race?—but Howe and Birkin fitted a new windscreen, and drove in comfort!

Mechanically, the Alfa-Romeos were the usual 2,337 c.c models, with the exception of the winning car, which had a larger engine capacity of 2,349 c.c. On all the cars the supercharger speed had been increased from 1.1 to 1.3 engine speed.

On the morning of the race the usual bustle of activity took place in the town. Cars and motor-coaches arrived in a steady stream from all over France, and the road to the *tribunes* was a solid jam. As the morning wore on the Place de la Republique was absolutely black with cars of all description, from magnificent Delages with glistening "*carosserie*" to rakish Bugatti chassis with 4 bucket seats fixed precariously to the frame.

The heat was terrific, and people wandered about in flimsy clothes and large straw hats. Just before the start of the Le Mans race there is always a hush of expectancy. This year this silence was intensified by M. Durand, the founder of the Grand Prix d'Endurance, making a speech over the loud-speakers in memory of the untimely death of André Boillot, and asking the crowd to pay their respects to the great driver by standing in silence for one minute. The sight was most impressive: thousands of spectators standing with bared heads under the

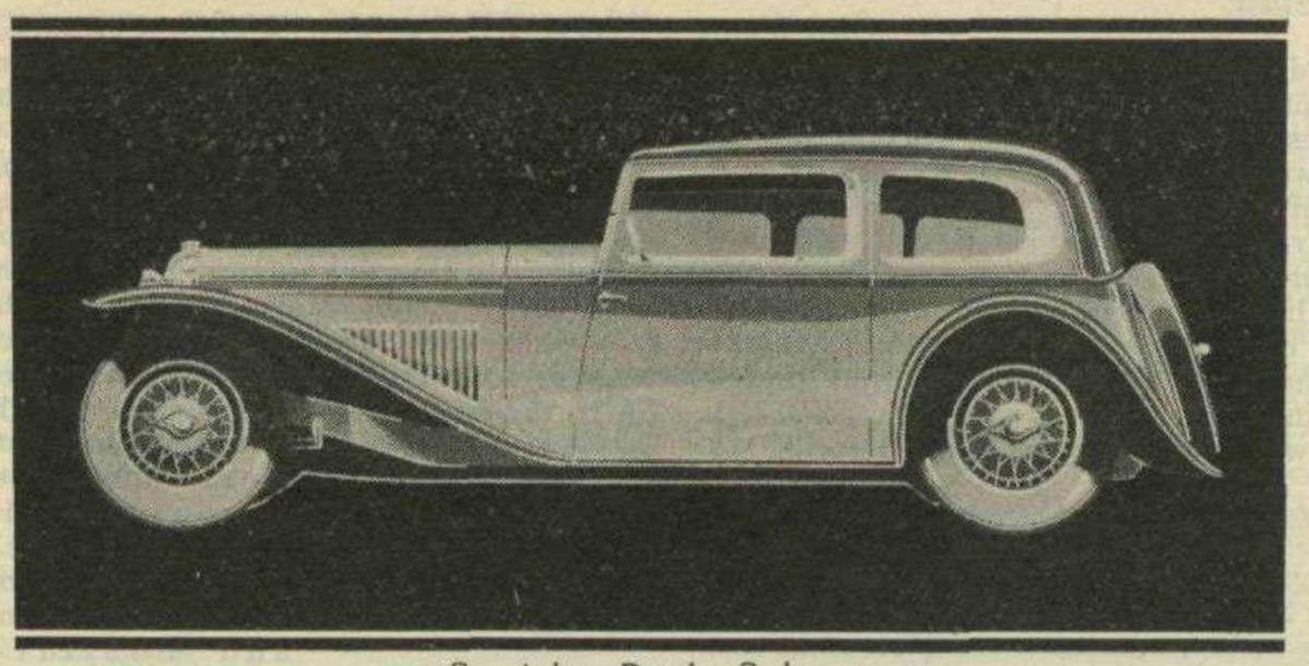
RESULTS.

GRAND PRIX D'ENDURANCE.

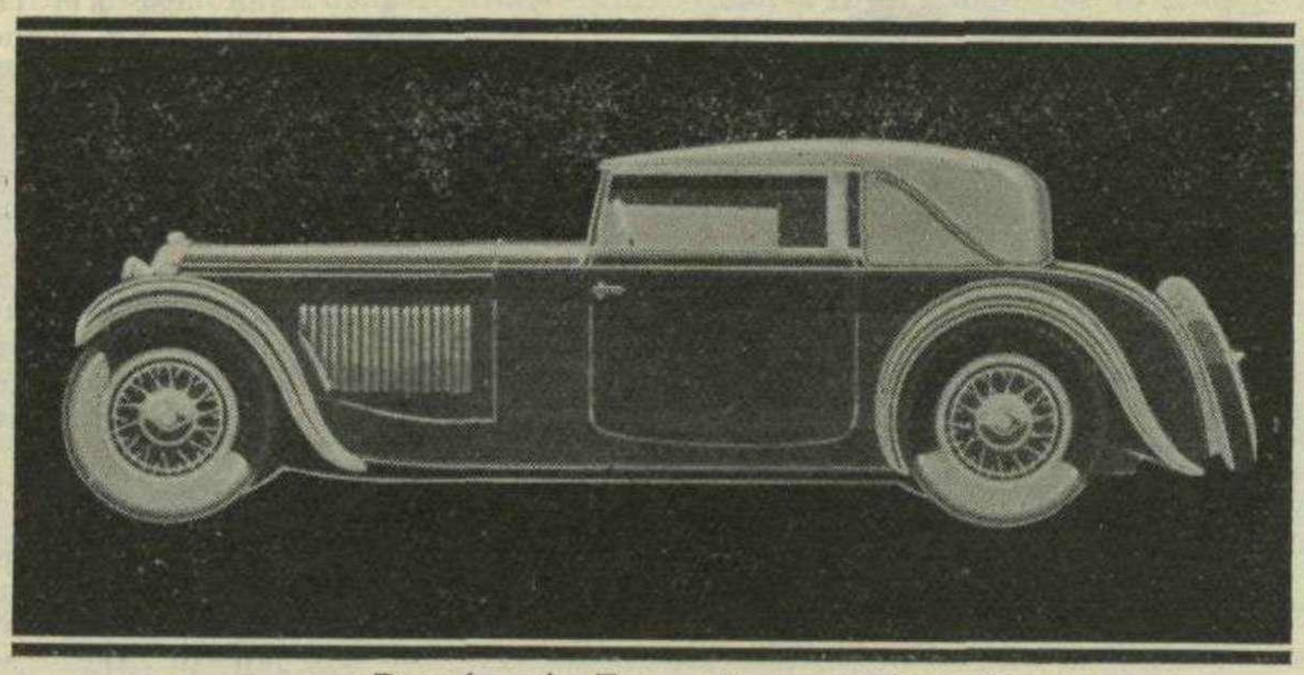
	Miles Covered.
1. Sommer and Chinetti, Alfa-Romeo ..... (Average speed, 76.48 m.p.h.)	1,835,57
2. Cortese and Guidotti, Alfa-Romeo	1,819
3. Brian Lewis and T. Rose-Richards, Talbot	1,517
4. Mme. Siko and Sabipa, Alfa-Romeo	1,502.2
5. S. H. Newsome and H. Widengren, Aston-Martin	1,459.6
6. Sebilleau and Delaroche, Bugatti	1,446
7. A. C. Bertelli and L. P. Driscoll, Aston-Martin	1,409.3
8. Martin and Bodoignet, Amilcar	1,269.5
9. Giraud Cabantous and R. Labric, Caban	1,231

FINAL OF THE NINTH BIENNIAL CUP (1931-1932), GENERALLY KNOWN AS THE RUDGE-WHITWORTH CUP.

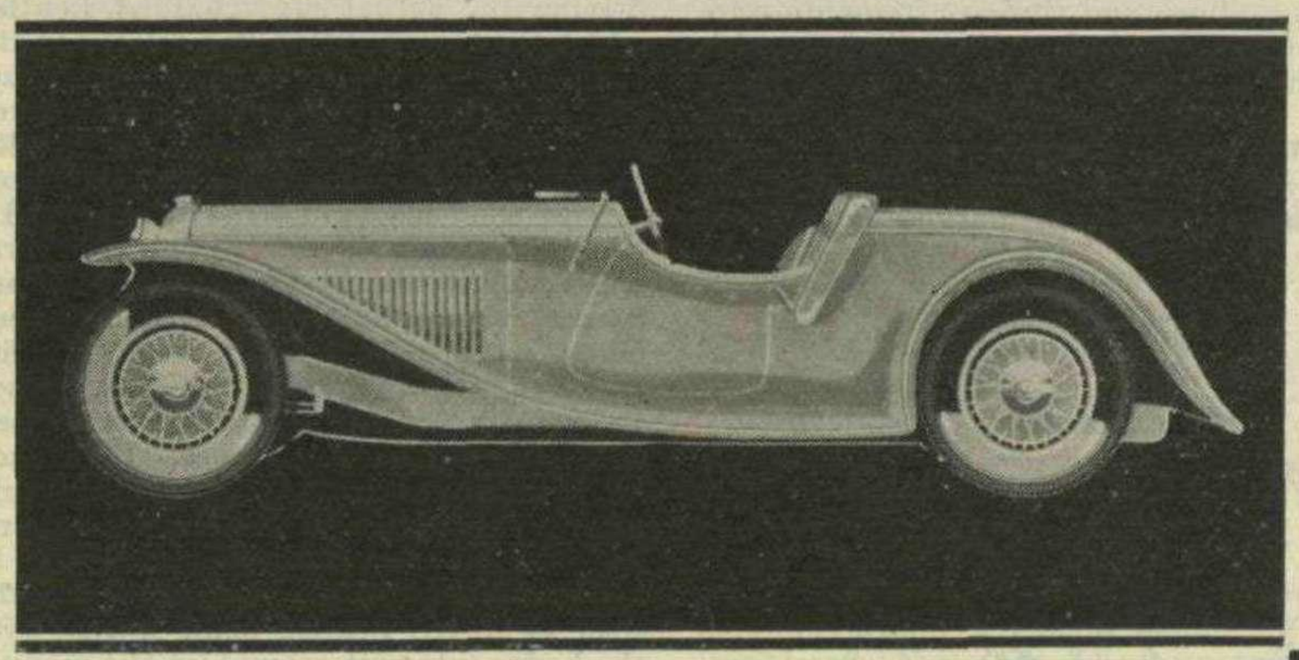
	Figure of Merit.
1. A. C. Bertelli and L. P. Driscoll, Aston-Martin	1.137
2. Giraud Cabantous and R. Labric, Caban	1.109
3. Brian Lewis and Rose-Richards, Talbot	1.100



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GRAND PRIX D'ENDURANCE—continued.

blazing sun; the row of brilliantly coloured cars drawn up in front of the pits; and the roar of cars heard faintly on the breeze as they approached the stands from Arnage.

It is the usual practice at Le Mans for the course to be opened by a car of the same make as last year's winner, and accordingly Earl Howe and Sir Henry Birkin did a lap in their blue Alfa Romeo. An innovation was introduced this year, however, when G. E. T. Eyston did a preliminary lap on the record-beaking Panhard. The famous British driver received a wonderful ovation from the crowd all round the course, and with the assistance of specially fitted front wheel brakes, recorded a standing lap at 70 m.p.h.

M. Charles Faroux stepped into the roadway, carrying the large yellow flag, and the crowd was hushed. The flag was raised, dropped, and 26 drivers scampered across the road to their cars. Engines burst into a roar, and Foucret's Mercédès got away first, closely followed by Brian Lewis and Sommer's Alfa-Romeo. There was a cloud of dust and exhaust smoke and the pack of cars disappeared out of sight. The crowd relaxed, and eagerly discussed the problem of which car would appear first at the end of the first lap.

Six minutes passed, and the crowd leaned forward, craning their necks to catch the first glimpse of the cars as they entered the straight in front of the *tribunes*. Suddenly a roar came from the spectators. Four cars appeared in sight in close formation; as they approached we could see that Cortese was leading, followed by Minoia, Birkin and Foucret. Alfa-Romeo held the first three places!

Misfortune quickly befell several competitors. Giraud-Cabantons stopped on his first lap with magneto trouble, while early pit-stops were made by the Alta, Lewis's Talbot, Peacock's Aston-Martin and Mme. Siko's Alfa-Romeo. The tropical weather upset the mixture of the Talbots and Aston-Martins, and pre-ignition ensued.

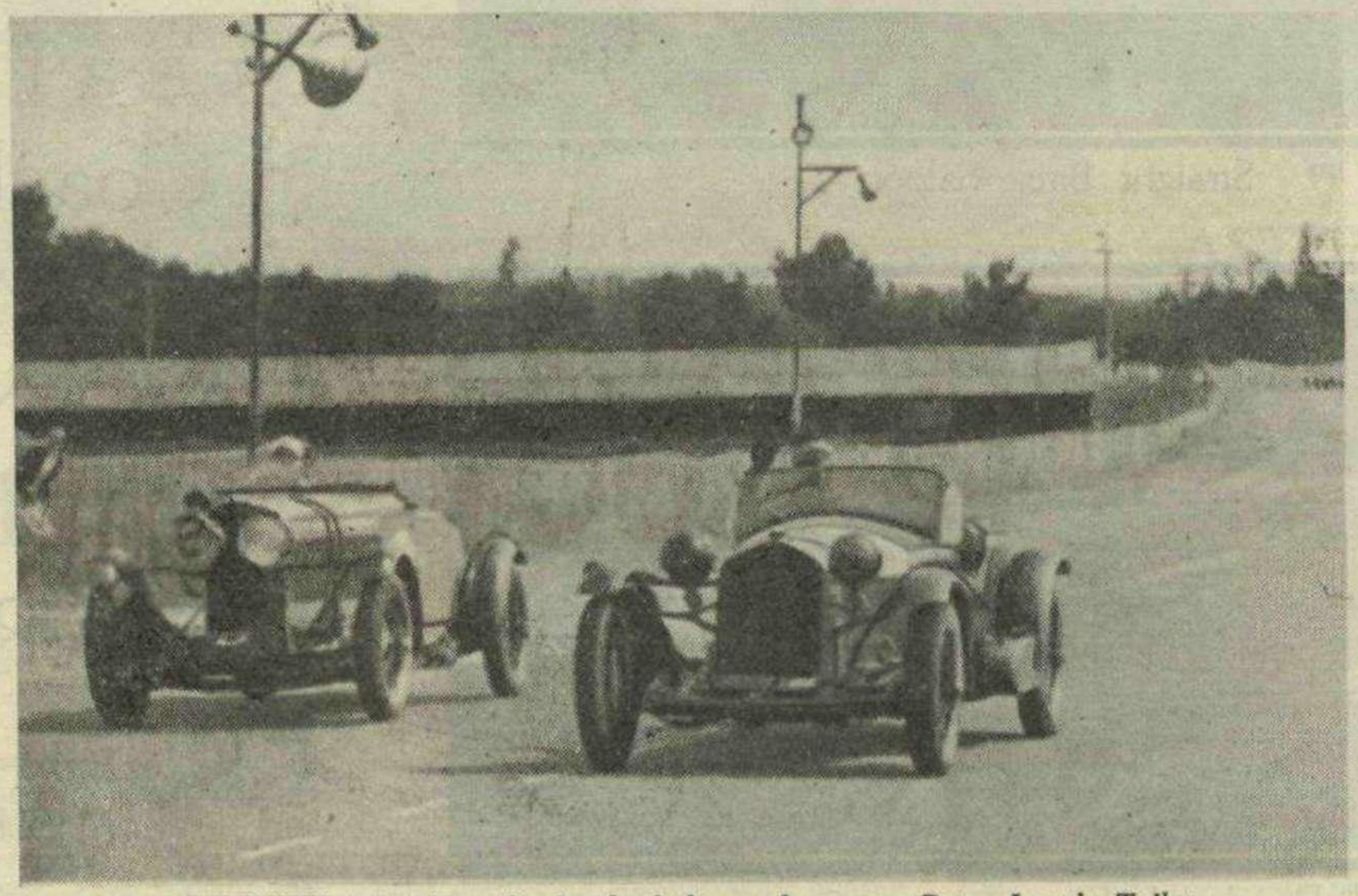
From the first a terrific battle was waged between Minoia and Cortese, but their dashing driving was emulated by two other Alfa drivers, Marinoni and Schumann, who quickly picked up to 4th and 5th place on the second lap. Sir Henry Birkin, affectionately called by the crowd "le grand champion, le rude Birkin," was driving with superb skill, holding third place by a magnificent combination of dash tempered with cool judgment. Marinoni began to overdo things. He covered the second lap at the wonderful average of 84 m.p.h., and the fifth at 86 m.p.h., but soon afterwards at Arnage, he tried to pass Newsome's Aston-Martin (which was cornering at the safe limit of speed) at 15 m.p.h. faster The result was that he went straight off the road, fortunately without injury to himself.

Lewis stopped, as did Bertelli, to change plugs, and three retirements were announced, namely, the Citröen with magneto trouble, the Alfa, with clutch slip, and the Rally driven by Danne. The little M.G. Midget driven by Samuelson was putting up a splendid show, lapping regularly, in marked contrast to the rest of the British cars, which were having to make innumerable calls at the pits.

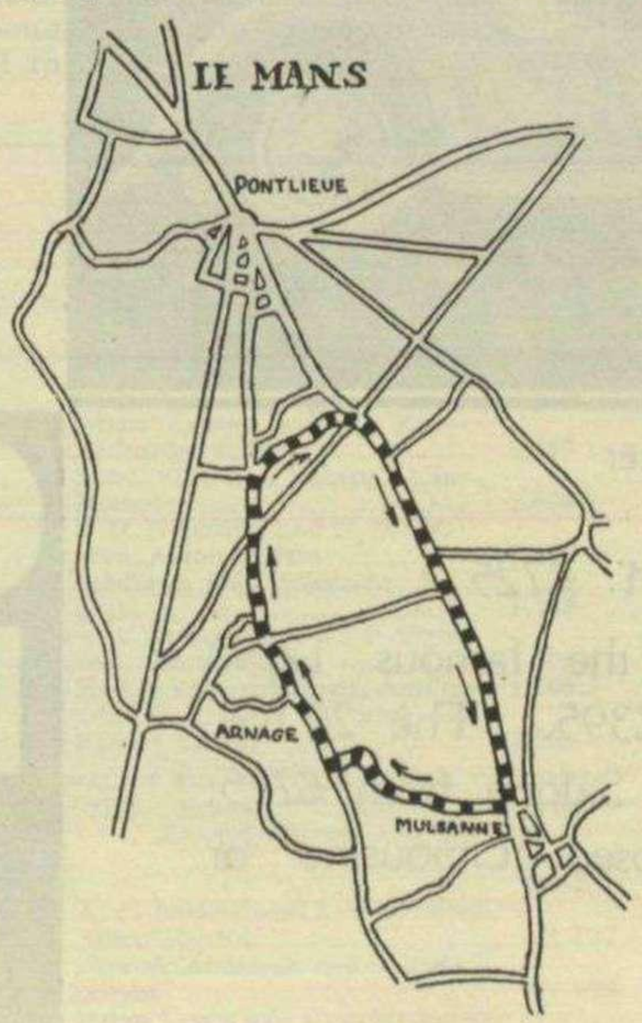
The speed of the Alfas continued unabated. Cortese was still in the lead at the end of the second hour, followed by Minoia, Birkin, Schumann and Bouriat (Bugatti). Then Marinoni joined the fray once more, having spent a frenzied hour or so getting his Alfa-Romeo back on to the road. The pace began to tell, however, and two important retirements were announced, namely, the big Mercédès, which had seized a piston through lack of oil and Bouriat's Bugatti, which split its petrol tank and lost all its fuel. No sooner had the crowd got over their regret that the Bugatti's second driver, Louis Chiron, would not have a drive at all, than still greater excitement was caused by Lewis stopping for a brief moment at his pit and shouting out that there had been a "pile up" at White House Corner. On the first lap of the race Trévoux, a young Frenchman, driving the actual supercharged Bentley which Sir Henry Birkin had piloted in the 1930 race, turned over at White House Corner. Happily his crash helmet saved him from serious injury and he crawled out of the wreckage with nothing more serious than his right wrist broken and a slightly bruised shoulder. The heavy car was dragged to the side of the road, but its presence materially reduced the speed of cars on the corner. Apparently Minoia, hot foot after Cortese, had just passed Brisson on the Stutz and found himself going too fast for the corner. He braked heavily, and began to gyrate, and in performing these evolutions was caught up by Brisson, who in turn was forced to adopt similar tactics. Both cars left the road at speed, Brisson being hurled over the hedge into soft ground, in the manner of George Duller in the great Bentley crash at the same spot in 1927, while the Alfa Romeo dashed through the hedge backwards into a field. By a miracle, neither of the drivers was badly hurt, although Minoia was severely bruised

Accidents were plentiful, for a few laps later Ano, who had just taken over Schumann's car, got into a terrific skid when trying to pass Earl Howe on a corner, and overturned, fortunately without injury, while the irrepressible Marinoni once again tempted Providence too far, and added a fourth car to the already full ditch at White House Corner.

Most of the cars had by this time refuelled, and now a lull came, when the cars continued to lap regularly and with-



CORTESE (Alfa-Romeo) who finished second, passing Brian Lewis's Talbot.

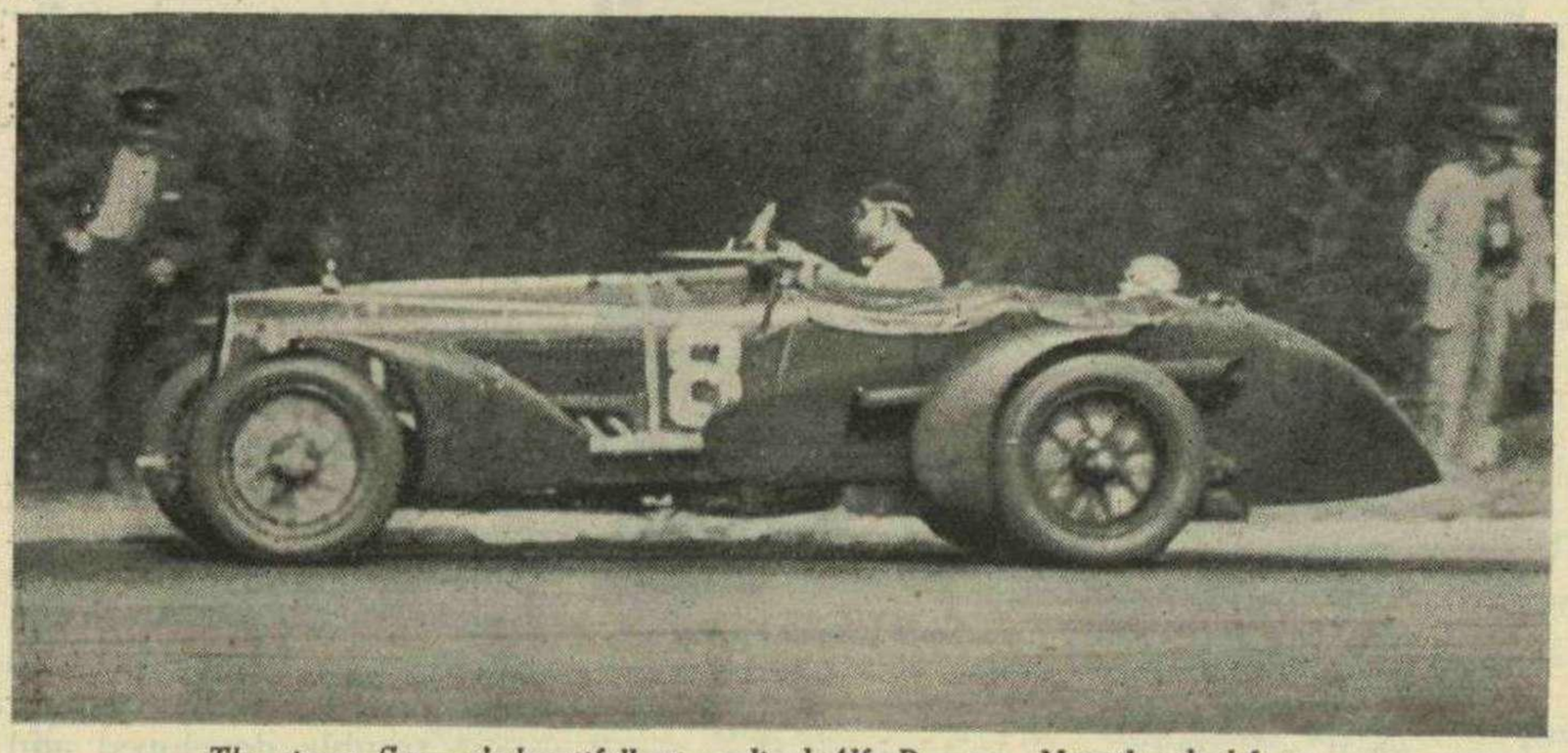


A sketch map of the course.

GRAND PRIX D'ENDURANCE—continued.

out materially changing their positions for several hours. Night fell, and the drivers became less lurid in their methods and settled down for the long spell of driving by headlights. The sight from the stands was fascinating. The brilliantly lit pits seemed like so many shop-fronts, while in the sky above the kite-balloon advertising Standard Oil was illuminated by searchlights from the ground. The restaurants were filled to overflowing, while in the pine-woods alongside the new stretch of road people in the special "camping enclosure" settled down to sleep as best they could, in spite of the ear-splitting roar of cars passing every few minutes.

The Midget was handed over to Norman Black, who promptly turned round twice at the difficult brick-paved Arnage turn,



The winner, Sommer's beautifully streamlined Alfa-Romeo. Note the wheel farings.

The Talbot, although persistently dogged by irritating troubles, was holding its position fairly well, while that excellent driver, Count Czaikowski, was driving a careful race in fourth place. Then trouble once more overtook the Talbot, which was delayed at the pits for 26 minutes, while every component that could possibly give trouble was changed. This let the Aston-Martin driven by Newsome and Widengren up, so that at 10 o'clock, quarter distance, the order was:

1. Alfa-Romeo (Cortese-Guidotti), 58 laps, average speed 82 m.p.h.
2. Alfa-Romeo (Howe-Birkin), half a lap behind.
3. Alfa-Romeo (Sommer-Chinetti).
4. Bugatti (Czaikowski-Friederich).
5. Bugatti (Sebilleau-Delaroche).
6. Aston-Martin (Newsome-Widengren)
7. M.G. (Samuelson-Black)
8. Aston-Martin (Peacock-Bezzant).
9. Salmson (Vernet-Vallon).
10. Aston-Martin (Bertelli-Driscoll).
11. Bugatti (Druck-Virlouvet).
12. Talbot (Lewis-Rose-Richards).
13. Alfa-Romeo (Mme. Siko-Sabipa).
14. Amilcar (Martin-Bodoignet).
15. Caban (Labric-Giraud Cabantous).

Then Cortese had to stop with a broken windscreen. Fortunately, a complete new screen was available, and he fitted this in 8 minutes, but the delay reduced his position to third, behind Earl Howe, who was now leading, and the Alfa-Romeo, driven by Sommer and Chinetti.

More retirements! The brave little Midget, after putting many of the larger cars to shame by its amazing regularity and speed, was forced to stop with a split petrol tank. The crowd had been deeply impressed by its performance, and it was particularly hard luck to have to stop for a non-mechanical failure. The Aston Martin driven by Bezzant and Peacock, also retired with a broken rocker, thereby reducing the English chances of success. When the Alfa-Romeo driven by Earl Howe and Sir Henry Birkin, stopped for the third time, Earl Howe discovered that a plug was shorting through an ominous water leak. However, the plug was changed, and as the engine restarted without difficulty, it was hoped that the water leak was not serious. Alas! soon afterwards, Sir Henry Birkin saw the radiator temperature gauge rise to boiling point. He brought the car to a standstill, not to fill up, for this would have been against the rules, but to check the water level. The radiator was dry! And the Alfa-Romeo, which at that time held the lead, was out with a blown gasket. Less than half distance had been covered, and already 14 out of 26 cars had retired!

Four o'clock arrived, and the character of the race began to change. So far the Alfa-Romeos had so comfortably held the lead that they had appeared the inevitable winners But now, as had been predicted, the bodywork and fittings of the Alfas began to give trouble, and both Cortese and Sommer had to call frequently at the pits in order to secure broken mudguard stays, exhaust pipe clips, headlamp brackets and windscreens. Then the Bugatti driven by Czaikowski and Friederich began to pick up slowly, and the crowd grew excited at the prospect of a French car making a bid for victory, and thousands of stop watches were produced to check his progress. Friederich, the veteran of vast experience, had said before the race: "I will only push forward in the last six hours of the race," and the Alfa-Romeo personnel began to follow his progress with interest.

By this time only three cars were left in the race for the final of the 1931/1932 Biennial Cup. The Aston-Martin led, Bertelli's car running with extreme regularity, with the Talbot second and the little privately-built Caban, which was putting up an excellent show, third. All this time several slower cars were unobtrusively making splendid performances in the rear. The Bugatti driven by Delaroche and Sébilleau, the Amilcar and the Salmson, and Mme. Siko's 2-litre Alfa-Romeo.

Then came two retirements, the Salmson with clutch trouble, and Druck's Bugatti, which disappeared through the fence at Mulsanne.

The two leading Alfa-Romeos continued to have trouble with their mudguards, etc., but just as the hopes of the French crowd were really rising, it was announced that Friederich had retired at Mulsanne with a seized piston caused by a broken oil-pipe. Only three hours from the end!

Nothing could now stop the triumphant progress of the two Alfa-Romeos, although Cortese made several stops for the usual strapping and roping of mudguards. The end drew near. A bigger crowd than we have ever seen before thronged the *tribunes* and the public enclosures all round the 8.4 mile course. Then there was a movement of the crowd towards the presentation box. M. Charles Faroux once again stepped into the road carrying the great yellow flag, a low aero-dynamically stream-lined car roared past the pits, and Sommer, an amateur, partnered by Chinetti, was flagged in the winner of the 1932 Grand Prix d'Endurance. His Alfa-Romeo had averaged 76 m.p.h. for the distance, and his victory was yet another win for the all-conquering Italian firm. Sommer and Chinetti drove like masters, never letting the excitement of the race tempt them to take unnecessary risks.

England had her share of the spoils. The new Aston-Martin, piloted by Bertelli and Driscoll, put up a wonderful performance, and their victory in the Biennial Cup 1931/1932 came as a long-deserved win for the Feltham firm. It was exceedingly gratifying to see a concern which has so ably represented the British industry for many years rewarded.

Second place in the Grand Prix d'Endurance was taken by Cortese and Guidotti, who drove their Alfa-Romeo with magnificent skill. Third came the Talbot, which in spite of a series of exasperating troubles, was able to pull off a double 'third," by taking the same place in the Biennial Cup.

Alfa-Romeo has won again, but in the hearts of thousands of Frenchmen, as they slowly filed down the road to Le Mans, was the thought, "Now for Rheims on July 3rd!"

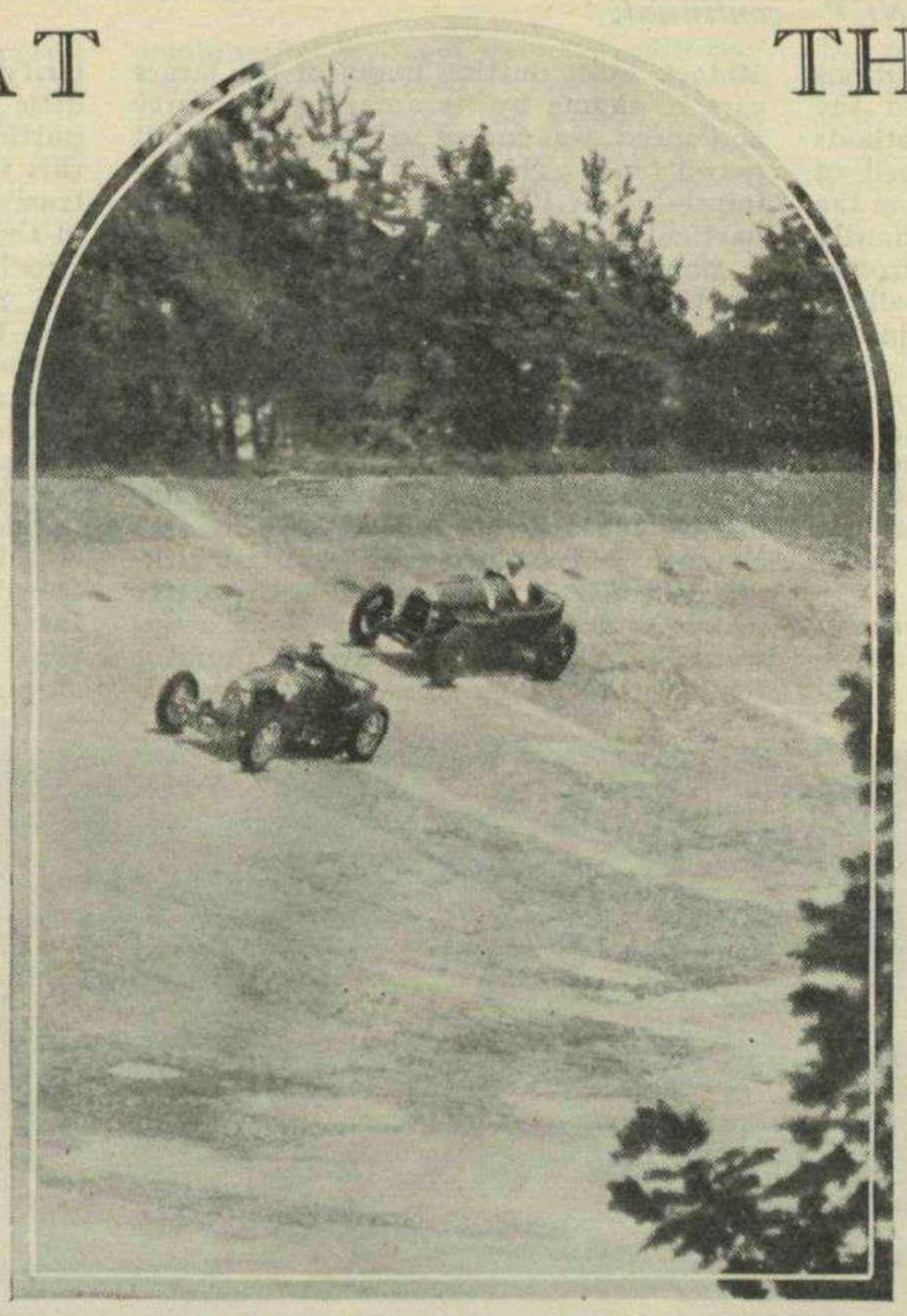
EQUIPMENT.

Jaeger instruments on all cars to finish race. Champion plugs on first three cars, and also on Cup winner. Englebert tyres on winning Alfa-Romeos. Ferodo brake linings, Alfa-Romeo and Aston-Martin. Dunlop tyres, Aston-Martin and second Alfa-Romeo. Pratt's oil, Aston-Martin. S.U. carburetter, Aston-Martin. Rotax, Aston-Martin. Rudge-Whitworth wheels, Alfa-Romeo and Aston-Martin. Andre shock absorbers, Alfa-Romeo and Aston-Martin.

CLUBS AT THE TRACK

INTER-CLUB MEETING MORE POPULAR THAN EVER

J.C.C. WIN THE STANLEY CUP



Gardiner's red Delage passing Esson Scott (Bugatti) on the members' banking.

THE annual Brooklands Inter-Club Meeting is one of those jolly events which are run, not so much as a spectacle for the public, but as a thoroughly enjoyable afternoon's sport for owners of fast touring cars at the track. In spite of a perfect sunny afternoon there was only a very small crowd of spectators, but this didn't really matter, and everyone had a good time.

For the first event, the Racing Short, Mrs. Tolhurst was a firm favourite driving E. K. Rayson's 1,000 Mile Race Riley. She did not have things all her own way, however, for the scratch man, Gardiner, brought his big 5-litre Delage along in fine style, and looked like pulling it off. He could not quite manage it, beating Dickson-Geertz's Salmson (Alec Baker's one-time property) by 200 yards. In this race the new supercharged o.h.v. Frazer Nash made its first public appearance at the track. The car was distinctly impressive, but Aldington had the bad luck to oil up a plug, after getting up to 105 m.p.h. We shall hear more of this car!

Sixteen cars turned out for the second race, the Sports Short, with R. Evans on an old 12/50 Lea Francis as limit man. He held his lead for the first lap, but then was submerged by a flood of cars, and it was seen that Baker's Minerva had taken the lead. But not for long, for something happened to the internal mechanism of the big car, and C. T. Osborne's "Hyper" Lea Francis ran home a winner. There was a great scrap for second place between "Aldy," this time on an ordinary Nash and Capt. Aldous on a "90" Talbot. Aldington had given the larger car 10 seconds start, and just failed to wipe this off by 1/5th second.

The third race, the Racing Long, produced 10 starters. Metcalfe's Horstman, completely transformed by a very neat and beautifully streamlined body made by Abbott's, of Farnham, was difficult to start in the finishing straight, and caused a temporary bustle of confusion by catching fire. He managed to get the car to the line, but did not start. The limit man, Derrington, on his "blown" Hornet Special, held the lead for two laps, only to lose it to Rayson's Riley, who was being overhauled by Stonard. Meanwhile the Delage was going great guns, but after a fine run could not catch the little grey Riley which got home at the fine average speed of 90¼ m.p.h. Rayson was third.

So large was the entry list for this meeting that a special "Reserve" race was held. Kelway's lurid Marendaz Special was favourite, but like many others, he retired after the first lap. After a good tussle, victory went to Roberts' Talbot "90," with Cookson's Aston Martin second.

The Novices Handicap, although lacking in very high speeds, was extraordinarily interesting for the number of "scraps" between perfectly standard sports cars. For example, Mrs. Petre's Hornet Special and Moncrieff's Magna, after starting level, lapped wheel to wheel, with nothing to choose between them, although Mrs. Petre actually won the duel by virtue of a superior getaway. Miss Allen was a hot favourite, on a "blown" Lagonda, and she looked an easy winner until engine trouble developed and she had to retire. This gave Osborne his chance, and he came through the field to win from the 4sec. mark, thus recording his second win of the day. Capt. Aldous was second on the Talbot "90," and third place was taken by the very smart E. W. Daytona Hornet Special driven by Mrs. Petre.

In the Sports Long, K. D. Evans Montlhery Midget should have been on scratch, but had been put out of action in an earlier race through damage to the engine caused by continuing to run with a blown gasket. As it was, his namesake R. Evans, the limit man, led for two laps, during which time an expensive transmission noise gradually increased in unpleasantness until the Lea-Francis was forced to stop in the Railway Straight with a broken torque arm. Meanwhile great things were happening in the rear, Simpson's red Riley going particularly well, while Aldington was actually lapping at 88 m.p.h. on the unblown Frazer Nash. Another praiseworthy effort was that

"AN HONEST TALE SPEEDS BEST BEING PLAINLY TOLD"
SHAKESPEARE

FRAZER NASH

"I always think that, though the sporting fraternity likes to refer to sports cars as machines, the Frazer Nash is the only one that really fits the appellation. It is so different from all other cars that one never thinks to compare it with any other. The Frazer Nash is a Frazer Nash . . . something which is not a car, not a motor cycle, but a highly efficient machine doing its work in a way different from any other type of vehicle.

I was in a Frazer Nash last week-end and found it a most amazing vehicle with terrific acceleration and wonderful road-holding qualities. The ideal machine for competition work.★ It is significant that there are very few available on the second-hand market . . . the demand always seems to be greater than the supply."

from "Disconnected Jottings" by THE SCRIBE, The Autocar, May 27th, 1932

★ *BRIGHTON TO BEER TRIAL, 18-19 June, 1932.*
Brighton & Hove Trophy and Replica (Premier Award for Cars) H. W. Inderwick (Frazer Nash). Mr. Inderwick also gained this Trophy in 1931 on a Frazer Nash.
Mr. H. J. Aldington put up Fastest Time of the Day in the Acceleration Test on Fingle Bridge with his Frazer Nash.
Four First-class Awards.

FRAZER NASH CARS FALCON WORKS LONDON RD. ISLEWORTH
TELEPHONE HOUNSLOW 3171 · 3172

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CLUBS AT THE TRACK—continued.

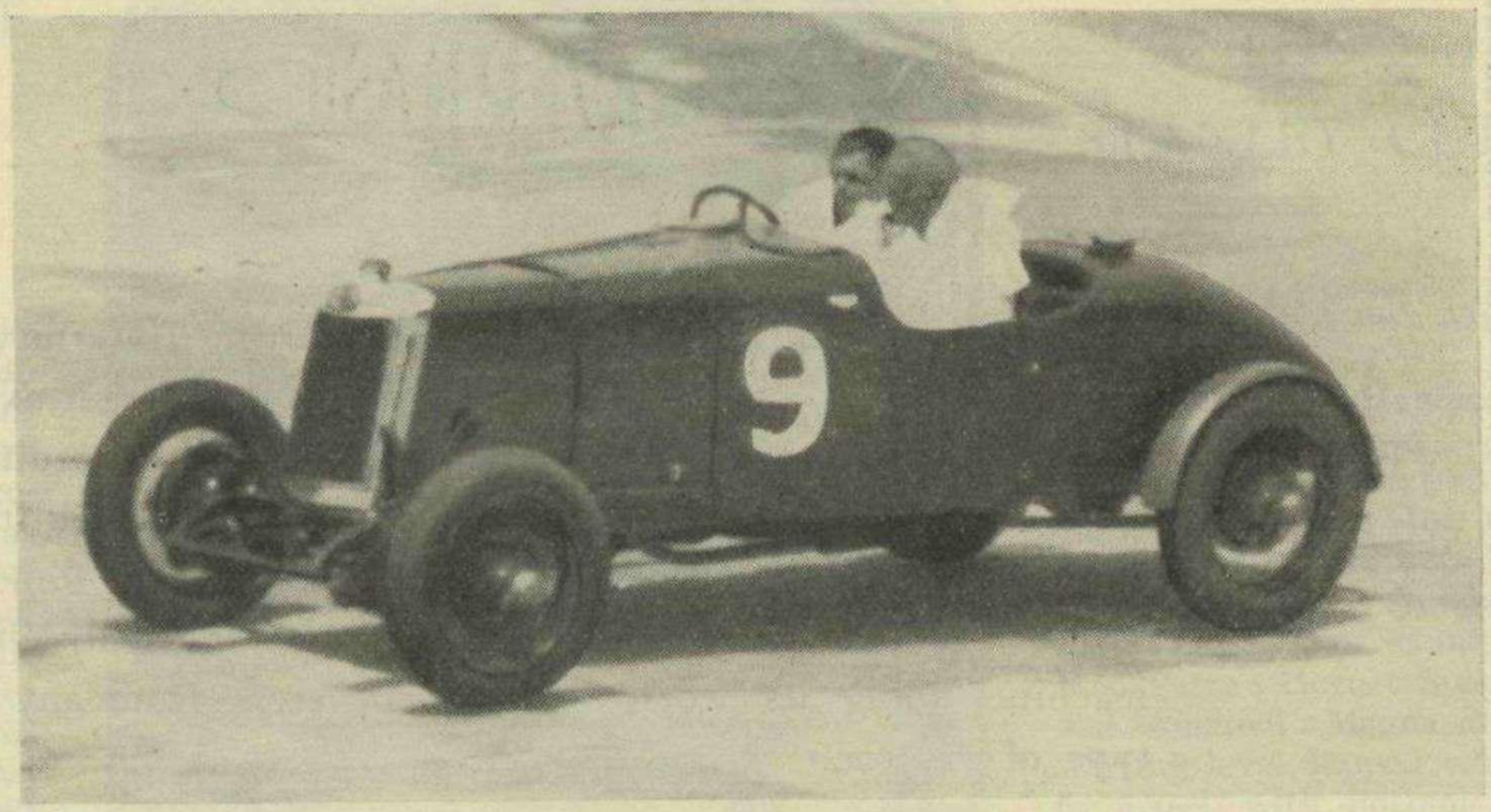
of Taylor's 4-seater Riley. A good many cars would have been a great deal more comfortable with tightened shock absorbers. Miss Hedges eventually won a good race in the Talbot "90," beating Taylor's speedy Riley by 300 yards, who in turn was 15 yards in front of Miss Schwedler's Alvis.

The Five-lap Handicap, and as it proved, the last race of the day, produced 16 starters, varying from Goodson's Austin Seven on the limit mark to the big red Delage on scratch mark. Yallop's Aston-Martin followed Goodson's Austin for four laps, while the rest of the competitors gradually joined the fray. Niven's M.G. Six was missing as it left the line, and continued on a reduced number of cylinders for the rest of the race. Finally the big Delage was left alone on the starting line, and waited there for what seemed an interminable time before "Ebby" dropped his flag.

The great car hurtled round at high speed, lapping at about 115 m.p.h., and gave an added touch of interest to the race, but he could not prevail against the unexpected turn of speed of Munday's Speed Model Rover, which came home a winner at the exceedingly good average speed of 92.57 m.p.h.

The Inter-Club Team Relay, which should have followed, had to be abandoned owing to many of the competing cars having passed out during the afternoon's sport. The Meeting concluded with a Hill-Climb for touring cars, which was won by J. Bennet's Hudson Pacemaker, which recorded the excellent time of 11 2/5s. Lt. P. Richards-Brown, on a Chrysler coupé, was second.

During the afternoon points were recorded to decide the winner of the Stanley Cup, which was won by the Junior Car Club, represented by H. J. Aldington, A. T. G. Gardiner and E. K. Rayson, with 18 marks. A victory for the ladies was only narrowly missed by 1 point, for the Women's Automobile and Sports Association came second with 17 marks. Their team was Miss Hedges, Miss Schwedler, and Miss Allan. Third place was taken by the holders, the Brighton & Hove Club, with 14 points; the M.C.C. was fourth, and fifth place was shared by the Cambridge University Club and the Light Car Club.



C. T. Osborne (Le Francis) who won two races on his first appearance at the track.

RESULTS.

THE RACING SHORT HANDICAP.
Distance: About 6½ Miles.

1. Mrs. S. Tolhurst, 1,089 c.c. Riley, 1 min.
2. N. W. Gardiner, 5,107 c.c. Delage, scr.
3. C. S. Dixon-Geertz, 1,090 c.c. Salmson, S., 46 secs.

Ten ran. Winner's average speed, 81.13 m.p.h. Distance between first and second, 3 2/5 secs. (150 yards); 4 4/5 secs. (200 yards) between second and third.

THE SPORTS SHORT HANDICAP.
Distance: About 6½ Miles.

1. C. T. Osborne, 1,496 c.c. Lea-Francis, S., 32 secs.
2. Capt. H. F. T. Aldous, 2,276 c.c. Talbot, 24 secs.
3. H. J. Aldington, 1,496 c.c. Frazer-Nash, 14 secs.

Sixteen ran. Winner's average speed, 83.43 m.p.h. Distance between first and second, 10 4/5 secs. (500 yards); 1/5 sec. (10 yards) between second and third.

THE RACING LONG HANDICAP.
Distance: About 9 Miles.

1. H. W. Stonard, 1,089 c.c. Riley, 1 min. 15 secs.
2. N. W. Gardiner, 5,107 c.c. Delage, scr.
3. E. K. Rayson, 1,089 c.c. Riley, 1 min. 9 secs.

Nine ran. Winner's average speed, 90.24 m.p.h. Distance between first and second, 7 4/5 secs. (400 yards); 7 4/5 secs. (350 yards) between second and third.

THE SPECIAL RESERVE SHORT HANDICAP.
Distance: About 6½ Miles.

1. W. M. Lloyd Roberts, 2,276 c.c. Talbot, 26 secs.
2. R. A. Cookson, 1,482 c.c. Aston-Martin, 51 secs.
3. G. H. Goodson, 749 c.c. Austin, 1 min. 20 secs.

Fifteen ran. Winner's average speed, 86.17 m.p.h. Distance between first and second, 4 3/5 secs. (200 yards); 5 4/5 secs. (300 yards) between second and third.

THE NOVICES' HANDICAP.
Distance: About 6½ Miles.

1. C. T. Osborne, 1,496 c.c. Lea-Francis, S., 4 secs.
2. Capt. H. F. T. Aldous, 2,276 c.c. Talbot, 9 secs.
3. Mrs. K. Petre, 1,271 c.c. Wolseley, 46 secs.

Fifteen ran. Winner's average speed, 83.72 m.p.h. Distance between first and second, 3 secs. (150 yards); 9 1/5 secs. (500 yards) between second and third.

THE SPORTS LONG HANDICAP.
Distance: About 9 Miles.

1. Miss G. Hedges, 2,276 c.c. Talbot, 35 secs.
2. A. D. Taylor, 1,089 c.c. Riley, 1 min. 15 secs.
3. Miss I. C. Schwedler, 1,645 c.c. Alvis, 1 min. 7 secs.

Thirteen ran. Winner's average speed, 83.30 m.p.h. Distance between first and second, 7 1/5 secs. (300 yards); 1/5 sec. (15 yards) between second and third.

THE FIVE-LAP HANDICAP.
Distance: About 14 Miles.

1. R. J. Munday, 2,565 c.c. Rover, 1 min. 54 secs.
2. R. A. Yallop, 1,482 c.c. Aston-Martin, 3 mins. 43 secs.
3. G. H. Goodson, 749 c.c. Austin, 4 mins. 15 secs.

Thirteen ran. Winner's average speed, 92.57 m.p.h. Distance between first and second, 7 4/5 secs. (350 yards); 5 3/5 secs. (250 yards) between second and third.

THE HILL-CLIMB.

1. J. Bennett, 8-cyl. Hudson, 11 2/5 secs.
2. Lt. P. Richards-Brown, 6-cyl. Chrysler, 13 3/5 secs.
3. E. L. Linden, 8-cyl. Delage, 14 1/5 secs.
4. B. G. Evans, 6-cyl. Chrysler, 16 3/5 secs.

Four ran. Winner's average speed, 21.07 m.p.h.

Rumblings



G-rumblings—!

WARNING! Rumblings this month should be headed G-rumblings——but here goes!

* * *

First the 1,000 Miles Race. Oh! those eternal rules and regulations! Everyone, the officials not excepted, sympathised with the Earl of March. What luck! After winning the Double-Twelve last year on a similar car, and handling superbly the 100 m.p.h. Austin in the Empire Trophy Race a few weeks ago, to be prevented *by lack of qualification* from taking part! Yes, I know the rules of the race left no alternative, but why not some sub-division to allow individual cases to be judged on their merits? Because, you say, that would mean yet another rule, and so on, and so on. Eheu! how long must all our institutions continue to creak and groan under a net-work of regulations?

* * *

The entire race, in fact, depressed me. To my (perhaps) jaundiced eye, the crowd in the public enclosure shared my feelings and seemed the most bored and indifferent collection of humans I have ever seen. But they were bright young things in comparison with our artist, Roy A. Nockolds. A disconsolate figure, he drooped pathetically about, waiting hour after hour for just *one* real, full-blooded "dog-fight" with two drivers creating at least the illusion of pukka Continental road-racing. The Mercédès-Tabot duel he depicts, was quite an interesting interlude but——the truth is, of course, that we have no right to look for genuine road racing thrills at Brooklands or expect it to depart so far from its right and proper function as a high speed track.

* * *

Refreshing to us all was the triumph of the women drivers. What novelty and interest the race lacked was compensated for by their splendid skill and co-operation. It amused me to watch the expressions on the faces of those in the pits of certain cars. Anxiety, during the last hour, gave place to consternation, which in turn was replaced by incredulity, and finally, admiration for a very plucky effort. We realised that man-made institutions, however hedged about with man-made red-tape, are no longer feared by the opposite sex. Perhaps it's a case of contempt . . . .

The result of the race was not altogether such a surprise to me. Women drivers have put up some pretty good shows in the past and it was to be expected that a race on the International Calendar would one day fall to their credit. I recollect Mrs. Stewart's world records on the Miller at 137 m.p.h.—to say nothing of her runs on the Morgan. Then there was Mrs. Scott's lap at Brooklands on the 2-litre Sunbeam at over 120 m.p.h., and Mrs. Bruce's magnificent 24 hours run at 89 m.p.h. on the 4½-litre Bentley, while Mrs. Wisdom brought up her Fraser Nash at Shelsey last year as fast as most men. On the Continent, Mme. Itier has performed consistently well at Le Mans and elsewhere, and everyone remembers Mme. Junek's wonderful show a few years ago in the Targa Florio.

* * *

"Controllability."

One result of the Italian Grand Prix may be a modification of last year's vogue of the large racing car. I was deeply impressed by the controllability of the new 2.65 litre single-seater Alfa-Romeos, and it was obvious that even that tough pair, Chiron and Varzi, were distinctly fatigued in handling the heavy 4.9 Bugattis. Alfa Romeo has given up the 12 cylinder model, and I have heard that Ettore Bugatti may mount his best drivers on 2.3 cars at Rheims on July 2nd. One must not forget, however, in this connection, that the 5 litre 16 cylinder Maserati, in the hands of Fagioli, was just as controllable on the corners as the smaller cars. This is proved by his wonderful lap record in the closing stages of the Monza race.

* * *

Brooklands.

I had a chat with Mr. Cummins, the American Diesel-car exponent, when he was down at Brooklands preparing for his exhibition runs on the car of his own design. I asked Mr. Cummins his opinion of our track in comparison with Indianapolis, which is situated near his home. Let me use his own words: "Most tracks are difficult at first, but once you've found your 'groove,' you're alright. At Indianapolis you have to practice a long time before you find it, and I expect the same thing applies here."

I like the word "groove."

RUMBLINGS—continued.

What is a Gavel ?

How often is one startled out of one's wits at a Club dinner by the " Bang " of the chairman's mallet on the table, when he wants to announce a speaker ! Normally, I believe, this noisy implement is made of wood, but the J.C.C. have recently introduced an original note in gavels, as they are correctly called.



As you will see from the picture, their new gavel consists of a chromium-plated piston and con-rod, and a larger piston mounted on a piece of ebony. On the under-side of the gavel is engraved the following inscription: " This gavel was made for the Junior Car Club by Thomson & Taylor, Ltd., from parts taken from cars designed and raced by the late J. C. Parry Thomas. May, 1932."

* * *

Car Racing in the I.O.M. ?

The motorcycle races in the Isle of Man this year were received with the usual enthusiasm, though the financial depression brought with it the usual tale of small entries. No one can cross to the Island without thinking about the possibilities of a car race over there, and though it seems pretty well settled now that the Mountain course is too narrow to allow large cars to race on it, sundry enthusiasts have had the very sound idea of a race round Douglas on the lines of the Monaco Grand Prix.

Various alternative routes have been suggested but the plan is roughly that the cars should start at the Castle Mona Hotel half way along the promenade, turn right about half a mile along at Villa Marina, up into the town, right again in another quarter of a mile, then straight ahead out of the town to Governor's Bridge. The course would then go along to Onchan village, and down quite a steep slope with a hairpin at the bottom on to the end of the Promenade, when a mile run brings it back to the Start. The course is about 3.8 miles in length.

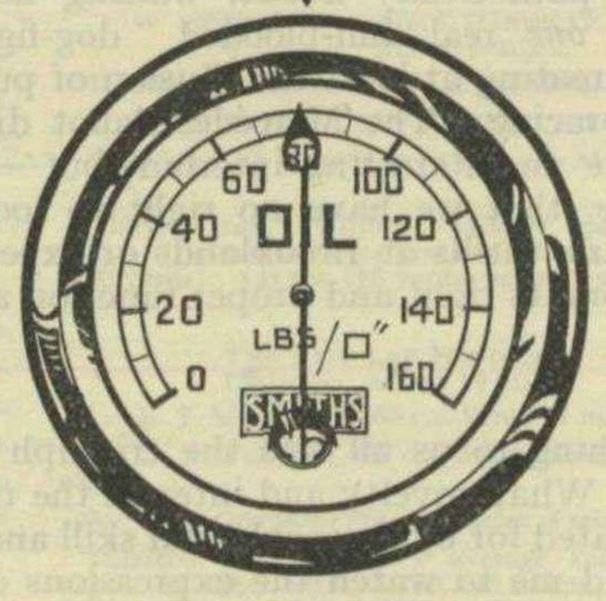
Douglas, for the benefit of those who have never seen the T.T. races, is built on the shore of a bay three miles across, with hills rising steeply behind the town, so that the course would provide a climb of about 300 feet, the usual sharp corners which abound in an old town, and a fine mile run along the Promenade within a few yards of the many hotels which border it. If as much enthusiasm and as large a prize list can be raised as when it was hoped to hold the R.A.C. T.T. races there, support from the Continent and at home will surely be found. I hope to report further progress in our next issue.

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THE OIL WHICH
"STANDS UP TO IT"
A NEW GRADE
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The Sports Car Owner's happiness largely depends on an Oil which will keep the pressure up on his Oil gauge under all conditions of high speeds and fast "revving."

Anxiety sets in when the pressure is seen to drop, as he knows well his engine is not getting the assistance it needs and that there is danger ahead.

In SPORTS "FILTRATE" (Regd.) nothing has been spared to ensure freedom from anxiety—the Oil which stands up to extreme heat and extreme speeds, and gives an exceptionally clean engine.



KEEPS
THE PRESSURE UP
UNDER ALL CONDITIONS

BROOKLANDS ACTIVITIES THIS MONTH

The Guy's Gala.

OUR hospitals, not having the benefit of their Irish counterparts in being able to obtain funds by means of sweepstakes, are forced to turn to other methods of securing financial aid, and for the first time in history have chosen a motor racing meeting as a suitable means to this end.

Organised by the Junior Car Club, the Guy's Gala and Motor Race Day to be held at Brooklands on July 2nd, in aid of Guy's Hospital, should be a great success. Their Royal Highnesses the Duke and Duchess of York have graciously promised to attend, and will present the prizes at the end of the day.

The programme is timed to start at 11 a.m., with the Guy's Junior Handicap, a one-lap race open to cars other than racing cars driven by Guy's students, followed by the W.A.S.A. Handicap, a one-lap race for similar cars driven by ladies. The morning's racing concludes with the Guy's Senior Handicap, a two-lap race on the same lines as the first race.

In the afternoon, racing cars will take the track at 2.30 for the Gala Short Handicap, an ordinary Brooklands "Short," followed by the Hazard Handicap, a driving skill event for touring cars. Then comes the Gala Long Handicap, the Duchess of York's Trophy race, which will be a "Short" open to racing cars driven by ladies, and the Duke of York's Trophy Race, a 20 mile event open to cars which have lapped Brooklands at 100 m.p.h. or more. Then there will be a special exhibition, the nature of which has not yet been definitely fixed, and the racing programme will conclude with the *piece-de-resistance*, the Guy's Gala Mountain Handicap, over 15 laps of the Mountain circuit.

The Meeting will be brought to a close by the Parade of cars competing in the Concours d'Elegance, after which, as we have already stated, the prizes will be distributed by their Royal Highnesses the Duke and Duchess of York.

Most of the well-known Brooklands drivers will be competing, and everything points to a thoroughly good day's sport on July 2nd.

The L.C.C.'s Relay Grand Prix.

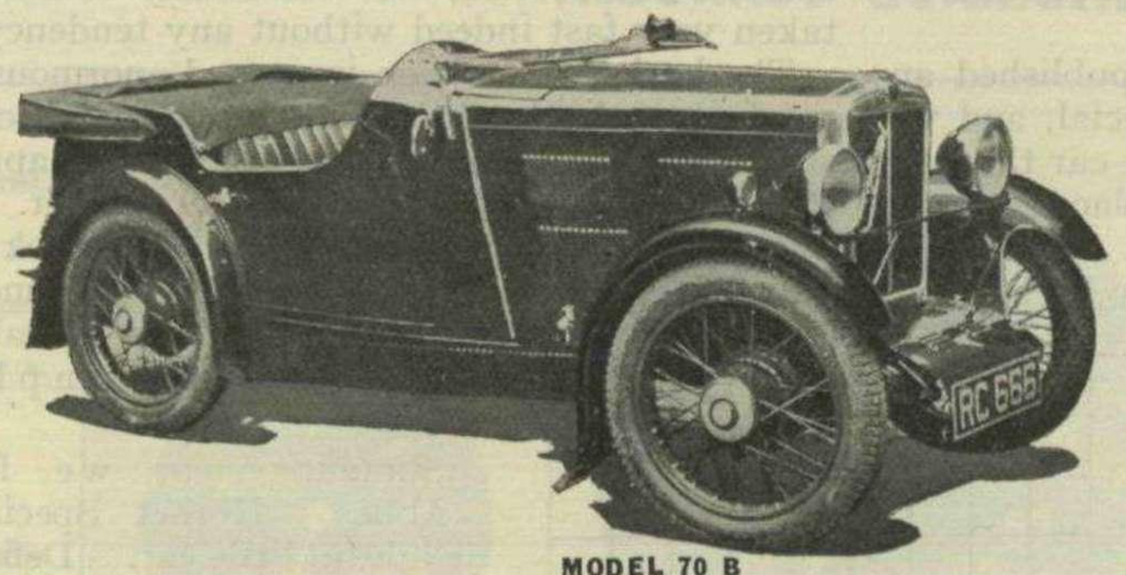
SURELY there has never been a time when the sports car—especially the small sports car—has been so popular! And what a tribute this is to the design and reliability of the cars themselves. For a small outlay, an enthusiast can now buy a car which, with a little tuning, can hold its own in many Brooklands events.

As an illustration of this, Mr. John Yule, the energetic Secretary of the Light Car Club, informs us that he has received a record entry for the Relay Grand Prix to be held at Brooklands on July 16th. At the time of writing 29 teams, or 87 cars, have been entered at single fees, so that if any more drivers take advantage of the double fees period to enter, the traffic problem at the Fork will be like the parking ground at the Aldershot Tattoo!

The entry list is a representative one, Austin, M.G., Aston Martin, Riley, Frazer Nash, Wolseley and Salmson all being entered. Once again, the official Austin team, last year's winners, will take part, but this year the cars will be the single-seaters which raced at the Avus Meeting and at the British Empire Trophy Race, and will be driven by the Earl of March, Barnes and Driscoll.

Some of the teams are very mixed, but this is all to the good, and the 1932 Relay Grand Prix promises to be a highly successful affair.

The McEVOY SPECIAL
Morris Minor - £149



MODEL 70 B

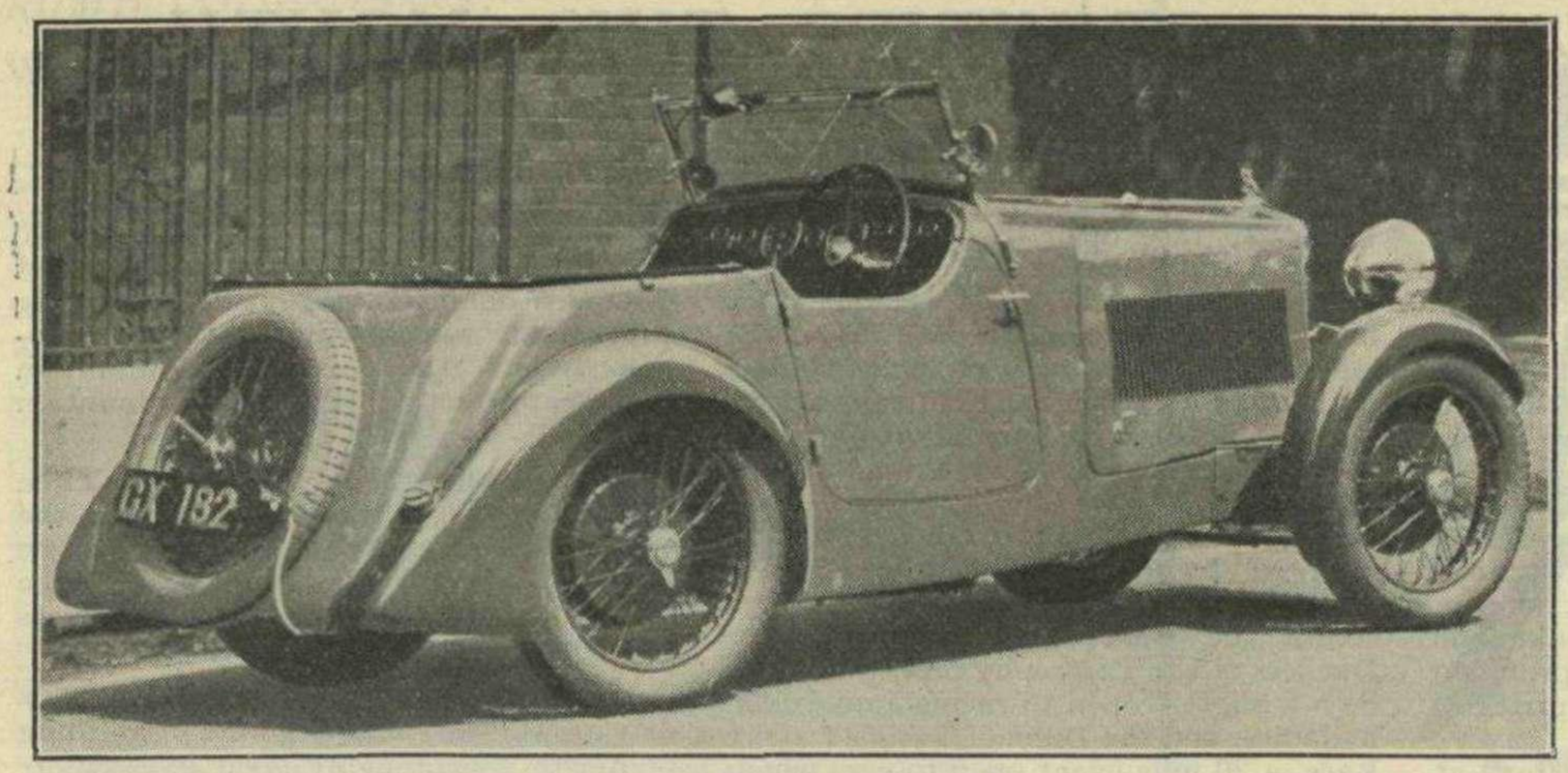
Specially tuned model type 70 with R.A.G. carb. special manifolds, etc.
£160

For a specification including "Le Mans" type 2/4 seater body, first class upholstery with pneumatic cushions, wide range of colours, real one man hood and side-screens, fold flat windscreens with electric wiper, spring steering wheel, etc. We think that the McEVOY SPECIAL provides value for money that is unequalled.

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M. A. McEVOY (London) LIMITED. Park 5438

Works: LEAPER STREET, DERBY



The graceful lines of the "Trophy" Model can be appreciated by the photograph.

THE ABBEY "TROPHY" HORNET SPECIAL

A BEAUTIFULLY FINISHED CAR AT THE MODERATE PRICE OF £275

WHEN we first drove a Wolseley Hornet saloon, in its original form, we were immediately impressed by its lively performance, and wondered how long it would be before coachbuilders realised what an excellent basis this chassis would make for a small sports car. We had not long to wait, and soon the Hornet was one of the most popular little cars on the road. In comparison to the standard saloons, the sports 3/4 seaters were a great improvement—but the manufacturers were still not satisfied, and produced the Hornet "Special" chassis, to be supplied in chassis form to coachbuilders only at the low price of £175.

They have made a thorough job of it. To begin with the track is now 3 inches narrower at the back than in front; giving greatly enhanced road holding characteristics, then the induction and exhaust systems have been completely re-designed, twin S.U. carburettors now being fitted to twin inlet-manifolds, while on the exhaust side, three pipes lead to a single pipe, and so to the silencer.

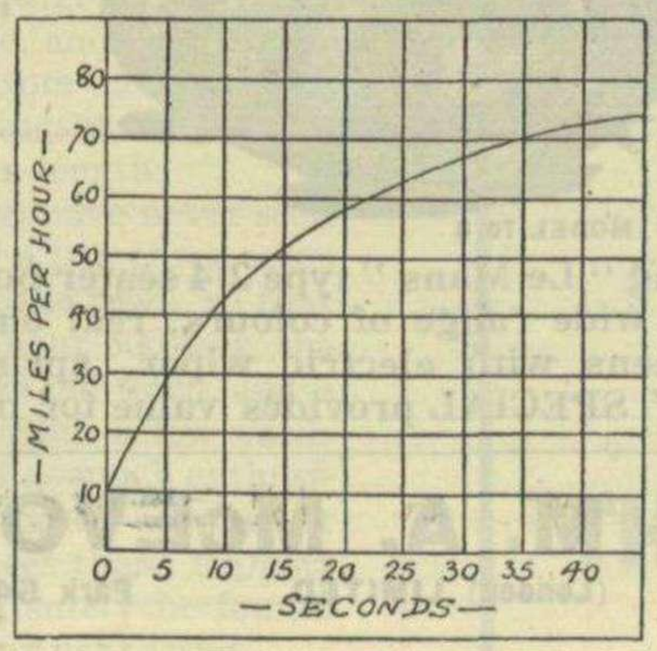
In the May issue of MOTOR SPORT we published an account of a short test of the Hornet Special, and we recently had an opportunity of putting the car through its paces more thoroughly. The model placed at our disposal for a week-end by Messrs. E. C. Stearns & Co., of Fulham Road, S.W., was an Abbey "Trophy," a very neat and beautifully finished four-seater, which incorporates several ingenious and ultra modern ideas. Good features in the body design are an 8-gallon rear petrol tank, Stearns-Layton remote gear control, and a folding windscreen fitted with safety-glass.

And now about performance. First of all, it would be difficult to imagine a more easy car to drive than this Hornet Special. The clutch is smooth and light in operation; the gear change is simple, but at the same time has plenty of "feel" about it; and the steering, although extremely light, is quite positive in action, so that the car can be placed accurately at high speeds.

In getting clear of the London traffic we soon found that the acceleration in second gear was extremely useful—the time taken to reach 30 m.p.h. from 10 m.p.h. being 5 seconds. The engine is delightfully smooth right up to the safe maximum on the gears, 5,200 r.p.m. and we found that a comfortable cruising speed is in the neighbourhood of 60 m.p.h., at which speed the engine is turning over at about 3,700 r.p.m.

Our destination to begin with was in the Tring district, and the run down the Watford by-pass gave us a very good idea of the maximum speed. We had the speedometer registering a steady 80 m.p.h. for a considerable time, which was later proved by timing to be an actual 75 m.p.h. Wonderful going for a smooth, quiet and flexible engine of only 1,271 c.c.! At this speed the car was perfectly steady, and after tightening the shock absorbers all round, we found that corners could be taken very fast indeed without any tendency to roll.

The brakes have been improved enormously. When we first took the car over the shock absorbers were slackened off for town work, and violent application of the brakes produced front wheel judder. This was quickly remedied by tightening the shock absorbers, and the brakes were then smooth and extremely efficient in action. The actual stopping distance from 40 m.p.h. was 55 feet.



Acceleration chart of The Abbey Hornet.

Summing up, we found the "Abbey" Hornet Special a most delightful little car. Definitely good acceleration, a high maximum speed, and powerful brakes combine to make the car equally suitable for main roads, traffic, and country lanes. Added to this, the first class workmanship and finish of the body left nothing to be desired, and at £275 it is an outstanding example of the wonderful value made possible by the popularity of this type of sports car.

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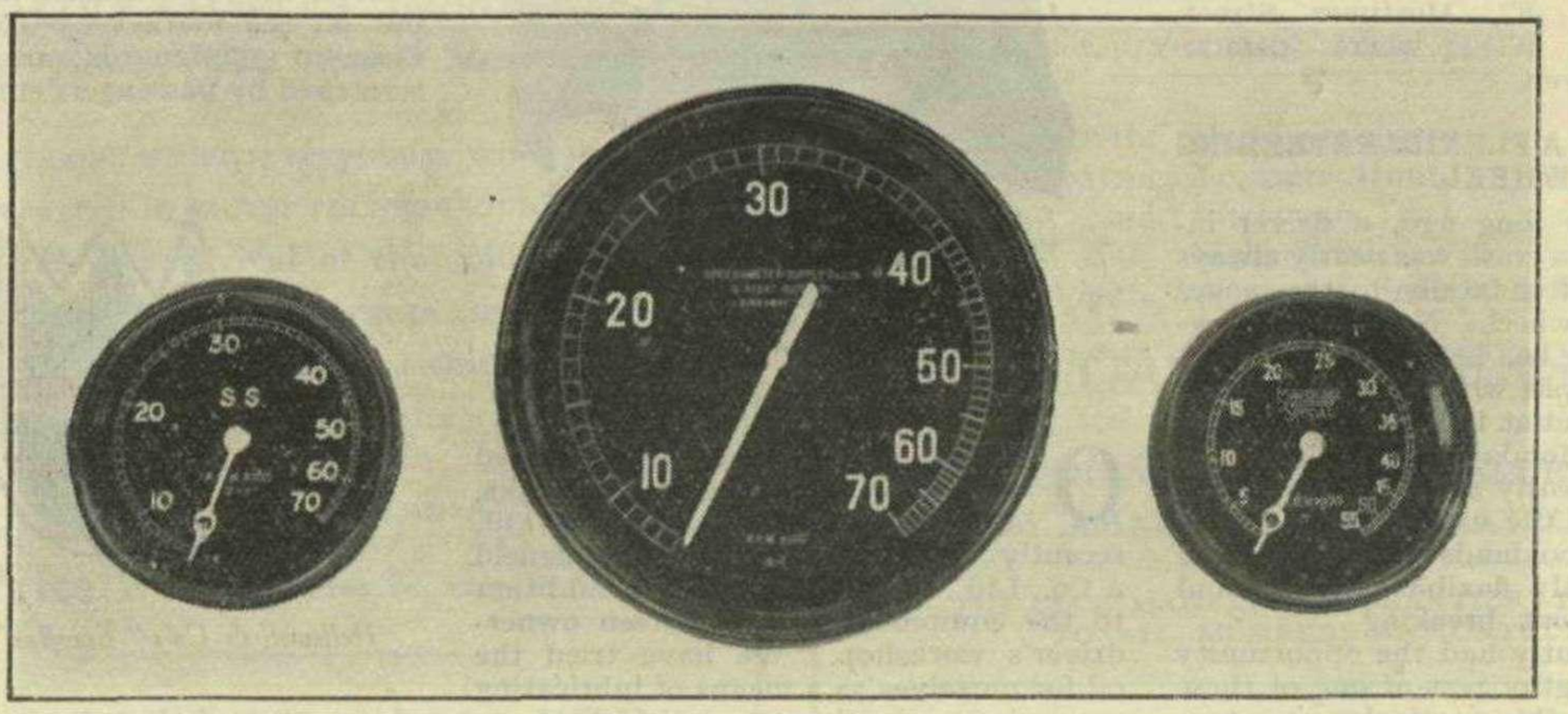
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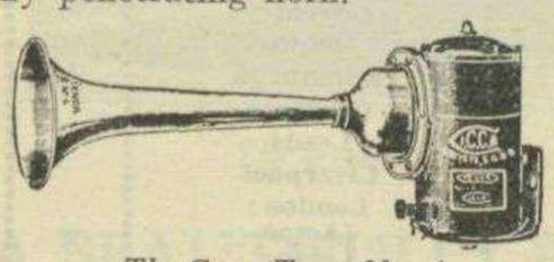
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AIDS FOR THE SPORTING MOTORIST

THE LOUDEST MOTOR HORN.

MANY are the occasions on which the driver of a fast sports car has to step on the brake pedal good and hard through a massive and slow moving lorry, doing a steady "twenty" on the crown of the road, refusing to pull over. This state of affairs can sometimes be considerably improved by the use of a really penetrating horn.



The Cicca Tenor No. 4.

We recently had a demonstration of what is claimed to be the loudest motor horn in the world—the Cicca Tenor. This horn, which is wind operated by an electric motor, has been used extensively in racing for the purpose of pit signalling.



Ciccia Tenor No. 9.

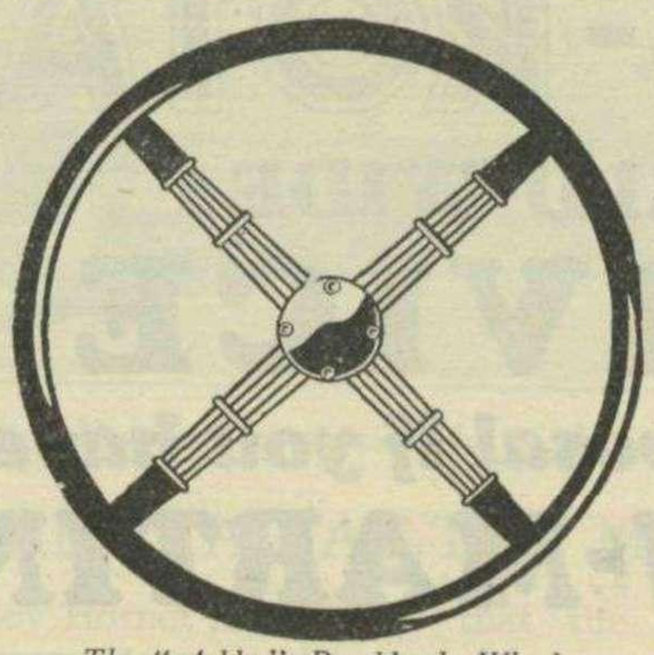
Other models are the Cicca Tenor No. 9 Musical horn, which is fitted with four trumpets, and was used on Lilian Harvey's Mercédes to play the tune of the theme song in the film "Chemin du Paradis," and the Tetophone which is an ordinary bulb horn playing the tune of the "Westminster Chimes."

Cicca motor horns are handled by C. & H. Accessories, 82, Mortimer Street, Regent Street, W.1., where demonstrations are given.

THE VALUE OF A FLEXIBLE STEERING WHEEL.

NOT so very long ago, a driver involved in a crash was nearly always injured, often fatally, by the spokes of the steering wheel. Nowadays, however, this danger has been largely eliminated. For example, when H. C. Hamilton struck the parapet at 100 m.p.h. at Brooklands on Whit-Monday, his whole weight was thrown violently against the steering wheel. Luckily the car was fitted with an Ashby "Brooklands" wheel, which proved sufficiently flexible to withstand the strain without breaking.

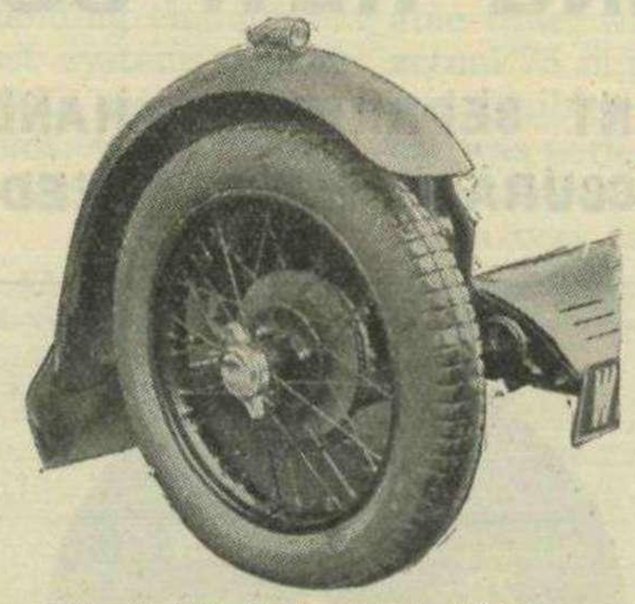
We have recently had the opportunity of making a lengthy test of one of these wheels, fitted in this particular case to a "type 40" Bugatti, and after several months of hard driving, both on main roads and very rough lanes, we have nothing but praise to record for its many excellent qualities. Road shocks and "kick" are completely absorbed, and on a long fast run from London to Liverpool, we were very impressed with the



The "Ashby" Brooklands Wheel.

comfortable handling of the thin-rimmed wheel.

From the point of view of appearance, the "Brooklands" steering wheel is a definite improvement, and it is interesting to note that the makers, Frank Ashby & Sons, Ltd., Stirchley, Birmingham, can supply a comprehensive price-list of wheels made specially for practically every make of car. Other attractive accessories marketed by this concern are the well known "Brooklands" radiator and head-lamp stone-guards, hub-caps, brake shields, and mudguard grilles.



The "Ashby" Brooklands Hub-cap.

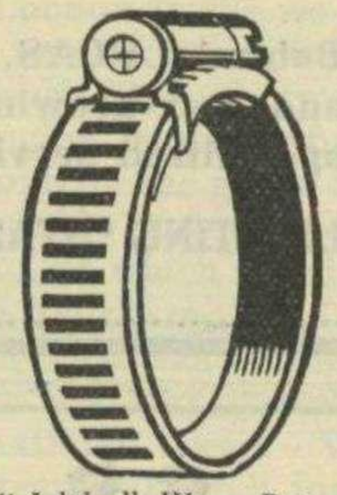
A NEW PENETRATING OIL.

OF the greatest value in freeing rusted nuts and eliminating body squeaks, the new Castrol Penetrating Oil, recently introduced by C. C. Wakefield & Co., Ltd., should prove a useful addition to the equipment of every keen owner-driver's workshop. We have tried the oil for ourselves as a means of lubricating spring-leaves, with very satisfactory results.

In addition, the same concern has introduced a very useful oil-can, which squirts the oil under pressure into difficult recesses. The price of the oil is 3s. 3d. per pint tin, while the oil-can costs 4s. 6d.

STOP THAT LEAK!

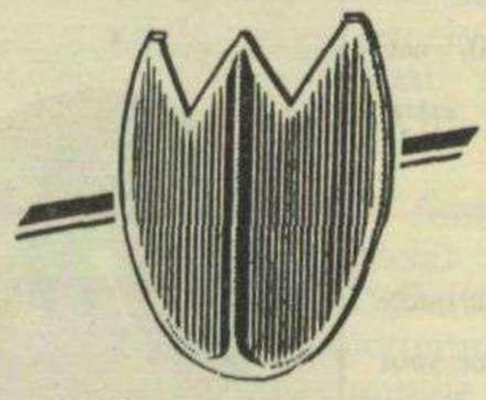
ONE is very apt to lose sight of the fact that many accessories and tools, while being made for one especial purpose, can often be adapted to other requirements. One of the most useful of these is the "Jubilee" hose-clip, manufactured by L. Robinson & Co., London Chambers, Gillingham. As will be seen from the accompanying illustration, the clip is strongly made, and has the advantage of being all one piece. Apart from its normal use for tightening water hose joints, the "Jubilee" clip can be put to such uses as securing leather sleeves round universal joints, and holding asbestos string in place round a leaky exhaust union. Much time and trouble can be saved by carrying a few spare clips in the tool-box.



The "Jubilee" Worm-Drive Clip.

MUDGUARD PROTECTORS.

OWNERS of sports cars who take a pride in the appearance of their vehicle, will appreciate the new "Everflex" stoneguard which has been put on the market by Hellewell & Co. Close-up mudguards are apt to get scratched by passengers entering the back of the car, and there is always the danger of stones being thrown up by the front wheels and damaging carefully polished paint-work. The "Everflex" stoneguards are made of rubber, of various colours to match the car, and are good value at 15s. 6d. per pair.



Hellewell & Co's "Everflex" Stoneguard.

AIDS FOR THE RACING MOTORIST—continued.

CHECKING EFFICIENCY.

THROUGH the courtesy of Messrs. Tapley & Co. of Totton, Southampton, we have been able to carry out a prolonged test of the Tapley Performance Meter, which as its name implies supplies all kinds of information about the efficiency or otherwise of one's car. A full explanation of its working was given in MOTOR SPORT of January, 1930, so that only brief particulars need be given here.

The instrument embodies a magnetised pendulum which swings in an oil-tight case in accordance with the angle at which the case is tilted, and it is also influenced by changes of speed when carried on a running vehicle. The pendulum attracts an iron armature and this motion is conveyed by a rack and pinion mechanism to a movable scale visible through a window in the face of the meter. The scale is calibrated to give the gradient and also the acceleration in pounds per ton.

Performance Meters are usually mounted on the dash, but the one lent us was fitted with a clamp which allowed ready transference from one vehicle to another. The only adjustment required was to set the scale at zero on level ground.

The first measurement we made was that of various main road gradients and it was most interesting to find how many stretches which look as though they were uphill or down are actually the reverse of what one had imagined. To take a reading of gradient, the car must be kept at a uniform speed.

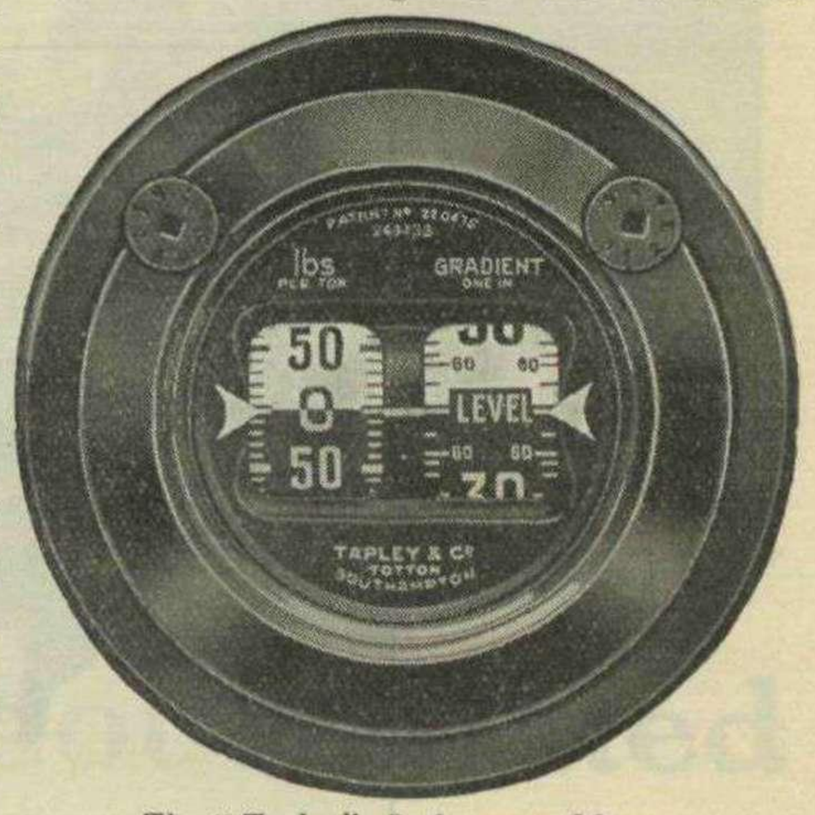
We then tried the various tests suggested in "Intelligent Motoring" and the various other booklets supplied. The first is the tractive resistance of the car, that is, the frictional and other resistances which the engine has to overcome to drive the car on the level. This has to be carried out at about 15 m.p.h. with the clutch out, a reading of 35 lbs. per ton being satisfactory, while a much higher figure shows that the brakes or bearings are binding.

At speeds above about 30 miles an hour wind resistance comes into prominence and by comparing the retardation, say at 15 and 80 m.p.h., the importance of frontal area and streamlining is seen very strikingly.

The acceleration of a sports car is one of its most important features, and this is simply read off at various speeds with the throttle at its best position. Readings of 150, 100 and 50 lbs./ton at 30, 50 and 70 m.p.h. confirmed our opinion that the second hand car we were trying was not very lively. A retardation figure of 820 lbs. on the other hand showed that the brakes still retained their full efficiency.

One of the best features of the meter is the ease with which a car's maximum speed can be determined. This is shown by the acceleration figure dropping to 0. Matters can be speeded up considerably by making this test down-hill, as the instrument is only influenced by the acceleration of the car, but for obvious reasons it is wise to make the brake test before using full throttle down-hill.

Various other interesting tests, such as the maximum gradient the car is able to climb and the brake horse power developed are set out in the instruction books which the makers are glad to send to anyone interested. The instrument is most interesting to use and the use of it will undoubtedly lead to a fuller appreciation of a car's good and bad points.



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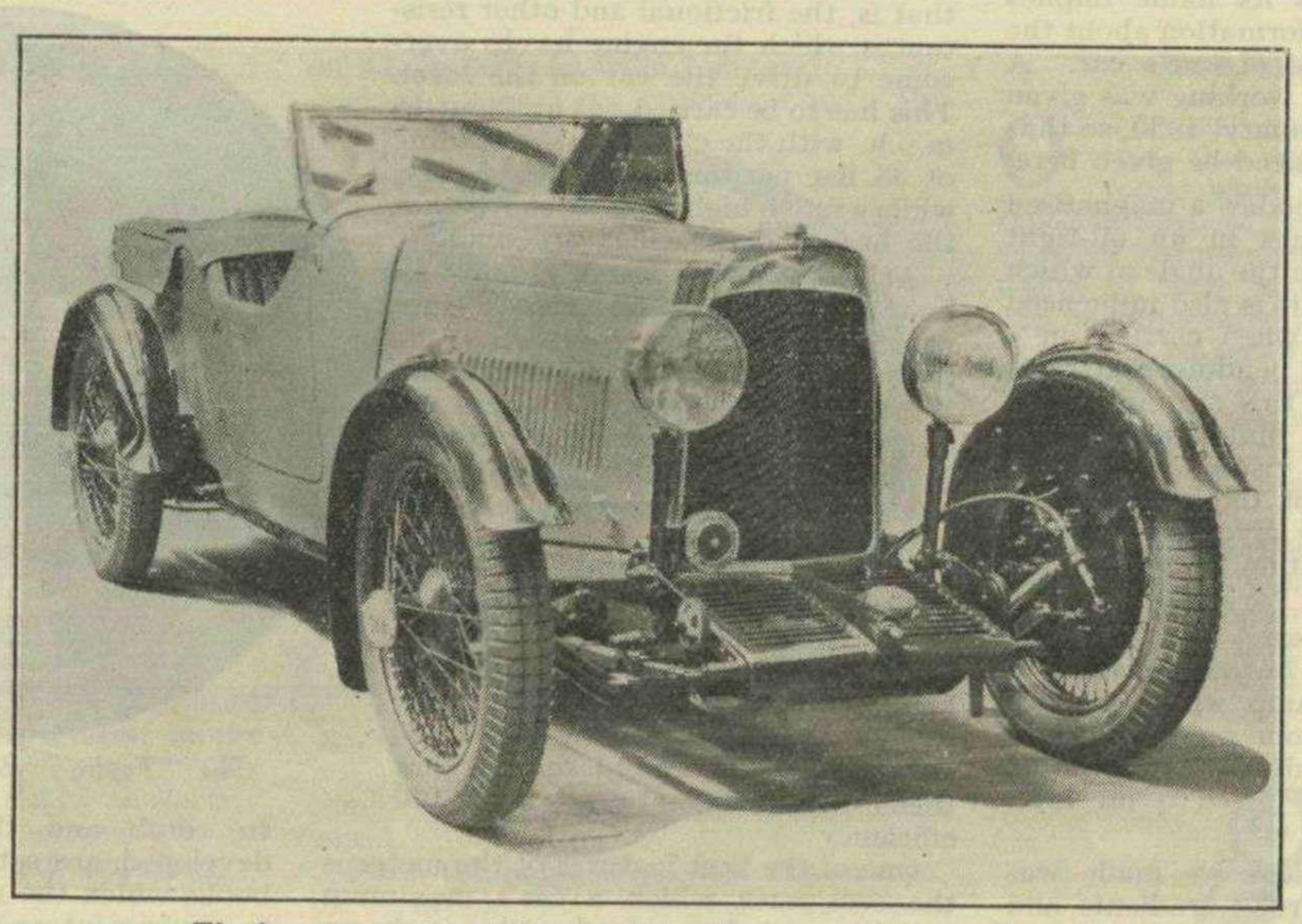
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A NEW ASTON MARTIN

Attractive New Model to Sell at £475



The latest type Aston Martin which will appeal to many enthusiasts.

THE Aston Martin has always been built as a hand made sports car, nothing being sacrificed to considerations of price or production. Consequently it was expensive, and it is very welcome news to know that without losing any of the good qualities of the earlier model, the latest cars are announced at a substantially reduced price.

The chassis of the new model has undergone slight modifications. Looked at from above, from the front dumb-irons the chassis members sweep in below the radiator, widen out until they reach a point behind the gearbox and converge again towards the rear. The frame should be very rigid as it is braced at six points, tubular cross members connecting the side frames at the extreme front and rear of the chassis and also at the point where the headlamp supports and front shock absorbers are fixed, and in front of the rear-mounted petrol tank. Two steel pressings brace the centre part of the chassis.

From the side it follows the lines of the earlier model, being swept over the front axle and passing under the rear axle. The side members are 6 inches deep in the centre of the chassis.

The general design of the engine is unaltered, four cylinders 69 by 99 giving a capacity of 1,493 c.c. The nitralloy cylinder block and the crankcase are cast in one and the detachable head fitted with two overhead valves per cylinder carries an overhead camshaft in three bearings. The camshaft is driven by chain from the front of the engine and is tensioned by a spring blade, and a forked bracket keeps the sprocket in mesh when the head is removed for decarbonising. Valve clearance is adjusted by rotating the eccentrically mounted rocker pins. The sparking plugs are mounted on the inlet side of the head and a narrowing of the gas space on this side materially improves combustion. The pistons are of aluminium alloy and the duralumin connecting rods are bushed with white metal.

The Aston Martin lubricating system has always been of advanced design, as befits an engine which is built to run for long periods on full throttle. The oil is carried in a 2½ gallon tank between the front dumb irons and is pumped from there to a pressure filter which runs the whole length of the off-side of the engine. It passes from there through passages to the three main bearings and thence through the crankshaft to the big end journals. Other passages feed the camshaft bearings, surplus oil returning to the sump down the timing chain tunnel at the front end.

An aluminium sump is fitted and is ribbed to assist cooling. A scavenger pump returns the oil at the opposite side to the intake in the dumb-iron tank, and this being fully exposed to the air completes the cooling process. An additional pipe from the tank to the sump releases the surplus pressure built up by the scavenger pump.

The filter can be detached by removing its aluminium cover, the two pumps are mounted externally at the front of the engine and the adjustable pressure release valve is accessibly mounted at the front end of the filter.

Two S.U. carburettors fitted with top feed float chambers are mounted on the off side, petrol being supplied by a Petrolift mounted on the dash. The exhaust manifold is on the near side of the engine, the exhaust pipe being carried down well clear of the dash. The magneto and the water pump are now carried on a spigot mounting at the front end of the engine, while the dynamo is coupled direct to the crankshaft.

A NEW ASTON MARTIN—continued.

An entirely new gear-box is fitted, second and third gear being silent and engaged by dog clutches. The ratios are :—4.66, 6.43, 10.48 and 16.31 to 1. The gear-box is spigot mounted on the engine, the flywheel housing and case being of aluminium. The drive is transmitted through a single plate dry disc clutch. The remote control gear-lever has been retained. An oil filter plug above the floorboards lessens the work of the owner-driver, and the speedometer drive is taken from the rear of the box.

The engine and gear-box unit is mounted on four bearers of circular section, two being bolted on to the crankcase near the front end, the other pair being similarly secured to the flywheel housing.

On the new models torque tube construction has given place to open propellor shaft drive, the shaft having at each end an exceptionally neat universal joint. Another alteration is the substitution of a bevel back axle for the worm drive previously used. The back axle is of normal banjo construction, which permits the interior to be examined without the whole assembly having to be taken down.

The 12 volt battery is divided into two units, one each side of the propellor shaft. Behind the back axle is a 10 gallon petrol tank, and with a petrol consumption of about 30 m.p.g. the car will have a fine cruising range. The spare wheel is fitted in a vertical position at the back of the body, its weight being taken by two troughs mounted on the rear dumb iron stay.

The front axle remains unaltered, the I section between the front springs giving place to a hollow circular section in the upswept parts which are subject to brake and steering reactions. The springs now take the braking reaction, the torque resisting cables not being required. Two rebound leaves are fitted, and additional slips stiffen the assembly. The second leaf is wrapped round the top one to guard against the consequences of a broken leaf.

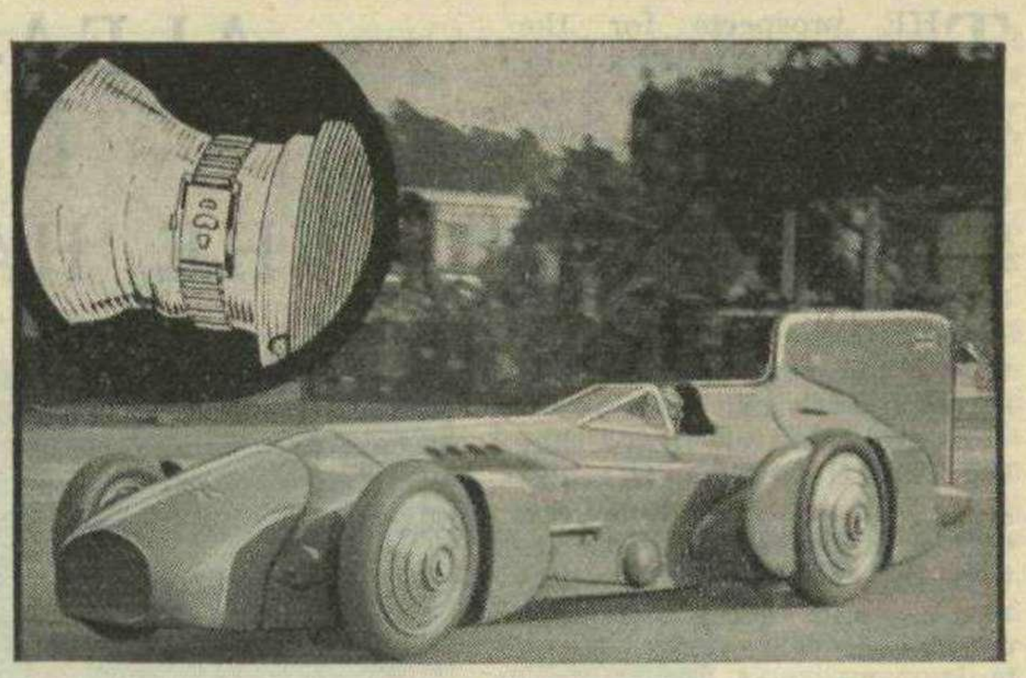
The excellent 14 inch brakes have been retained, and the use of harder liners permits brake lining having a higher coefficient of ignition to be used. Operation is now by enclosed cables. These and the cross shafts are lubricated from grouped nipples in the centre of the chassis. The hand brake lever is on the off side, but being of the pull-up type, does not prevent easy access to the seats.

Lucas electrical equipment is fitted, and the double filament headlamps are controlled by a finger-tip control. A spring-spoked steering wheel is fitted, and the column is adjustable for rake.

The appearance of the new car is little altered, but a higher radiator is fitted, giving it a bolder front. The extra width of the chassis and the open propellor shaft allows the same amount of room as in the previous model, and the ground clearance remains unaltered.

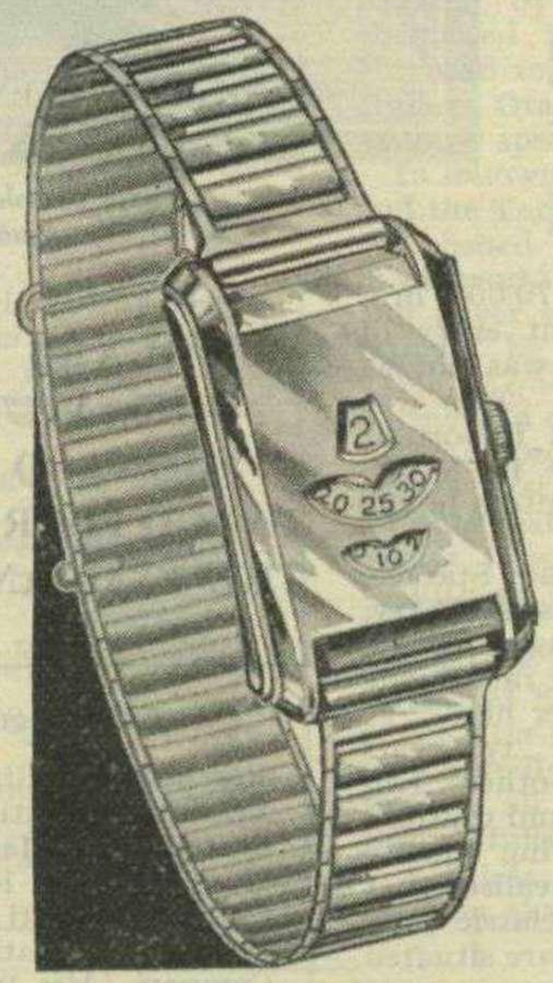
The price of the open four-seater car has been reduced from £598 to £475, a move which will be welcomed by everyone. Apart from the simplification affected by such items as the new frame, which is easier to machine and unit engine gear-box construction, this reduction is accounted for by reduced costs on a larger output of cars, and the number of orders already received for the new model is most encouraging.

A road test of the new car will appear in the next issue of MOTOR SPORT.



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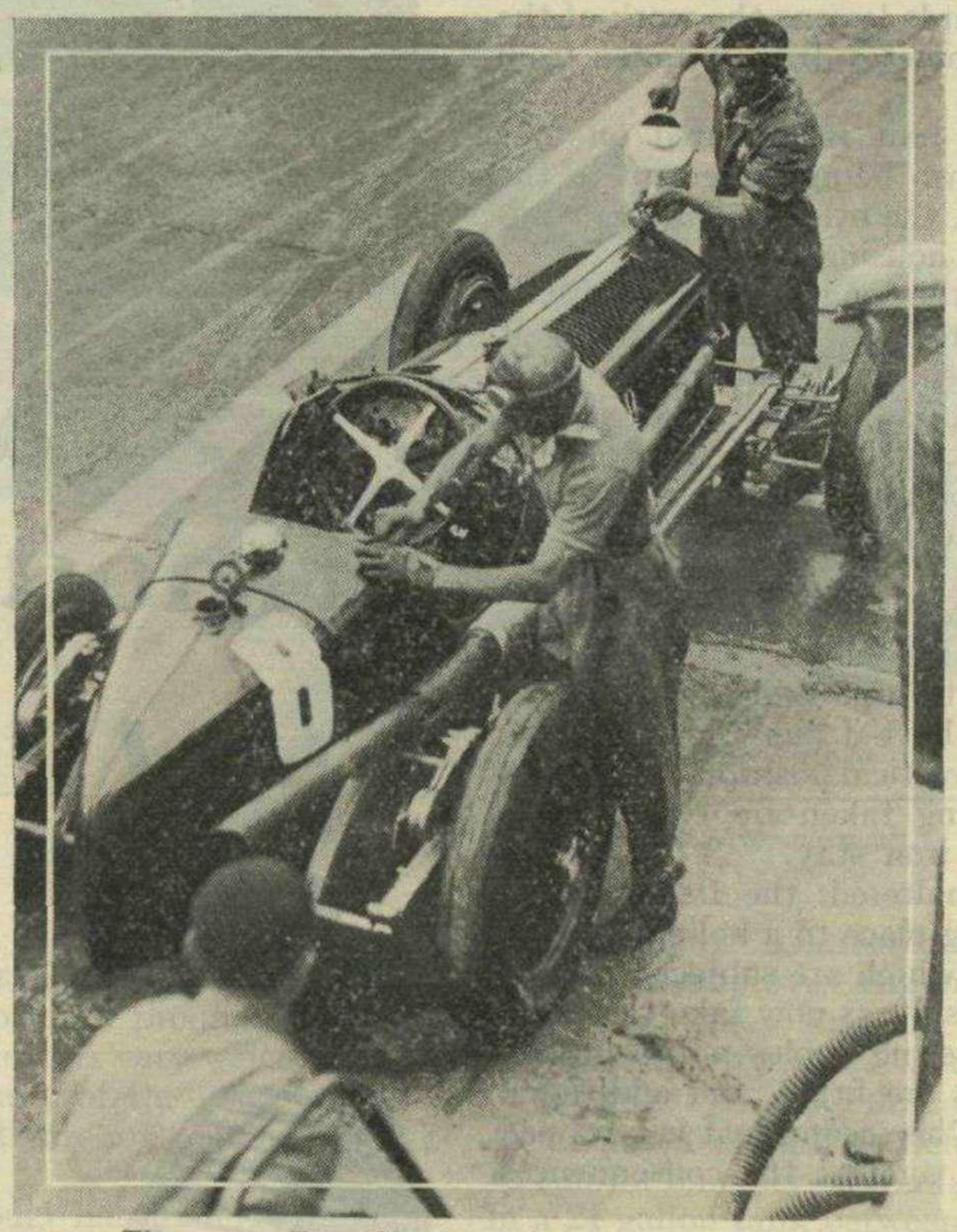
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"BLUE BIRD"
The Sportsman's Watch

ALFA-ROMEO DOES THE HAT TRICK



The winner, Tazio Nuvolari, refuels the new single seater Alfa-Romeo at the pits.

NUVOLARI FOLLOWS UP HIS VICTORIES AT MONACO AND THE TARGO FLORIO BY WINNING THE ITALIAN GRAND PRIX.

THE prospects for the Italian Grand Prix to be held at the Monza track on Sunday, June 5th, were definitely promising. Official teams of Alfa-Romeos, Bugattis and Maseratis, backed up by ten well-known independent critics. Signor Vincenzo Florio, the organiser of the race, had every reason to be satisfied with his efforts.

In addition, one heard that the Bugatti 4.9's were in really good form, having done laps of the Avus circuit, with its two difficult bends, at 125 m.p.h., and being certainly capable of 145 m.p.h. on the level. Two of these cars were entrusted to Chiron and Varzi, while Divo was down to handle a 2.3 double-camshaft model of the same make.

Two of the Alfa-Romeo team of four cars were the well-tried 2,350 c.c. machines, driven by Caracciola and Borzacchini, while Nuvolari and Campari were to handle new cars, of slightly larger capacity and incorporating many original features. Briefly, the specification of these new cars is as follows:—8 cylinders in line, 65 x 100, giving a cubic capacity of 2,650 c.c., two overhead camshafts, magneto ignition, two superchargers with the usual Alfa-Romeo carburetters, transmission by two cardan shafts, and the complete car weighs 700 kilos.

The Maseratis were the well known cars which have already performed with varying degrees of success at Monza.

The race was of five hours duration, under the 1932 rules of the I.A.C.R., and the prize money amounted to 170,000 lira.

In spite of the magnificent entry of cars and drivers, the crowd was not as large as had been expected. This was probably caused through an important football match taking place in Milan, and the arrival of the competitors in the cyclists' Tour of Italy.

The start was given by Signor Starace, Secretary-General of the Fascist Party. Incidentally, the idea of making more of a ceremony of the start of a big race is one that could well be copied over here.

Immediately the flag fell two cars leapt forward in front of the others, Nuvolari's slim red Alfa-Romeo and Chiron's big Bugatti, two masters driving equally matched cars, and the crowd realised that they were about to watch a classic race. The stands and pits at Monza are situated on a straight stretch, and it was a most impressive sight to see the cars come by at the end of their first lap. There was nothing to chose between Chiron and Nuvolari as they flashed by, closely followed by Fagioli, Campari, Varzi, Borzacchini and Caracciola, the leaders travelling at close on 140 m.p.h.

Trouble quickly befell Castelbarco and Premoli, who came into the pits to change the plugs on their Maseratis, and everyone felt sorry when Caracciola had to stop with magneto trouble, which lost him 13 precious minutes. The fight between the leaders continued unabated, Nuvolari, Chiron and Fagioli taking the lead in turn, while Campari and Varzi were in close attendance. Then Chiron and Varzi seemed to come to a mutual understanding, for letting Nuvolari and Fagioli fight it out for the lead, they followed at a distance of 200 yards.

The new Alfas were proving a great success. They appeared to accelerate after the corner slightly better than the 4.9 Bugattis, probably because they were lighter to handle. On the other hand, the Bugattis seemed as fast, if not faster, on the straight. Before the race the lap record had stood at an average speed of just under 170 k.p.h. Already it had been beaten time and time again by Nuvolari, Chiron and Fagioli, who were all lapping regularly at more than this speed.

At the end of 100 kilometres the order was:

1. Fagioli (Maserati), 34m. 48s.
2. Nuvolari (Alfa - Romeo), 34m. 49s.
3. Chiron (Bugatti), 34m. 57s.
4. Varzi (Bugatti), 34m. 57s.
5. Campari (Alfa - Romeo), 35m. 4s.
6. Borzacchini (Alfa-Romeo), 35m. 39s.
7. Ruggeri (Maserati), 35m. 52s.
8. Dreyfus (Bugatti), 35m. 55s.
9. Siena (Alfa-Romeo), 35m. 58s.
10. Ghersi (Alfa-Romeo), 37m. 16s.
11. Divo (Bugatti), 37m. 23s.
12. Lehoux (Bugatti), 38m. 6s.
13. Premoli (Maserati), 39m. 5s.
14. Castelbarco (Maserati), 43m. 8s.
15. Caracciola (Alfa-Romeo), 47m. 43s.

The strain began to tell. Fagioli still led, followed by Nuvolari and Campari, but the 4.9 Bugattis began to fall back. Then the order became confused, owing to all the cars coming into the pits to refuel and change tyres. Here are a few rough times taken for this operation, which will serve for a comparison with English methods:—Campari, 1m. 46s.; Borzacchini, 2m. 14s.; Nuvolari, 1m. 36s.; Fagioli 3m. 25s. Fagioli did not seem to worry about hurrying at all—in marked contrast to his split-second driving of the previous hour. This nonchalance, cost him the lead, however, for when all the cars got going again it was seen that Nuvolari led, followed by Campari on the other new Alfa, Dreyfus, who was driving a wonderful race on his 2.3 Bugatti, and then Fagioli.

The two Bugatti 4.9's were steadily falling back, and were obviously tiring their drivers, who seemed quite unable to keep up with the leaders. This was

THE STARTERS.

Borzacchini (Alfa-Romeo 2,350 c.c.).
Lehoux (Bugatti 2,300 c.c.).
Castelbarco (Maserati 2,500 c.c.).
Nuvolari (Alfa-Romeo 2,650 c.c.).
Chiron (Bugatti 4,900 c.c.).
Fagioli (Maserati 16-cyl. 5,000 c.c.).
Campari (Alfa-Romeo 2,650 c.c.).
Varzi (Bugatti 4,900 c.c.).
Premoli (Maserati 2,500 c.c.).
Caracciola (Alfa-Romeo 2,350 c.c.).
Dreyfus (Bugatti 2,300 c.c.).
Ghersi (Alfa-Romeo 2,350 c.c.).
Divo (Bugatti 2,300 c.c.).
Siena (Alfa-Romeo 2,350 c.c.).
Ruggeri (Maserati 2,800 c.c.).

ITALIAN GRAND PRIX—continued.

most disappointing, especially as the cars were fast enough, as had been proved at the beginning of the race. Fortunately for Bugatti, Dreyfus and Divo were putting up a great show on the 2.3 cars.

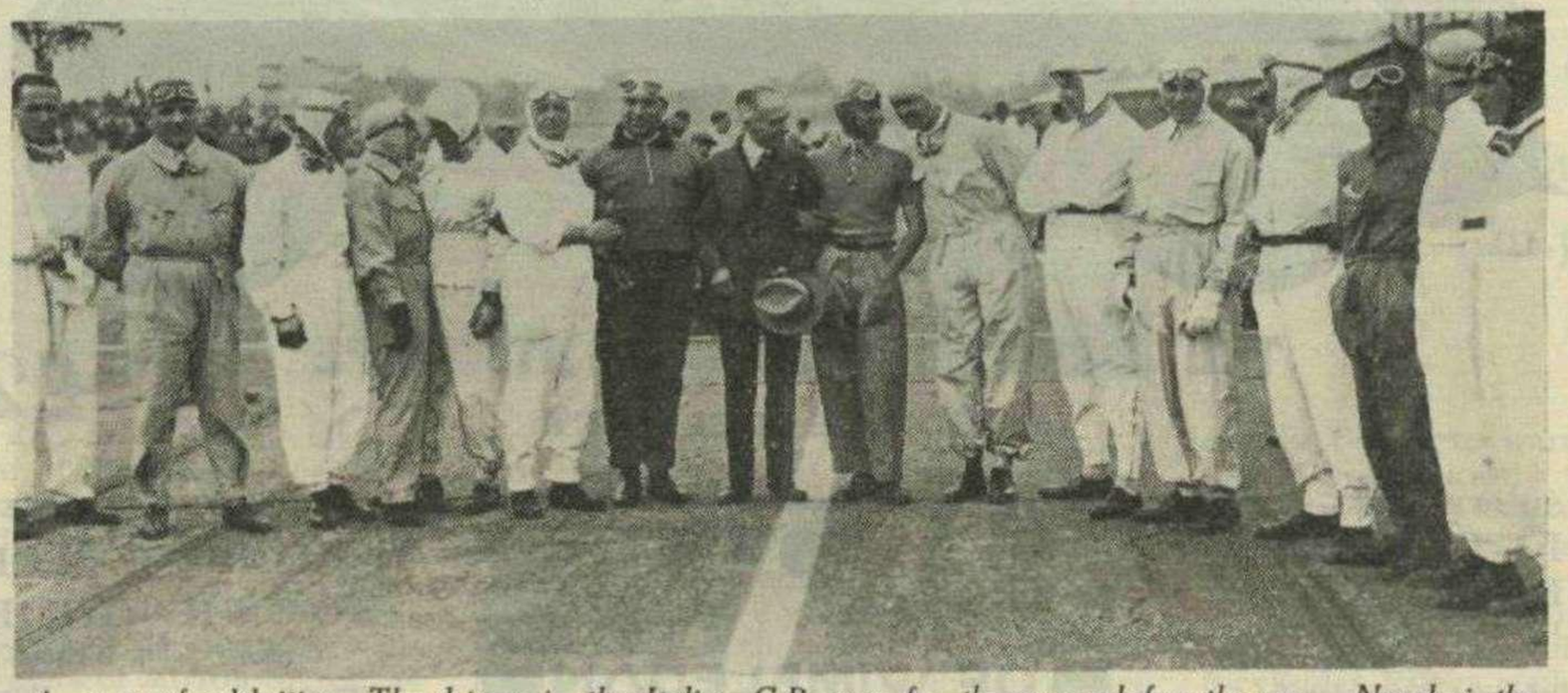
Two minor accidents occurred. Castelbarco went off the road. but fortunately only received slight injuries, and Borzacchini had to hand over his Alfa to Marino, through being struck by a stone thrown up by another car.

After 30 laps, or 300 kilometres the order was:

1. Nuvolari (Alfa-Romeo), 1h. 46m. 14s.
2. Campari (Alfa-Romeo), 1h. 46m. 30s.
3. Dreyfus (Bugatti), 1h. 47m. 22s.
4. Fagioli (Maserati), 1h. 47m. 23s.
5. Borzacchini (Alfa - Romeo), 1h. 49m. 58s.
6. Siena (Alfa-Romeo), 1h. 50m. 44s.
7. Divo (Bugatti), 1h. 51m. 22s.
8. Ruggeri (Maserati), 1h. 52m. 17s.
9. Ghersi (Alfa - Romeo), 1h. 54m. 14s.
10. Caracciola (Alfa - Romeo), 1h. 59m. 57s.
11. Premoli (Maserati), 2h. 8m.

PREVIOUS WINNERS.

1921. Goux (Ballot).
1922. Bordino (Fiat).
1923. Salamano (Fiat).
1924. Ascari (Alfa-Romeo).
1925. Brilli-Peri (Alfa-Romeo).
1926. Sabipa (Bugatti).
1927. Benoist (Delage).
1928. Chiron (Bugatti).
1931. Campari / Nuvolari (Alfa-Romeo.



A group of celebrities. The drivers in the Italian G.P. pose for the camera before the race. Nuvolari, the winner, in the dark clothes, is seen in the centre, chatting to Chiron on his left.

It will be seen that both the 4.9 Bugattis had fallen out. Varzi retired first, with gear-box trouble, so he took over Chiron's car, which was suffering from a choked petrol pipe. This was partially cleared, giving a weak mixture, and Varzi set off to try and catch the field, actually putting in one lap at 175 k.p.h. Then the inevitable over-heating took place, and the record 4.9 retired with a seized piston. Lehoux had withdrew with a broken con-rod, and Bouriat replaced Divo.

Nuvolari still led Campari by about 30 seconds, who in turn was 30 seconds ahead of Fagioli. The issue was still in doubt, then, for Fagioli was in a position to step into the lead should any trouble beset the Alfas. In the rear, Marinoni and Siena were having a terrific "scrap," which resulted in the latter securing fourth place at the 450 kilometre mark. Then Campari's car faltered, and the crowd was keyed up to a higher pitch of excitement. Gradually, he fell back, and Nuvolari found himself playing a lone hand against Fagioli and Dreyfus, who followed in that order.

Caracciola is a courageous man. Driving with superb skill, he had gradually picked his way up to ninth place on the 50th lap. Then Fortune frowned on him once more, and the magneto of his car once more gave trouble. Most drivers would have given up the fight now, but not so Caracciola. Leaping into the car which had been driven up till then by Borzacchini and Marinoni, he tore off again in pursuit.

RESULTS.

1. T. Nuvolari (Alfa-Romeo 2,650 c.c.), 837 km. 508. Average speed 167 km. 521.
2. L. Fagioli (Maserati 16-cyl. 5,000 c.c.), 829 km. 878.
3. Borzacchini, relieved by Marinoni and Caracciola (Alfa-Romeo 2,350 c.c.), 827 km. 549.
4. C. Campari (Alfa-Romeo 2,650 c.c.), 820 km. 035.
5. L. Dreyfus (Bugatti 2,300 c.c.), 820 km.
6. A. Divo, relieved by Bouriat and Chiron (Bugatti 2,300 c.c.), 817 km. 919.
7. Ghersi (Alfa-Romeo 2,350 c.c.), 796 km. 193.
8. Ruggeri (Maserati 2,800 c.c.), 750 km.
9. Premoli (Maserati 2,500 c.c.), 580km.
11. Caracciola (Alfa-Romeo 2,350 c.c.), 570 km.

The vital fourth hour began. Now was the time for the cars, stressed to their utmost, to develop trouble, and for drivers, relaxing with the finish in sight, to make some disastrous error of judgment. Nothing seemed to cause Nuvolari the slightest hesitancy. Lap after lap, with unfailing regularity, he swept by in the lead. On one lap, just to show us that he could go faster if he liked, he broke the lap record with a time of 3m. 22 2/5s. (10 seconds faster than Campari's record in 1931) at an average of 178 k.p.h. Chiron took the wheel of Divo's car, and after a tussle, passed Dreyfus.

The end drew near. Fagioli, who for some unaccountable reason, had wasted time at his pit - stops, made a tremendous effort to catch Nuvolari. He even broke the latter's lap record, averaging 180 k.p.h., but all to no avail. Right at the end, Dreyfus stopped for more fuel, and was passed by Caracciola. Then the chequered flag was waved, and Tazio Nuvolari roared past, winner of the 10th Italian Grand Prix, at the wonderfu average speed of 167 k.p.h.

In following up his successes at Monaco and the Targo Florio, Nuvolari has firmly established himself as the finest driver in the world this season. Tough and wiry, and never showing the slightest signs of fatigue, he possesses to the full that valuable quality of being able to combine daring and dash with cool skill. The new Alfa has proved itself a complete success on its first public performance, and is another feather in the already full cap of Signor Jano.

Without detracting in the least from Nuvolari's magnificent performance, it can safely be said that if Fagioli's pit-work had been as well organised as that of the Alfa-Romeo drivers, he would have undoubtedly won the race. But then pit-work is all part of the game, and Alfa-Romeo fully deserve their victory.

Needless to say Dunlop tyres were used on the winning car.

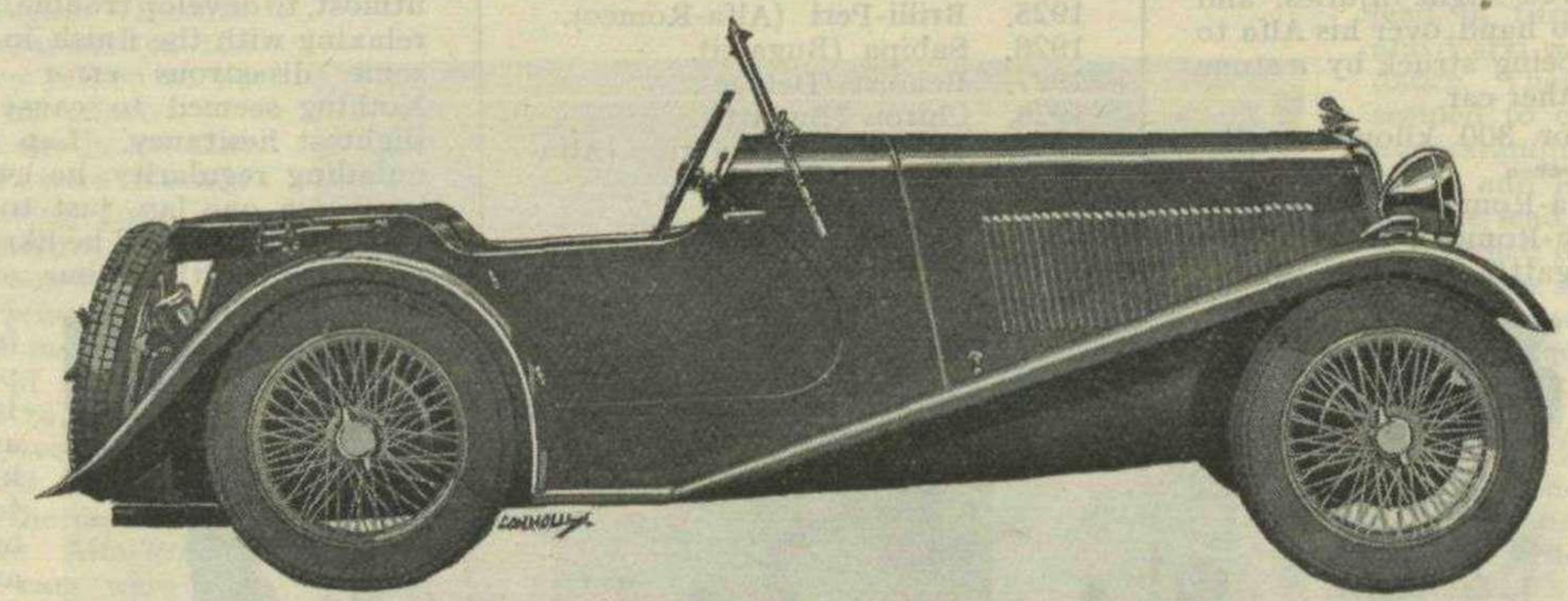
SUMMER ARRIVES IN ITALIAN ALPS.

THE great Dolomite Road, according to information received by the British representative of the Italian State Tourist Department in London, is now open for traffic. This year, owing to the speedier melting of the snows in the two famous high passes, the Pordoi Pass, which is 7,355 feet high, and the Falzarego Pass, which is 6,945 feet high, the opening is nearly a week earlier than usual.

The great Dolomite Road is one of the most remarkable of its kind in Europe. It extends from Bolzano to Dobbiaco, a distance of about 90 miles, passing through Carezza (5,300 feet), Canazei (4,805 feet), Cortina (4,020 feet), and other Italian hill resorts.

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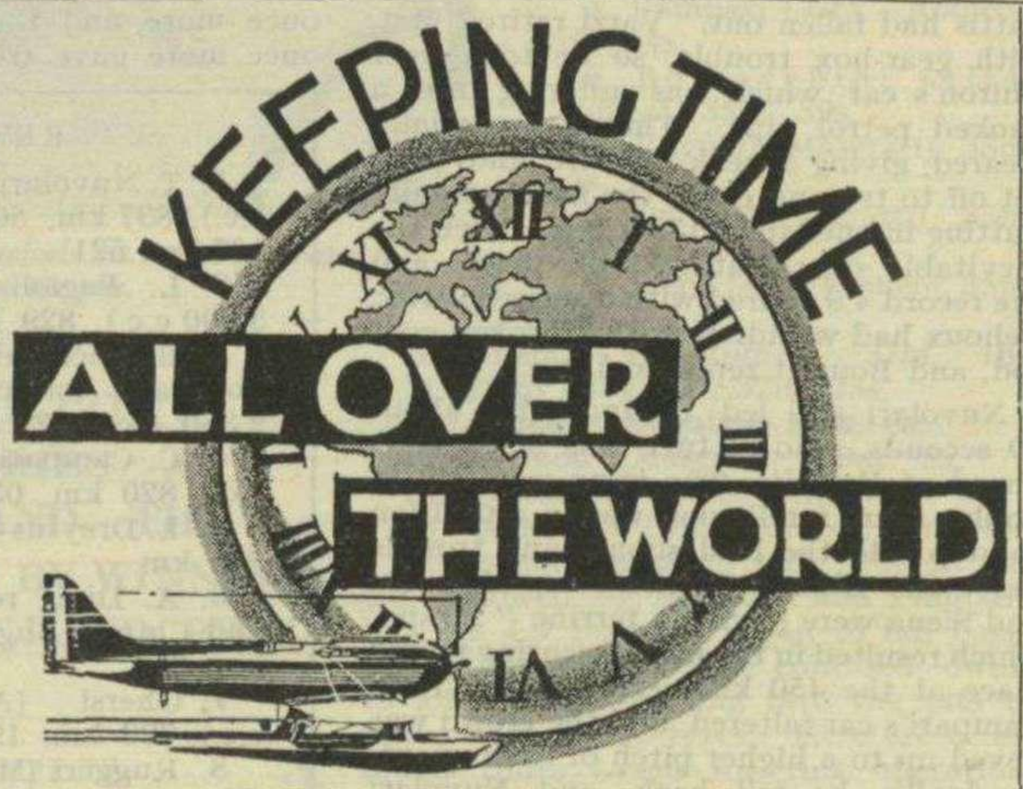
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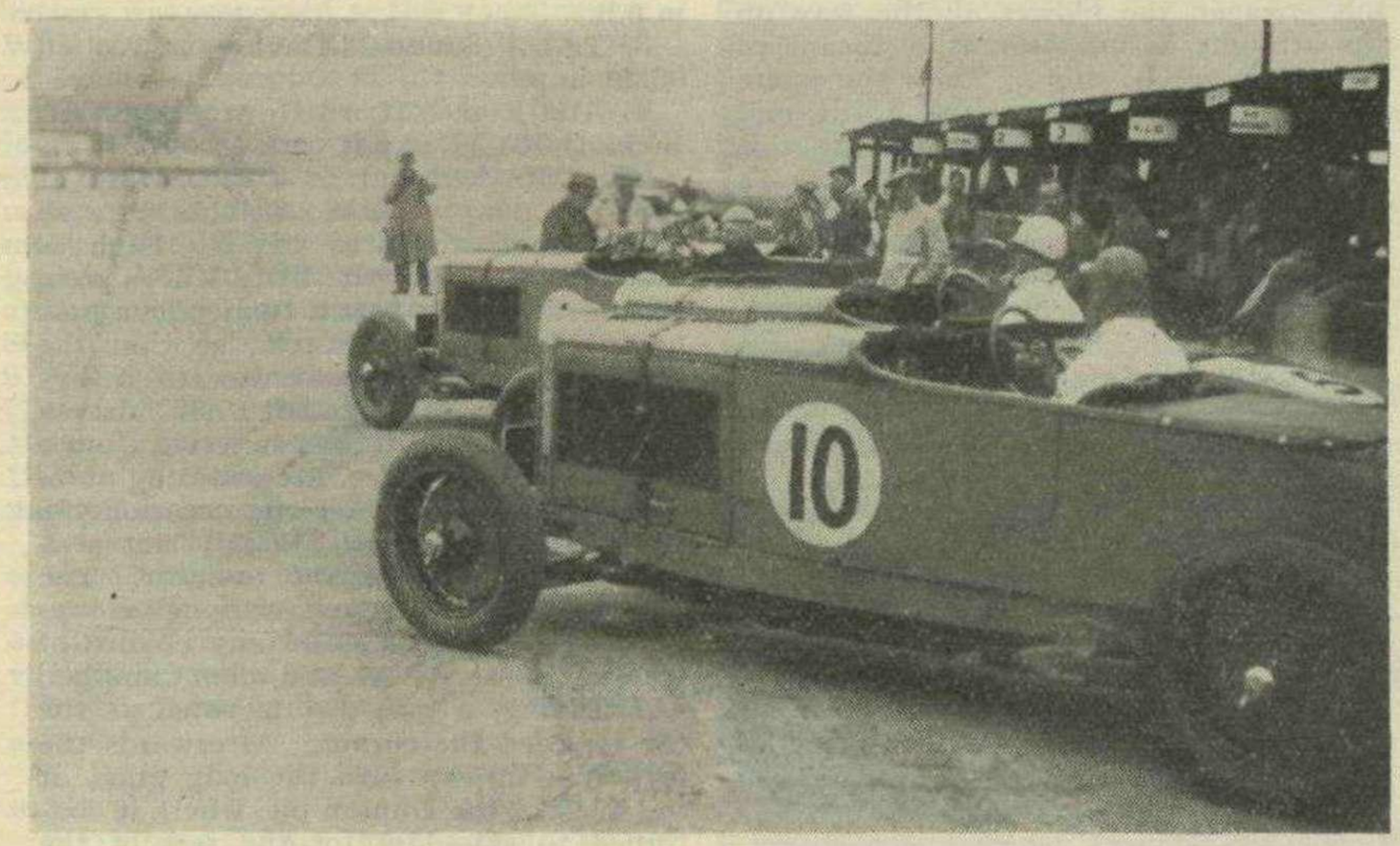
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THE THOUSAND MILESTONE.



J.C.C. Classic Won by Women Drivers

❖ ❖ ❖

Talbot Second and the Team Prize

❖ ❖ ❖

M.G. Third at 75.50 m.p.h.

❖ ❖ ❖

A LANDMARK in motoring history was made at Brooklands on May 3rd and 4th, when two women, Mrs. T. H. Wisdom and Miss Joan Richmond, won the British 1,000 Miles Race on a Riley, at an average speed of 84.41 m.p.h. Mrs. Wisdom is already well-known to the readers of MOTOR SPORT, as a clever performer at the wheel of a supercharged Frazer-Nash, on which she has won races at Brooklands, on one occasion at an average speed of 95 m.p.h. She also has the distinction of recording the fastest time ever made by a woman driver at Shelsley Walsh. Miss Richmond is a newcomer to this country. With a party of other ladies, she came over from Australia last winter to compete in the Monte Carlo Rally—and stayed to win the 1,000 Miles Race!

Second place was taken by A. O. Saunders-Davies, driving a Talbot "105," after a magnificentsingle-handed run at an average speed of 95.43 m.p.h. Third came Norman Black on a M.G. Midget, which in spite of a pierced petrol tank, causing many stops for refuelling, averaged 75.5 m.p.h.

Soon after the race had started on the first day, H. Leeson met with a fatal accident, driving his M.G. Midget. For a reason which will never definitely be discovered, his car got out of control as it approached the corner into the finishing straight, struck the parapet of the tunnel leading into the paddock, and fell 20 feet into the roadway below. Leeson was killed instantly. Our readers will join us in expressing our deepest sympathy with his widow and son.

In spite of good weather and a fair entry list, the race was witnessed by what must have been the smallest crowd which has ever attended a long-distance race at Brooklands. The Public Enclosure seemed almost deserted, while the paddock was no fuller than at the J.C.C. Members' Day a few weeks earlier.

* * *

Two factors combined to lessen the interest of the start of the race on the first day. To begin with, the cars were sent away in classes, and not as a massed start. Secondly, a number of interesting cars were scratched at the last moment. The Aston-Martin team was not sufficiently run-in to warrant their starting, a wise precaution in view of the greater importance, as a race, of the Le Mans Endurance Grand Prix to be held on the 18th. Bevan's Bentley did not materialise, leaving the Invicta the sole competitor in Class 3, while the second of the 6-cylinder Rileys could not run owing to its drivers, Kaye Don and Dodson, being unable to return for the race from Lake Garda and the Isle of Man respectively, where they were following other forms of motor sport. The remaining non-starters were the 12/60 Alvis, entered by Chas. Follett, Ltd., which was not ready in time, Humphrey's very fast Amilcar (a pity, this), and the team of Crossleys, which Vernon Balls did not consider sufficiently prepared for such a long race. Several cars had given trouble in practice just before the race, requiring to be rebuilt at short notice, notably the Mercédes and Esplen's Talbot.

At 10 o'clock on Friday the cars in Class 8, all M.G.'s, were sent off on their long journey, the lead on the first lap being taken by Jeffress, followed by Hamilton and Norman Black. Barnes was slow in getting away from the line, and came in after 10 minutes to change plugs. Letts and Colegrave both came in to change cylinder head gaskets, the former completing the operation in 40 minutes, but Colegrave took over 2 hours. Even so early in the race pit-stops were fairly frequent, generally for plugs.

CARS AND DRIVERS.

Car.	Driver (1).	Driver (2).	Bore and Stroke in mm.	No. of Cyls.	c.c.
CLASS 2 (OVER 5,000 C.C. AND UP TO 8,000 C.C.).					
Mercédès (S.) ...	Capt. Sir Malcolm Campbell	C. S. Staniland ...	100 and 150	6	7,068
CLASS 3 (OVER 3,000 C.C. AND UP TO 5,000 C.C.).					
Invicta	Dudley Froy	J. H. Berger	88.5 and 120.6	6	4,467
CLASS 4 (OVER 2,000 C.C. AND UP TO 3,000 C.C.).					
Talbot 1	Brian E. Lewis	John Cobb	75 and 112	6	2,970
Talbot 2	T. E. Rose-Richards ...	H. F. Woolfe ...	75 and 112	6	2,970
Talbot 3	A. O. Saunders Davies ...		75 and 112	6	2,970
Talbot 4	W. Esplen	W. Y. Craig	69.5 and 100	6	2,276
Talbot 5	L. M. C. Hepburn ...	R. S. Hebeler ...	69.5 and 100	6	2,276
Talbot 6	E. Burt	S. J. Burt	69.5 and 100	6	2,276
Alfa-Romeo (S.) ...	The Earl Howe	Sir Henry Birkin, Bt.	65 and 88	8	2,336
CLASS 6 (OVER 1,100 C.C. AND UP TO 1,500 C.C.).					
Aston-Martin ...	M. H. Morris Goodall ...	C. H. Masters... ...	69 and 99	4	1,493
Riley	G. E. T. Eyston ...	A. Denley	57.5 and 95.2	6	1,486
Wolseley Hornet Special	"H. H. Wanborough"	J. N. H. Justice ...	57 and 83	6	1,271
CLASS 7 (OVER 750 C.C. AND UP TO 1,100 C.C.).					
Riley 1	C. M. Harvey	R. M. V. Sutton ...	60.3 and 95.2	4	1,089
Riley 2	C. R. Whitcroft ...	E. McClure	60.3 and 95.2	4	1,089
Riley 3	Mrs. E. Wisdom ...	Miss Joan Richmond	60.3 and 95.2	4	1,089
Riley	W. A. Cuthbert ...	C. W. Fiennes ...	60.3 and 95.2	4	1,089
Riley	P. R. Mitton Waterfield	Miss D. M. Burnett ...	60.3 and 95.2	4	1,089
Riley	E. K. Rayson	E. J. Kehoe	60.3 and 95.2	4	1,089
CLASS 8 (OVER 500 C.C. AND UP TO 750 C.C.).					
M.G. Midget 1 ...	A. T. Gardner	H. C. Hamilton ...	57 and 73	4	746
M.G. Midget 2 ...	H. R. Jeffress	Cyril Paul	57 and 73	4	746
M.G. Midget 3 ...	F. S. Barnes	J. D. Barnes	57 and 73	4	746
M.G. Midget 4 ...	S. W. B. Hailwood ...	L. P. Driscoll ...	57 and 73	4	746
M.G. Midget 5 ...	D. N. Letts	P. M. Walters ...	57 and 73	4	746
M.G. Midget 6 ...	G. F. A. Manby Colegrave	H. Widengren ...	57 and 73	4	746
M.G. Midget ...	Norman Black	R. Gibson	57 and 73	4	746
M.G. Midget ...	H. Leeson	F. Kindell	57 and 73	4	746
M.G. Midget ...	Hon. A. D. Chetwynd ...	Miss V. Worsley	47 and 73	4	746

"S" denotes supercharger fitted. Teams denoted thus—"Talbot 1.2.3."

THE THOUSAND MILESTONE—continued.

The order at 11 o'clock was :—

1. M.G. (Black and Gibson), 75.58 m.p.h.
2. M.G. (Jeffress and Paul), 75.10 m.p.h.
3. M.G. (Leeson and Kindell), 74.38 m.p.h.

Soon after the next two classes had been dispatched occurred the fatal accident to car No. 63, driven by H. Leeson. At the inquest it was revealed that the accident was probably caused by the collapse of the driver from a fainting attack. The car suddenly swerved from side to side, completely out of control, the driver making no attempt to check its progress by braking. There were no skid-marks on the track, and apparently the engine was full on when the car struck the parapet. The car leapt into the air and landed on its four wheels, but turned over on its side. Fortunately, no car was emerging from the tunnel at the time, otherwise the accident would have had still more serious results.

It became apparent that pit stops were going to be the order of the day, for Hamilton pushed his car in with big-end trouble. To everyone's amazement he proceeded to set about changing his engine, an operation which took him 4 hours 50 minutes. Someone suggested that he would have saved time by fitting a new engine, plus chassis, to the wheels of his old car !

Earl Howe and the Alfa.

The larger classes began to join the fray, the Talbots going round in neat formation, Earl Howe on the Alfa-Romeo lapping at 100 m.p.h., until at 11.46 a.m. the scratch car, the Mercédes driven by C. S. Staniland, was sent away.

At 12 noon the order was :

1. M.G. (Black and Gibson), 76.31 m.p.h.
2. Riley (Sutton and Harvey), 84.57 m.p.h.
3. Riley (Mrs. Wisdom and Miss Richmond), 84.56 m.p.h.
4. Riley (Whitcroft and McClure), 84.55 m.p.h.

It will be seen that the Rileys were already giving promise of what could be expected of them, having caught all the Midgets except Black's.

However, the Talbots were lapping at about 95 m.p.h., and the Alfa was regularly clocking round about the 100 mark, so that there was every sign of a good struggle developing later on. The Mercédes was not very happy, as the rebuilding of the engine had only been finished in the early hours of the morning, and it was, of course, rather tight. It began by lapping at 93 m.p.h. but on its 4th lap Staniland increased this to 97 m.p.h., its scheduled handicap speed. He did not change down on the corner, but engaged the blower all the way up the straight as an alternative means of obtaining acceleration. Then the spare wheel and number-plate came adrift, and several stops were made to secure this with string, straps and rope. Chetwynd's Midget appeared with water pouring out of the crankcase, and retired with a broken con-rod.

At 12.20 Black came in, refuelled and handed over to Gibson, thereby losing his place to the Rileys, so that at 1 o'clock the order was :—

1. Riley (Sutton and Harvey), 85.21 m.p.h.
21 Riley (Mrs. Wisdom and Miss Richmond), 85.07 m.p.h.
3. Riley (Whitcroft and McClure), 84.30 m.p.h.
4. M.G. (Jeffress and Paul), 75.76 m.p.h.

A Retirement.

The pits were still busy, and there were nearly always several cars in at the same time. The Invicta, which had been travelling very fast, came in for petrol and oil, and stopped a few laps later to adjust the petrol cap. The car was suffering from too much petrol being delivered, and soon after retired with oil troubles caused by overheating. Rose-Richards came in on Talbot No. 5 to refuel, and again for water, while other stoppages were made by Craig's Talbot, which warned its pit attendants of its approach by a long blast from a curious siren, Burt's Talbot, with a loose throttle control, Eyston on the Riley Six to rectify fuel starvation, and Hailwood's M.G. with faulty ignition. A car which was causing much favourable comment was the very standard Wolseley Hornet, driven by "Wanborough."

At this time, a general post took place through the smaller cars coming into the pits to refuel and change drivers, and at 2 o'clock the order was :—

1. Talbot (Lewis and Cobb), 97.1 m.p.h.
2. Riley (Sutton and Harvey), 84.53 m.p.h.
3. Talbot (Saunders-Davies and Wolfe), 96.29 m.p.h.
4. Alfa-Romeo (Lord Howe and Sir H. Birkin), 101.37 m.p.h.

The Alfa had put in a record lap at 103.45 m.p.h., while the Talbots were all doing round about 97 m.p.h. High as this speed seemed, the little Rileys were setting the larger cars a tremendous task by lapping at 86.7 m.p.h., so that the ultimate result of the race was still a very doubtful one. The Talbot "90" driven by Esplen and Craig was suffering from a constant loss of water, necessitating numerous pit-stops, and on one occasion the mechanic was scalded, luckily not seriously, when refilling the radiator. The Mercédes was going well, although it was not fast enough to stand any chance of winning the race. At 2.20 when Campbell was driving, a tyre disintegrated as the car rounded the corner. Afterwards the tyre was thrown into the long grass at the back of the Dunlop pit, where it continued to smoulder for the rest of the afternoon. Howe came in, changed plugs, refuelled, and handed over to Birkin.

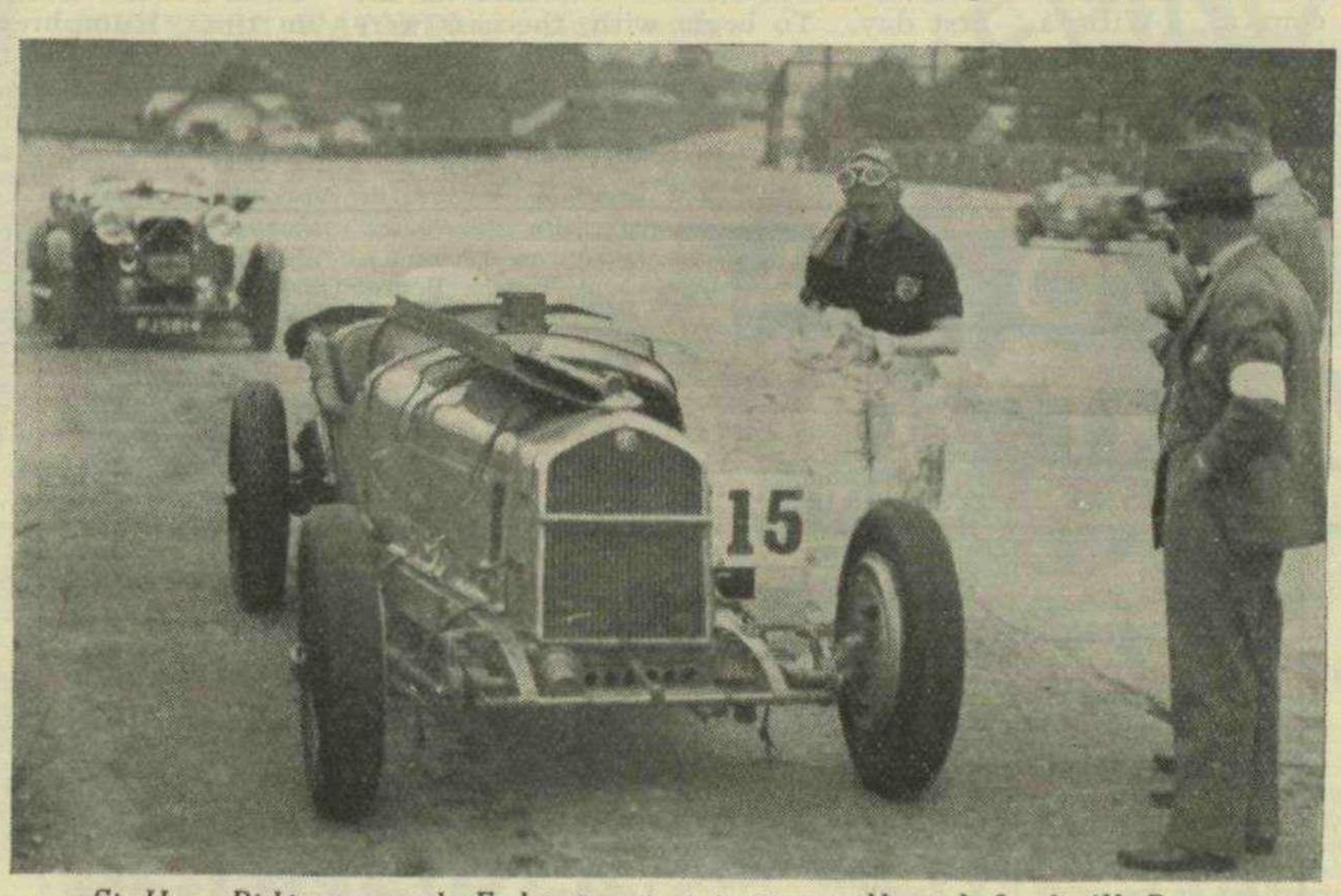
Aston-Martin's Good Show.

Morris-Goodall was putting up a good show on his last year's Aston-Martin, the car giving no trouble at all, a great tribute to its reliability, as it has been taken through most of the big trials this year. The Riley Six was also performing well, although the fuel starvation trouble persisted. The Hornet visited its pit to change the oil in the sump, its driver evidently wishing to avoid lubrication trouble at all cost. Waterfield's Riley, after a stop early in the race to secure the gear-lever which had come adrift, had been running well. The spare driver, Miss Burnett, took over for about an hour, when she was relieved by Waterfield.

At 3 o'clock the Rileys had recovered the lead, and the order was :

1. Riley (Sutton and Harvey), 84.68 m.p.h
2. Riley (Mrs. Wisdom and Miss Richmond), 84.40 m.p.h.
3. Talbot (Lewis and Cobb), 95.90 m.p.h.
4. Talbot (Saunders-Davies), 95.71 m.p.h.

With the exception of the Rileys, the Aston-Martin and some of the Talbots, many of the cars were giving trouble. The exhaust tail-pipe of the Mercédes worked loose and had to be refitted, and the blower was not functioning properly. The engine of the Alfa had been misfiring



Sir Henry Birkin stops at the Fork to investigate ignition trouble on the 8-cyl. Alfa-Romeo.

THE THOUSAND MILESTONE—continued.

slightly for some time. The trouble was thought to be due to plugs, and then the battery was suspected, so this was changed. With the engine still missing, Birkin set off again, but stopped at the Fork. After investigation, a loose switch wire was found at the back of the dash-board, and Sir Henry continued, lapping at 101 m.p.h. At 4.25 the little Hornet, after a most creditable run, retired with a blown gasket. About this time, we took some approximate lap speeds, as follows: Staniland (Mercédes) 93, Lewis (Talbot) 97, Birkin (Alfa-Romeo) 101, Hebeler (Talbot "90") 88, Harvey (Riley) 85, Miss Richmond (Riley) 86, Saunders-Davies (Talbot) 96, Black (M.G.) 77 m.p.h.

Little incident occurred during the rest of the afternoon, except that on two occasions Miss Richmond gyrated at the corner on the last time giving several cars in the vicinity something to think about.

The days racing finished with the leaders as follows:—

1. Riley (Sutton and Harvey), 84.91 m.p.h.
2. Talbot (Lewis and Cobb), 95.53 m.p.h.
3. Talbot (Saunders - Davies), 95.33 m.p.h.
4. Riley (Mrs. Wisdom and Miss Richmond), 83.82 m.p.h.
5. Riley (Whitcroft and McClure), 83.61 m.p.h.
6. M.G. (Black and Gibson), 75.30 m.p.h.
7. Talbot (Rose-Richards and Wolfe), 93.31 m.p.h.
8. M.G. (Jeffress and Paul), 74.24 m.p.h,
9. Talbot (Hepburn and Hebeler), 82.78 m.p.h.

The Riley was therefore the winner of the Rootes Trophy, given to the leader at half-distance.

* * *

The next morning the cars were pushed to the pits from the paddock, where they had been parked in the "berths" all night. The regulations had been modified this year so that the engines were allowed to be warmed up for a short time before the starting time. Another improvement from the drivers' point of view was that it was not compulsory to use the self-starter, except on the first morning. Most of the drivers took the opportunity, before leaving the line, of checking up with fuel, and changing worn tyres. Many of the Midgets were difficult to start, Barnes' car being the worst offender. The battery quickly became exhausted, "soft" plugs were fitted, and it was not until 10.47 that the engine could be induced to fire. Soon after the start Colegrove came in to repair a sheared dynamo coupling, but no sooner had he rectified this than he had to come in once more, this time to change tyres and battery, and to refuel. Hamilton had some more bad luck with his Midget and had to change the petrol tank before starting, and a few minutes later stopped with a jammed throttle control.

The Riley drivers all made minor adjustments before leaving, while early pit stops were made by Rayson and Waterfield, the former to change his magneto, and the latter for plugs. Morris-Goodall heated fresh oil for his Aston-Martin by



A feature of the closing stages of the second day's racing was a duel between C. S. Staniland (Mercedes) and A. O. Saunders-Davis (Talbot).

making a bonfire with wood rumoured to have been chopped up from an official's chair! He was quickly away, after changing two wheels, and proceeded to lap regularly in the unobstrusive way which had characterised the car's run on Friday.

Earl Howe and Sir Henry Birkin tossed up to decide who should drive first: Earl Howe won. But the car was unable to start immediately owing to the breakage of one of the exhaust pipes, which delayed the car for half-an-hour. The Talbot "105's" were all out promptly, after changing the rear wheels, but Burt took ten minutes to make adjustments to his "90." Finally, Sir Malcolm Campbell, after fixing a new front number plate to the Mercédes, securing the spare wheel with still more rope and string, and changing all four wheels, set off at 11.52.

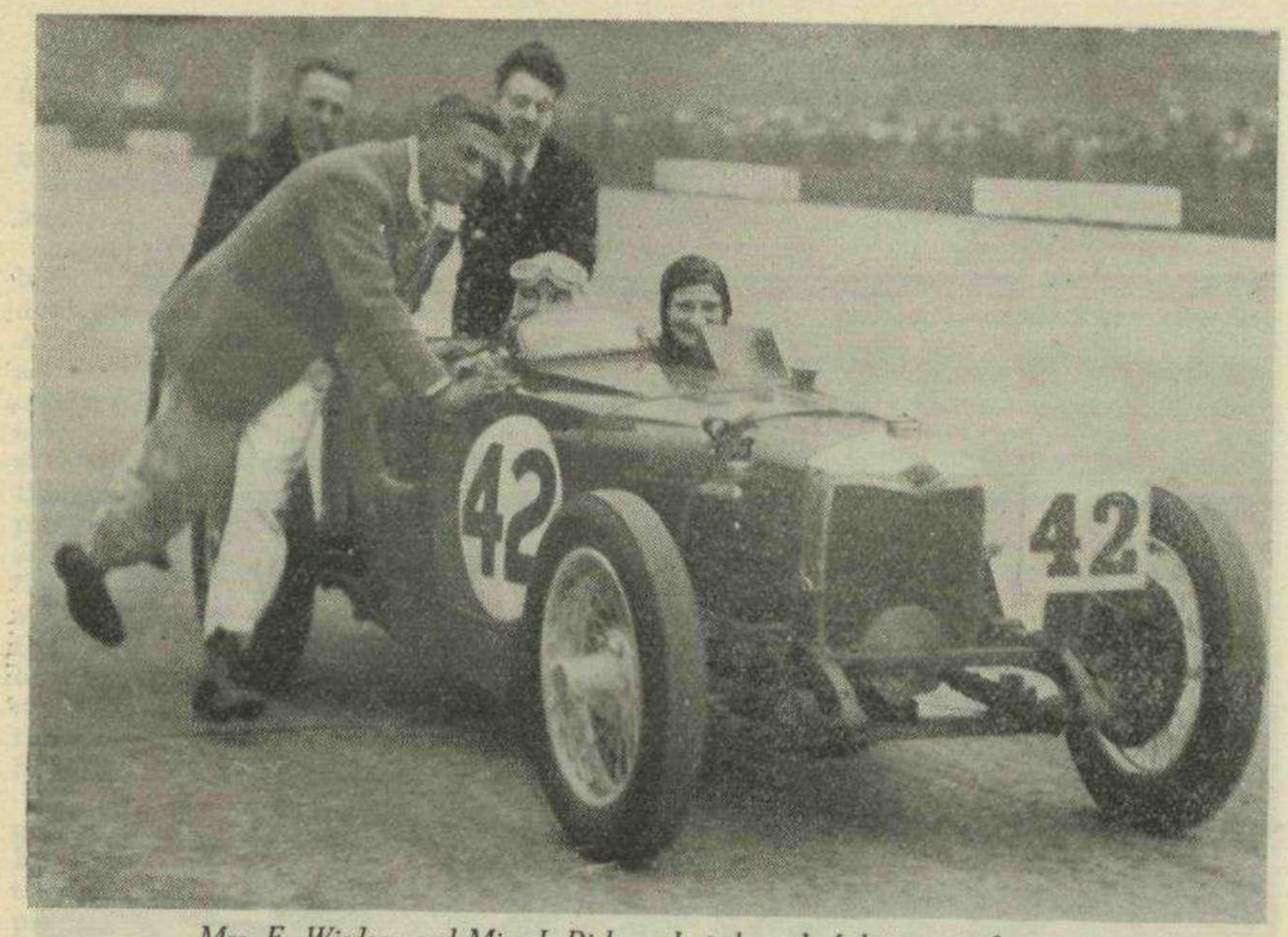
For some reason not obvious to any but the mathematical experts who devised the handicapping system for the race, the Talbots were leading at 11 o'clock, although they had not yet started, and the Rileys had been piling up their laps since 10.37.

At 11 o'clock the order was:

1. Talbot (Lewis and Cobb).
2. Talbot (Saunders-Davies).
3. Riley (Sutton and Harvey).
4. Riley (Mrs. Wisdom and Miss Richmond).

Cobb brought the Talbot in for a change of front wheels, and Rose-Richards on a similar car put in a lap at over 100 m.p.h. Eyston was still having trouble with the fuel feed on the Riley Six, but otherwise the car was handling exceedingly well. The Riley driven by Harvey and Sutton once more took the lead, but not for long, for at 12.30 p.m. they were forced to retire with clutch trouble. However, Whitcroft and Mrs. Wisdom were well placed, and the Talbot versus Riley battle began which was to last for the rest of the race. Whitcroft had to stop several times for carburettor and braking trouble and Mrs. Wisdom came in for a moment to replace an ignition lead. Then Waterfield retired with a broken piston, bringing the number

THE THOUSAND MILESTONE—continued.



Mrs. E. Wisdom and Miss J. Richmond at the end of their magnificent run.

of retirements to six, which was shortly increased to seven when Earl Howe pushed in his Alfa-Romeo with a broken con-rod.

And so at 1 o'clock the order was :

1. Riley (Mrs. Wisdom and Miss Richmond), 83.63 m.p.h.
2. Talbot (Saunders - Davies) 95.41 m.p.h.
3. Talbot (Lewis and Cobb), 95.21 m.p.h.
4. Talbot (Rose-Richards and Wolfe), 94.07 m.p.h.

The rough state of the track, aggravated by the cars having to run in the reverse direction to normal Brooklands practice, was having a serious effect on several cars, and at 1.38 Burt's Talbot lost all its petrol through its entire filler-spout breaking away. Undeterred, Burt backed his " 90 " saloon up to the pit, from which the tank was taken out and fitted to the racing car, which set off after a delay of only half-an-hour ! Another sufferer was Norman Black's Midget, which had punctured its tank on the previous day. Gibson, the reserve driver, had effected a very good repair with a patent " Cold " solder, but there was still a leak which caused fairly frequent halts for refuelling. Rose-Richards had a tyre punctured on the track, and was still further delayed by a choked jet. Then a stone pierced a hole in the petrol tank of Hailwood's M.G., a temporary repair being carried out with a towel, but from there on the car became a constant visitor to the pits for petrol.

At 3 o'clock the order was :

1. Riley (Mrs. Wisdom and Miss Richmond), 84.15 m.p.h.
2. Talbot (Saunders - Davies), 95.10 m.p.h.
3. Talbot (Lewis and Cobb), 94.93 m.p.h.
4. M.G. (Black and Gibson), 75.32 m.p.h.

It then became evident, that, barring trouble, Mrs. Wisdom was bound to win, for no matter how the Talbot drivers were exhorted to increase speed by the signalling lights from the pits, the little Riley held steadily on its way, always just a shade too fast on handicap.

The later stages of the race were enlivened by a minor duel between Staniland on the Mercédes and Saunders-Davies's Talbot. For about half-an-hour the two cars went round in close formation, first one leading, then the other. In a handicap race of this kind, there is almost a complete absence of " scrapping," the drivers being apparently oblivious of the presence of any other cars on the track, and the excitement of the spectators being confined to hearing, at regular intervals, the results of intricate calculations by the time-keepers with stop-watches and slide-rules.

The afternoon wore on, until shortly before 5 o'clock the little red Riley, with Miss Richmond at the wheel, was flagged in, winner of the first British 1,000 Miles Race

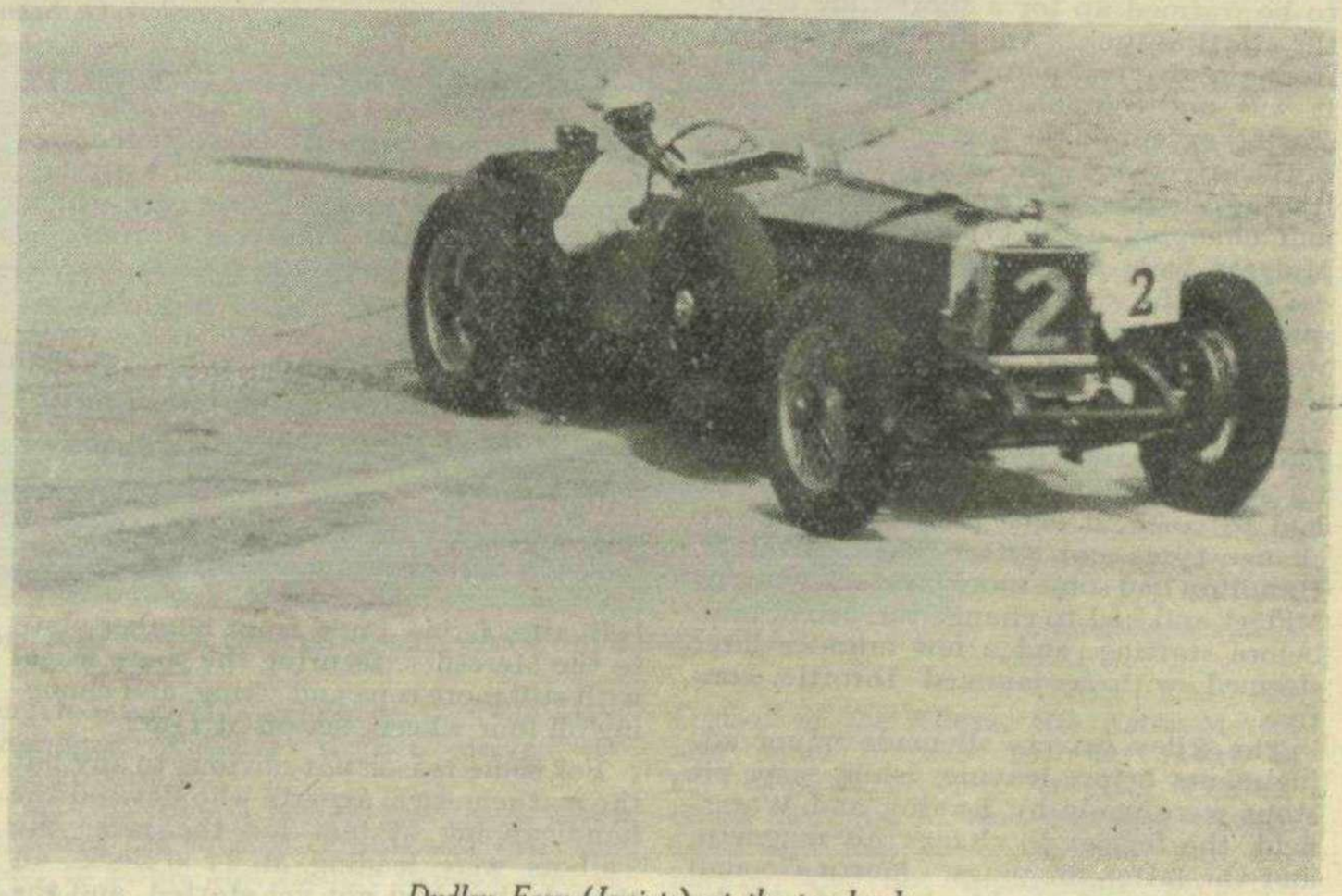
The performance of the winning car was remarkable, and Rileys are to be congratulated upon the extraordinarily high pitch of efficiency to which they have brought their 1,100 c.c. engine.

Once again first place has eluded the Talbots, but they have the consolation of winning the Team Prize. Anyway, 1,000 miles at an average speed of 95 m.p.h. with an unsupercharged 3-litre engine is an amazing show, and yet another tribute to the genius of the car's designer, Mr. G. Roesch. Saunders-Davies put up a very stout effort to drive single-handed, a feat which we shall all remember for some time. Norman Black's average of 75 m.p.h. with the Midget was definitely good, in view of his many pit stops for petrol, but the rest of the marque were dogged by ill-fortune.

The race provided still further proof, if any is needed, of the amazing reliability and speed of British sports cars. Although it is only fair to remember that foreign competition was limited to two cars, the Alfa-Romeo and the Mercédès, the plain fact remains that the list of finishers was an all-British one, with the first three cars of widely differing engine-capacity.

The J.C.C. are to be congratulated upon the smooth organisation of the race which is so characteristic of this Club, and the way in which hourly bulletins were promptly issued, giving interesting items of news in addition to the positions of the leaders, was excellent. It is all the more pity that their efforts were not rewarded by a better attendance.

The equipment of the winning Riley was B.P. petrol, Castrol oil, Champion plugs, Duron brake linings, Jaeger instruments, Hartford shock absorbers, S.U. carburettor, B.T.H. ignition, and Castrollo upper cylinder lubricant.



Dudley Froy (Invicta) at the top bend.

THE THOUSAND MILESTONE—continued.

THE 1,000 MILES RESULTS.

GENERAL CLASSIFICATION.

	Drivers.	Car.	Running Time. h. m. s.	Average. m.p.h.
1.	Mrs. E. Wisdom and Miss J. Richmond	1,089 c.c. Riley ...	12 23 53	84.41
2.	A. O. Saunders Davies	2,970 c.c. Talbot ...	10 57 51	95.43
3.	Norman Black and R. Gibson	746 c.c. M.G. Midget ...	13 51 38	75.50
4.	Brian Lewis and John Cobb	2,970 c.c. Talbot ...	11 8 54	93.86
5.	C. R. Whitecroft and E. McClure ...	1,089 c.c. Riley ...	12 51 26	81.40
6.	Cyril Paul and J. R. Jeffress	746 c.c. M.G. Midget ...	14 8 26	73.99
7.	T. E. Rose-Richards and H. F. Woolfe	2,970 c.c. Talbot ...	11 28 13	91.23

Still running at the end of race (7 hrs. 34 mins. 44 secs. p.m. Saturday) :—G. E. T. Eyston and A. Denley (Riley), 395 laps ; M. H. Morris Goodal and C H. Masters (Aston-Martin), 388 laps ; S. W. B. Hailwood and L. P. Driscoll (M.G. Midget), 388 laps ; E. K. Rayson and E. J. Kehoe (Riley), 375 laps ; W. A. Cuthbert and C. W. Fiennes (Riley) 361 laps ; I. M. C. Hepburn and R. S. Hebeler (Talbot), 359 laps ; E. Burt and S. J. Burt (Talbot), 353 laps ; W. Esplen and W. Y. Craig (Talbot), 348 laps ; D. N. Letts and P. M. Walters (M.G. Midget), 319 laps ; G. F. A. Manby Colegrave and H. Widengren (M.G. Midget), 286 laps ; Major A. T. G. Gardner and H. C. Hamilton (M.G. Midget), 265 laps.

(N.B.—The length of the lap was 2,616 miles.)

CLASS WINNERS.

Class 2 (Over 5,000 c.c. and up to 8,000 c.c.)

No finishers.

Class 3 (Over 3,000 c.c. and up to 5,000 c.c.)

No finishers.

Class 4 (Over 2,000 c.c. and up to 3,000 c.c.)

	Drivers.	Cars.	m.p.h.
1.	A. O. Saunders Davies	Talbot	95.43
2.	Brian Lewis and John Cobb	Talbot	93.86
2.	T. E. Rose-Richards and H. F. Woolfe	Talbot	91.23

Class 6 (Over 1,100 c.c. and up to 1,500 c.c.)

No finishers within time limit.

Class 7 (Over 750 c.c. and up to 1,100 c.c.)

1.	Mrs. E. Wisdom and Miss Joan Richmond	Riley	94.41
2.	C. R. Whitcroft and E. McClure ...	Riley	81.40

Class 8 (Up to 750 c.c.)

1.	Norman Black and R. Gibson	M.G. Midget	75.50
2.	Cyril Paul and J. R. Jeffress	M.G. Midget	73.99

TEAM PRIZE.

(M.G. Trophy presented by the M.G. Car Co., Ltd.).

Talbot team entered by Fox and Nicholl, Ltd. : A. O. Saunders Davies, B. E. Lewis and J. Cobb, and T. E. Rose-Richards and H. F. Woolfe.

A NEW MIDGET.

TAKING advantage of the experience gained during last season with the Montlhery Midget, the M.G. Car Company have introduced a new car, incorporating several new features, to be known as the M.G. Midget Mark III Montlhery model.

The engine capacity is, of course, the same as in the past, 746 c.c., but more power is obtained by the use of an improved type of cylinder head. There are now four separate exhaust ports, which are situated on the near side of the engine, the inlet ports being on the off side. Another innovation is the use of smaller sparking plugs, of 14 mm. diameter instead of the usual 18 mm. Two carburetters are fitted to the unsupercharged car (price £490) while the "blown" model (£575) has a single carburetter bolted on to the casing of the Powerplus Supercharger.

The gear-box gives four forward speeds, first gear being on the low side, for very steep hills, while second, third (which is silent) and top are close ratios for competition work.

Altogether, the new car is an even more attractive little vehicle than its famous predecessor, and to anyone who has handled the latter car, that's saying a good deal!

ROAD RACING IN MINIATURE.

RIGHT in the midst of that rather noisy amusement park in the Haymarket, is a model road racing circuit that is causing something of a sensation.

All day long, fine little motorcars can be seen racing round, encouraged by the shouts of their excited drivers, who are controlling them by means of buttons arranged along the side of the track. The course is so built that each car travels exactly the same distance although, due to the arrangement of the bends, one car is often in front on one bend, and some way behind on another.

At the start of a race, the drivers line up along the side of the track opposite their respective buttons, and the cars are started from half way along one of the straights. At the word "Go" all five buttons are depressed, usually with much unnecessary force, and the cars shoot off. The first bend can usually be taken without cutting out, due to the standing start, but if subsequent bends are approached "all out" the rear wheels slide outwards until they touch the centre rail, causing a "short." This stops the car for a moment, allowing the others to get ahead, after which the race proceeds.

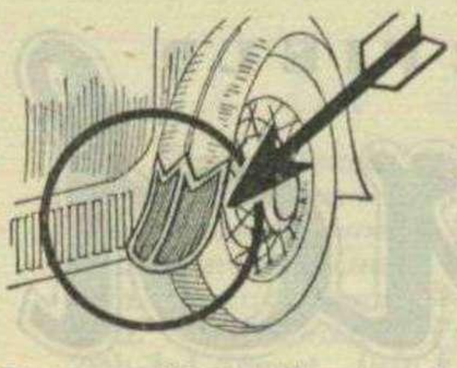
A really skilful competitor can control his car so that the rear wheels are just sliding all the way round the bends.

These little road circuits are manufactured by Messrs. Henry Birkin and Cooper, of Welwyn, and look like becoming a great craze.

By far the most skilful competitor at present is Kensington-Moir, the famous Bentley pit manager, who smites his button with a skill that makes it hard to believe that he was not once a telegraphist.

A visit to this little centre of speed is well worth while.

A boon to SPORTS CAR owners!

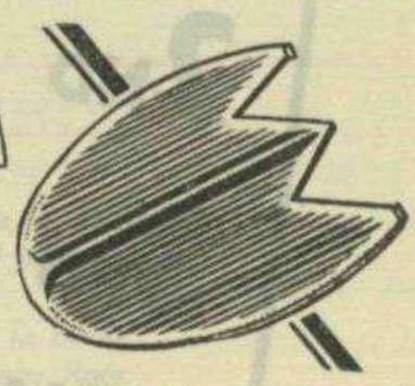


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Prevents all damage and is simple in its application. Fits snugly around the wing and is secured by *one* bolt moulded into the rubber. It is therefore only necessary to drill one hole, and template is supplied for marking on wing the position of hole to secure bolt. Extremely neat and efficient.
ADOPTED AND FITTED BY THE SWALLOW COACHBUILDING CO.

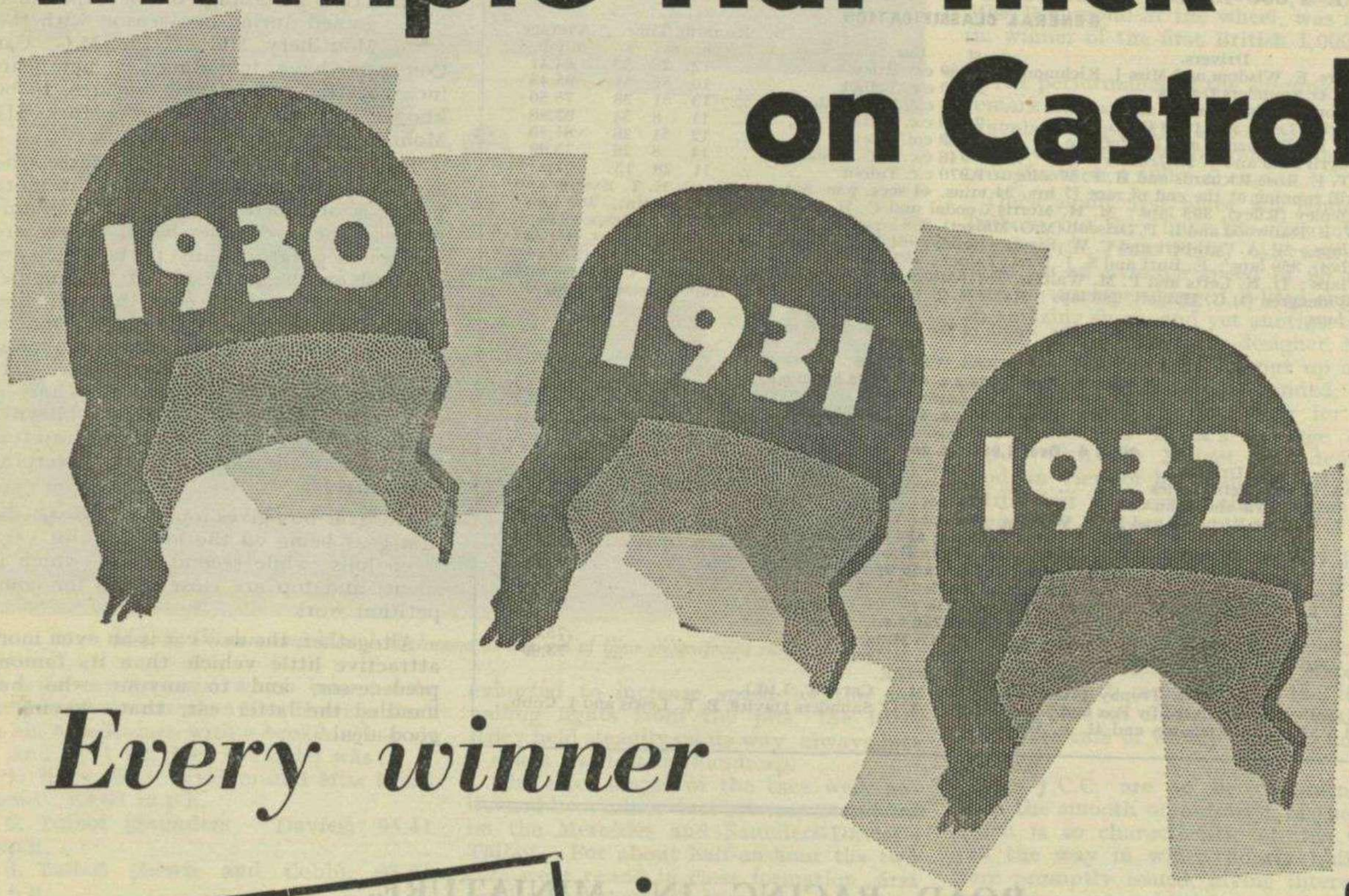
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Every winner in every event!

SENIOR T.T.
ISLE OF MAN JUNE 10TH
Won for the 17th time in succession on Castrol!

S. Woods
1ST NORTON
at record speed of 79.38 m.p.h!

J. Guthrie
2ND NORTON

J. H. Simpson
3RD NORTON

TEAM PRIZE—RUDGE
G. E. NOTT H. G. TYRELL SMITH G. WALKER

also JUNIOR and LIGHTWEIGHT 1932 T.T. RACES 1ST 2ND & 3RD

WAKEFIELD
Castrol
MOTOR OIL

The Indianapolis "500"

FRAME ON A HARTZ MILLER 8-cyl. SPECIAL, WINNER OF AMERICAN CLASSIC AT 104.144 M.P.H.

THE LEADERS' SPEEDS

		m.p.h.
1st	Fred Frame (Hartz Miller 8-cyl. Special)	104.144
2nd	Howard Wilcox (Lions Head Special Miller)	103.8
3rd	Cliff Bergere (Studebaker Special)	102.6
4th	Bob Carey (Meyer Special)	101.36

AFTER an interval of seven years, the record speed of 101.13 m.p.h. for the annual 500 mile race held at Indianapolis was broken this year by Fred Frame, driving a Miller, at an average speed of 104.144 m.p.h. Up to the year 1925 the record used to be lowered fairly regularly, but since that time, for some unknown reason, no driver has ever been able to beat Peter de Paolo's speed.

This year the engine capacity of the cars was limited to 5 litres, with the result that in addition to the usual Miller and Duesenberg racers, there were entered a number of cars, such as Studebakers and Hupmobiles, which were modified stock cars. Also, for the first time, four-wheel-drive was being tried out by Miller with two cars driven by McDonogh and Shrader. No European cars or drivers were competing. It is a curious fact that, without great modification, European cars do not perform well on American tracks, and vice-versa. Several attempts have been made in the past at Indianapolis, Hawkes with a 3-litre Bentley, Bordino on a Fiat, Ascari with an Alfa-Romeo and Chiron with a 1½ litre G.P. Delage to cite but a few, but no European car or driver has ever figured conspicuously in the list of winners of this race, since Wilcox won in 1919 with a Peugeot.

A rolling start is used for the race, and this year forty cars, each of which had qualified for the race by doing a lap of the circuit at 100 m.p.h., were led round the track by Edsel Ford driving one of the new 8-cyl. Lincolns. With so many cars competing, the spectators anticipated a lively scramble for a good place on the first bend, and they were not disappointed, for this jockeying for position went on for many laps, while the field strung out to its proper formation.

It says much for the skill of the drivers that no collisions occured, and it was not until the seventh lap that the first accident took place, when Shrader hit the retaining wall on one of the corners.

The pace was terrific. For the first 125 miles the order was Arnold, winner in 1930, on a front-drive Miller, followed by Carey and Moore on similar cars with rear-drive. Arnold's triumphant progress was quickly brought to an end, however, for soon after, when leading by roughly 1½ laps, he crashed badly on one of the turns in avoiding another competitor who was skidding.

Triplett Leads at 250 Miles.

At half distance, 250 miles, the lead was held by Triplett on a Miller, at an average speed of 106.74 m.p.h., a record for the distance. Carey and Moore had fallen back with various troubles, and second place was held by Wilcox, also on a Miller, who was making his début at Indianapolis after a successful career on dirt-tracks. Louis Schneider (Miller), last year's winner, was 3rd, and a str.-8 Studebaker, driven by Bergere was going well to occupy 4th place.

So far, with the exception of Arnold's spectacular crash, no serious "pile-up," such as one usually associates with Indianapolis, had occurred. But now, as the day grew hotter, as drivers grew tired, and as the bricks of the track became slippery with oil dripped from cars, so the drivers had to exercise the greatest skill in avoiding other cars skidding in their path. Fortunately, nothing untoward happened, although any English spectator who had witnessed that stirring film, "The Crowd Roars," would have been considerably apprehensive at this stage of the race.

When the three-quarters mark was reached, Triplett had shot his bolt, and Shaw on a Miller made a spurt and took the lead from Wilcox, followed by Frame and Bergere. The two last-named drivers were playing a clever waiting game, holding the leaders in sight but never stressing their cars unduly. Their policy was justified, for soon after Shaw had mechanical trouble and fell back, giving Frame his chance. The chequered flag was waved from the pier overhanging the track, and Fred Frame came home a winner at the wonderful average speed of 104.144 m.p.h., eight miles an hour faster than last year's speed. Wilcox justified the enthusiasm of his supporters by finishing second, while Bergere accomplished a splendid feat to secure third place with his "stock" Studebaker.

As usual the organisation was perfect. A colossal massed band, efficient scoring boards, ample refreshment facilities, comfortable stands and everything run to an exact schedule, were the outward and visible signs of the genius of "Pop" Myers, the best stage-manager of motor-car races in the world.

Organisers of British motor races please note!

PREVIOUS WINNERS.

Year.	Driver.	Car.	Speed. m.p.h.
1911	R. Harroun	Marmon	74.59
1912	J. Dawson	National	78.7
1913	J. Goux	Peugeot	76.92
1914	R. Thomas	Delage	82.47
1915	R. de Palma	Mercédès	89.84
1916	D. Resta	Peugeot	83.26
1919	H. Wilcox	Peugeot	88.06
1920	G. Chevrolet	Monroe	88.50
1921	T. Milton	Frontenac	89.62
1922	J. Murphy	Murphy Special	94.48
1923	T. Milton	H.C.S.	90.95
1924	J. Boyer	Duesenberg	98.24
1925	P. de Paolo	Duesenberg	101.13
1926	F. Lockhart	Miller	95.88
1927	G. Souders	Duesenberg	97.54
1928	L. Meyer	Miller	99.48
1929	R. Keech	Miller	97.58
1930	W. Arnold	Miller	100.44
1931	L. Schneider	Miller	96.6

FORTHCOMING EVENTS

INTERNATIONAL FIXTURES—1932

JULY.

3rd. *France—Grand Prix de L'A.C.F.*
9th-10th. *Belgium—Grand Prix de Belgique.*
10th. *France—Course de Vieil Armand.*
17th. *Germany—Grosser Preis of Germany.*
24th. *Austria—Course de Cote du Gaisberg.*
24th. *Italy—Circuit du Prince de Peimont.*
28th-3rd August. *Italy, France, Austria, Germany, Switzerland* } *Coupe des Alpes.*
31st. *France—Coupe de Provence.*
31st. *France—Semaine du Comminges.*

AUGUST.

6-7th. *Switzerland—Course de Cote du Klausen.*
14th. *Germany—Adac—Bergrekord bei Freiburg.*
14th-15th. *Italy—Coupe Acerbo.*
16th-17th. *France—Grand Prix de la Baule.*
20th. *Ireland—R.A.O. Tourist Trophy Race.*
21st. *Poland—Course de Cote de Tatra.*
28th. *Italy—Course au Stelvio.*
28th. *France—Grand Prix de Pau.*

Club News

SUTTON COLDFIELD AND NORTH BIRMINGHAM CLUB.

THE Vesey Trial held by the Sutton Coldfield and North Birmingham Club on Saturday, June 4th, proved a great success and there were 53 entries.

The start was from Whittington Inn, near Stourbridge and a mile from the start commenced the first special test, where F. S. Barnes (M.G. Magna) made the best performance clocking 15 secs. dead for gear changing and placing the car.

The 'Sahara' was in a quagmire owing to the recent heavy rains, and from here the course led to High Oak Hill and Netherton Hill where took place the re-starting test.

The results are as follows :—

Vesey Cup for best performance : A. Langley (M.G. Magna). Watson Gwynne Bowl for best under 1,100 c.c. : R. C. Player (Riley). Carless Cup for best over 1,100 c.c. : F. S. Barnes (M.G. Magna). Ryland Visitors' Award : J. R. Temple (M.G. Midget). Mere Novices' Award : F. S. P. O'Hagan (M.G. Magna). First-class Awards : J. H. Summerfield (M.G.), W. E. Holland (Lea-Francis) and R. Hughes (H.V.S.). Second-class : R. Baker (M.G. Magna), E. R. Oliver (Clyno), J. A. Bastock (M.G. Midget), I. S. Macdonald (Riley), P. Lees (Frazer-Nash), M. A. McEvoy (Morris), J. G. Orford (Austin), J. H. B. Twigg (Morris), R. Bickford (Lancia), R. J. Richardson (Austin), B. E. Bradnack (Hornet), A. E. Carr (M.G. Midget), K. B. Davis (Triumph). Team Prize : M.G. Car Club (J. R. Temple, F. S. Barnes and A. Langley).

THE LIGHT CAR CLUB.

MR. YULE, the able Hon. Secretary of the Light Car Club, has found the ever-increasing work of this flourishing Club too much for him, and has had to appoint an Assistant Secretary. As a mark of gratitude of the valuable work done by Mr. Yule since the Club's formation, the members are making him a presentation.

THE BUGATTI OWNERS' CLUB.

A "rag-gymkhana" will be held at the Barnet Speedway on Sunday, July 7th. Among other amusing events, there will be a tug of war, touring race, and chariot race, so that anyone who wants a good laugh should turn up on the 7th. The event starts at 2.30 p.m.

BERKHAMSTED & DISTRICT M.C.C.

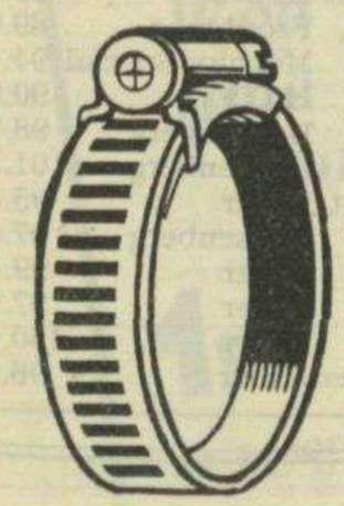
Permission has been obtained to run speed trials on a nobleman's estate near Watford on July 9th. Only cars will be allowed to compete, and the event will be confined to members of the Club. Anyone who wishes to enter should get in touch with the Hon. Secs., Messrs. A. Paul and W. Kentish, whose address is "Malden Cot," Hampstead Road, Watford. The proceedings will start at 3 o'clock.

Mr. Savournin has had to resign from his position as Joint Hon. Secretary, owing to family illness, and his place has been taken by Mr. Kentish.

Other events to be run during July are the Chairman's Garden Party on the 16th, and the Berkhamsted-Gloucester Trial on the 24th.

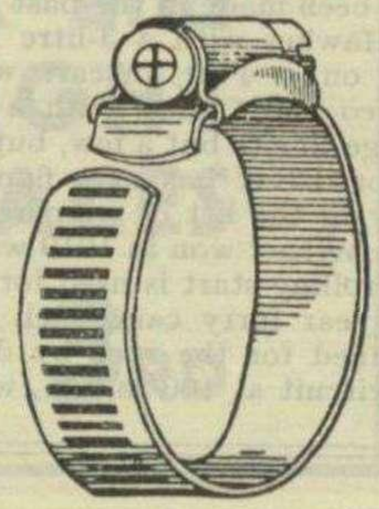
The Editor invites Club Secretaries to send details of their fixtures, sporting and social, for publication in these columns. These items should be sent to reach this office not later than the 16th of the month.

Jubilee Worm-Drive Clips



THE BEST POSSIBLE TO GET.

MAKE SURE YOU HAVE THEM FITTED ON YOUR RADIATOR JOINTS, LEATHER COVERS, ON UNIVERSAL JOINTS, AIR, OIL AND WATER HOSE JOINTS.



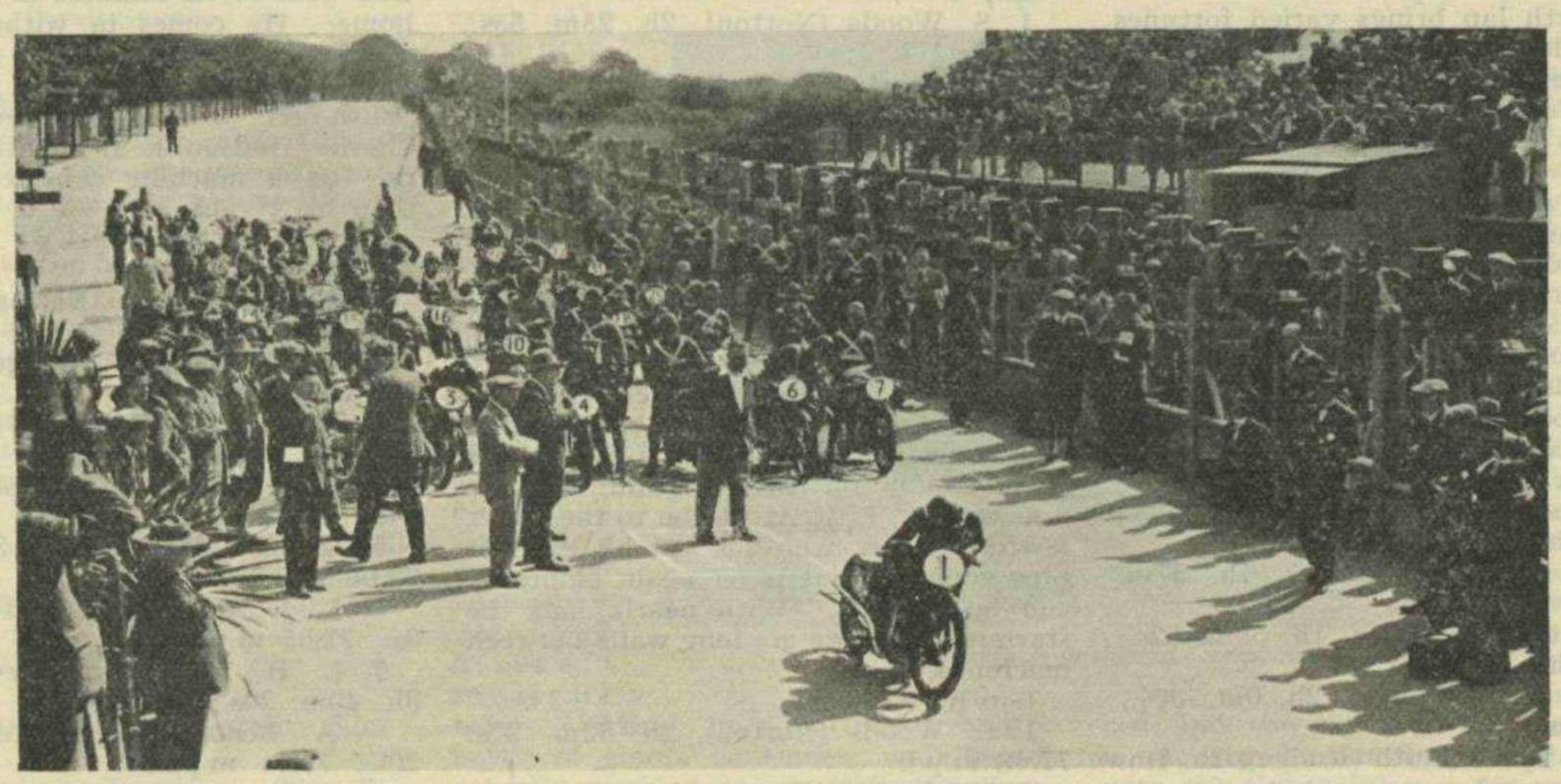
ALL IN ONE PIECE. NO PARTS TO LOSE.
EASY TO FIT. GUARANTEED NEVER TO LEAK.

A KEEN MOTORIST WRITES : *"I cannot understand anyone using any other pattern, as yours are the last word in satisfaction and efficiency."*

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THE I.O.M. TOURIST TROPHY RACES



THE JUNIOR T.T.

ALL LAP RECORDS BROKEN ONCE MORE.

FOR the first time in the last few years the practising period has been marked by good weather, and the many fast laps which had been put up, noticeably one by Simpson (Norton), at a speed of over 78 m.p.h., promised a terrific battle in the Junior Race. Unless something unexpected happened the winner would either be Norton or Rudge, Hunt being particularly fancied, but Handley on a Rudge seemed equally probable.

At 9.5 on the Monday morning, two M.G.'s driven by Norman Black and S. A. Crabtree, left the start to close the the roads, and shortly before 10, the riders, headed by the Austrian, O. Steinfellner (Rudge), wheeled their machines on to the starting grid. The day was fine and sunny, visibility perfect, with a slight wind on the mountain. All set for a fast race!

Exactly at 10 " Ebby's " hand dropped, the maroon banged, and Steinfellner started off, followed by the other riders at half minute intervals. Mellors (New Imperial) is No. 2, then Hunt, the next star rider, No. 9, Handley, who gets a good send-off. Nott, Stanley Woods, Dodson, Simpson and Tyrell Smith have almost consecutive numbers, so we shall see something when they get going. Soon Hunt's indicator shows that he is on the mountain, having picked up two good places en route, and now has a clear road. Nott (Rudge) has overtaken Williams (Velocette), Woods has passed Willis (supercharged Velocette) and Simpson has passed Dodson. At 10.30 Hunt's light shows that he is at Governor's Bridge, and has evidently put up a fast lap, and Handley who has now pulled up four places, is not far behind. The other stars have also improved their positions.

The first lap is chiefly remarkable for the fact that all 32 starters completed the round without trouble. Hunt has beaten the lap record from a standing start, Woods cuts off 23 seconds, while Simpson for once is content with 4th fastest. This year, incidently, the leader-board gives the time the place-men lag behind the leader, which makes the race easier to follow.

Lap leaders. Lap 1 :—

1. S. Woods (Norton), 29m. 4s., 77.90 m.p.h.
2. P. Hunt (Norton), 29m. 27s., 76.89 m.p.h.
3. W. L. Handley (Rudge), 29m. 34s. 76.58 m.p.h.
4. J. H. Simpson (Norton), 29m. 38s. 76.41 m.p.h.
5. J. Guthrie (Norton), 29m. 55s., 75.68 m.p.h.
6. G. E. Nott (Rudge), 30m. 8s., 75.14 m.p.h.

On the second lap things began to happen. Hunt's indicator sticks at Kirkmichael and he is later announced to have retired with a broken rocker. Handley is going strong and is just behind Meagem who started 5 places in front. His second lap is a record, for the Junior race, the speed being 77.37 m.p.h., which looks as though the Rudges kept something back in practise. This record does not stand for long, however, as Stanley Woods betters his time by 21 seconds. Jimmy Simpson is supporting his leader with a time only 13 seconds worse. The pace is amazingly hot, the first 12 riders having averaged over 73 m.p.h.

Lap 2 :—

1. S. Woods (Norton), 57m. 59s., 78.09 m.p.h.
2. J. H. Simpson (Norton), 58m. 41s., 77.17 m.p.h.
3. W. L. Handley (Rudge), 58m. 50s., 76.97 m.p.h.
4. J. Guthrie (Norton), 59m. 28s., 76.15 m.p.h.
5. G. E. Nott (Rudge), 59m. 53s., 75.62 m.p.h.
6. H. G. Tyrell Smith (Rudge), 1h. 3m. 31s., 74.84 m.p.h.

In view of the furious speed, men and machines are holding up well. Handley is in at 11.31 and does a lightning fill up, getting away 3 minutes before Woods and Simpson are round. 29.1 was his time, but he can't hope to prevail against Woods, who further lowers the record to 28-48 or 78.62. Woods thunders past the stand without a stop, the Nortons being able to do the race on one fill-up. Simpson is running steadily behind the leader; for once he is outpaced. Wellow (New Imp.) is reported retired with engine trouble, while Franconi (Velocette) has lunch at Glen Helev after coming off in the Glen.

Lap 3 :—

1. S. Woods (Norton), 1h. 26m. 47s., 78.27 m.p.h.
2. J. H. Simpson (Norton), 1h. 27m. 40s., 77.49 m.p.h.
3. W. L. Handley (Rudge), 1h. 27m. 51s., 77.32 m.p.h.
4. J. Guthrie (Norton), 1h. 28m. 47s., 76.51 m.p.h.

THE JUNIOR RACE—continued.

5. G. E. Nott (Rudge), 1h. 29m. 36s., 75.81 m.p.h.
6. H. G. Tyrell Smith (Rudge), 1h. 30m. 45s., 74.86 m.p.h.

The fourth lap brings varied fortunes for the leaders. Handley is more dangerous than ever but makes no mistakes. Stanley Woods makes his one refilling stop and is away as strongly as ever, but misfortune overtakes Simpson, for he overshoots at Governor's Bridge, damages his machine, and retires. Guthrie, the other Norton rider on the leader board, fell and hurt himself at Crag ny Baa, but continues, only to retire at the Start. Rudges occupy four out of the first six places while Stanley Wood is the only Norton hope. He has a substantial lead, however, and continues his meteoric career with undiminished speed.

1. S. Woods (Norton), 1h. 55m. 43s., 78.27 m.p.h.
2. W. L. Handley (Rudge), 1h. 57m. 53s., 76.83 m.p.h.
3. J. Guthrie (Norton), 1h. 59m. 52s., 75.56 m.p.h.
4. G. E. Nott (Rudge), 2h. 0m. 30s., 75.16 m.p.h.
5. H. G. Tyrell Smith (Rudge), 2h. 1m. 31s., 74.53 m.p.h.
6. C. J. Dodson (Excelsior), 2h. 3m. 1s., 73.63 m.p.h.

Handley is first round and stops for his second fill-up. He has pulled up a few seconds on the leader, but his first stop deprives him of any advantage. Woods passes at his usual terrific pace, and Nott comes in to re-fuel. It is obviously impossible to catch the flying leader, so he is given order to ease off. Dodson has got his lead back and has only to keep going steadily to be sure of a comfortable win.

Lap 5 :—

1. S. Woods (Norton), 2h. 25m. 55s., 77.59 m.p.h.
2. W. L. Handley (Rudge), 2h. 27m. 21s., 76.84 m.p.h.
3. A. E. Nott (Rudge), 2h. 30m. 43s., 75.12 m.p.h.
4. H. G. Tyrell Smith (Rudge), 2h. 31m. 44s., 74.61 m.p.h.
5. C. J. Dodson (Excelsior), 2h. 34m. 39s., 73.20 m.p.h.
6. G. Walker (Rudge), 2h. 35m. 11s., 72.97 m.p.h.

The struggle continues. Neither Handley nor Woods show signs of flagging, but Ernie Nott is out. His engine has given trouble on the mountain, and lets a newcomer, L. J. Archer on to the leader board. Sarkis, who has lost his exhaust pipe comes in but is off again before he can be stopped. With nearly half the starters out there are long waits between machines.

Lap 6 :—

1. S. Woods (Norton), 2h. 52m. 22s. 77.48 m.p.h.
2. W. L. Handley (Rudge), 2h. 57m. 51s., 76.39 m.p.h.
3. H. G. Tyrell Smith (Rudge), 3h. 10m. 18s., 74.13 m.p.h.
4. C. J. Dodson (Excelsior), 3h. 5m. 20s., 73.39 m.p.h.
5. G. W. Walker (Rudge), 3h. 6m. 24s., 72.89 m.p.h.
6. L. J. Archer (Velocette), 3h. 8m. 27s., 72.09 m.p.h.

Nothing but a miracle can change the final order now. Handley comes in still first in order but Woods is at Crag ny Baa with seven minutes in which to get home. He comes in without a falter, well satisfied with a speed 3 m.p.h. better than the winning pace last year. Tyrell Smith gets a well deserved 3rd, while Charlie Dodson is next after a steady ride on a machine considerably slower than his rivals.

Finishers :—

1. Stanley Woods (Norton), 3h. 25m. 55s., 77.16 m.p.h.
2. W. L. Handley (Rudge), 3h. 27m. 35s., 76.36 m.p.h.
3. H. G. Tyrell Smith (Rudge), 3h. 34m. 8s., 74.02 m.p.h.
4. C. J. P. Dodson (Excelsior), 3h. 36m. 14s., 73.30 m.p.h.
5. G. W. Walker (Rudge), 3h. 36m. 54s., 73.08 m.p.h.
6. L. J. Archer (Velocette), 3h. 40m. 0s., 72.05 m.p.h.
7. L. H. Davenport (New Imperial), 3h. 40m. 20s., 71.94 m.p.h.
— A. Bennett (Velocette), 3h. 40m. 20s., 71.94 m.p.h.
9. S. Gleave (New Imperial), 3h. 45m. 14s., 70.37 m.p.h.
10. C. J. Williams (Velocette), 3h. 49m. 23s., 69.10 m.p.h.

J. Sarkis (O.K.-Supreme), 3h. 51m. 1s.
E. G. Self (Velocette), 3h. 52m. 0s.
D. Brewster (Velocette), 3h. 59m. 38s.
O. Steinfellner (Rudge), 3h. 59m. 39s.
C. S. Barrow (O.K.-Supreme), 4h. 1m. 2s.
First ten replicas. Sarkis disqualified.

THE LIGHT WEIGHT RACE

DAVENPORT (NEW IMPERIAL) WINS AT 70.48 m.p.h.

THE second of the week's three races used to be considered rather tame after the speed of the Junior, but this year both the speed and the change of leadership which took place, made it quite the equal of the other two. Only 25 machines were entered and of these three were non-starters, the most important being Mellors, who had seized his machine the night before, and had no hope of getting it re-assembled for the weighing in. With this important rider eliminated, the Rudge team, Handley, Nott and Graham Walker, seemed likely to have matters all their own way.

Weather conditions at the beginning did not look too favourable, but they soon improved to bright sunshine. The machines all started easily, Handley getting off particularly well. He was reported as going strongly from all round the course, Nott and Handley supporting him closely. Crabtree was obviously going well as he passed the stand a little before Handley's arrival and Emery (Cotton) picked up several places on the mountain section.

Lap 1 :—

1. W. L. Handley (Rudge), 30m. 50s., 73.43 m.p.h.
2. G. E. Nott (Rudge), 31m. 43s., 71.39 m.p.h.
3. G. L. Emery (Cotton), 32m. 18s., 70.10 m.p.h.
4. S. A. Crabtree (Excelsior), 32m. 19s., 70.06 m.p.h.
5. L. H. Davenport (New Imperial), 32m. 30s., 69.67 m.p.h.
6. G. W. Walker (Rudge), 32m. 58s., 68.66 m.p.h.

During the second lap the leader board showed a considerable change. Handley was still going but had slowed considerably, and Nott moved up into first position. Emery (Cotton) dropped back a long way, and Crabtree took his place. Graham Walker, as usual, was going steadily, and picked up a place.

Lap 2 :—

1. G. E. Nott (Rudge), 1h. 3m. 27s., 71.54 m.p.h.
2. W. L. Handley (Rudge), 1h. 3m. 44s., 71.05 m.p.h.
3. S. A. Crabtree (Excelsior), 1h. 4m. 4s., 70.69 m.p.h.
4. L. H. Davenport (New Imp.), 1h. 4m. 26s., 70.28 m.p.h.
5. G. W. Walker (Rudge), 1h. 5m. 4s., 69.60 m.p.h.
6. G. L. Emery (Cotton), 1h. 5m. 1/s 69.37 m.p.h.

Handley, it appeared, had been suffering from plug trouble, but on curing this he put up a record lap of 31m. 8s., an average speed of 72.73 m.p.h., which put him in the lead again. Crabtree's pointer stuck at Ballacraine and we learnt later on that he was out of the race with engine trouble. Rudges therefore held the first three places, with Davenport (New Imperial) next on the list. The furious pace was beginning to tell on the small machines Hinning (Excelsior) and Kitchen (Rudge) retiring with seized engines, while gear-box trouble was also prevalent.

Lap 3 :—

1. W. L. Handley (Rudge), 1h. 34m. 52s., 71.6 m.p.h.
2. G. E. Nott (Rudge), 1h. 36m. 4s., 70.71 m.p.h.
3. G. W. Walker (Rudge), 1h. 36m. 52s., 70.13 m.p.h.
4. L. H. Davenport (New Imperial), 1h. 37m. 6s., 69.95 m.p.h.
5. C. S. Barrow (O.K. Supreme), 1h. 37m. 57s., 69.39 m.p.h.
6. T. Spann (New Imperial), 1h. 38m 29s., 68.99 m.p.h.

THE SENIOR RACE—continued.

to try to break up the Nortons. He is first round at Governor's, followed by Dodson whose exhaust note does not sound so crisp. Nott has gained a few seconds, and Tyrell-Smith, No. 8, is fourth round. Rudges are going well. The Norton cracks are later starters, but No. 15, Simpson, has obviously done a quick lap. J. G. Lind, the South African, is making the 350 Velocette scream round, Guthrie is steady and so is Stanley Woods, but where is P. Hunt, who is strongly fancied for a win on his Norton ?

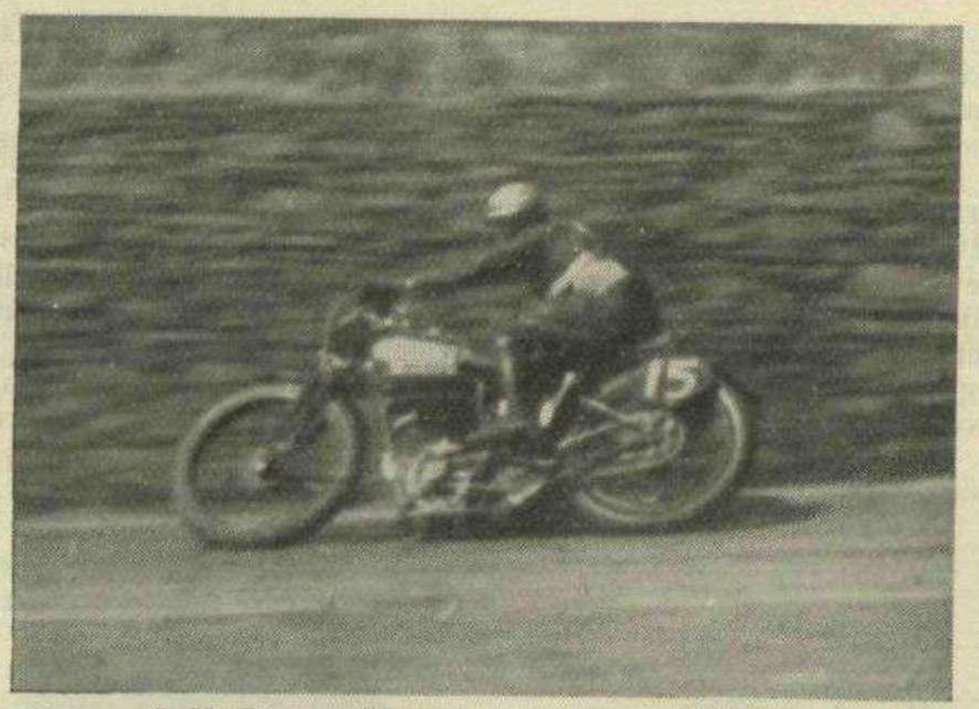
News comes through that he has crashed at Braddon, and damaged his machine. The Norton team chances disappears at an early stage, but the leader board soon cheers up their supporters.

1st lap leaders :—

1. J. H. Simpson (Norton), 28m. 16s., 79.85 m.p.h.
2. S. Woods (Norton), 28m. 19s., 79.80 m.p.h.
3. W. L. Handley (Rudge), 28m. 24s., 79.57 m.p.h.
4. G. E. Nott (Rudge), 28m. 50s., 78.37 m.p.h.
5. J. Guthrie (Norton), 28m. 52m., 78.28 m.p.h.
6. G. J. Dodson (Excelsior), 29m. 2s., 77.83 m.p.h.

Prince George has driven out to Crag ny Baa to watch the cornering there. Handley is going strong with an open road in front of him. Nott is only a few yards behind Dodson at Signpost. Simpson is travelling at a breath-taking speed and sets up a new lap record with a time of 28m. 47s., a speed of 81.5 m.p.h. Stanley Woods is only 5 seconds behind him.

The standard of riding is everywhere very fine, the corners being taken with terrific sweeps. Simcocks at Sign Post nearly touches the hedges and Lind, who is trying to get a quart out of a pint pot, is also spectacular. The Douglases sound tinny, presumably flywheel ring, but accelerate better than most. Nott is supporting Handley and Guthrie, who has apparently got over his toss on Monday, is averaging over 79 m.p.h. Two minutes cover the first six riders.



J. H. Simpson (Norton) cutting close at Sign Post.

2nd lap leaders :—

1. J. H. Simpson (Norton), 56m. 3s., 80.79 m.p.h.
2. S. Woods (Norton), 56m. 8s., 80.68 m.p.h.
3. W. L. Handley (Rudge), 56m. 37s., 79.98 m.p.h.
4. J. Guthrie (Norton), 57m. 13s., 79.15 m.p.h.
5. G. E. Nott (Norton), 57m. 30s., 78.76 m.p.h.
6. C. J. Dodson (Excelsior), 58m. 1s., 78.21 m.p.h.

The 500's are sticking the pace very well, only two retirements so far. Cornering, especially at the Crag, is astounding, the riders almost touching the left hand wall before swooping in and round. Lind braked violently and wobbled in a sickening way, but somehow wrenched himself straight before hitting the mattresses. The battle of giants continues, and Woods actually overhauls the great Jimmy Simpson. The positions of the other leaders is unchanged.



S. Woods corners in style at Governors.

3rd lap leaders :—

1. S. Woods (Norton), 1h. 24m. 0s., 80.87 m.p.h.
2. J. H. Simpson (Norton), 1h. 24m. 15s., 80.63 m.p.h.
3. W. L. Handley (Rudge), 1h. 24m. 48s., 80.11 m.p.h.
4. J. Guthrie (Norton), 1h. 25m. 39s., 79.31 m.p.h.
5. G. E. Nott (Rudge), 1h. 25m. 52s., 79.12 m.p.h.
6. C. J. Dodson (Excelsior), 1h. 27m. 45s., 77.41 m.p.h.

Handley is riding for dear life, but his machine is not fast enough to catch the flying Nortons. Simpson is following hard on Woods. Now Handley's pointer stops at Ballacraine. Has his number been missed or was his hectic driving too much for his machine ? Nortons now hold the first three places, and if Guthrie can stand the pace, may well stay there.

4th lap leaders :—

1. S. Woods (Norton), 1h. 53m. 9s., 80.05 m.p.h.
2. J. H. Simpson (Norton), 1h. 54m. 18s., 79.24 m.p.h.
3. J. Guthrie (Norton), 1h. 55m. 4s., 78.71 m.p.h.
4. G. E. Nott (Rudge), 1h. 55m. 18s., 78.55 m.p.h.
5. C. J. Dodson (Excelsior), 1h. 56m. 45s., 77.58 m.p.h.
6. G. W. Walker (Rudge), 1h. 58m. 57s., 76.13 m.p.h.

Definite news of Handley is now to hand. He was seen going slowly up Glen Helen, and came off at Barrgarrow, between Cronk y Voddy and Kirk Michael, and sustained a sprained wrist. Various retirements are announced, but the order on the leader board is unchanged. Simpson is having trouble with the clutch fulcrum pin seizing, but improves his lap speed in spite of this.

5th lap leaders :—

1. S. Woods (Norton), 2h. 21m. 55s., 79.78 m.p.h.
2. J. H. Simpson (Norton), 2h. 22m. 52s., 79.24 m.p.h.
3. J. Guthrie (Norton), 2h. 23m. 38s., 78.82 m.p.h.
4. G. E. Nott (Rudge), 2h. 23m. 51s., 78.71 m.p.h.
5. C. J. Dodson (Excelsior), 2h. 26m. 47s., 77.13 m.p.h.
6. G. W. Walker (Rudge), 2h. 28m. 22s., 76.31 m.p.h.

Lind is forced to retire from exhaustion after falling off at Governor's Bridge. No one could drive as furiously as he did for seven laps.

Not long to wait now. Jimmy Simpson's light flashes—here he is, and gets a great reception for a fine ride. He started in front of Woods, who is now at the Crag, with seven minutes in hand. Three minutes later he appears to gain his second well deserved victory this week, at a speed which breaks all records.

Finishers :—

Woods (Norton), 3h. 19m. 40s., 79.38 m.p.h.

Guthrie (Norton), 3h. 21m. 59s., 78.47 m.p.h.

Simpson (Norton), 3h. 22m. 13s., 78.38 m.p.h.

Nott (Rudge), 3h. 22m. 19s.
Dodson (Excelsior), 3h. 25m. 9s.
Walker (Rudge), 3h. 27m. 35s.
J. G. Duncan (Cotton), 3h. 29m. 8s.
H. G. Tyrell Smith (Rudge), 3h. 29m. 23s.
E. A. Simcock (Sunbeam), 3h. 38m. 56s.
G. Emery (Sunbeam), 3h. 39m. 2s.
The above qualified for replicas.
F. Franconi (Velocette), 3h. 40m. 37s.
J. H. Pringle (Norton), 3h. 41m. 44s.
V. N. Brittain (Sunbeam), 3h. 42m. 47s.
F. Brand (Jawa), 3h. 47m. 12s.
F. A. Longman (Douglas), 3h. 49m. 45s.
P. J. Walls (Rudge), 3h. 51m. 35s.
D. Brewster (Excelsior), 3h. 53m. 7s
E. R. Merrill (Excelsior), 3h. 53m. 58s.

THE LIGHT WEIGHT RACE—continued.

With Rudges in the first three places, the race lost much of its interest, the only change in the next lap being Davenport's rise to third place and a further Rudge on the leader board.

Lap 4 :—

1. W. L. Handley (Rudge), 2h. 6m. 52s., 71.39 m.p.h.
2. G. E. Nott (Rudge), 2h. 7m. 52s., 70.84 m.p.h.
3. L. H. Davenport (New Imp.), 2h. 8m. 44s., 70.35 m.p.h.
4. G. W. Walker (Rudge), 2h. 9m. 41s., 69.84 m.p.h.
5. J. Williams (Rudge), 2h. 11m. 21s., 68.96 m.p.h.
6. T. Spann (New Imp.), 2h. 12m. 16s., 68.48 m.p.h.

These times show that Handley's pace is easing slightly, but the 4th lap is no place for that. Has he taken a little too much out of his willing 250 ? Nobody knows, but as the pointers click round, it is obvious that he is dropping behind. Nott is slower too, and—good heavens—Davenport has actually increased his speed ! The invincible Rudge leadership is broken. Tommy Spann, well known on Sunbeams in his "hornet" sweater, is also in the picture on a New Imperial which S. Gleave had been unable to ride.

Lap 5 :—

1. L. H. Davenport (New Imp.), 2h. 40m. 28s., 70.55 m.p.h.
2. G. E. Nott (Rudge), 2h. 40m. 46s., 70.42 m.p.h.
3. G. W. Walker (Rudge), 2h. 41m. 31s., 69.69 m.p.h.
4. J. Williams (Rudge), 2h. 44m. 0s., 69.04 m.p.h.
5. W. L. Handley (Rudge), 2h. 45m. 9s., 68.55 m.p.h.
6. T. Spann (New Imp.), 2h. 45m. 22s., 68.46 m.p.h.

The race is not over yet. Nott is only 18 seconds behind Davenport and with three other Rudges to support him, he can afford to go out for blood. Handley, five minutes behind has no hope now, but is going again full bore. Nott makes every effort and puts Rudges in front again, while Handley achieves the astonishing time for a 250 c.c. machine of 30-34, a whole minute better than last year's record.

Lap 6 :—

1. G. E. Nott (Rudge), 3h. 12m. 47s.
2. L. H. Davenport (New Imp.), 3h. 13m. 9s.
3. G. W. Walker (Rudge), 3h. 14m. 10s.
4. W. L. Handley (Rudge), 3h. 15m. 43s.
5. T. Spann (New Imp.), 3h. 19m. 32s.
6. C. Tattersall (C.T.S.), 3h. 26m. 13s.

Twenty-two seconds is not a big margin, but if Nott can keep going now, he's got it. Davenport, who started 3 minutes ahead of Nott, is going strongly, and reports from Ramsey say that he passed there in great style. Nott's pointer is stationary at Kirkmichael ; with so few runners they cannot have missed him if he passed Ramsey. Davenport passes the Crag, Hillberry, his light flashes and he roars home, and in a few minutes is announced the winner. News then comes in of Nott's retirement at Sulby with engine trouble. Bad luck after a magnificent race ! Handley was apparently delayed by plug trouble but finishes third behind the veteran Graham Walker.

Finishers :—

Davenport (New Imp.), 3h. 44m. 53s., 70.48 m.p.h.

Graham Walker (Rudge), 3h. 46m. 13s., 70.07 m.p.h.

Handley (Rudge), 3h. 46m. 53s., 69.86 m.p.h.

T. Spann (New Imp.), 3h. 52m. 55s., 68.05 m.p.h.

Tattersall (C.T.S.), 4h. 1m. 36s., 65.61 m.p.h.

J. Fairweather (Cotton), 4h. 6m. 10s., 64.39 m.p.h.

(All the above received replicas.)

J. G. Lind (O.K. Supreme), 4h. 13m. 43s., 62.47 m.p.h.

H. Warburton (Excelsior), 4h. 26m. 42s; 59.43 m.p.h.

THE SENIOR RACE

ANOTHER NORTON WIN. WOODS COMPLETES A DOUBLE.

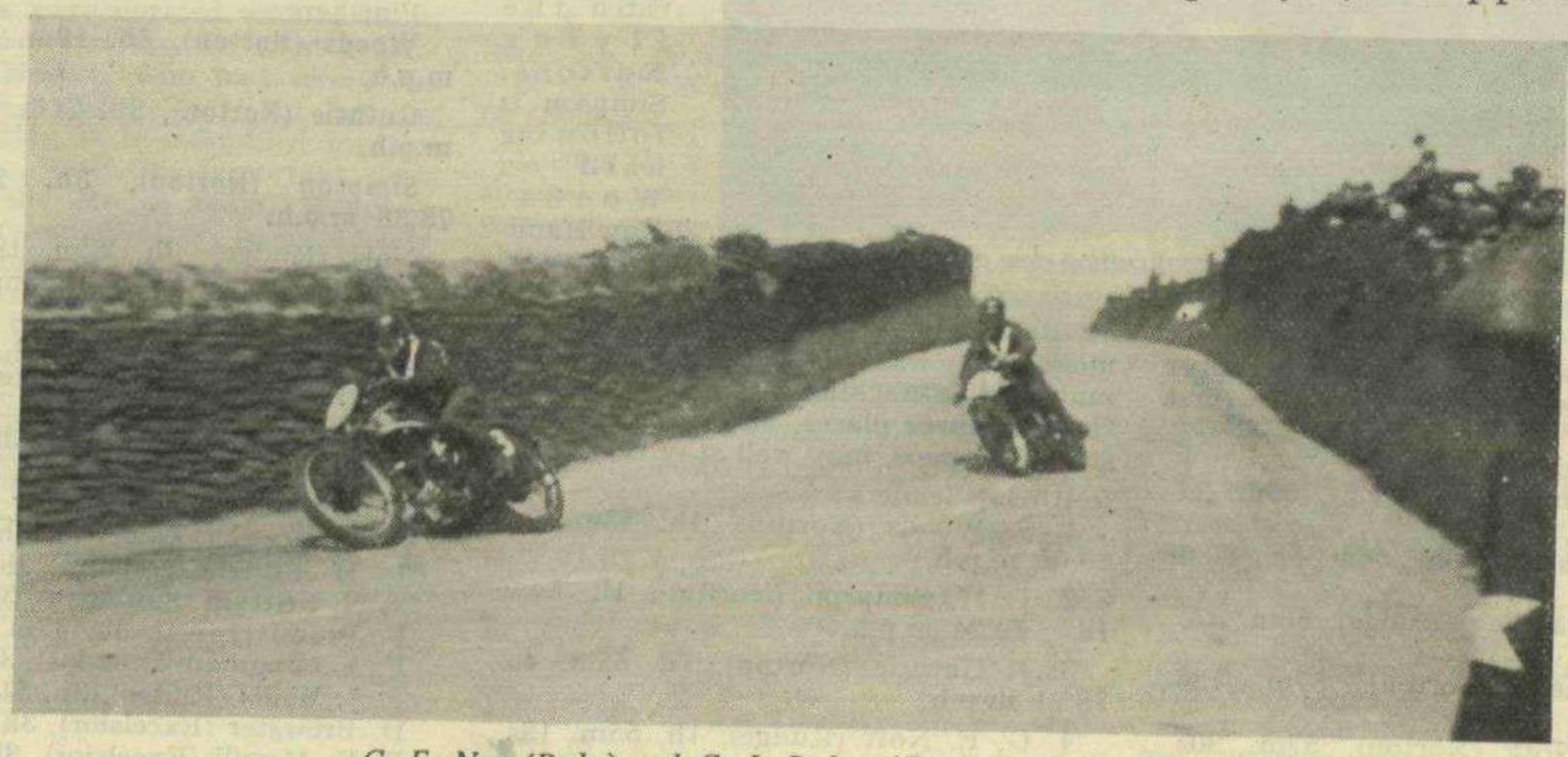
FOR the first time in the history of the Tourist Trophy Race, a member of the Royal Family was to be a spectator, and Prince George, who had arrived from the mainland by aeroplane on Thursday afternoon, saw the fastest race which has yet been run on the Manx course. The entries only numbered 35, but they were representative, both in riders and machines, of the best the world produces.

As in the other races, Norton and Rudge constituted the principal entry, the Sunbeams being privately entered teams, and A.J.S. a lamented memory. Douglases made a welcome return, though they had had little time for preparation and Dodson's Excelsior was likely to do well. This race saw the first appearance of the Jawa, an interesting Czecho-Slovakian machine with a pressed steel frame. The Jonghis were destroyed in the unfortunate fire at Montlhery, and Franconi and Renier were therefore mounted on Velocettes. Seven riders from the Dominions and six from the Continent further enhanced the international character of the race.

Prince George and his party arrived early, and he was observed taking a keen interest in the score-boards, pits, and the other activities at the Start. At 9.45 the riders wheeled out their machines to their places, and His Highness descended from the stand and shook hands and chatted with each man.

Handley (Rudge) was No. 1 and on getting the signal at 10 o'clock, started his machine at the first heave, and was away down Bray Hill in a flash. The Rudge exhaust note is particularly deafening this year, as the pipes are fitted with bell-shaped mouths which are supposed to have an extractor effect.

All the machines get away without much trouble, though the Jawas seem a little uncertain. Handley's pointer is moving fast. He is not in the Rudge team, but will go out



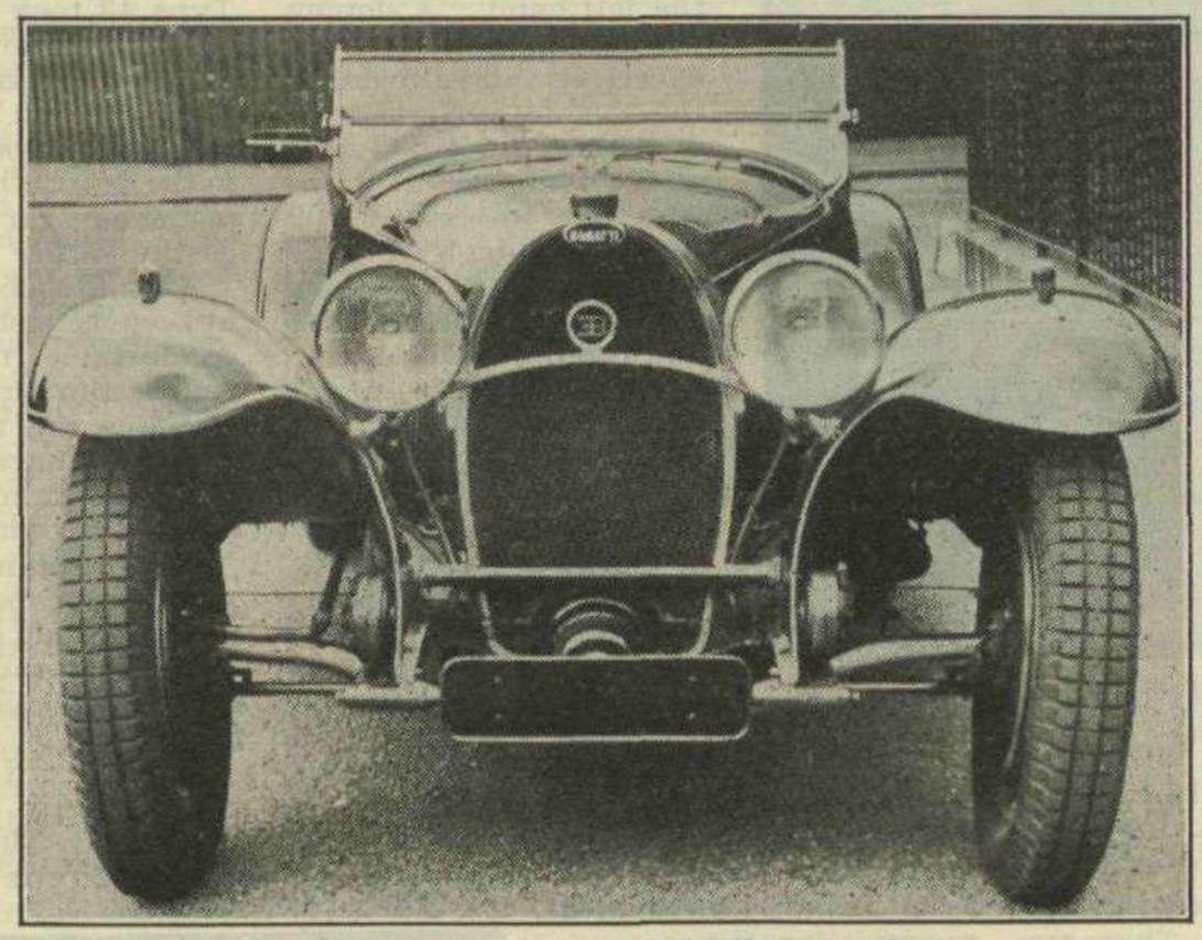
G. E. Nott (Rudge) and G. J. Dodson (Excelsior) at Sign Post.

TRYING OUT THE TYPE 55 BUGATTI

A COMFORTABLE NEW SPORTS MODEL, WHICH COMBINES TOURING AND RACING CAR CHARACTERISTICS.

WE have heard often enough that the racing car of yesterday is the sports car of to-day. In no car is this better exemplified than in the new double-camshaft 2.3 litre Super Sports Bugatti, on which we recently had a short but nevertheless exhilarating trial run.

The engine and chassis are the same as those used in the 2.3 litre Grand Prix model, with a lower compression which allows the Type 55 to run on ordinary fuel. The same chassis is also used on the 4.9 Super-Sports and Grand Prix models, though with larger wheels and tyres, so that most of the following details apply to the whole range of sports and competition models.



The impressive front view of the Type 55 Bugatti.

The engine is, of course, a straight eight, with bore and stroke of 60 and 100 mm respectively, giving a capacity of 2,270 c.c. Alloy pistons are used, with the special Bugatti connecting rods which taper towards the little end, and are strengthened by a rib on each side. Two overhead camshafts are fitted, driven by a vertical shaft in the front of the engine. The camshafts are carried in nine bearings, and operate the two valves per cylinder,—which are inclined to one another at about 90 degrees— directly through steel pistons. Each cylinder has one sparking plug, which is carried midway between the two valves.

Roller bearing big ends.

A five bearing crankshaft is used, the centre bearing and the two outers being ball races, and the other two rollers. Roller bearing big ends are employed.

On the near side of the engine is mounted a water pump driven by skew gears from the crankshaft, while the dynamo is driven direct from the front end of the engine. The Roots type supercharger is fitted on the off side, and is driven from the front end of the crankshaft through a train of gears and a shaft with a flexible coupling. The carburettor, which is bolted to the bottom of the blower, comes below the level of the side members, but is easily reached by removing a special cover.

Wet sump lubrication is employed, the oil passing through a filter on its way to the sump, and is pumped to the bearings through another pressure-type filter, situated on the side of the crank case between the exhaust pipes and easily removed for cleaning. The sump holds 1¼ gallons, a further gallon being carried in a tank under the passenger's seat, whence it can be pumped into the sump. 22 gallons of petrol is carried in the rear tank.

In accordance with the usual Bugatti practice, the magneto is driven from one of the camshafts, the contact-breaker cover actually projecting through the dash, and allowing of ready inspection. The other camshaft operates the A.C. petrol pump, and the rev. counter drive is also taken from it.

The compression ratio is not given, but as the car runs without pinking on a mixture of two thirds petrol and one third benzol, it is probably about 6.5 to 1 at full revs

The drive is transmitted through a multiple-disc clutch and a short shaft with two universal joints to a four-speed gearbox, which is provided with central ball change, thence by open propellor shaft to a straight bevel back-axle. Torque is taken by a member running alongside the propellor shaft, and two other radius tubes from the spring mountings to the chassis further relieve the springs of any loads except the weight of the car.

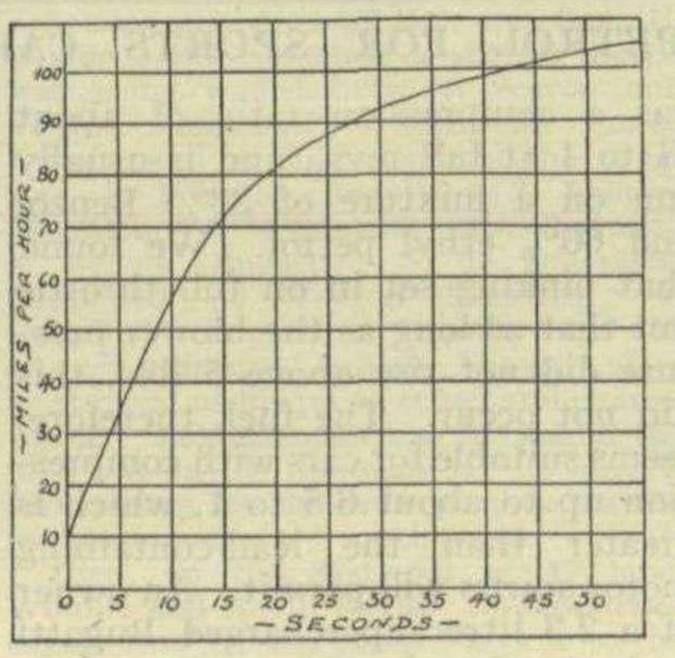
The back-axle ratio is 3.6 to 1, but for some reason the factory does not publish the gear-box reductions. As far as one could tell from comparing speedometer and rev. counter readings, they are approximately 4.32, 6.56 and 9.4 to 1, which give at 5,000 r.p.m. speeds of 42, 63, 95 and 114 m.p.h. respectively. 5,000 r.p.m. is the maximum advised, but another 500 or so for a short time would not do any damage.

The chassis is slightly upswept to clear the front axle, then is almost horizontal as far as the back axle, where it is again upswept. The front springs are semi-elliptic, passing through the solid front axle, while the rear ones are the reversed quarter elliptic which have long proved so successful on Bugatti cars. The brakes, which operate on 15 inch drums, are cable-operated and are compensated by the familiar chain and sprocket gear. The steel brake drums are actually carried in the cast aluminium wheels, so that the shoes are immediately accessible on removing the wheels.

The type 55 chassis is fitted with 19″ by 5″ racing Dunlop tyres, and the wheels are secured to Rudge hubs by the distinctive Bugatti knock-on caps.

The car we tested was fitted with a smart and comfortable two-seater body finished in black and red, with a large luggage compartment at the rear. Pneumatic upholstery was installed, and the whole car was a great advance on the rather spartan bodies which were traditional on the faster Bugattis.

On first getting into the car, our first thought was the comfort of the front seat, and our second the possibility of being catapulted over the low-cut side of the body. Familiarity soon bred confidence, and we found it possible to make intelligible notes when the car was doing 90.



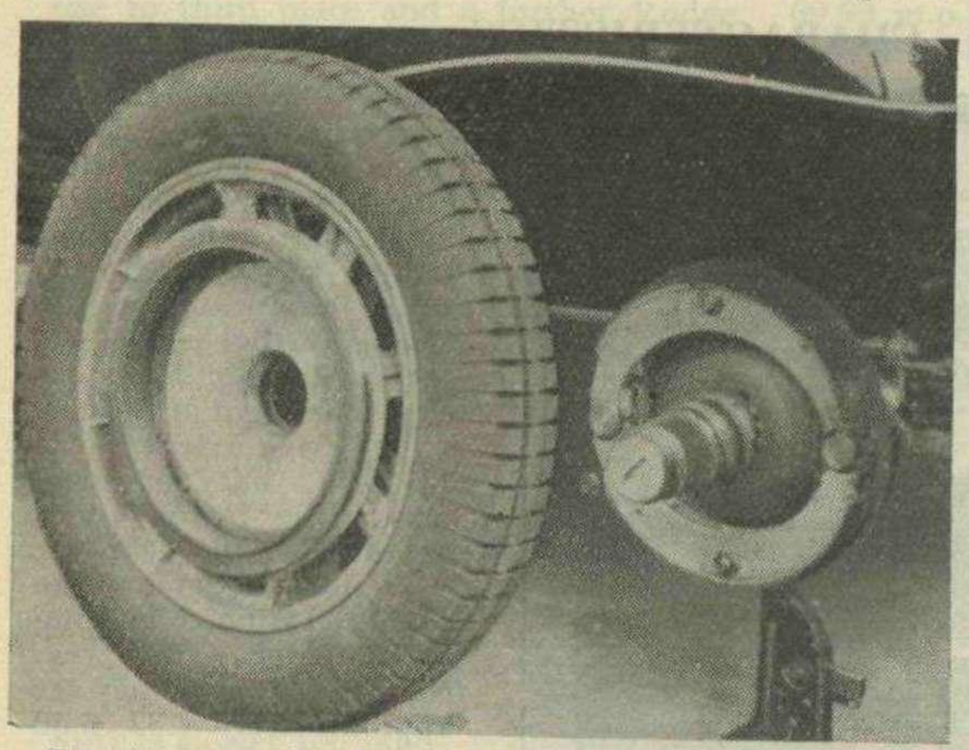
The Bugatti's Amazing Acceleration Chart.

Tractability.

The streets of South London presented their usual crowded appearance, and provided a good test of the "2.3"s tractibility. The exhaust note is subdued, and in top gear one hears nothing more than a pleasant hum. Changing down to accelerate, one caught a suggestion of the real character of the car, the blower and its gears making a most stimulating sound

TYPE 55 BUGATTI—continued.

which can be only rendered as "hurra-a-a-," a remark with which we entirely agreed.



This illustration shows how the brake drums are integral with the wheels.

On gaining the open road, the shock-absorbers, which are adjusted on the Andre Telecontrol system by two hand-wheels on the dash, were tightened, and acceleration figures were taken. These are quite phenomenal, but rather than indulge in superlatives we prefer to refer readers to the graph. Unfortunately these figures can only be approximate, owing to the delayed action of the Jaegar speedometer and rev. counter, but any error does not favour the car. For anything except acceleration figures, the steadiness of the needles far outweighs the slight interval which occurs between readings.

The braking figure of 57 feet from 37.5 m.p.h. (60 km.), does not seem in keeping with the rest of the car's performance. Either the linings were not properly bedded in, or were of unsuitable material. 15 inch brake drums being provided, the fault is obviously not in the installation. In operation the brakes were excellent, the car continuing in a straight line no matter how hard they were applied.

These preliminaries finished, we were able to get on with the all-too-short road test.

In the new 2.3 the driving position is much more upright than in the average sports car, deep wells being provided on each side of the propellor shaft. The steering wheel comes right into one's lap, with the gear lever, brake, and ignition control under the left hand. A sloping windscreen does its work effectively, and altogether the car is perfection to drive. The crowded state of the roads made it inadvisable to exceed 100 m.p.h., although we were told that at 5.30 one morning the speedometer did creep round to 112 At speeds above about 80 the sound of the blower and its gears rises above audibility, and one glides along as in a fast aeroplane, with no sound but the rushing wind. Cornering, of course, is effortless, and if a bend is taken too fast, the car seems to correct the error without help from the driver.

The steering was light, firm, and had ample caster. There is no gainsaying the fact that only firms with racing experience can get such a combination, which is a model that English manufacturers might well follow.

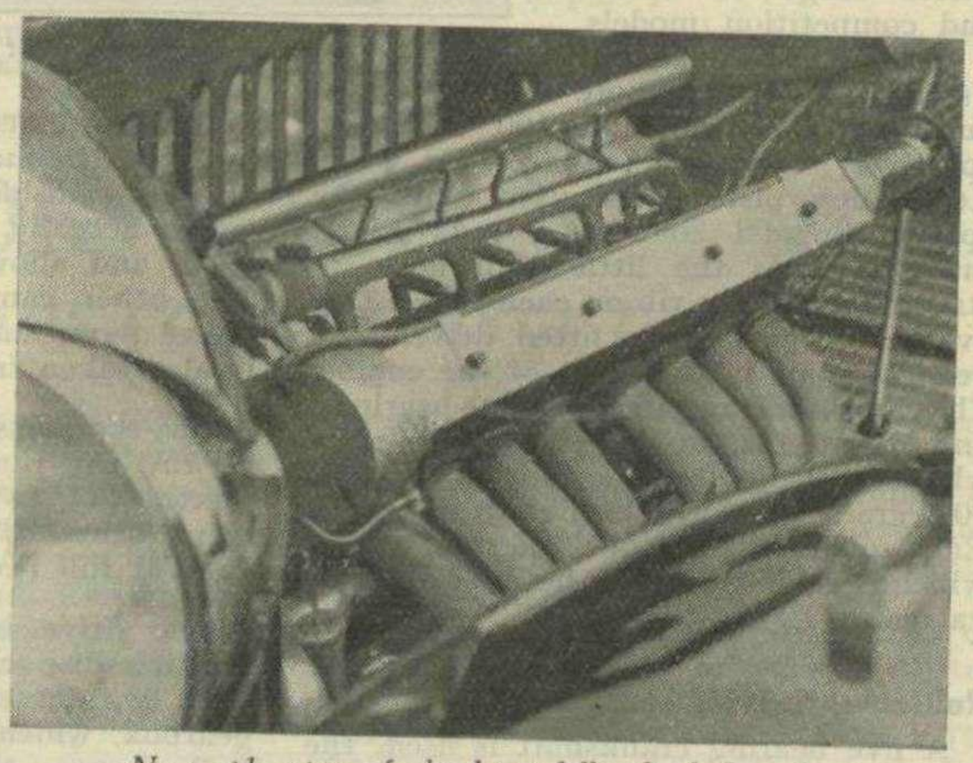
The gearchange requires considerable practice before one gets the knack of it. The clutch pedal operates in a forward instead of a more or less vertical direction, while the change from top to third is so quick that the lever can be pushed right across at 60 m.p.h. When these points are realised, the change becomes reasonably simple, and the colossal acceleration on the indirect gears can be used. Actually third and top can be used in most cases, even in traffic, and by slightly retarding the ignition, the car runs down to 700 r.p.m. on top gear

Comparing the car with the Type 43 single camshaft model which was tested in the May, 1930 issue of MOTOR SPORT, the principal difference is not in the maximum speed but in the acceleration. The Type 43 took about 45 seconds to reach 80 from a standing start, while the Type 55 reaches this figure in about 20 seconds from 15 m.p.h. Allowing for the normal four-seater body and the standing start in the case of the Type 43, the performance of the new car is still about twice as good as the earlier one.

The advance in comfort and ease of upkeep is just as great. The seats are comfortable, the car starts readily and can be run on Champion RIs even when warming up, and the exhaust note and the appearance do not attract unwelcome attention from the police. The car in fact is the complete dual purpose vehicle.

This combination seems at present beyond the capabilities of British manufacturers, but one hopes that the institution of road-racing in England will produce some day a car with a Continental performance.

We returned the car with sincere regrets that we only had put in 50 instead of 500 miles. The price of the car with two-seater body is £1,350, and it is available for inspection and demonstration at Ettore Bugatti Automobiles, 1, Brixton Road, London, S.W.9.



Near side view of the beautifully finished engine.

A PETROL FOR SPORTS CARS.

SPORTS car owners will be glad to hear of a new motor spirit which has just been put on the market by Cities Service Oil Co., Ltd., of New Oxford House, Hart Street, W.C.1., and which is called Koolmotor Alcohol Blend. As the name implies, the fuel is a mixture of No. 1 petrol and about 10% ethyl alcohol, and it is claimed that this fuel allows a higher compression to be used than any standard petrol on the market.

Some of this fuel was tested in a supercharged Frazer Nash, which has a compression ratio of about 7½ to 1 at full revs., and is usually run on a mixture of 33% Benzol and 66% ethyl petrol. We found that pinking set in on full throttle but that as long as the blower pressure did not rise above 5 lbs., this did not occur. The fuel, therefore, seems suitable for cars with compression up to about 6.5 to 1, which is greater than the lead-containing motor spirits will permit. An owner of a 2.3 litre supercharged Bugatti finds that it suits his car admirably.

On the average sports car the carburettor setting is on the rich side to allow of good acceleration, so that no alteration of jet setting would be required. If the car is tuned for economy, however, it might be advisable to move up one or two jet sizes. With this reservation, the fuel seems well suited to sports cars.

Koolmotor Alcohol Blend is not yet available everywhere, but London users can get it from Morgan Hastings Ltd., 212, New Kings Road, Fulham, S.W., who supplied us with a quantity for test.

CONTINENTAL NEWS.

PROSPECTS OF A WONDERFUL FRENCH G P.

ALFA-ROMEO—BUGATTI DUEL TO BE FOUGHT ONCE AGAIN AT RHEIMS

TEN years ago the most important road race in the world was the French Grand Prix. To win this race was the ambition of manufacturers and drivers alike, the blue riband of motor racing. Then came the advent of "sports" car racing, and the prestige of the race declined. Entries fell off until the race was no longer held. During the last four years, however, the event has increased in popularity, until this year, with an entry list of 23 of the finest racing cars of to-day, driven by the pick of English and Continental drivers, there is every possibility of the French Grand Prix becoming once more the premier road race of the year.

The race is to be held on July 3rd on the circuit of Rheims, just outside the city, and will be a 5-hour event. The length of the circuit is 8 kilometres, or 5 miles, thus ensuring a good view of the race for the spectators, for on a longer course when the cars are strung out, there are very often long gaps between their appearance in front of the stands. The details of the race are being arranged by the Automobile Club of Champagne, under the able direction of M. Raymond Roche.

THE ENTRANTS.
GAUPILLAT (Bugatti).
ETANCELIN (Alfa Romeo).
FOURNY (Bugatti).
CHIRON (Bugatti).
SOMMER (Alfa Romeo).
BORZACCHINI (Alfa Romeo).
BENOIT (Bugatti).
WIMILLE (Alfa Romeo).
CAMPARI (Alfa Romeo).
KAYE-DON (Bugatti).
BIRKIN.
ZEHENDER (Alfa Romeo).
PESATO (Alfa Romeo).
LORD HOWE (Bugatti).
CARACCIOLA (Alfa Romeo).
DIVO (Bugatti).
NUVOLARI (Alfa Romeo).
LEHOUX (Bugatti).
VARZI (Bugatti).
TEDALDI (Bugatti).
WILLIAMS (Alfa Romeo).
DREYFUS (Bugatti).
FELIX (Alfa Romeo).

The race itself should prove a really thrilling affair. To begin with, there will be a further round in the Bugatti-Alfa-Romeo duel. The Molsheim people will be making a tremendous effort to win on their own ground, as it were, and to avenge their defeats at Monaco, the Targa Florio, and Monza. On the other hand, the Alfa-Romeos are in winning form and will be fancied to pull the race off. Divo, Chiron, and Varzi will drive for Bugatti, while the Alfa drivers will probably be Nuvolari, Borzacchini and Campari. In addition there is a very strong "supporting caste" of individual entries, and one has only to glance at the names of Williams, Etancelin Earl Howe, Lehoux, Wimille, Kaye Don, Zehender and Sir Henry Birkin to realise that there is bound to be a race of the fiercest nature on July 3rd.

The Spanish Grand Prix.

THE I.A.C.R. announce that the Spanish Grand Prix which was to have been held on September 25th, will not take place. In view of the fact that the Grand Prix of Marseilles is to be run on the Miramas track on the same day, the cancellation of the Spanish event will ensure a good entry for the French race.

Benoist and Benoit.

A cursory glance at the results of the Grand Prix de Nimes, a full account of which appeared in last month's issue of MOTOR SPORT, gave several people the impression that Robert Benoist, the famous French driver who raced several times at Brooklands on Salmson and Delage cars, had returned to racing. This is not the case; for Benoit, the winner at Nimes, has no connection with the famous Frenchman, nor with the latter's brother, Maurice. In actual fact, Benoit's real name is Benoit Falchetto. Hailing from Nice, he has taken part in several races at the wheel of an Amilcar, and has distinguished himself at the La Turbie Hill Climb.

Dreyfus to drive a Bugatti.

Rene Dreyfus, after racing for Maserati, being their French representative, for eighteen months, drove his last race for that firm at the Avus Meeting. In future he will handle a double-camshaft 2.3-litre Bugatti, and made his first appearance at the wheel of his new mount on the Numberg Ring race, a report of which appears elsewhere in this issue.

The Grand Prix of Casablanca.

Through the exigencies of going to press, we were unable to include in our June issue an account of the Grand Prix of Casablanca, which was run on May 22nd, but for the benefit of our readers to whom MOTOR SPORT comprises a complete history of the season's racing, we are giving a short description of this interesting race.

A tremendous crowd filled the grandstands, and thronged the length of the course. The weather was fine, but a strong sea breeze reduced the speed of cars on the road bordering the coast. Twenty-one cars came to the starting line, there being 14 Bugattis, 3 Alfa-Romeos, 3 Maseratis and 1 Amilcar, and the following well-known drivers were competing: Wimille (Bugatti), Etancelin (Alfa-Romeo), Zehender (Alfa-Romeo), Lehoux (Bugatti), Czaikowski (Bugatti), Caupillat (Bugatti) and Scaron (Amilcar). Caupillat was delayed at the line, and at the end of the first lap Wimille led from Lehoux, followed by Benoit, Etancelin and Czaikowski.

Wimille steadily increased his lead over Lehoux, and drove in a most masterly fashion. It is a recognised fact in France that this young driver has a most promising future, and his performance to-day was certainly a further proof of his skill. Zehender retired, as did Mole on a Bugatti. In the 1,500 c.c. class a stirring battle was being waged between Scaron and Veyron (Maserati). Etancelin passed Benoit, and at half distance the order was, 1, Wimille (Bugatti); 2, Lehoux (Bugatti); 3, Etancelin (Alfa-Romeo); 4. Benoit (Bugatti); 5, de Maleplane (Maserati); 6, Veyron (Maserati); 7, Gaupillat (Bugatti). Wimille was 52 seconds in front of Lehoux, but soon after he stopped at his pit to refuel and change wheels. Lehoux passed as he was in the pits, but on the following lap he himself had to stop for the same purpose, so the positions remained unchanged.

Then, on the 31st out of 47 laps, Wimille had the ill fortune to experience engine trouble, and pushed his car to the pits after a magnificent run. That left Lehoux two minutes in front of his old rival Etancelin, who in turn led Czaikowski, and that order was maintained until the finish. Veyron won the 1,500 class.

Results:—

1. Lehoux (Bugatti), 47 laps, 259 miles, 3h. 19m. 29s. Average, 77.83 m.p.h.
2. Etancelin (Alfa-Romeo), 3h. 23m. 1/5s.
3. Czaikowski (Bugatti), 3h. 22m. 27 3/5s.

The Klausen Hill-Climb.

This year the title of the Klausen Hill-Climb has been changed to the Mountain Grand Prix of Switzerland. For the first time motor-cycles, combinations, and ordinary push bikes are included in the programme, which will be run off on August 6th and 7th. Prize money amounting to 50,000 Swiss francs has been provided, and in view of the fact that the hill-climb counts as the Swiss contribution to the Mountain Championship of Europe, it is possible that some English competitors may be induced to try their hand. Copies of the regulations can be obtained from Le Secretariat du Course, Waisenhausstrasse 2, Zurich, Switzerland.

The Death of a Fine Driver.

It is with great regret that we have to record the death of the well known German driver, Von Morgen, on May 28th. In company with Branchitsch, Von Stuck and Caracciola, he was practicing on the Nurburg-Ring for the Eifel Race, when on a straight stretch of the course, with no other car in sight, his Bugatti overturned. No definite reason can be given for the accident, but it is probable that, as in the case of poor Leeson at Brooklands, Von Morgen fainted at the wheel. All those present at the Avus meeting last year will remember his gallant struggle with Caracciola, and by his untimely death Germany has lost one of her finest drivers.

CONTINENTAL NEWS—continued.

The Eifel Race.

MOTOR-RACING is becoming tremendously popular in Germany. Following up the complete success of the Avus meeting, the Eifel Race on the Nurburg Ring on May 31st attracted a record crowd, the stands being full, and the course lined with spectators.

The race was not as thrilling as it might have been, and resolved itself into a duel between the idol of the crowd, Rudolf Caracciola, on his 2.3 litre Alfa-Romeo, and Rene Dreyfus, making his first appearance since leaving the firm of Maserati, at the wheel of his new 2.3 double camshaft Bugatti. The three Mercédés, driven by Stuck, Broschek and Brauchitsch, winner at Avus, were not suited to the tricky nature of the course, and fell steadily behind their lighter and therefore more easily handled rivals. Chiron had ignition trouble with his Bugatti, and was never in the picture.

Caracciola kept ahead of Dreyfus right through the race, lowering the lap record to 11 mins. 42.8 secs. in doing so, and finished 22 seconds ahead of the Bugatti.

In the 1,500 c.c. class Tauber recorded another victory for Alfa-Romeo, who finished ahead of Hartmann and Seibel, who were both driving Bugattis.

RESULTS.

OVER 1,500 C.C. LENGTH OF COURSE 318 KM.

1. Caracciola (Alfa-Romeo), 2h. 48m. 22s.
2. Dreyfus (Bugatti), 2h. 48m. 44s.
3. Brauchitsch (Mercédès).
4. Stuck (Mercédès).
5. Chiron (Bugatti).

FROM 800 C.C. TO 1,500 C.C.

1. Tauber (Alfa-Romeo), 3h. 7m. 24s.
2. Hartmann (Bugatti).
3. Seibel (Bugatti).

UNDER 800 C.C.

1. Macher (D.K.W.), 228 kms. in 2h. 40m. 29s.
2. Simons (D.K.W.).
3. Stoll (D.K.W.).

Death of Andre Boillet.

The motor racing world suffered another severe blow last month when André Boillot met his death at La Chatre. He was on his way to the Ars Hill Climb at the time, driving one of the Bugatti-engined Peugeots, when his car skidded off the road, crashed into a tree and turned upside down. The tree fell on top of the car, which burst into flames. Poor Boillot was extricated from the car, but on being taken to hospital at Chateauroux, he was found to be suffering from a fracture at the base of the skill, with other severe injuries.

The accident occurred on Sunday, Juue 5th, but after the doctors had done everything in their power to save his life, including the difficult operation of trepanning, André Boillot passed away on the following Thursday.

His career had been a distinguished one. Son of the chief accountant of the Peugeot Company, it was natural that it was on cars of this make that he should have raced almost exclusively throughout his career. After active service in the War in the French Air Force, in which he was decorated with the Croix de Guerre and the M.M. he joined the Peugeot firm in 1919 under Jules Goux. His first achievement was to recondition one of the 1913 racers, with which he won the first Post-War Targa Florio. Two years later he went to America and competed at Indianapolis, this time driving a Talbot-Darracq. Then Goux retired, and Boillot took his place as racing manager of Peugeots. From then on he had a run of successes. In 1922 he won the Coppa Florio, and the French Grand Prix de Tourisme, at Tours. He repeated the latter victory in 1924, and in 1925 he won the Coppa Florio outright for Peugeot. In the same year he won the Grand Prix de Tourisme at Montlhèry. Then, in 1926, he had a bad accident at a hill-climb at Malchamps, in Belgium.

He returned to racing in 1927, and in 1929 he took an expedition to Africa. In the following year he was made Chevalier of the Legion of Honour.

It seems particularly cruel that the Boillot family should once again be bereaved of one of its sons. Two brothers were killed in the Great War, Paul, an infantryman, who died at Massiges, and Georges, so famous before the war, who met his death in an air-fight over Verdun in 1916.

France has lost one of her best and most popular drivers.

The Circuit of Torvilliers.

The results of this race, which was held at Troyes on May 29th, were as follows :

SPORTS 1,100 C.C.—1, Fallon (La Licorne), 219 km. 060 ; 2, Galoisy (La Licorne), 175 km. 280.

3 LITRES.—1, Cattanéo (Bugatti), 264 kimometres 802, R.B. ; 2, Mme Siko (Alfa-Romeo), 239 km. 567.

5 LITRES.—1, Sommer (Alfa-Romeo), 266 km. 297, R.B. ; 2, Rey (Bugatti), 244 km. 397.

RACING 1,100 C.C.—1, Dupont (Salmson), 226 km. 300 ; 2, Vernet (Salmson), 220 km. 050 ; 3, Gilbert (Amilcar), 168 kilometres 762.

1,500 C.C.—1, Girod (F.G.), 233 k. 432.

3 LITRES.—1, Govillon (Bugatti), 224 kilometres 547 ; 2, Bernasconi (Bugatti), 220 km. 775.

5 LITRES.—1, Gauthier (Bugatti), 267 kilometres 942, greatest mileage of all categories.

The Dieppe Grand Prix.

Anyone wishing to see a real Continental road race with the minimum of expense should go over to Dieppe on July 24th, when a very excellent motor-race will be held by the Automobile Club de l'Ouest, under the patronage of the Parisian newspaper "Le Matin."

Actually the meeting lasts three days, for on the Friday competitors in the Rally will arrive, on Saturday the regularity, slow-running, acceleration and braking tests of the Rally cars will be carried out, together with a Concours d'Elegance, while on Sunday there will be a Grand Prix race for motor-cyclists in the morning, starting at 8.30 a.m., followed by the motor-car Grand Prix at 1.30 p.m.

There will be two classes, for cars up to 2,000 litres, and for cars over that capacity, the entry fee in both cases being 500 francs.

Last year, it will be remembered, Earl Howe was the only Englishman to compete, finishing first in his class, and second in the general classification. Earl Howe will compete again this year, and it is hoped that in view of the nearness of the circuit, other English drivers may be encouraged to take part.

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TWO MEETINGS AT LEWES

A SUCCESSFUL BUGATTI CLUB MEETING ON THE RACE HILL.

A NEW event was added this year to the Fixture List of that energetic body, the Bugatti Owners' Club, in the form of Speed Trials on the Race Hill at Lewes.

Consequently, what seemed like all the Bugattis in England—to say nothing of a goodly array of other rapid vehicles—took the Eastbourne road on Saturday, June 11th, and proceeded to motor more or less quickly to the scheduled scene of activity. Luckily, the weather relented of its bad behaviour at the Club's meeting at Chalfont St. Peter a few weeks ago, and was fine for the whole afternoon.

Promptly at 2.30—for the Bugatti club's meetings are always run to a rigid time-table—the cars in the first class, Touring 1,500 c.c., made their first run, the winner being Cox's Alfa-Romeo, which comfortably beat Bachelier's front-drive Alvis by 2 3/5 seconds. Then followed the Unlimited Touring Class, which proved to be a Bugatti-Invicta battle, the first three places going to the latter make represented by Esson-Scott and the brothers Steele on 4½-litre saloons. Faulkner's 5-litre Bugatti saloon, which was also entered and driven by Mrs. Faulkner, swished quietly up the course like a dignified town car, in marked contrast to the raucous progress of the sporting and racing cars of the *marque*.

On the first run the 1,500 c.c. Sports Class went to Cox's Alfa, but on the second attempt he was beaten by K. D. Evans's Montlhèry Midget, in the capable hands of E. Wilkinson. The latter's time of 26.9 seconds was exceedingly good, and he handled the car beautifully.

Then came the Unlimited Sports Class, and the eagerly-awaited appearance of Colonel Sorel's new double-camshaft "2.3" driven by the redoubtable Mischall. On its first run, however, it was beaten by L. G. Bachelier's single-camshaft model, not being quite as quick as many of us had expected. Faulkner equalled Mischall's time.

"The Terror" was not in form. After an excellent getaway the car slowed, time 27.3 seconds, so Wilkinson took first place in the 1,500 c.c. Racing Class. His time, 26.9 seconds, was exactly the same as in the Sports Class—a tribute to consistent driving. The Unlimited Racing Class produced an interesting entry in Gardiner's 5-litre Delage, which possessed colossal acceleration and won the class in 23.3 seconds on his first run, which he later reduced to 22.7 seconds, fastest time of the day.

Nothing outstanding took place on the second runs, only three cars improving on their previous times, Wilkinson's Midget, Gardiner's Delage and Mischall's Bugatti, which reversed the previous positions and beat Bachelier's car by 1/10th of a second.

The whole event was run to time, and was a great credit to those energetic officials, the Giles brothers, and their efficient staff of helpers.

RESULTS.

1½-LITRE TOURING: 1, G. B. H. Cox (Alfa-Romeo, S), 31.2 secs.; 2, L. G. Bachelier (Alvis, S), 33.5 secs.; 3, D. C. Cook (Aston-Martin), 35.5 sec. OVER 2½-LITRE TOURING: 1, A. Esson-Scott (Invicta), 28.1 secs.; 2, T. S. Steele (Invicta), 30.3 secs.; 3, J. S. Steele (Invicta), 31.3 secs.

1½-LITRE SPORTS: 1, K. D. Evans (M.G. Midget, S), 26.9 secs.; 2, G. B. H. Cox (Alfa-Romeo, S), 31.1 secs.; 3, D. C. Cook (Aston-Martin), 34 secs; 2½-LITRE SPORTS: E. Mischall (Bugatti, S), 24.2 secs.; 2, L. G. Bachelier (Bugatti, S), 24.3 secs., 3, L. E. Bachelier (Bugatti, S), 25.2 secs.

UNDER 1½-LITRE RACING: 1, K. D. Evans (M.G. Midget, S), 26.9 secs.; 2, R. G. J. Nash (Frazer-Nash "Terror"), 27.3 secs.; 3, R. J. W. Appleton (Bugatti), 28.9 secs. OVER 1½-LITRE RACING: N. W. Gardiner (Delage), 22.7 secs.; 2, L. G. Bachelier (2.3-litre Bugatti, S), 23.6 secs.; 3, L. E. Bachelier (2-litre Bugatti, S), 25.1 secs.

CAR v. MOTOR CYCLE AT THE KENT AND SUSSEX L.C.C.'S MEETING.

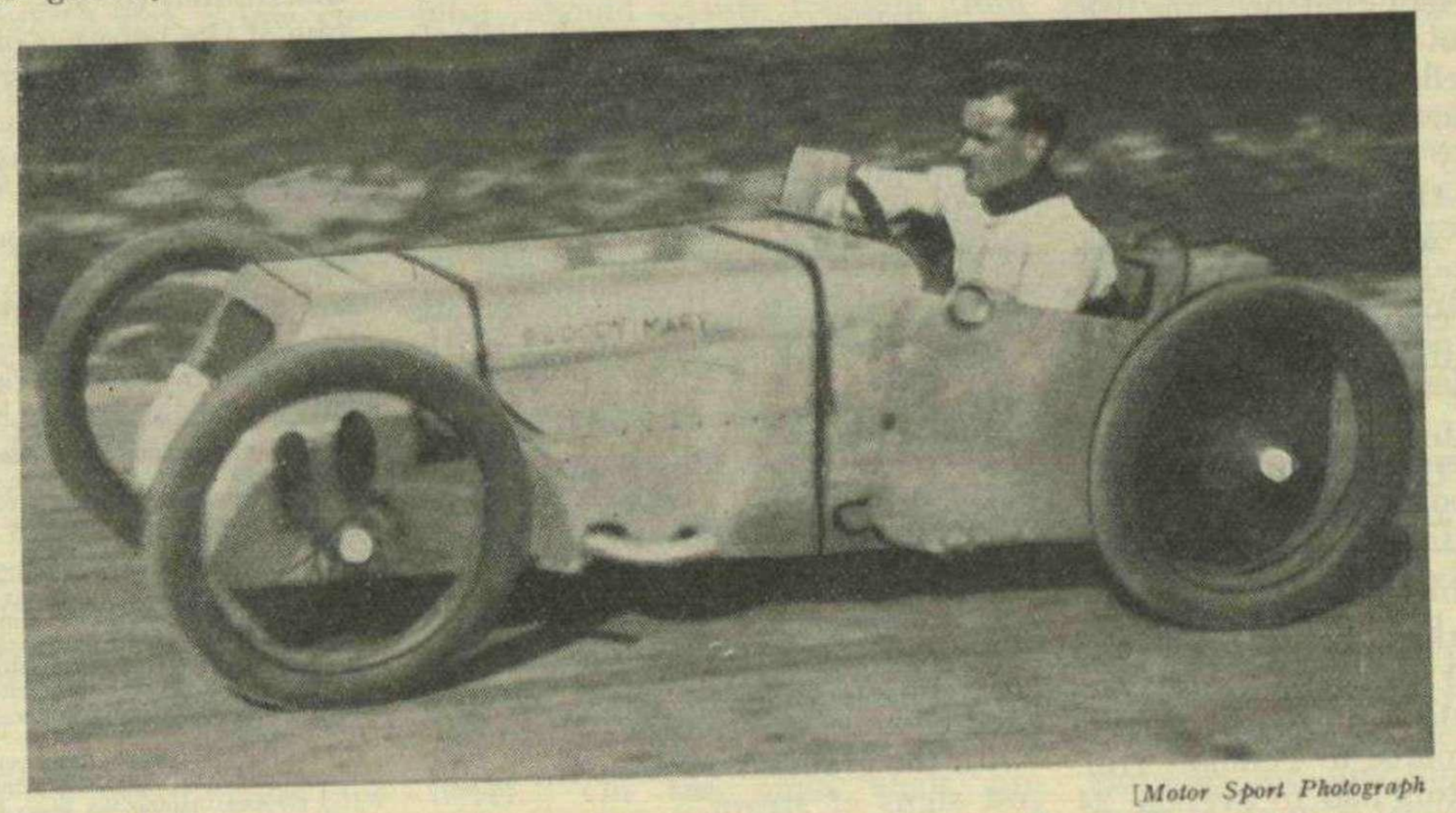
WHICH possesses the better acceleration, car or motor cycle? After witnessing the Senior T.T. Race in the Isle of Man anyone would be inclined to favour the latter, but this opinion would be quickly modified by the sight of R. G. J. Nash's "Terror" getting off the mark at Lewes.

In the June issue of MOTOR SPORT, in describing Nash's getaway at Lewes, we were rash enough to state that in our opinion no other vehicle, on two wheels or four, possessed such colossal acceleration from a standing start as the "Terror." Of course, we were asking for trouble, and our statement was immediately challenged by F. K. Anderson, with the result that Mr. H. V. Warren, the Secretary of the Kent & Sussex Club, very sportingly arranged for Anderson to have the opportunity of disproving our statement at the Club's next meeting on June 18th.

As it turned out, our opinion was justified, for on Anderson's first attempt the Grindley-Peerless leapt forward so rapidly that it stood on its tail and fell backwards, luckily without injury to the rider. Unfortunately, an oiled plug spoiled his second run, and on the third attempt, the steering damper having been put out of action, the machine wobbled and hardly made his time of 24 seconds (as against Nash's record 20 seconds) a representative one.

The meeting itself was one of the pleasantest we have ever attended at Lewes. Mr. Warren has certainly got the organisation of these speed trials down to a fine art, and the whole programme went off without a hitch.

The first event, for touring cars of unlimited capacity, produced only one starter, a 30/98 Vauxhall driven by W. L. Allen, who therefore had a walk-over, or shall we say "drive-over." The special classes for Midgets and Hornets were won by R. D. Tweed and W. St. Clair Smith in 37.2s. and 34.3s. respectively. Then Miss Joan Weekes made



[*Motor Sport Photograph*

J. V. Bolster getting off the mark in the amazing fast cyclecar of his own construction.

TWO MEETINGS AT LEWES—continued.

a fast run in 32.3s. to win the Super Sports Class (1,100 c.c.) on her Salmson.

The winner of the 1,500 c.c. Sports Class was S. E. Cummings—now happily fit again after his recent accident on the Kingston by-pass—who brought his lowered Frazer Nash up in exactly the same time as Miss Weekes. His time was not quite so good in the Sports 2,000 c.c. Class, however, and he had to be content with second place to Maxwell's Bugatti, which recorded 33.2s.

Then Miss Weekes surpassed herself in the 1,500 c.c. Super Sports Class by clocking the fastest time yet, 30.3s., comfortably winning the class from Appleton's Bugatti. The Unlimited Super Sports Class was won by D. Conan Doyle's garishly decorated 36/220 Mercédès-Benz, with a time of 28.3s., closely followed by Baron's Austro-Daimler.

The 1,100 c.c. Racing Class was carried off in great style by J. V. Bolster on his "Bolster Special," which made the exceedingly good time of 25.4s., nearly four seconds faster than the next man, who happened to be his brother, driving a G.N. Third came Miss Weekes, who still further reduced her time to 29.4s.

Then a stir of excitement ran through the crowd—the "Terror" was due to make its run. The little white car shot forward at the fall of the flag and sped up the course at an incredible speed, but his time, 20.2s. was not quite as good as the 20s. dead he recorded at the previous meeting. This was probably due to the tar road being a little soft owing to the heat of the sun. Incidentally, the car was only rebuilt during the night before the trials, having fallen a victim to a seized gudgeon pin at the Bugatti Club's meeting the previous week. Second place was taken by Lancaster's Bugatti, which spun its rear wheels at the start in a refreshing manner.

The remaining two Classes, for Racing Cars up to 2,000 c.c. and Unlimited, produced a similar result, although we were pleased to see that T. C. Davis had cured the G.P. Delage's misfiring troubles, and recorded the excellent time of 24s.

RESULTS.

TOURING CARS, UNLIMITED.
1. W. L. Allen (Vauxhall), 33.3s.

STANDARD M.G. MIDGETS.
1. R. D. Tweed, 37.2s.

WOLSELEY HORNETS.
1. W. St. Clair Smith, 34.3s.

SUPER SPORTING CARS, UP TO 1,100 C.C.
1. Miss J. Weekes (Salmson), 32.3s.

STANDARD SPORTING CARS, UP TO 1,500 C.C.
1. S. E. Cummings (Frazer Nash), 32.3s.
2. E. Maxwell (Bugatti), 33s.
3. W. St. Clair Smith (Wolseley Hornet) 33.4s.

SPORTING CARS UP TO 2,000 C.C.
1. E. Maxwell (Bugatti), 33.2s.

SUPER SPORTING CARS UP TO 1,500 C.C.
1. Miss Joan Weekes (Salmson), 30.3s.
2. R. J. W. Appleton (Bugatti), 31.4s.

SUPER SPORTING CARS, UNLIMITED.
1. D. Conan Doyle (Mercédès-Benz), 28.3s.
2. A. Baron (Austro-Daimler), 29s.
3. D. G. Evans (Bugatti), 29s.

RACING CARS UP TO 1,100 C.C.
1. J. V. Bolster (Bolster Special), 25.4s.
2. R. V. C. Bolster (G.N.), 29.1s.
3. Miss J. Weekes (Salmson), 29.4s.

RACING CARS UP TO 1,500 C.C.
1. R. G. J. Nash (Frazer Nash "Terror"), 20.2s.
2. J. Lancaster (Bugatti), 23s.
3. A. M. Conan Doyle (Frazer Nash "Slug"), 24.4s.

RACING CARS UP TO 2,000 C.C.
1. R. G. J. Nash (Frazer Nash "Terror"), 20.2s.

RACING CARS UNLIMITED.
1. R. G. J. Nash (Frazer Nash "Terror"), 20.2s.
2. J. Lancaster (Bugatti), 23s.
3. J. C. Davis (Delage C.P.), 24s.

HANDICAP CLASS.
1. D. C. Evans (Bugatti), 18.3s.
2. J. V. Bolster (Bolster Special), 18.4s.
3. W. L. Allen (Bugatti), 20s.

THE RILEY CLUB "24"

A HIGHLY SUCCESSFUL EVENT OVER DIFFICULT WELSH COURSE.

NOWADAYS one often hears the complaint that modern cars have become so stereotyped that enthusiasm of owners for their cars is a thing of the past. What a contradiction to this statement is the fact that on June 10th and 11th no less than 112 Riley owners travelled from all parts of the country to compete in the annual 24-hour Rally and Reliability Trial organised by the Riley Motor Club!

The event was of a dual nature, starting with a Rally at Llandudno, from where competitors were sent off on a winding, tricky course embracing most of North Wales. It says much for the reliability of modern cars that every one of the 112 entrants arrived safely at Llandudno on the morning of the 11th without trouble.

Having bathed, breakfasted and refuelled their vehicles, the drivers were then sent off on the first stage of the trials course to Pennant Hill. Here competitors had to average 24 m.p.h., no mean task as the hill was fairly steep, and had a nasty unheralded hairpin bend, which proved the undoing of quite a few people. An outstanding performance was made by that experienced driver, Jack Hobbs and C. V. Wells.

Bwlch-y-Groes, the next obstacle, nearly had to be omitted from the programme through the local council having decided to dig a large crater in the middle of the road. However, willing helpers soon filled up the good work of the council, and the trial continued. It will be remembered that last year most of the Alpine Six Rileys (then a new model) boiled fairly vigorously on the notorious Welsh Hill, and a good many people wondered if the Club were quite wise to include the hill in the Trial again this year. But the Riley Club, and incidentally the manufacturers, were amply justified, for by improvements in carburation and cooling, the 1932 Sixes can play with the gradient without the slightest signs of steam.

After an excellent lunch at the beautifully situated Vyrnwy Hotel, the competitors followed a devious course via the Bala pass, back to Llandudno, where a dinner was held at the Town Hall, and prizes were distributed by Miss Joan Richmond, one of the heroines of the 1,000 Miles Race at Brooklands.

The Riley Club are to be congratulated on their courage in organising a trial which tests competing cars to the full. Their policy is a sound one—the enthusiasm of Riley owners for their cars is sufficient proof!

RESULTS.

THE SKI-LADY CHALLENGE TROPHY (for maximum marks gained).—P. Gorna, 9 h.p. tourer from York.

THE SERVICE CHALLENGE CUP (for the oldest vehicle to complete the course).—H. H. F. Keogh, 10.8 h.p. Riley from London.

THE DIRECTORS' CHALLENGE TROPHY (for maximum marks gained by trade entrant).—J. Hobbs, Monaco from London.

THE DORRIDGE CHALLENGE TROPY (awarded to team cntrant whose team gains the highest marks).—W. E. Ratcliffe, Monaco from Norwich.

THE CLUB SALVER (for maximum marks gained by a novice).—G. Malpas, Monaco from Southsea.

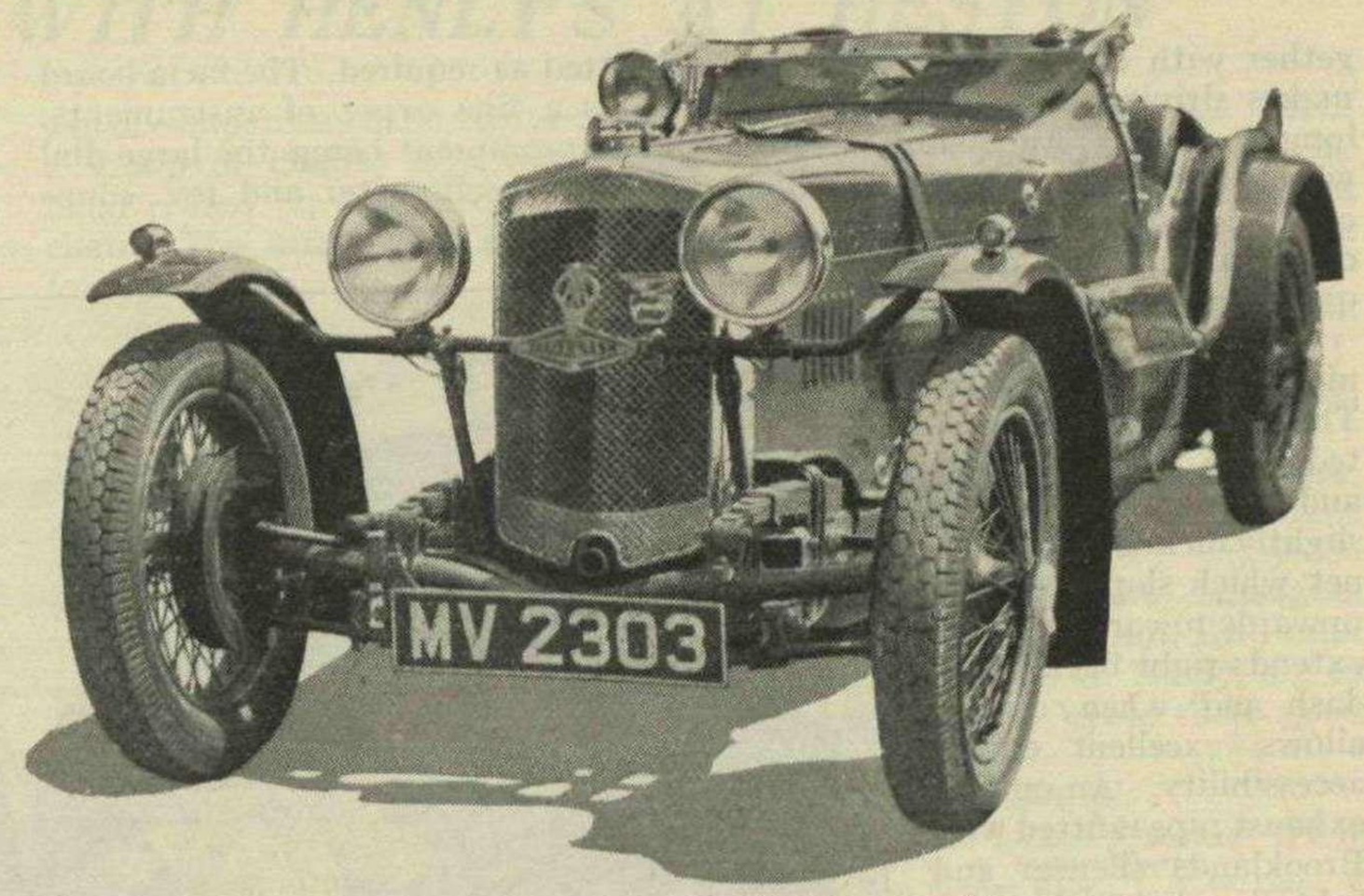
THE BLAKE CHALLENGE CUP (for maximum marks gained by a 9 h.p. car).—Mrs. H. Goodwin, Monaco from Norwich.

THE SECRETARY'S TANKARDS (for maximum marks gained by any six-cylinder 14 h.p. Riley).—J. J. Dykes, Alpine Six from London.

THE HAROLD PHIPPEN CHALLENGE TROPHY (for maximum marks gained by lady entrant).—Miss P. L. J. McKenzie, Monaco from Norwich.

PROMISING NEW FRAZER-NASH

Supercharged o.h.v. Engine and Entirely New Body among the interesting features of Ulster II Model



Front view, showing the workmanlike appearance of the car. Note the slightly sloping radiator.

THE latest addition to the range of Frazer Nash cars is the Ulster II supercharged model, and cars of this type have been entered for the German Grand Prix, the International Alpine Trial and the R.A.C. T.T. race.

The chief novelty, of course, is the supercharged Meadows engine. This is a four, with cylinders 69 x 100 giving a capacity of 1,496 c.c. Two overhead valves per cylinder are fitted, and the rockers, push-rods, and the head itself have been modified to Frazer Nash specification. The pistons are made from the new R.R.53 alloy which has a low co-efficient of expansion, and carry three rings. 100 ton steel is used for the H. section connecting rods, and the big ends are bronze, lined with white metal. The crankshaft is of the disc web type, fully balanced, and is carried in three bearings.

The supercharger, which incidently is a No. 9 Powerplus, is accommodated on the off side of the engine, and is driven from the crankshaft by a double roller chain, a motor-cycle type shock-absorber sprocket being used at the lower end. The Powerplus has been found to absorb very little power, and blows at 12 lbs. at 3,000 r.p.m. The carburettor is an S.U. mounted below the supercharger, ingeniously arranged so that the piston moves in a horizontal plane, the piston chamber projecting forwards, with the top feed float chamber at the rear of the instrument. A pressure relief valve on the short induction pipe prevents damage in the event of blow-back.

On the near-side of the engine are mounted the water-pump, which forces water to the rear end of the engine, and the dynamo, with a vertically disposed distributor at the rear end. Two coils are permanently wired up, and a dashboard switch allows a change-over to be made without coming to rest.

Dry sump lubrication is employed, and a two-gallon tank mounted on the dash, in conjunction with an oil filter, should ensure freedom from lubrication trouble. A two-gallon petrol tank is also fitted on the dash, and supplements the 15-gallons carried at the rear. Pressure feed is used, with a reserve tap, and $\frac{3}{8}$ bore tubing and a filter guard against the possibility of fuel stoppage. The dash tanks can be filled through traps in the bonnet.

The engine is expected to give 80 h.p. at 4,000 r.p.m., maximum revs. being over 5,000.

The unorthodox Frazer Nash clutch, in which the thrust is not communicated to the engine has been retained, but the driving pegs have been strengthtned. The transmission remains unchanged, the propellor shaft driving a cross shaft by bevel. On the cross shaft are mounted four sprockets, any one of which may be locked to the shaft by sliding dogs. The back axle carries corresponding sprockets, so that a direct drive by chain is provided on all gears. The cross-shaft sprockets are provided with annular recesses to which oil pipes lead, and centrifugal force brings the oil through holes in the sprockets on to the chain rollers. Double roller chains are used for third and top gears.

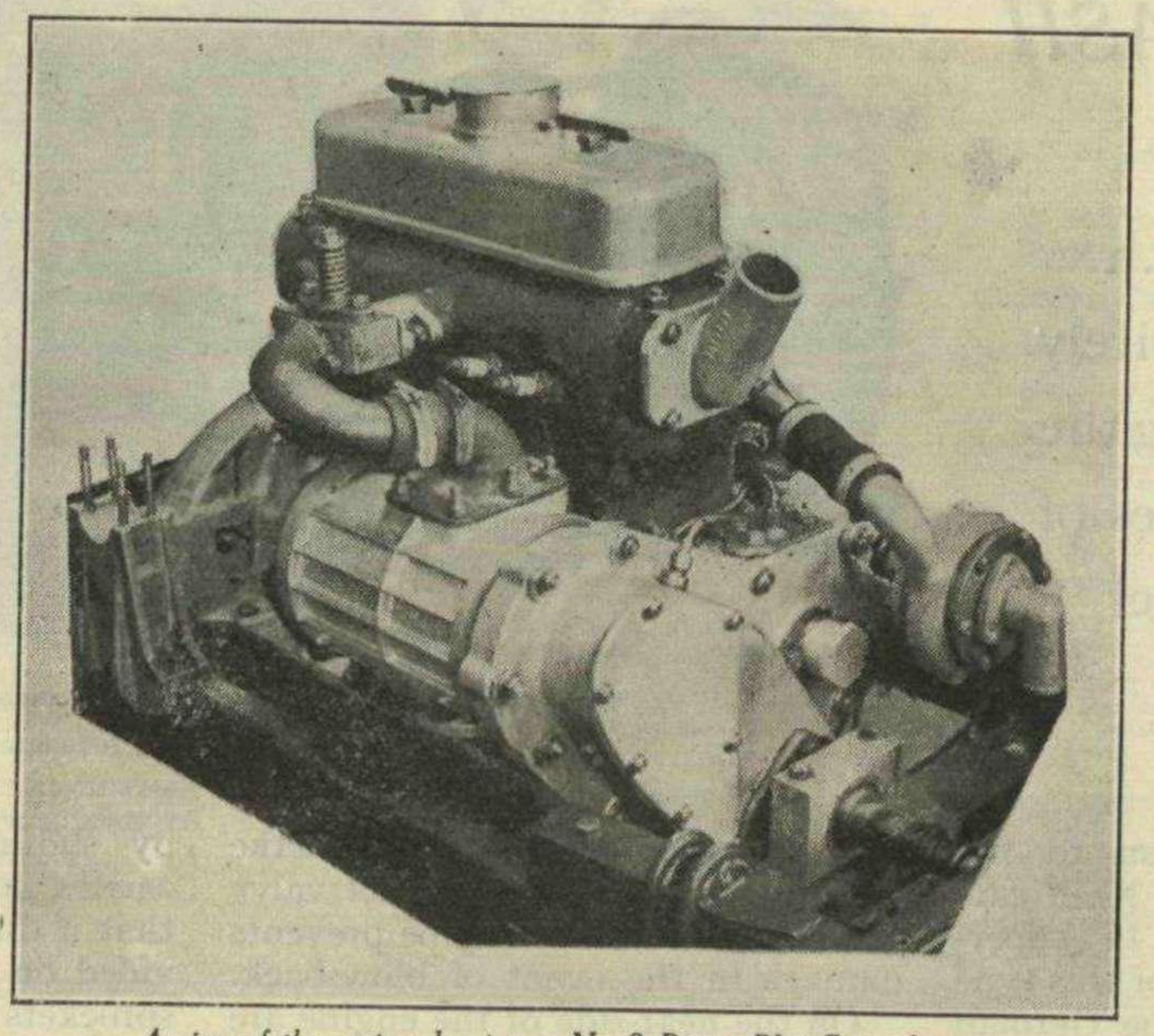
The Ulster II model has gear ratios 3.8, 4.8, 7 and 11.6 to 1, but any of these can be altered at will by changing the axle sprocket, a feature which is not possible with more orthodox transmission systems, but which is a great joy to the competition man.

The chassis members are straight throughout, extensions being bolted on at the rear end to carry the tank, stayed by angle irons and steel plates, a construction which gives lightness and strength. A slightly dropped tubular front axle is employed, and back and front brakes have 12 inch drums. Quarter elliptic springing is employed, with Andre shock absorbers back and front, the latter pair being fitted below the front axle and acting as radius rods. The chassis height is easily altered by placing wedges under the springs which allow a ground clearance to be provided suitable for anything from track races to colonial trials. High geared steering is standard and this, to-

PROMISING NEW FRAZER NASH—continued.

gether with ample toe-in and trail makes driving very pleasant on a long journey. An Ashby steering wheel is fitted, the thin rim of which, covered with a springy composition, should be quite non-slipping.

The lines of the new model are very pleasing. The radiator, which is fitted with a stone-guard, and a lever filler cap, is slightly inclined. The bonnet which slopes slightly upwards towards the rear extends right back to the dash and when opened allows excellent engine accessibility. An outside exhaust pipe is fitted with Brooklands silencer and fishtail as standard equipment, the pipe emerging from the rear end of the bonnet. The scuttle sweeps upwards and provides wind deflectors for driver and passenger, and a flat-folding screen of wire mesh or safety glass is fitted as required. The facia board holds a fine array of instruments, most prominent being the large dial Jaegar speedometer and rev. counter. A switch in front of the passenger allows the spare coil to be brought into use, and he is also provided with a Smith chronograph or stop clock, which besides its ordinary time-keeping function allows lap or journey times to be calculated.



A view of the engine showing to No. 9 Power Plus Supercharger.

One's impression of the car as a whole is that it combines very successfully good lines and the specification of a road-racing vehicle. Incidentally, it should be mentioned that a metal-panelled version of the Boulogne model, as raced last year, is now available. This is a less expensive car, but when fitted with an unsupercharged Meadows engine, is capable of 85 m.p.h. with full equipment.

The prices are: Ulster II supercharged from £650 and Boulogne II £425 and onwards.

A DIESEL CAR AT BROOKLANDS.

A CASUAL visitor to Brooklands Motor Course on June 14th, seeing a great white racing car of unmistakably American lines—even down to the beautifully-painted number '8' on its tail—thundering round the track, would have been justified in thinking that he had been mysteriously transferred to some American Speedway. But no; when the car came into the Paddock, he would have seen that although the car bore the legend "Cummins-Diesel Racing Car, Indianapolis, 1931," on its side, its driver was in actual fact our own Mr. Kaye Don, while the smiling gentleman wearing a bright blue pullover who sat in the passenger's seat was Mr. C. L. Cummins, the designer of the car.

Mr. Cummins is visiting England in order to co-operate with the research laboratories of C. C. Wakefield & Co., Ltd., in the production of the ideal lubricating oil for Diesel engines. As most of our readers are aware, Mr. Cummins created something of a sensation last year by setting up a world's land speed record for Diesel-engined cars of 100.75 m.p.h. at Daytona Beach. Later in the year, the same car was piloted by Dave Evans in the 500 Miles Race at Indianapolis, and averaged 86 m.p.h. without a single stop for refuelling. In addition, this car has made two coast-to-coast runs in America, and has just arrived in England after a 4,000 miles tour on the Continent—so that no one can accuse the Cummins-Diesel car of being untried!

During this time the engine has been taken down twice, in both cases to see how things were going on inside, and to incorporate detailed improvements which the ever-active brain of its designer had thought of in the meantime. The bearings have not been touched, and when one remembers the slow engine speed, this lack of wear is not surprising. To be precise, the 4 cylinder engine develops its maximum power output, 118 b.h.p. at 2,300 r.p.m.

Judged by petrol engine standards, the engine, of course, looks rather massive, and produces the usual noise of a Diesel engine when idling, but when travelling at 75 m.p.h. round the track the car was certainly no noisier than a 4 cylinder petrol engine of similar capacity would have been. There was very little smoke from the exhaust, and starting was almost instantaneous.

When one considers that this car can run for a distance of 1,800 miles without refuelling, with a consumption of 37 m.p.g. of fuel which costs one-third the price of petrol, the potential advantages of the type can be readily appreciated. In fact, the total cost of fuel on Mr. Cummins's Continental tour was only £2!

Mr. Cummins is still actively engaged in developing the Diesel engine for private car purposes, and is stated to be shortly starting production of a 6 cylinder engine of about 5 litres capacity, which will propel the car at a speed of 80 m.p.h. on a fuel consumption of 60 m.p.g.

HILARITY WITH HENLY'S AT HESTON

HENLY'S 1932 Rally was their biggest success yet—in spite of the Brooklands ban on events of this description. Undeterred by the refusal of the Brooklands authorities to allow them to hold their meeting at Weybridge, that enterprising firm proceeded to plan a gigantic Rally and Gymkhana at the Heston Airport, and actually sent out 25,000 invitations.

Their efforts were amply rewarded. A tremendous crowd of 15,000 spectators turned up, and the whole affair was a model of what this sort of thing should be. There was so much to see and hear and do that there was never a dull moment during the whole afternoon.

The Meeting began with a Concours d'Elegance for classes of Alvis, Rover, Riley, Swallow, Standard, Austin, and other makes. An unusual feature of this event was that cars were judged in relation to their age, so that the Alvis class was actually won by C. R. C. Powell's 1924 car! Much amusement was caused by "Musical Chairs," in which competitors had to drive round a group of chairs, stop when the band ceased playing, and run for a chair. The winner was L. D. Walford.

Then the attention of the crowd was directed skyward, while Mr. Brie showed off the capabilities of the C19 Mark IV Autogiro. At the end of his display Mr. Brie "anchored" at 5,000 feet in order to judge the Altitude Race, in which competitors had to climb as rapidly as they could to that height. This event promised to be of considerable interest as a means of comparing the relative performances of various machines, as the entrants were a Comper Swift, a Moth, a Bellanca, a Lockheed Vega and a Spartan. Actually, it was very difficult, from the ground, to be sure of the comparative heights of the machines as they climbed, through the discrepancy in their size, and the lack of "landmarks" in the sky. However, it was announced that the Bellanca, piloted by Mr. Findlay, was the first to arrive at 5,000 feet, followed by the Gipsy II Moth and the Hermes Spartan.

On terra firma the next item was a very thrilling "chariot-race" in which competitors drove two-wheeled chariots towed by cars. Bumpy ground, plus the enthusiasm of the competitors made the event a roaring success, and one likely to prove very popular in future meetings of this sort.

Other aerial performances were given, including a parachute descent by Mr. Tranum, a display of aerobatics, and a "bombing" episode, while all the time the Imperial Airways liner "Horatius" made repeated journeys for joy-rides and visits to Brooklands to see how the 1,000 Miles Race was progressing.

At the end, Miss Amy Johnson, who, with her fiancé, Mr. A. J. Mollison, presided over the meeting, distributed the prizes.

Splendid organisation and a general air of festivity combined to make the Rally a thoroughly enjoyable affair, and the Joint Managing Directors of Henly's, Ltd., Mr. Frank Hough and Mr. H. G. Henly, are to be congratulated upon their good work.

RESULTS.

MUSICAL CHAIRS: 1, Lance D. Walford; 2, T. G. Bassham; 3, C. S. Dickson-Geertz.

POTATO AND BUCKET RACE: 1, H. W. Corp; 2, H. L. Kelman; 3, C. Warren Aronson.

CHARIOT RACE: 1, R. Williams; 2, J. O'Donnell; 3, Lance D. Walford.

GREYHOUND RACE: 1, J. F. Drake; 2, W. H. Pratt; 3, Miss Vincent.

CONCOURS D'ELEGANCE.—Alvis cars: G. R. C. Powell (1924). Rover Cars: Mrs. Margaret Grose (1932). Riley cars: Miss P. B. Fursier (1931). Swallow and S.S. cars: L. W. Hermes (1930). Standard cars: Lt. G. H. Iles, R.N. (1932). Austin cars: F. A. Barnicoat (1925). Other makes of car: 1, Miss A. Lorenzo (1932 Morris-Cowley); 2, G. Newell.

A New Oil for Sports Cars.

THE makers of "Filtrate" Oils tell us of an important addition to their well known grades. It will be known as Sports "Filtrate" Oil to meet the wants of owners of sports models, which are now more popular than ever before. The claims for this oil are that it will stand up to the hardest work; will keep the engine free from carbon; and will provide easy starting at cold temperatures.

Records Confirmed by the I.A.R.A.C.

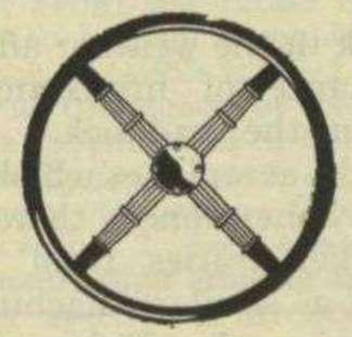
The following International Class Records have been confirmed by the I.A.R.A.C.:—

Class F. 24 hours, by a 1,467 c.c. Peugeot driven by Roux and the late André Boillot, at Miramas track, on June 1st and 2nd. Distance covered, 1,646 miles, 1,126 yards, at an average speed of 68.61 m.p.h.

Class I. 1 kilometre and 1 mile, standing start, by a 493 c.c. D.K.W. Silton Special, driven by V. de Strasser Silton; at Neunkirchen on April 10th, at an average speed of 55.83 m.p.h. and 59.68 m.p.h. respectively.

World's and International Class D Records, from 40,000 to 80,000 miles, from 60,000 kilometres to 130,000 kilometres, from 18 days to 54 days, and International Class D records, 5,000 miles to 30,000 miles, 10,000 kilometres to 50,000 kilometres, 2 days to 17 days, by a 2,659 c.c. Citroen, driven by C. and L. Marchand, Combette, Fortin and De Présalé, at Montlhery from March 5th to April 28th, at speeds varying from 64 m.p.h. to 70 m.p.h.

"BROOKLANDS" SPORT EQUIPMENT



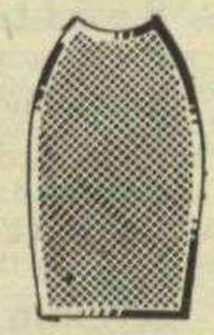
● "Brooklands" Fully Flexible Steering Weeels provide an altogether new standard of driving comfort and safety. Completely flexible in all planes without the possibility of rim or spoke fracture and an altogether certain grip under all conditions. Supplied attractively finshed in dead black rubber and Chromium Plate, and provided with special boss machined out to replace existing Steering Wheels.

Mark I 16" from 36/-; Mark II 18" from 40/-
Mark III 17" from 38/-.
B.S.A., Midget Magna, Hornet - - - 36/-
Austin 7 - 40/- | Bentley - - 52/- etc.



● "Brooklands" Hub Caps fitted to your existing bolt-on wire wheels give the effect of knock-on Racing Hubs. Beautifully proportioned, easily fitted and finished in Chromium Plate.

Mark I - 21/- set of 5.
Mark II - 22/6 "



● "Brooklands" Radiator Stoneguards effect a wonderful improvement in the frontal appearance of your car. Constructed from brass throughout and Chromium Plated. Easily fitted in a few minutes by the owner driver. Over 90 stock patterns.

M.G. Midget, Austin 7 from 30/-. Riley Nine and Six from 35/-

Send for Two Colour "Brooklands" Folder.

F. ASHBY & SONS, LTD.,
STIRCHLEY :: BIRMINGHAM



THE BROOKLANDS AIR DISPLAY

A SUCCESSFUL EVENT ORGANISED BY THE GUILD OF PILOTS AND AIR NAVIGATORS.

THE Clerk of the Weather showed the worst possible taste on the occasion of the air display given by the Guild of Air Pilots and Navigators, which was held at Brooklands on May 28th. A grey sky poured out its libations from the middle of the morning, but happily things improved by 4 o'clock. At any rate, the weather had the effect of keeping away all but enthusiasts, the number of which must have been a great encouragement to those who believe in the future of the air.

The first event, the start of the London-Newcastle Air Race for prizes presented by the Newcastle "Evening World," was due to start at 1.30, but the weather was so bad that the event had to be put off and the machines returned to the hangars, to the evident satisfaction of quite a few competitors. Instead, Flt. Lt. W. E. P. Johnson on a Tiger Moth, gave a fine exhibition of inverted flying, followed by Flt. Lt. C. Clarkson who performed similar manoeuvres on a Gipsy. The latter was particularly noticeable for his slow rolls in which he kept his machine with wings vertical for what seemed an interminable time. A blind flying display, in which everything except landing was carried out by means of instruments alone, concluded the first part of the programme.

The main part of the meeting was prefaced by an opening ceremony, when the official guests were welcomed, and it was announced that Miss Earhart, Miss Amy Johnson and Mr. J. A. Mollison had arrived.



The first of the main events was a parade of representative light aircraft, consisting of Avro Avion, Bluebird, Comper Swift, Gipsy Tiger and Puss Moths, Desoutter, Klemm, Redwing, Spartan and Autogyro. Rain was falling heavily by this time, but the spectators had not lost their interest. Before the weather became too bad Mr. Brie was able to demonstrate the unique capabilities of the Autogyro.

The break in the weather afforded a good chance of inspecting the machines in the paddock. Apart from the light aeroplanes which have been already mentioned, there were three Hawker Furies from Tangmere, and a similar machine on which Lieutenant Bulmer performed later. These machines are fitted with the Rolls Kestrel and are some of the fastest in the world. The Fairy Firefly is fitted with a similar engine, and is equipped for fleet work and has a performance little inferior. The Lockheed Vega which was the property of the late Lieut. Kidston was also shown, and was of particular interest in view of Miss Earhart's Atlantic flight a few days before on a similar machine.

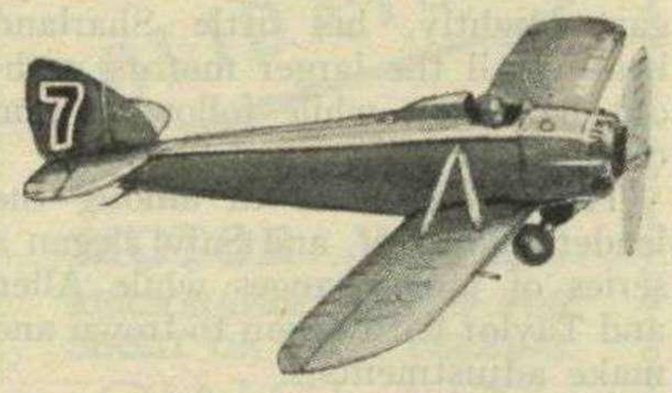
In addition there were various heavy machines such as the Ford tri-motor, while later five French machines, belonging to the Air Union, arrived from Croydon. The Buquet all-metal machine was particularly noticeable in the air, as it had the appear-

THE BROOKLANDS AIR DISPLAY—continued.

ance of an old pusher, the fuselage stopping short behind the passenger, and the tail assembly being carried by two metal girders.

After a torrential downpour the weather cleared, and Flight Lieut. Bulmer prepared to go up in the Fury. He took off in an amazingly short distance and climbing at a tremendous angle, proceeded to demonstrate the capabilities of the machine. The great power available permitted of most spectacular zooms from near the ground to the accompaniment of "oos" and "ahs" from the crowd, while the old time intractability of the fighting machine has given place to perfect artistic manoeuvres such as slow rolls and inverted gliding under perfect control. Staniland, on a Hart, followed and gave an equally interesting performance.

The pylon race lost something of its interest through the variety of machines entered. A Comper Swift piloted by Flight Lieut. Clarkson was the scratch man, and had to cover nine laps, while Mr. Brie, in the Autogyro, had only six. The other machines, Spartan and Moth, did seven and eight respectively,



the finish being remarkably even. Two pylons were erected in front of the Club House, the third turning point being the Dunlop shed at the Brooklands paddock, and those watching from there probably had the best sight of all. The Autogyro won by a very short margin.

Parachute descents were then demonstrated by Mr. Quillan and Mr. Fairie and went off without mishap, except that the former came down in the river and had some difficulty with his chute.

A foretaste of the R.A.F. Display was provided by the three Hawker Furies, which performed in formation practically every stunt which a single machine can do. They looped, rolled and zoomed in perfect harmony, giving the impression that it would be a poor look-out for any single machine they attacked.

The meeting concluded with a parade of the heavy machines, an air duel between a Hart and a Fury, and a lesson in how not to begin one's career solo by a newly fledged "lady pilot" (really Mr. Lowdell of the B.S.F.). Altogether a most interesting day and one we hope will be favoured by better weather next year.

MORE ABOUT THE PUSHER

SIR,—Although these remarks on the article 'The Pusher—Why not Revive it?' published in the May MOTOR SPORT are rather late, and probably too lengthy to publish, they may be of some possible interest.

Let us commence by considering the various requirements of a light aeroplane from the private owner's point of view. The main ones are as follows:—1, Low initial cost. 2, Low running cost. 3, Reasonably high cruising speed. 4, Low landing speed. 5, Ability to carry a comparatively large useful load. 6, Safety—in which I include reasonable protection for the crew in minor crashes. 7, Comfort. 8, Good field of vision. 9, Accessibility. 10, The occupation of small hangar space.

The article suggests a high-wing cantilever monoplane, but the illustration shows a strutted parasol monoplane, so both types will come under consideration. If we assume that a Gypsy III engine is fitted, as the sketch suggests, the running costs would be comparable with a Gypsy or Puss Moth, although the cruising-speed would be rather less, due to the drag of the tail-boom struts, and to the fact that the airscrew is running in disturbed air. The cantilever type would be superior in this respect, since the parasol machine has a considerable length of strut exposed. The next two factors, numbers 4 and 5, have some relation to each other. Monoplanes often have rather a higher wing-loading than biplanes, which means higher landing speeds, but there is no reason why the machine should not carry two passengers and 100 pounds of luggage, with enough petrol for three hours flying, and have a landing-speed of about 45 m.p.h. The next item is safety, and here is the snag of the pusher, for not only is there nothing in front of the cockpit to take the brunt of the crash, but the crew are liable to literally 'get it in the neck' from the engine if it comes adrift from its mounting. I must confess, however, that I have seen three twin-engined machines crash, and in each case the man in the nose was thrown clear, and received only minor injuries; the engines, being outboard, missed the crew though. On the other hand, detail 7, comfort, is far superior in the pusher, as your contributor points out. Engine noise and airscrew thrash are reduced to a minimum, but the absence of 'twisted wind' is the greatest factor. One need never wear goggles, and the ability to put one's head outside 'the office' whilst not wearing them makes for much easier landing. Visibility, too, would be even better than from the Puss Moth, were tandem seating employed. But as regards accessibility, one would apparently have to stand doubled up under the wing to do a job of work on the engine, which does not make for easy work. Finally, the parasol machine would presumably have folding wings, but the cantilever type would seem to demand more hangar space than many private owners or clubs have to spare.

Destructive criticism is of very little use, so I will try and make some suggestions for getting over the chief drawbacks. A really strong bulkhead between the engine and the cockpit should solve the danger from a shifting engine in *minor* crashes. And since aerodynamically, the cantilever wing is much to be preferred, this type of wing could be made quickly detachable from the machine. This would solve both the question of engine accessibility and of hangar space. It would take slightly longer than folding the wings of, say, a Moth does, since it would involve disconnecting the aileron controls, the pilot tubing, and the electric leads to the navigation lights, if fitted, but some form of quickly detachable connection could be used. Even so, I have to admit that it would be a difficult job in a strong wind. Portable supports to prevent damage to the detached wing could be carried behind the cockpit when not in use.

Let us add wheel brakes and a tail wheel, since brakes make taxy-ing in a strong sidewind easier, do away with the need for chocks when running up the engine, and may save the machine from running into some obstacle after landing, and the tail wheel causes less strain when landing, and gives an improved take-off, as well as enabling the machine to be pushed about without the need of a tail trolley.

There, I think, we have a very nice little machine, which should sell well, once prejudice had been overcome. But let us have tandem seating, and not side-by-side. Having flown both types, I very much prefer the former, for its better visibility, especially in bad weather and at night.

Iraq. 3rd June, 1932. MYLITA.

THE SPORT AFLOAT.

THE POOLE HUNDRED

W. P. ALLEN WINS, FOLLOWED BY SALVI.

ALTHOUGH there was a disappointing entry this year, the *Yachting World* Trophy race proved to be quite a success.

Non-starters were Storey (broken con-rod), Feddon (top-bearing seizure), Lanfranci (business) and Harrison.

At the dropping of the flag there was the usual spectacular start, and Salvi, Whitehorn and Palethorpe vanished together in the lead. C. J. Turner and King did not appear on the first round, King having snapped his propellor shaft. Much to the general surprise, Palethorpe was the first round (he only had a 350 c.c. engine), followed by Salvi, Taylor and Allen, in that order.

Almost immediately another bunch came into view, including Whitehorn, Bevan and Bedford, followed by Boyer, Guest, Miller and Phil Turner. Miller, who was driving a " Birmal " all-metal boat, was having trouble with his Elto and is reputed to have restarted it 75 times before passing out.

Lap after lap saw Palethorpe gain slightly, his little Sharland beating all the larger motors without handicap, while following him came Salvi, Allen, and Taylor.

Trouble soon set in among the leaders, however, and Salvi began a series of plug changes while Allen and Taylor both began to frown and make adjustments.

After 15 laps Palethorpe was missing and it was learned that he had split several planks, and so ended the most hectic ride of the day.

Meanwhile Allen had stopped at the pits with a damaged cylinder joint, and soon after he got away, Salvi came in to change more plugs ; almost immediately coming in again to fit his covers.

Guest and Boyer now retired. Guest with ignition trouble and Boyer with a stove in plank. This left four runners in the following order.

1. W. P. Allen, 20 laps.
2. A. C. Whitehorn, 18 laps.
3. S. Salvi, 18 laps.
4. P. Bevan, 17 laps.

Salvi was now having his first really trouble-free run and was making up a steady 2 minutes per lap. The task of catching Allen, however, was a hopeless one, barring trouble, but on the last lap Allen failed to appear for some moments after he was due and there was a tense moment. Finally, however, he came into sight and won at an average speed of 26.40 m.p.h., followed by Salvi (25.71), the only finishers.

All the hard work of organising the meeting was done by Arthur Bray as usual, who gave an excellent running commentary over the loud speakers throughout the race.

The B.M.B.C. deserve the thanks of everyone for the loan of their club ship, " Florinda." upon which was mounted the large score board, so efficiently operated by " Father " Head, whose task, unfortunately, became so much easier towards the end.

A 70 mile-an-hour " Runabout."

WHAT is claimed to be the most powerful petrol marine engine so far developed on this side of the Atlantic for regular commercial use has just been tested successfully, by Mr. Hubert Scott-Paine, the well-known Managing-owner of the Power Boat Company.

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The World's Speed Record.

WHEN Miss England III went over to Lake Garda last month, everyone naturally hoped that Kaye Don would return to England with the world's speed record once again in his possession. Consequently, great disappointment was felt when the boat failed to live up to these expectations.

We are in a position to state, however, that the trip to Lake Garda was only in the nature of a trial run. Certain modifications are now being carried out, and there is a possibility that the old practice type engines will be replaced by the latest type Rolls-Royce Schneider Trophy Race engines.

Miss England III will then be taken to Loch Lomond, where further trials will take place preparatory to attempts on the world's speed record being made at Detroit.

Loch Lomond is within twenty miles of Glasgow, and provides a very large expanse of sheltered water. It is twenty-four miles long and five miles wide at the southern end, more than double the area of Lake Windermere.

Meanwhile, in U.S.A., the American Power Boat Association has officially passed Gar Wood's record of 111.7 m.p.h. which he set up at Indiana Creek, Miami, last February.

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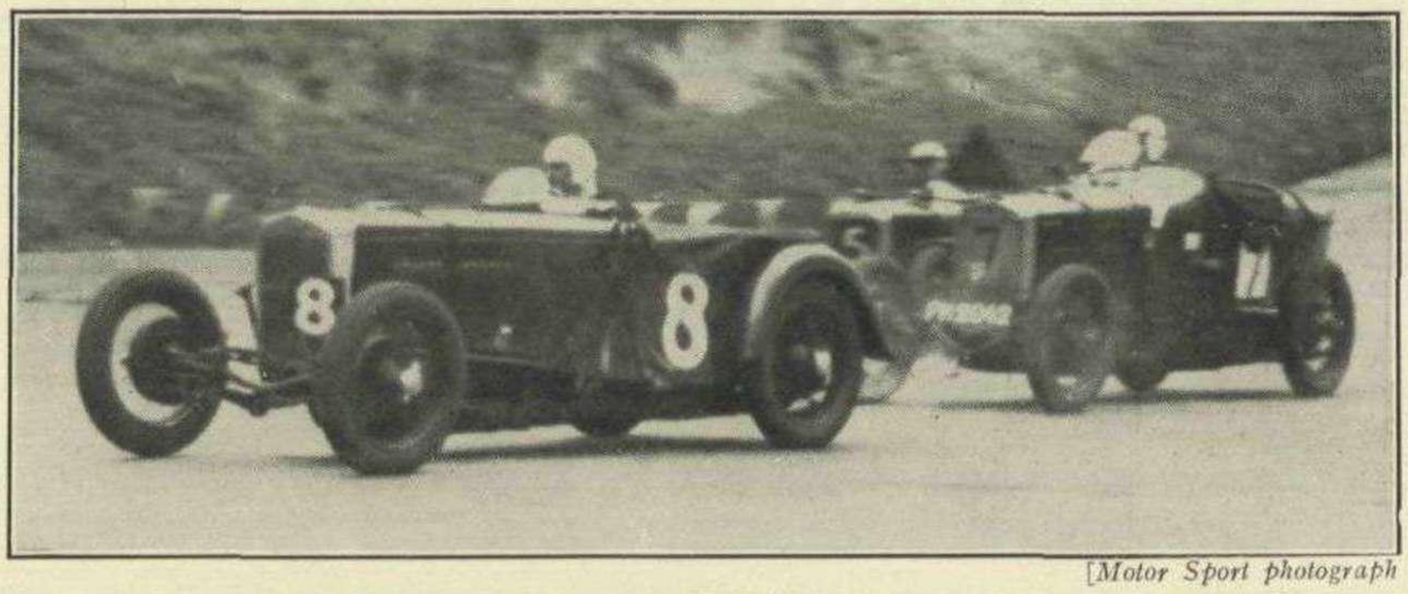
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WHITSUN AT BROOKLANDS, 1932.



[*Motor Sport photograph*

Eccles and Bellamy (Frazer-Nashes) overtaking B. G. Bailey's Austin in the Junior Mountain Handicap.

We have many photographs taken throughout the year at the various meetings at Brooklands, Trials, etc., which owing to pressure of space we are unable to reproduce in "MOTOR SPORT." Particulars will gladly be sent to anyone interested in these photographs. Details of requirements should be stated, and a stamped addressed envelope enclosed.

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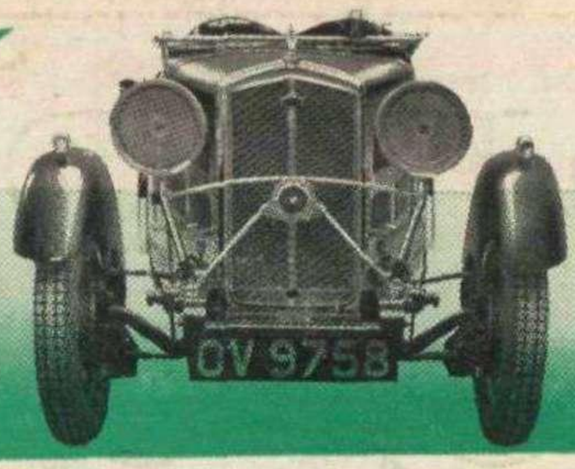
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