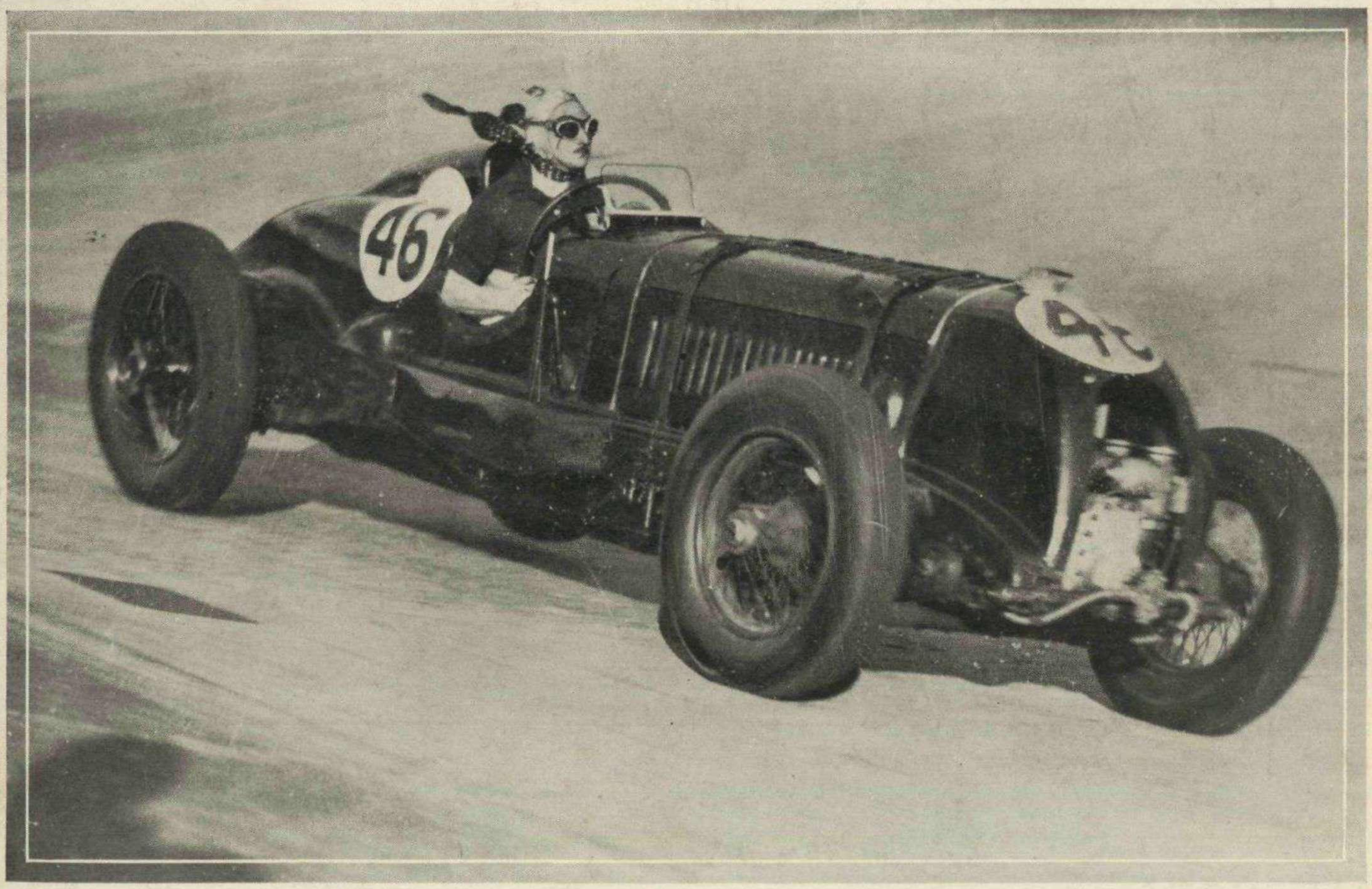
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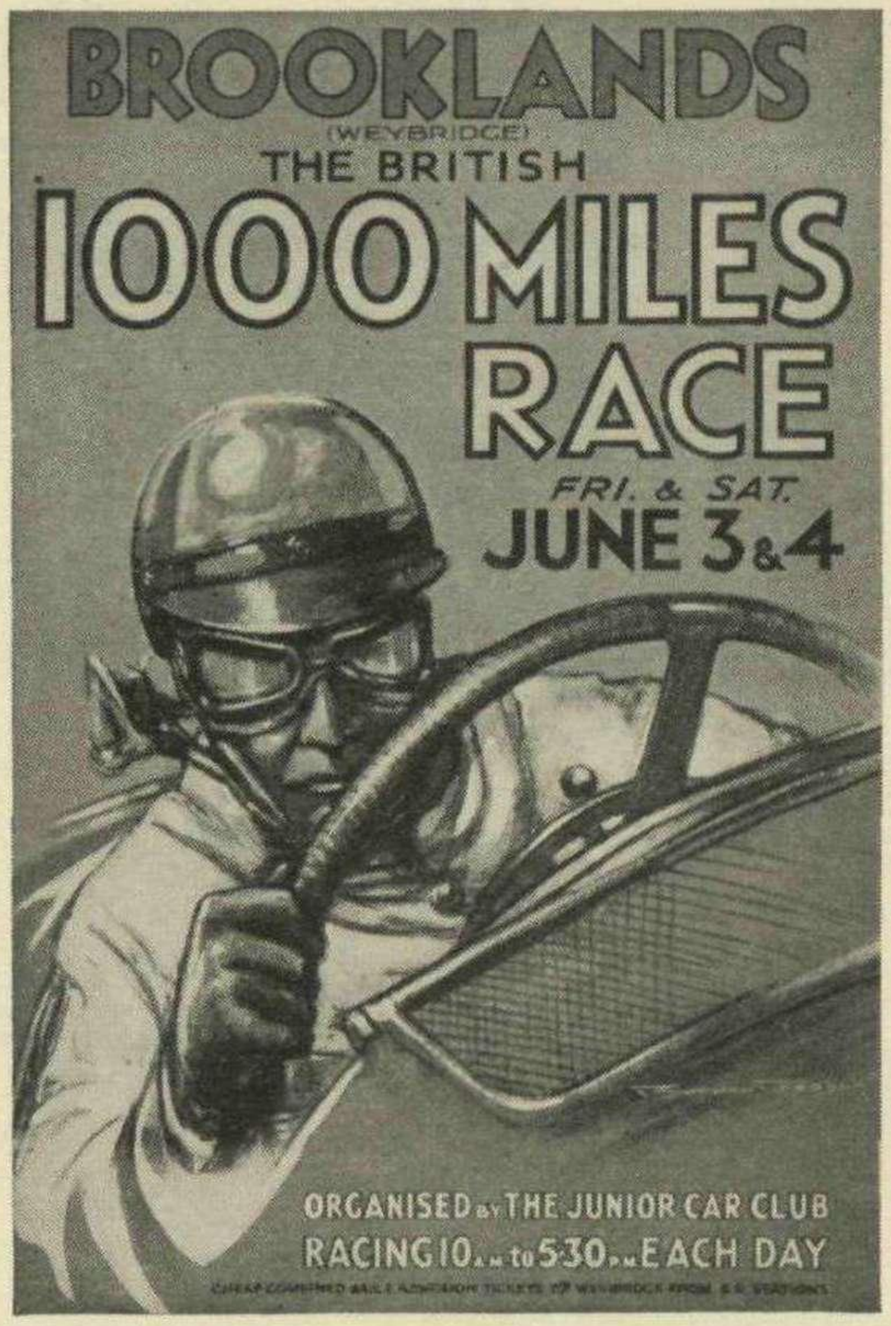
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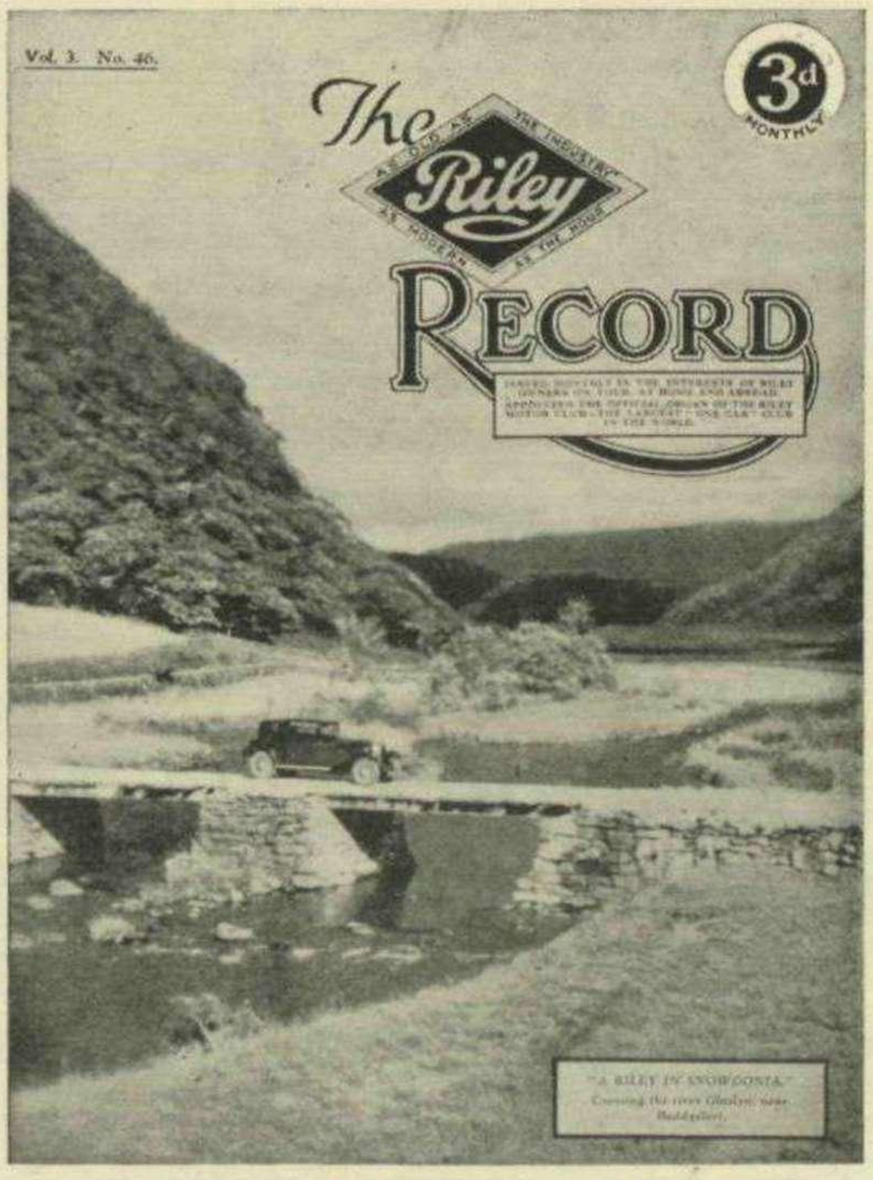
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MOTOR SPORT

INCORPORATING THE BROOKLANDS GAZETTE

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

Editorial, Publishing & Advertising Offices
39, VICTORIA STREET, LONDON, S.W.1

Telephone: Victoria 5218.

The Way of Things

OF recent years there has developed a marked tendency in some quarters to exaggerated speed claims in endeavours to get increased sales. Such claims would never be substantiated if every buyer demanded that the performance should be accurately checked, but obviously such a course is in most cases impossible. This has given unscrupulous manufacturers an opportunity, which they have quickly taken, of playing on the vanity of the average owner.

The speedometer, instead of being used as the accurate scientific instrument on which its designers and makers are to be congratulated, has been turned into the means of substantiating the speed claims of the car manufacturer. At first the intentional error was small, but just enough to demonstrate to prospective buyers that the car was faster than a rival make. Then the idea spread. Other makes, in self-defence, made similar changes and speeds apparently increased all round. From the sales point of view the dodge was highly successful, due in the main to the buyers themselves. Firstly, most people are slow to admit that they have been "stung," and so uphold the claims of their instruments. Secondly many are boastful and like to ease their consciences by laying the responsibility for their boasts at the makers' door. Thirdly, a number of people actually believe their optimistic speedometers, some because they want to, and some because they do not know any better.

The result has been the quite common, though not quite universal, practice of fitting speedometers with an error of about 5 per cent. or so. A few sports car makers refuse to follow suit, and still fit accurate instruments, to their lasting credit. Others excuse themselves by the plea of self defence.

The real culprits, however, are not only those who originated the practice, but who are to-day trying to outdo their rivals by starting new standards of exaggeration.

MOTOR SPORT recently tested the speedometer of a new sports car straight from the showroom, and found it had an error of no less than 20 per cent.

We consider that anyone who purchased such a car as a result of a demonstration run would have excellent grounds for bringing an action against its maker for deliberate misrepresentation.

Such practice is no help to business, and we hope our readers will do their best to expose offenders, and so help to put down this thoroughly dishonest practice.

CONTENTS

	PAGE
LAND.	
Whitsun at Brooklands	344
The British Empire Trophy	349
Another "Round the Town Race"	354
The Bol D'Or	356
The Prix Royal of Rome	357
Lewes Speed Trials	358
Veteran Types—A Darracq "Flying Fifteen"	361
"Sideslips"	363
The Alvis "Speed Twenty"	366
The Twenty-Third Targa	369
A New Sports "Nine"	372
Club News	374
Rumblings	375
The London-Edinburgh Run	377
If You Want to Know The Time	380
Modern Methods in Body Building	381
The American Way	381
AIR.	
The Trend of Design	383
New Aircraft—The D.H. "Fox Moth"—The Air Speed "Ferry"	385-6
Slipstreams	387
WATER.	
The Sport Afloat—The Home of British Speed Boats	388

WHITSUN AT BROOKLANDS

MOUNTAIN LAP RECORD AND 750 c.c. RECORD BOTH BROKEN.

THE weather, which was unkind to most of the country on Whit-Monday, was very lenient to the Brooklands authorities, and, except for a very short shower during the meeting, good weather held till the end, when it broke completely, and we all went home in pouring rain.

Incidents were plentiful, as cars skidded round, hit banks, went through barriers, tried to catch on fire, and generally behaved in the way Fleet Street and the lay press enjoy. These matters, however, were not important, and were fortunately without injury to anyone, and did not alter the fact that there was a deal of excellent racing. and one of the best and most spirited tussles in a Mountain race since this event has been held.

Special events included a demonstration by George Eyston with the Pendine single seater M.G. He set up a new 750 c.c. lap record at no less than 112.93 m.p.h., a perfectly amazing speed, and one which is likely to stand for a very long time.

The other special was a demonstration of what can be done with a Hawker Fury by Flight-Lieut. P. E. G. Sayer, whose inverted gliding at just on stalling speed was as neat as the terrific full power climbs were spectacular.

The first race attracted 17 cars, including the very low stream-lined Austin Seven usually driven by Willis, but handled in this race by E. F. Phillips. This car was favourite, being on the 31sec. mark with Robinson's old Brescia " Bug " and Gilbert's Talbot. The Austin fulfilled its promise, but had a terrific struggle with the Bugatti. The latter drew level on the Railway straight on the second lap, but, going on to the Byfleet banking, the Austin got ahead again and stayed there till the finish. A bunch of cars, including Gardner's and Munday's speed model Rovers, and Gilbert's Talbot, went over the line close together, for third place, which actually went to Major Gardner.

Then followed a one-lap sprint handicap, with John Cobb in the big Delage giving 35 secs. to Willis' Austin, this time handled by the entrant. E. R. Hall, on the 29 secs. mark, soon took the lead just in front of Hamilton, who at this point gave place to Meeson's 30-98 Vauxhall by rotating several times as he came off the banking; he touched the grass verge on the inside of the track and quietly turned over, fortunately unhurt. He and Hall were both on M.G. Midgets, which thus scored a win, while Willis' Austin was third.

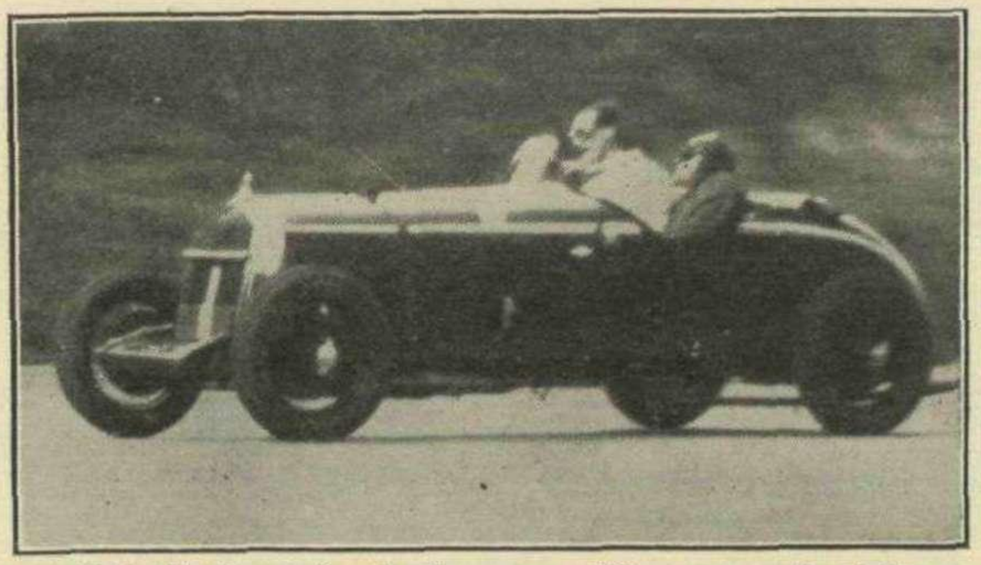
The Senior Short Handicap was a 2 lap affair, in which J. H. Bartlett's Salmson and Meeson's Vauxhall looked likely cars, having 1m. 4s. and 41s. respectively. The handicappers had been kind, however, to " Ginger " Llewellyn with 1m. 28s., and he accepted their gesture and took the race as a belated wedding present! He came home as he chose some quarter mile ahead of Meeson's Vauxhall, which passed Bartlett's Salmson and Brackenbury's Bugatti to get an easy second. The chief struggle was for third place between Cobb and Birkin, both from scratch. Cobb made full use of his acceleration, but Birkin was coming upon him fast, and just failed to catch him by inches as they crossed the finish.

The first of the Mountain events saw R. E. L. Featherstonhaugh on scratch with a very fast 1½-litre Alfa-Romeo, giving 1 minute to W. A. R. Farmiloe on a Wolseley Hornet. The latter car led for four laps with Dr. Roth's " 90 " Talbot second. The latter pulled up to first on the 5th lap, leaving the Wolseley second and Graham's Riley third. On the 7th lap the Alfa came through the field to third place, and would probably have been there sooner if it had not been for a rather wild corner at the Fork at the beginning. As it was, he was driving really well and with real spirit, and coming round the Fork just behind Dr. Roth on the last lap, just beat him to the finish. C. T. Delaney, whose Lea-Francis had been going very well indeed, got third place.

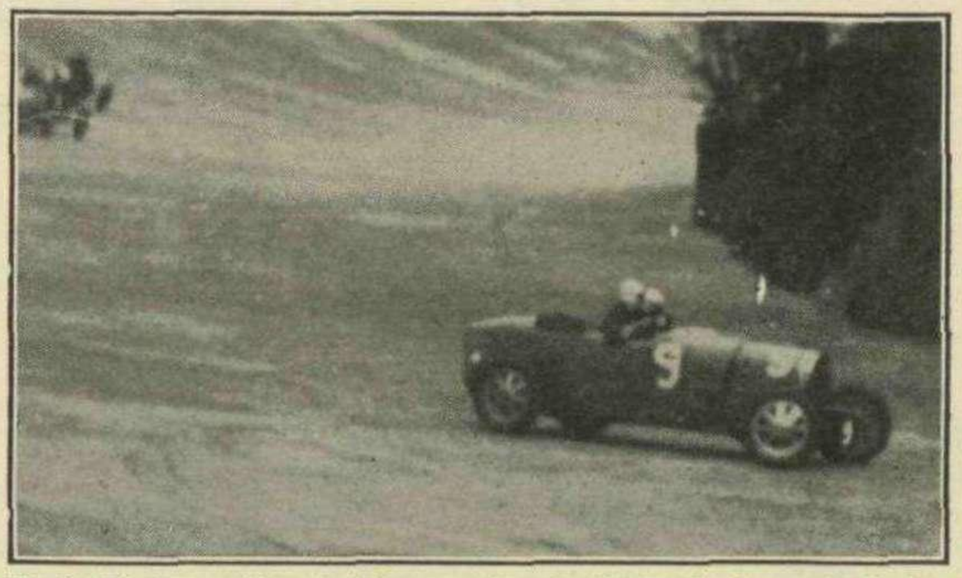
Another sprint followed, with Horton's M.G. a hot favourite. Unfortunately, Sir Malcolm Campbell, who was to have driven the rebuilt and modified Sunbeam (the " Tiger ") did not start, and the chief interest lay in the scrap between Bartlett's Salmson and Horton. Bartlett was giving him 4 secs., and both made terrific get-aways. Horton has found a lot of speed lately, however, and won fairly easily from Bartlett, with Cuthbert's 2-litre supercharged Lagonda third.

The Nottingham Long Handicap provided a second win for Horton, who, in spite of a re-handicap, came right through the field. Two laps saw W. L. Thompson (Austin) in the lead, while Horton was fourth. He roared through the remainder, however, and got home in front of Gilbert's Talbot, with Meeson's Vauxhall third.

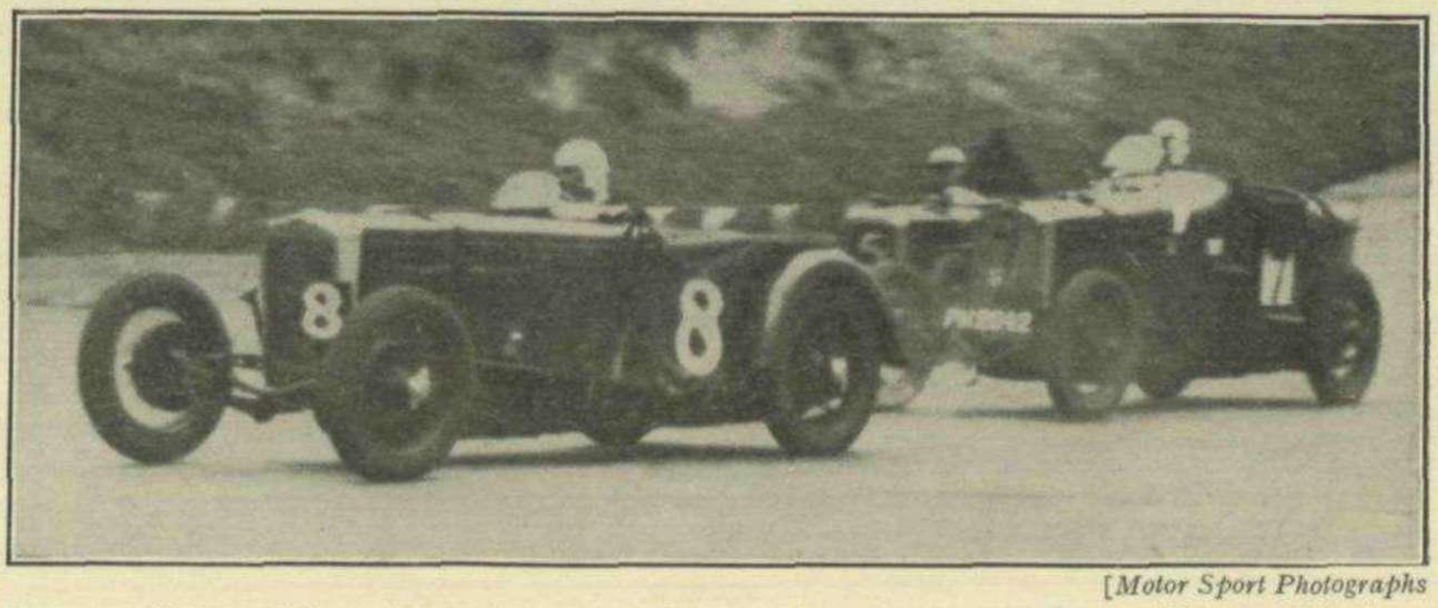
Rain fell after this race, and after it, racing was postponed to let the track dry while the Hawker Fury performed for our benefit. The Gold Star, which was to have followed, was held over to allow the



E. L. Featherstonhaugh who won two Mountain races with his Alfa-Romeo.



W. K. Faulkner after skidding round in his " Bug " during the Lightning Mountain Handicap.



[*Motor Sport Photographs*

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

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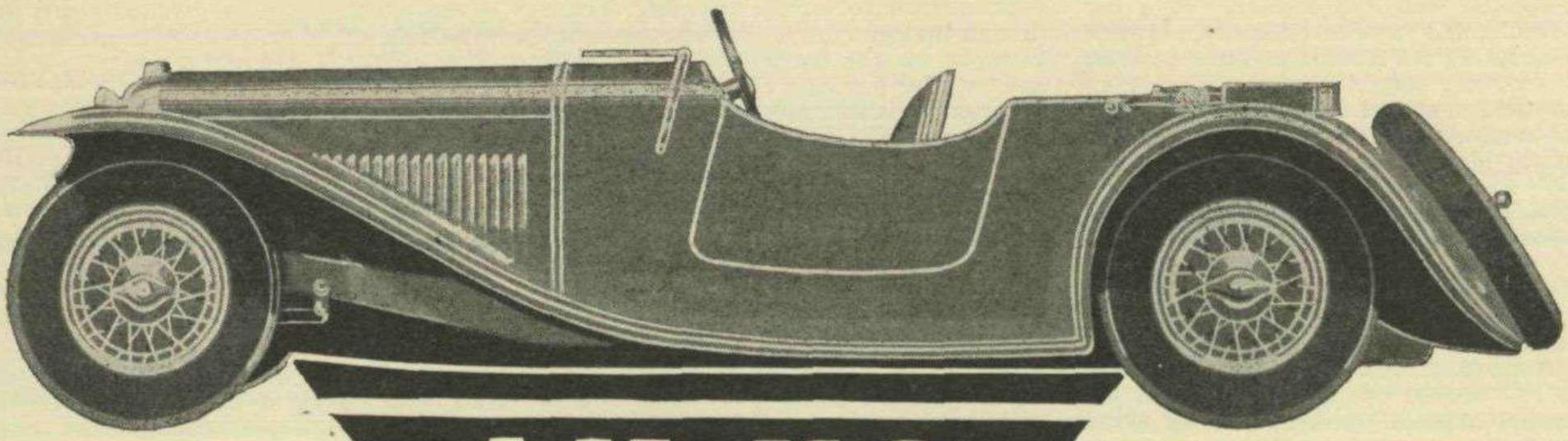
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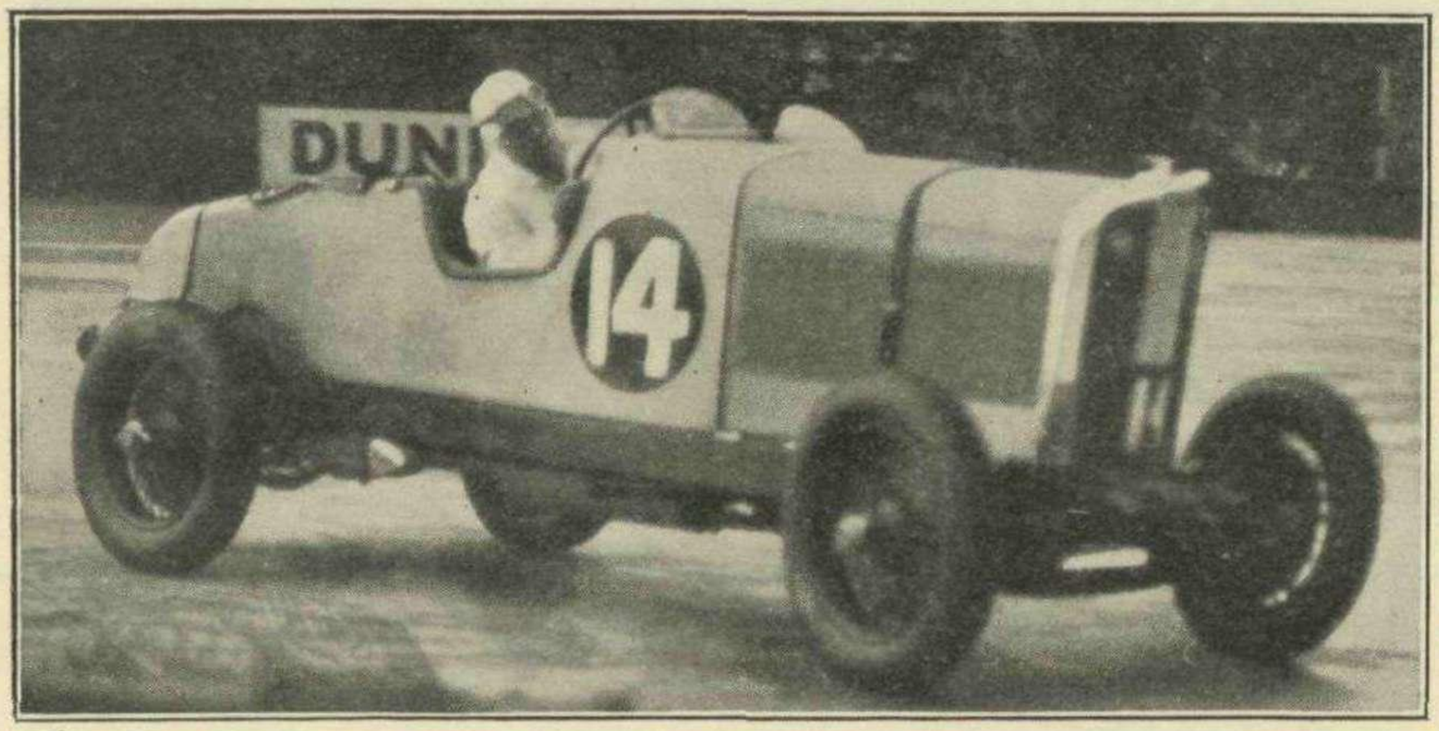
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WHITSUN AT BROOKLANDS—continued.



Dr. Roth and his "Ninety" Talbot in the Nottingham Junior Mountain Handicap.

track to dry fully, and the second Mountain Race was held in place of it.

Featherstonhaugh was re-handicapped 20 secs. in view of his previous win, while on scratch was Rose-Richards in a big Mercedes, and Raymond Mays on a 4½-litre Invicta. L. A. Hutchings on a veteran Frazer-Nash caught the two limit men and held his lead for four laps, when Featherstonhaugh, who was once again out for blood, came up behind Leeson's M.G., which took the lead. Vernon Balls (Crossley) retired, as did Cuthbert's Lagonda, which broke an oil pipe and emitted clouds of smoke as the oil poured on to the hot exhaust pipe. The M.G. only held the lead for two laps when the Alfa got by and scored his second win. Horton's M.G. took third place on the 8th lap and second on the 9th, while Willis (Austin) finished third. Doing an extra lap at the end, the Alfa driver went just too fast at the Fork and sailed through the barrier. E. R. Hall on his M.G., and Cuthbert on the supercharged Lagonda, also turned round at this point during the race.

The third Mountain Handicap followed this race, with Whitney Straight and Earl Howe together on scratch. The former was driving the Maserati on which Sir Henry Birkin broke the record for this course last year, and he had actually lowered this record in practice before this meeting. Earl Howe was running the 2,300 c.c. two camshaft Bugatti with which he gained fourth place in the Monaco Grand Prix, and it is interesting to note that it was run absolutely as it finished this race, without any overhaul whatever, which shows that it is a pretty tough motor car.

Sir Malcolm was to have been the third man on scratch, but as recorded above he was not running in this meeting. Victor Gillow (Riley), with 1m. 35s. start, got away well and led for six laps, followed by J. H. Bartlett's Salmson. As soon as the scratch cars were dispatched, however, all attention was concentrated on the struggle between the Bugatti and the Maserati. At the first corner under the Members' Bridge, Straight went wide and seemed to gain on Earl Howe by going above him on the banking, but at the Fork he rather overdid things and lost distance, due to a rather wild corner. The wonderful braking power of the Bugatti and Earl Howe's very polished cornering at the Fork seemed to be the deciding factor, though Straight drove like one possessed to make up the few yards he had lost, and on the banking corner seemed the faster of the two. He broke the existing lap record at 75.76 m.p.h., and managed to gain a little on Howe, who replied by equalling his record. Bartlett, after gaining the lead, held it to within a few yards of the finish, when the two scratch cars hurled past him a few yards apart, with Howe leading, leaving him a very good third place. It was one of the best Mountain races ever held, and gives one some idea of what it would be like if we could have a road race for such cars in this country, an end which, we hope, is not so very far off.

The Gold Star Handicap, which had been held over till the track dried, was the closing race of the meeting. Held over seven laps, it was first led by Brackenbury's Bugatti until it struck trouble and retired, leaving the race to Munday's Vauxhall, which, in spite of its age, averaged over 109 m.p.h. for the distance.

On scratch were Birkin's Bentley and Earl Howes' 4,900 c.c. Bugatti, with John Cobb's Delage 8 secs. ahead. The Bugatti led Birkin off the mark, but when the latter got going he passed him on the inside coming off the members' banking and then also retired. Bouts on his 2-litre Sunbeam was travelling very well indeed, and took second place, while Cobb, in spite of averaging 130 m.p.h., had to be content with third. The Vauxhall actually lapped at 114.23 m.p.h., which should give present-day manufacturers of large sports cars something to think about.

RESULTS.

NOTTINGHAM JUNIOR SHORT HANDICAP (6½ MILES).

1, E. F. Phillips (Austin, 749 c.c.), 31s.; 2, J. Robinson (Bugatti, 1,496 c.c.), 31s.; 3, A. T. G. Gardner (Rover, 2,565 c.c.), 37s. Won by 10 yards at 84.02 m.p.h.

WHITSUN SPRINT HANDICAP (2¾ MILES).

1, E. R. Hall (M.G., 747 c.c.), 29s.; 2, E. L. Meeson (Vauxhall, 4,234 c.c.), 20s.; 3, G. G. L. Willis (Austin, 749 c.c.), 29s. Won by 150 yards at 87.36 m.p.h.

NOTTINGHAM SENIOR SHORT HANDICAP (6½ MILES).

1, A. S. Llewellyn (Riley, 1,089 c.c.), 1m. 28s.; 2, E. L. Meeson (Vauxhall, 4,234 c.c.), 41s.; 3, J. R. Cobb (Delage, 10,688 c.c.), scr. Won by 500 yards at 85.54 m.p.h.

NOTTINGHAM JUNIOR MOUNTAIN HANDICAP (12 MILES).

1, R. E. L. Featherstonhaugh (Alfa-Romeo, 1,484 c.c.), scr.; 2, Dr. E. J. H. Roth (Talbot, 2,276 c.c.), 40s.; 3, C. T. Delaney (Lea-Francis, 1,496 c.c.), 10s. Won by 30 yards at 61.22 m.p.h.

SECOND WHITSUN SPRINT HANDICAP (2¾ MILES).

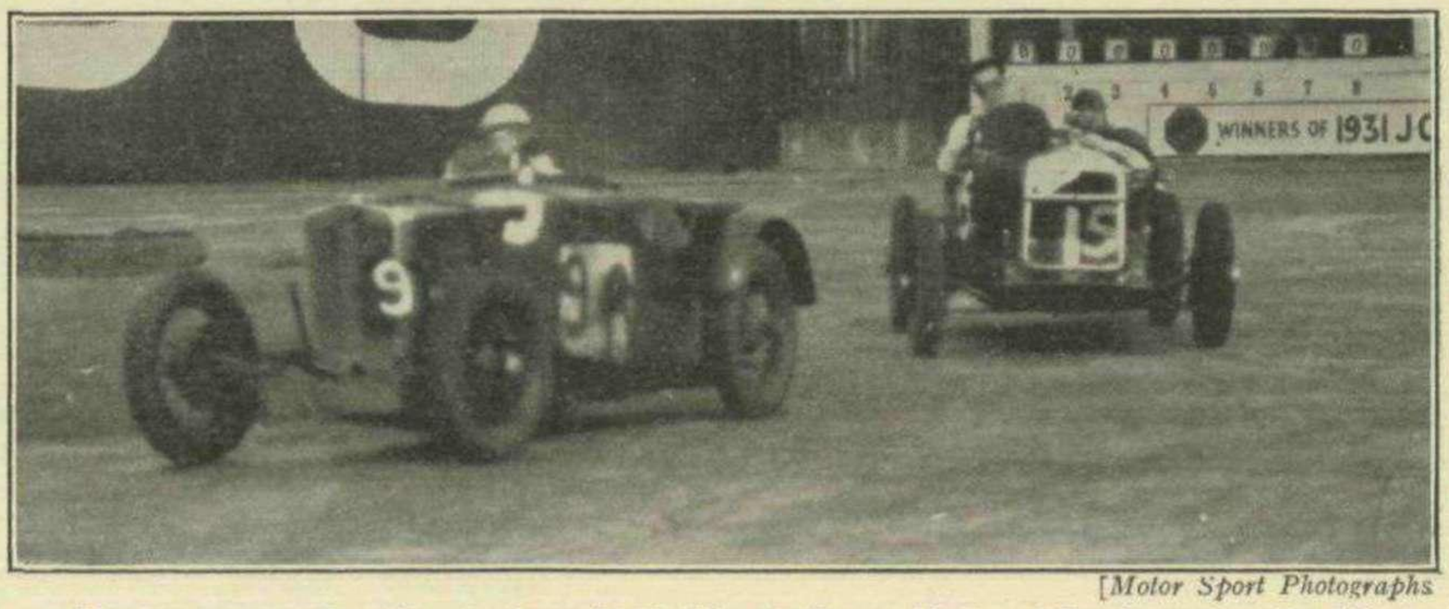
1, R. T. Horton (M.G., 747 c.c.), 29s.; 2, J. H. Bartlett (Salmson, 1,090 c.c.), 25s.; 3, W. A. Cuthbert (Lagonda, 1,954 c.c.), 32s. Won by 200 yards at 89.72 m.p.h.

NOTTINGHAM LONG HANDICAP (9 MILES).

1, R. T. Horton (M.G., 747 c.c.), 12s.; 2, A. B. Gilbert (Talbot, 2,276 c.c.), 48s.; 3, E. L. Meeson (Vauxhall, 4,234 c.c.), owed 3s. Won by 25 yards at 99.91 m.p.h.

NOTTINGHAM SENIOR MOUNTAIN HANDICAP (12 MILES).

1, R. E. L. Featherstonhaugh (Alfa-Romeo, 1,484 c.c.), 35s.; 2, R. T. Horton (M.G., 747 c.c.), 15s.; 3, G. G. L. Willis (Austin), 749 c.c.), 35s. Won by 40 yards at 63.25 m.p.h



[*Motor Sport Photographs*

The two cars in this photograph are T. G. Moore's Frazer-Nash and Featherstonhaugh's Alfa. They are at the fork corner in the Senior Mountain Handicap.

WHITSUN AT BROOKLANDS—continued.

NOTTINGHAM LIGHTNING MOUNTAIN HANDICAP (12 MILES).
1, Lord Howe (Bugatti) 2,263 c.c.), scr.; 2, W. Straight (Maserati, 2,494 c.c.), scr.; 3, J. H. Bartlett (Salmson, 1,090 c.c.), 1m. Won by 8 yards at 73.64 m.p.h.
THE GOLD STAR HANDICAP (20 MILES).
1, R. J. Munday (Vauxhall, 4,526 c.c.), 2m. 13s.; 2, E. L. Bouts (Sunbeam, 1,988 c.c.), 1m. 3s.; 3, J. R. Cobb (Delage, 10,688 c.c.), 8s. Won by 500 yards at 109.46 m.p.h.

Brigadier-General Sadlier-Jackson.

IT is with the greatest regret that we have to record the death of Brigadier-General Warren de Vere Sadlier-Jackson, in a motor accident on the Boulogne—St. Quentin Road on Saturday, May 21st. Known to the majority of sporting motorists as a recent entrant to the competition field of motoring at the wheel of a 2,300 c.c. Bugatti, he had a host of other interests.

There can be few men who have had such a variously adventurous life, and his whole record is one of action. A noted polo player and big-game hunter, he served in the South African War, gaining among other decorations the D.S.O. In the late War he was twice wounded, and awarded the C.M.G., Legion of Honour, Croix de Guerre with Star, and bar to D.S.O. He also took the Russian Relief Force to Archangel. The motoring fraternity will join in mourning his loss.

The Bugatti Owners' Club's Speed Hill Climb.

IN four classes out of a total of six, honours went to "visitors" at the Bugatti Owners' Club's Speed Hill Climb held at Chalfont St. Peter on May 21st. Outstanding performances were made by K. Hutchison on a very smart T.T. Replica Frazer-Nash, Steele's Invicta saloon, Maclachlan's Lea-Francis and Seyd's Austin.

The standard of driving was not particularly high, missed gears spoiling several climbs, while many drivers would have made better performances if they had not changed up so early on the final run up the hill.

Fastest time of the day was made by Noel Carr on his very fast 2-litre Bugatti. The loose surface told against the light weight of "The Terror," the car tending to skid off the road every time Nash put his foot down.

PROVISIONAL RESULTS.

TOURING CARS. 1,100 c.c., 6 1,500 c.c.
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2. K. W. Bear (Bugatti), 28.6s.
3. J. S. Steele (Invicta), 28.9s.

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2. J. C. Elwes (Austin), 27.4s.
3. K. D. Evans (M.G.), 28.9s.

1,100 c.c., 6 1,500 c.c.
1. A. N. L. Maclachlan (Lea Francis), 24.8s.
2. K. Hutchison (Frazer Nash), 25.6s.
3. R. Featherstonhaugh (Alfa-Romeo), 26.3s.

1,500 c.c.—2,500 c.c.
1. W. K. Faulkner (Bugatti), 24.5s.
2. L. G. Bachelier (Bugatti), 25.1s.
3. J. R. Jeffress (Alfa-Romeo), 25.4s.

RACING CARS. ANY CAPACITY.
1. N. A. Carr (Bugatti), 22.7s.
2. J. Lancaster (Bugatti), 23.3s.
3. R. G. J. Nash (Frazer-Nash), 24.2s.

British Road Circuit.

MENTION was made in a recent issue of MOTOR SPORT of the fact that a scheme for a road racing circuit on a site in Hertfordshire, which had the vital assets of a fine hill, a chalk foundation, and easy access from London, was in process of development.

Writing of this, a MOTOR SPORT representative says:—

"I was down at the site not long ago with Earl Howe, one or two other pressman and the enthusiasts who initiated the scheme.

Seeing that the site was designed by nature, its suitability for a road race circuit is almost uncanny. The hill will give wonderful opportunities for a really spectacular course, and the whole face of it is in good view of the rest of the site. The proposed circuit will be 4 to 5 miles in length, with a straight of about one mile in one part, and will try every feature of a car to its utmost. A number of famous drivers have inspected the site and were all intensely enthusiastic.

Those who are working on it are very wisely getting on without making a song about it before they have every detail worked out, and I must therefore keep further particulars of it till a later date. I hope soon, however, to be able to publish full details."

Cape Town—Johannesburg Record.

FOLLOWING on his success in the Durban-Jo'burg record, Mr. Gordon Collins, the South African racing motorist, has now acquired the record from Cape Town to Johannesburg for cars of unlimited capacity. He knocked 1 hour 28 minutes off the existing record and covered the 956 miles in 21 hours 10 minutes.

Previously to this the Cape Town-Jo'burg record had always stood to the credit of a high-powered American car, the American organisations in South Africa having spent thousands of pounds in producing special cars for the purpose.

Mr. Collins' car was a standard Riley Overseas tourer which had already covered 21,000 miles of demonstration work during the Riley company's recent sales campaign in South Africa.

The road from Cape Town to Jo'burg is in an appalling condition in many places, over three-quarters of it consisting of rough veldt tracks. There are numerous rivers to cross and the route includes the famous St. Lowry Pass and the crossing of the Hex River Mountains. At times it rises to over 6,000 feet.

The tools, carburetter, radiator, etc., were all sealed and the seals were unbroken at the end of the trip, when it was found that the petrol consumption averaged 30 miles per gallon.

SPEED TRIALS AT BRIGHTON

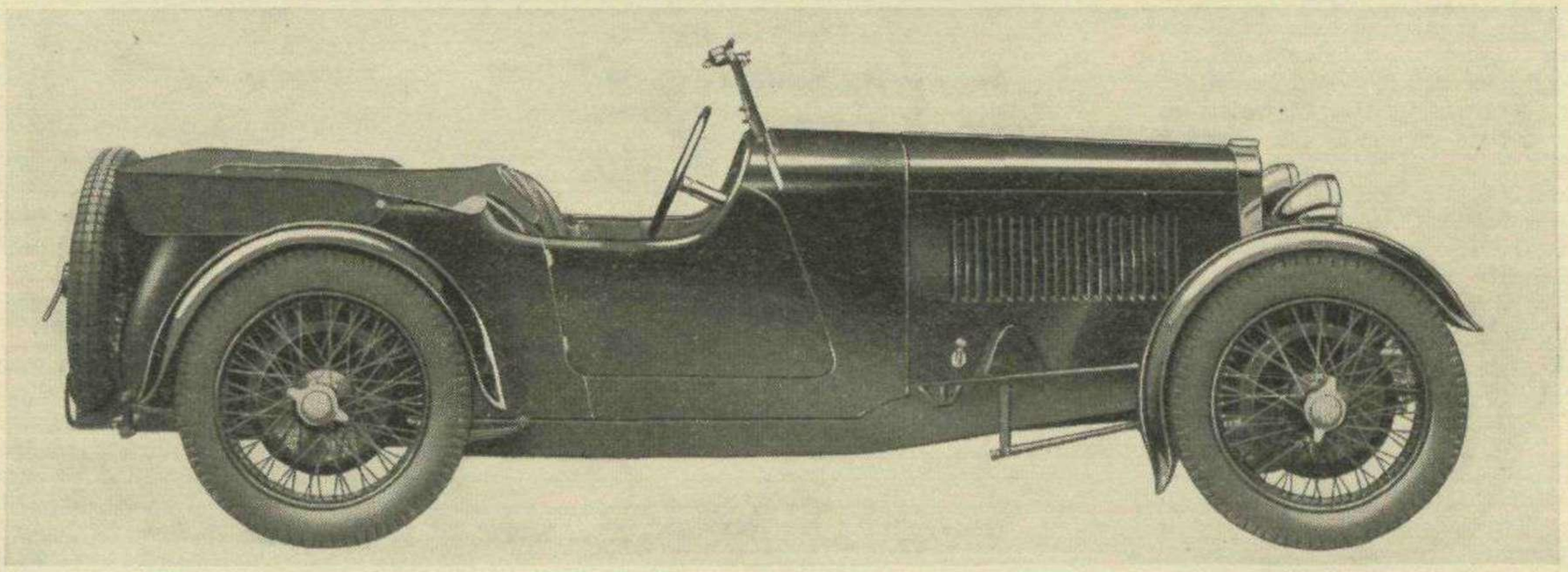
Speed trials are all too rare now that public roads cannot be used, and it is therefore very encouraging to note that the Brighton and Hove Club have made arrangements with the Brighton corporation for a speed trial on the sea front (Madeira Drive). They are able to do this under special powers they had in their last Parliamentary Bill. The course will be a standing start half mile with an excellent pull up, and sufficient width for two cars to race at a time. The idea at present is to confine the event solely to sports and racing cars and possibly racing motorcycles.

Touring vehicles need not apply. The A.C.U. and R.A.C. have consented to grant open permits and the date fixed is September 10th.

Further particulars can be obtained from the Secretary, Brighton and Hove Motor Club, 10, Prince Albert Street, Brighton.

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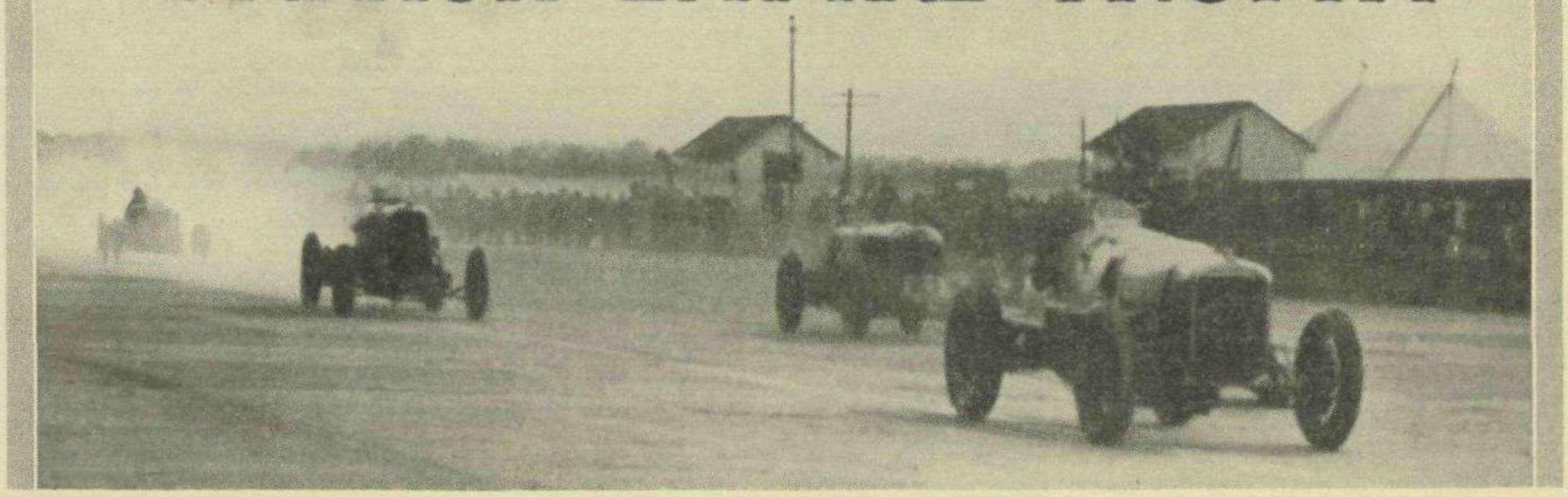
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The BRITISH EMPIRE TROPHY



IN staging a 100 mile scratch race for cars of unlimited capacity on Brooklands, the British Racing Drivers' Club showed great enterprise but perhaps not sufficient foresight. As a thrilling spectacle the event was a great success. As a race in which the leading cars were called to give their utmost speed, and as an event intended to provide a decisive result, it was a failure. Nor could it possibly have been anything else.

Eyston's Panhard and John Cobb's Delage, which thundered round for lap after lap at over 130 m.p.h. are both too fast for Brooklands. That is, they are too fast to race concurrently on the track, as if both cars keep going as fast as is safe, passing is impossible. Which all goes to show that Brooklands is definitely unsuitable for such a contest.

However, to return to the event in question. This was run off in 50 mile heats for the various classes, with the first four in each heat (should so many finish) being eligible for the final.

The event was a scratch race, which was one of its most desirable features, and in the final Cobb, on the famous old Delage, finished a few yards in front of the Panhard.

This was due to his appreciation of the tactics of such a race, and he had the foresight to take an early opportunity of slipping into the lead when Eyston eased down to save his tyres. From then he kept ahead, and Eyston was unable to get by. This seemed to be no fault of Cobb's, as short of shutting off and slowing right down, it would have been impossible to let the other car pass, and drivers who are leading in a race do not as a rule deliberately give the race to someone else. After the finish Eyston was quite willing to leave the result as it stood, and it was only after being urged by his friends that he consented to lodge a formal protest. After long deliberation by the stewards, in this case Sir Algernon Guinness, S. C. H. Davis, and Lionel Martin, it was announced that the protest was upheld, and that first place was awarded to Eyston and the second to John Cobb.

The first three heats, owing to the small entry, were run off together, these being for the 750 c.c. 1,100 c.c. and 1,500 c.c. classes The latter class, although there were six entries, only saw Earl Howe, in his G. P. Delage, and H. Widengren, on the 8-cyl. O.M. on the line. Fotheringham's Bugatti had recently "blown up" and Jack Dunfee's Sunbeam, Field's Talbot, and Scott's Delage were non-starters for various reasons. The fact that the Delage is now the property of Mr. J. C. Davis, accounted for the latter entrant.

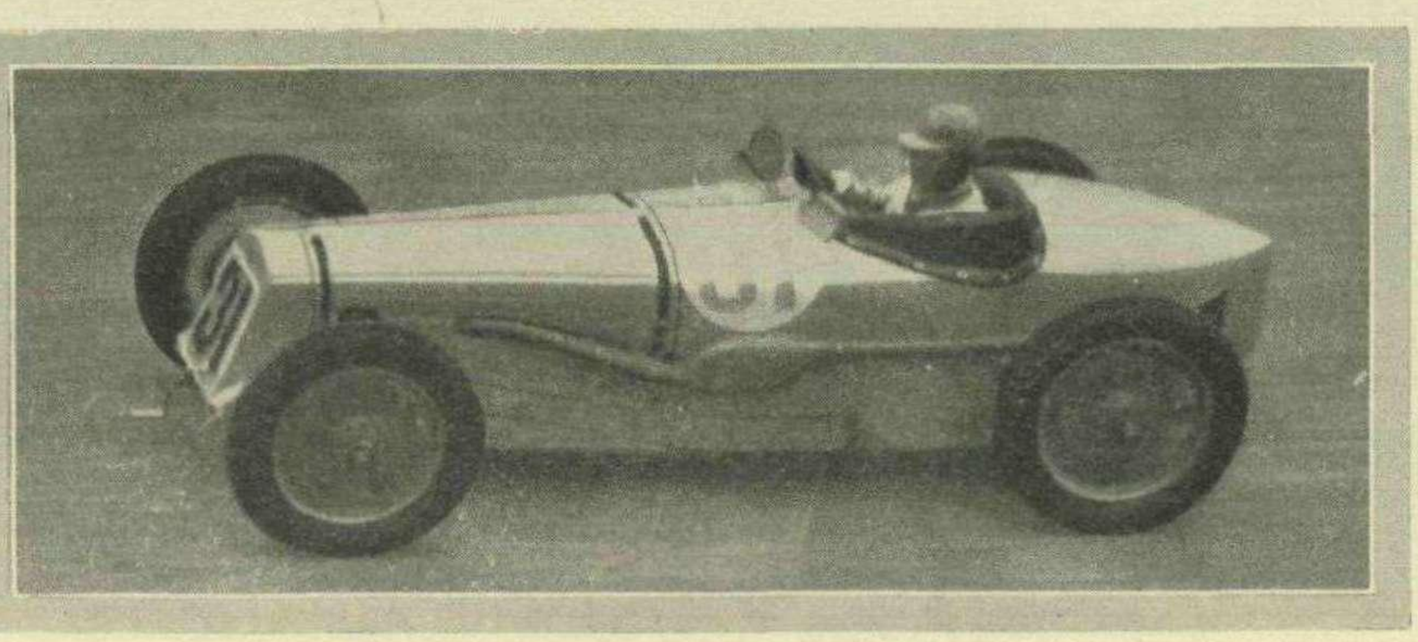
In the 1,100 c.c. class, Vernon Ball's three Crossleys were down to do battle with Ashby's Riley and Humphrey's Amilcar. There had been a great rush to get the Crossleys ready, but only two came to the line, and these suffered from their hurried preparation and were unable to give of their best. It is only natural, however, that a model new to racing should experience teething troubles, and it is not a matter for anyone to worry about if these cars continue to behave "experimentally" for some time yet.

The 750 c.c. starters eventually boiled down to Major Gardner's Midget and the Earl of March's Austin, both last year's cars and well tried out.

When the flag fell, Earl Howe's Delage shot to the front and led throughout the race, steadily increasing his lead on the O.M.; third of the bunch and, of course, first of the 1,100 c.c. class came Ashby's Riley, very closely followed by the Amilcar. This scrap went on for six laps, when the Amilcar took the lead and Ashby retired with a broken tappet, a trouble which he had encountered in practice, and which was due to some very light experimental tappets which he was trying out.

Humphreys was going beautifully and held his position throughout.

Fifth in the whole lot on the first lap, was the Austin, going beautifully, and



Earl Howe's Grand Prix Delage going well to win the 1,500 c.c. heat.

THE BRITISH EMPIRE TROPHY—continued.

leading the M.G. which shortly retired. The trouble was announced as a blown gasket. On Ashby's retirement, the Earl of March moved up to 4th place, and so they finished.

The average speeds for the three classes were respectively 103.34 m.p.h., 92.68 m.p.h. and 92.51 m.p.h. in order of size.

The next heat, which of course included all the big cars, saw Sir Henry Birkin's Bentley, John Cobb's Delage, George Eyston's Panhard, Jack Dunfee's 6½-litre Bentley, Brian Lewis on the single seater "105" Talbot, and R. S Hebeler on a "90" Talbot.

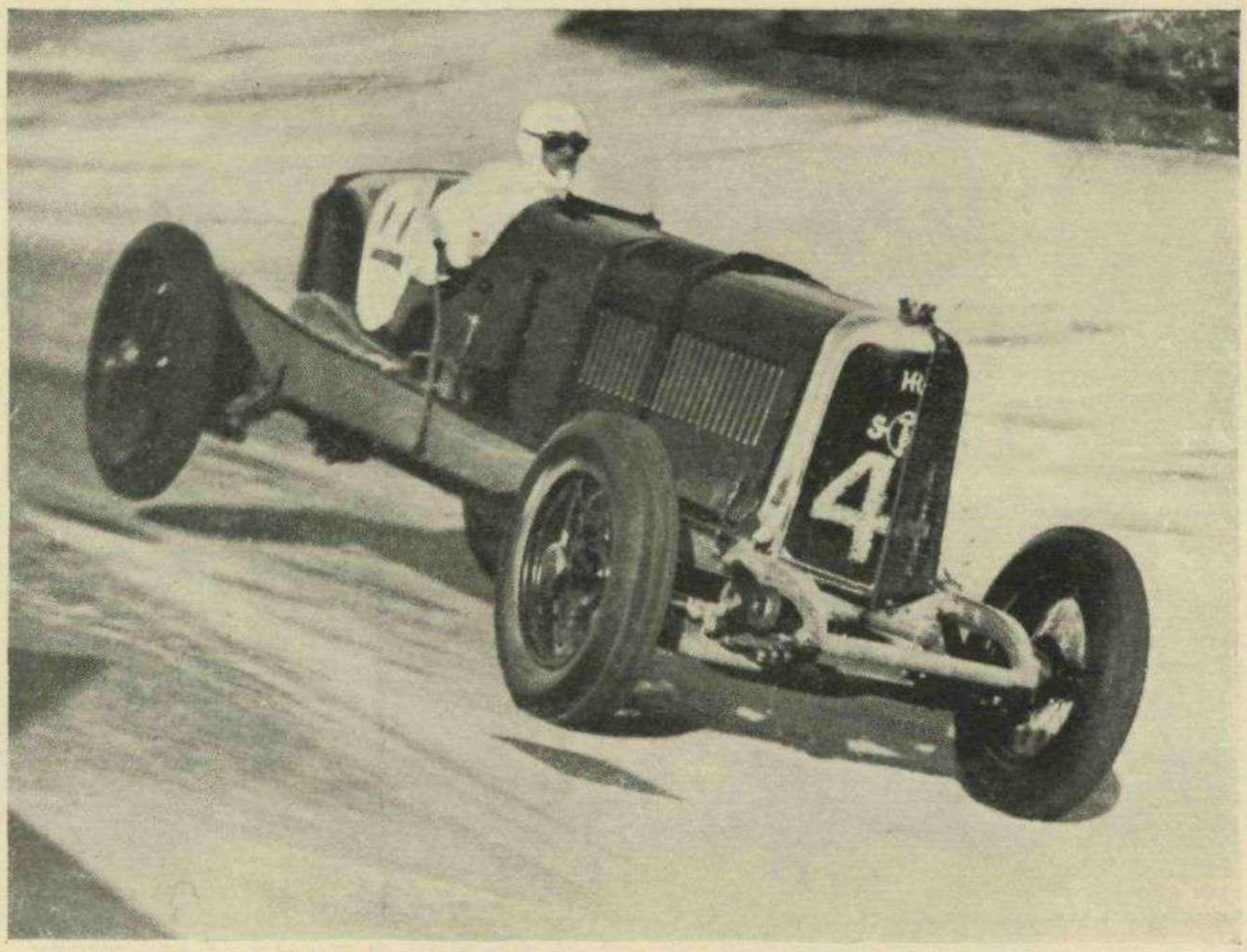
Cobb took advantage of his car's terrific acceleration to lead off the mark and led for the first lap, but was then passed by the Panhard. Birkin's Bentley was third on the second lap and the 6-cyl. Bentley, winner of the last 500 miles race, fourth.

On the third lap Birkin passed Cobb and took second place, and the order for the first nine laps was then Eyston, Birkin, Cobb, Dunfee, followed by Brian Lewis on the Talbot.

On the tenth lap Cobb dropped back to fourth place, and three laps later Birkin flung a tyre tread from his off front wheel and came into the pits for a quick wheel change. Dunfee was now second to Eyston followed by Cobb and Birkin, and they finished in that order, Eyston's speed on the Panhard being 126.21 m.p.h.

While the cars for the final were making their preparations, we were treated to a really marvellous display of high speed flying and stunting by Flight-Lieut. C. S. Staniland on a Fairey "Firefly" II M., with Rolls-Royce Kestrel II engine. After a highly polished display of rolls, upward spins and climbing with the machine inverted, the machine modestly sank once more into the aerodrome, and spectators "uncricked" their necks and paid attention once more to the track itself.

The finalists were nominally the first four in each heat, but there was no point in the smallest cars starting in the final, as their race had already been run, so that besides the first four of the big cars there was only Lord Howe in the Delage and Widengren in the O.M.

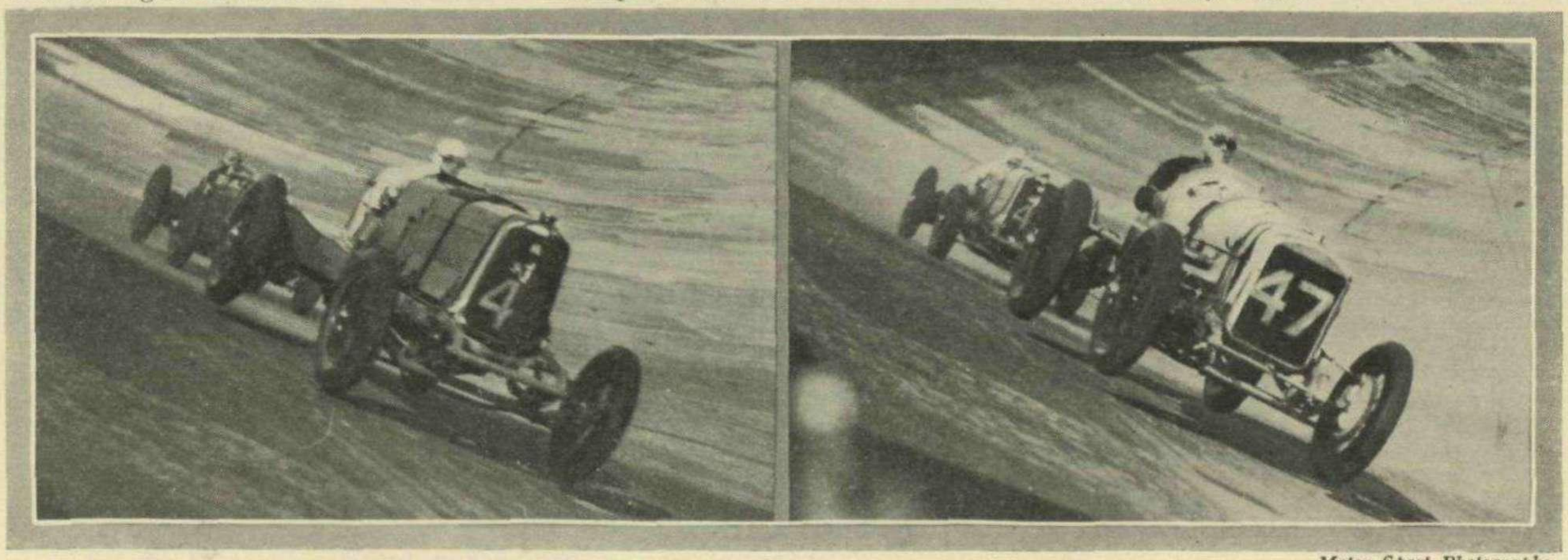


A close-up of Eyston's Panhard taking the bump on the member's banking.

Cobb led for the first three laps followed first by Eyston and then by Birkin, who took second place on the second lap. It was obvious from the first that this race was going to surpass all previous efforts at the fourth lap; the leaders were very close and as they came off the members banking Sir Henry's red Bentley took the lead, which he was to hold for half the race. Eyston and Cobb were already starting their duel, and the former after lying third for 5 laps out of the first 6, overtook Cobb on the 7th lap. From then until the 18th lap, which was exactly half distance, the order of the whole race was unchanged, being Birkin, Eyston, Cobb, Dunfee, Lord Howe. Widengren had been 6th and running well up to 13 laps, but then he had trouble, and after a visit to the pits for plugs and one more slow lap, he was forced to retire.

At 50 miles the whole aspect of the race was changed by Birkin's retirement. Those round the track thought a tyre must have gone, as it had in the heat, but when he appeared again the engine was missing and spluttering. He had pulled into the pits for water, as the car was boiling, and a lap later he retired with a cylinder block which is not likely to see service again.

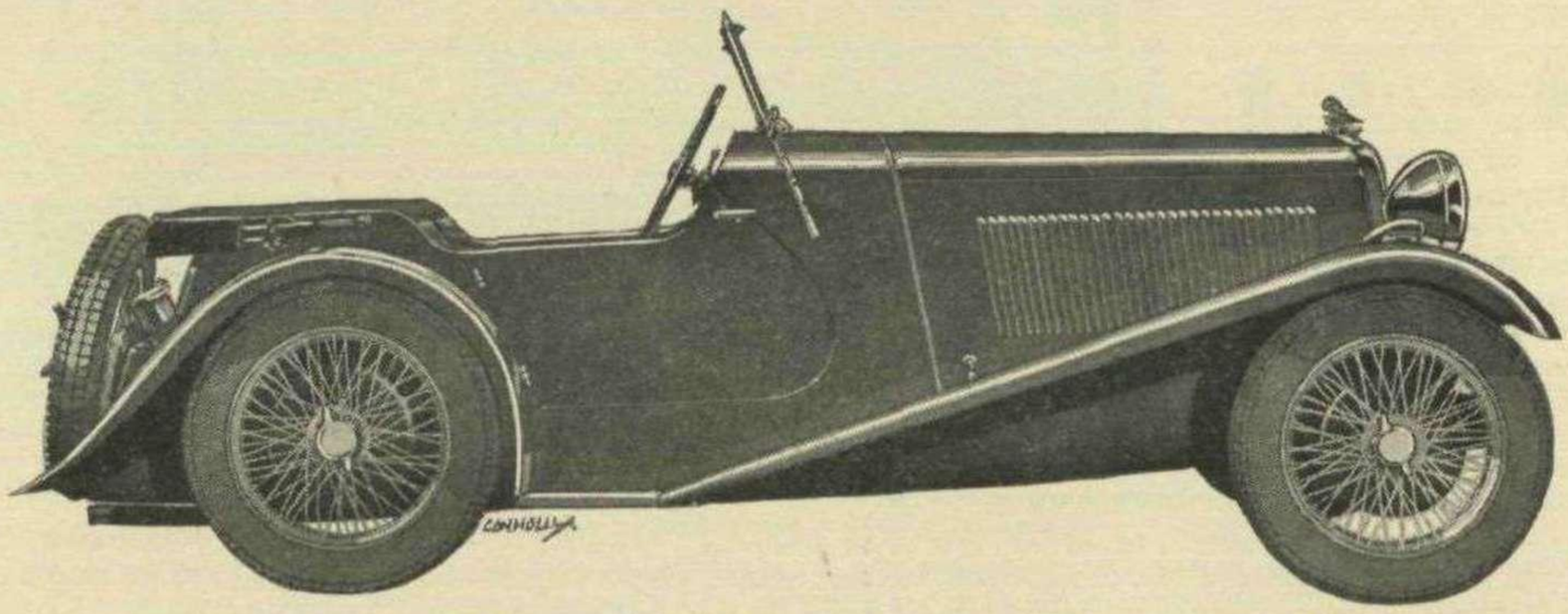
The drivers had had a little speed in hand in the early part of the race in order to save their tyres, but now the speed went up considerably and Eyston remained in the lead till the 26th lap, on which Cobb took an opportunity to slip by and take the lead. It was this grasp of the situation which enabled him to finish first, as although the Panhard was slightly faster it was not sufficiently so to get past on the Railway Straight, which was the only chance.



Motor Sport Photographs.

The changing leadership. First Eyston and then Cobb just holding the lead.

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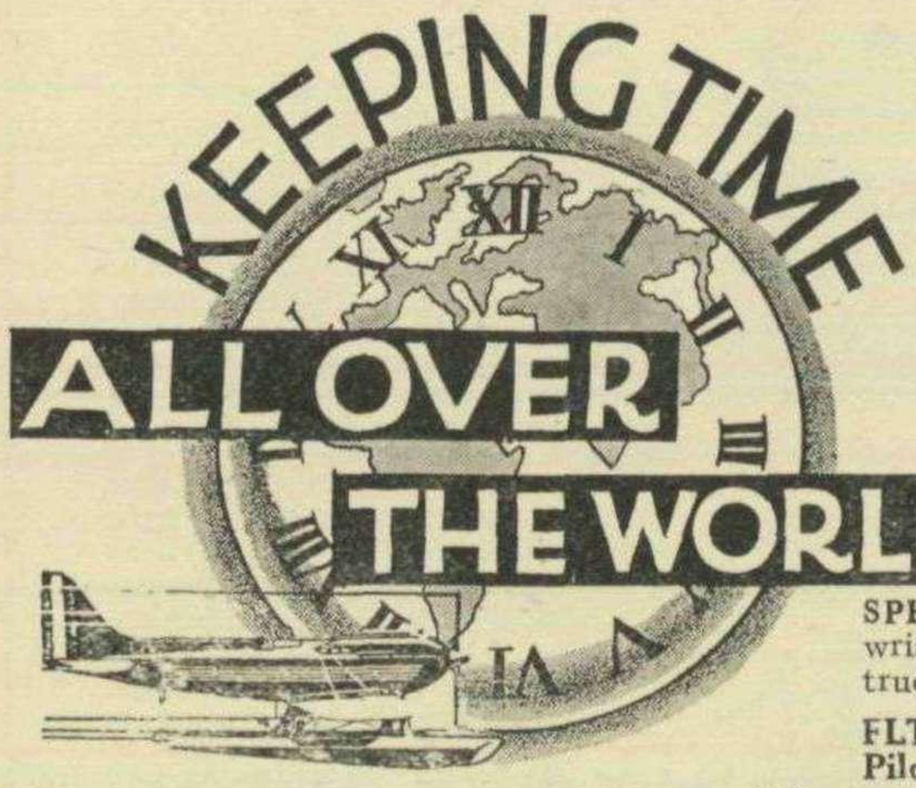
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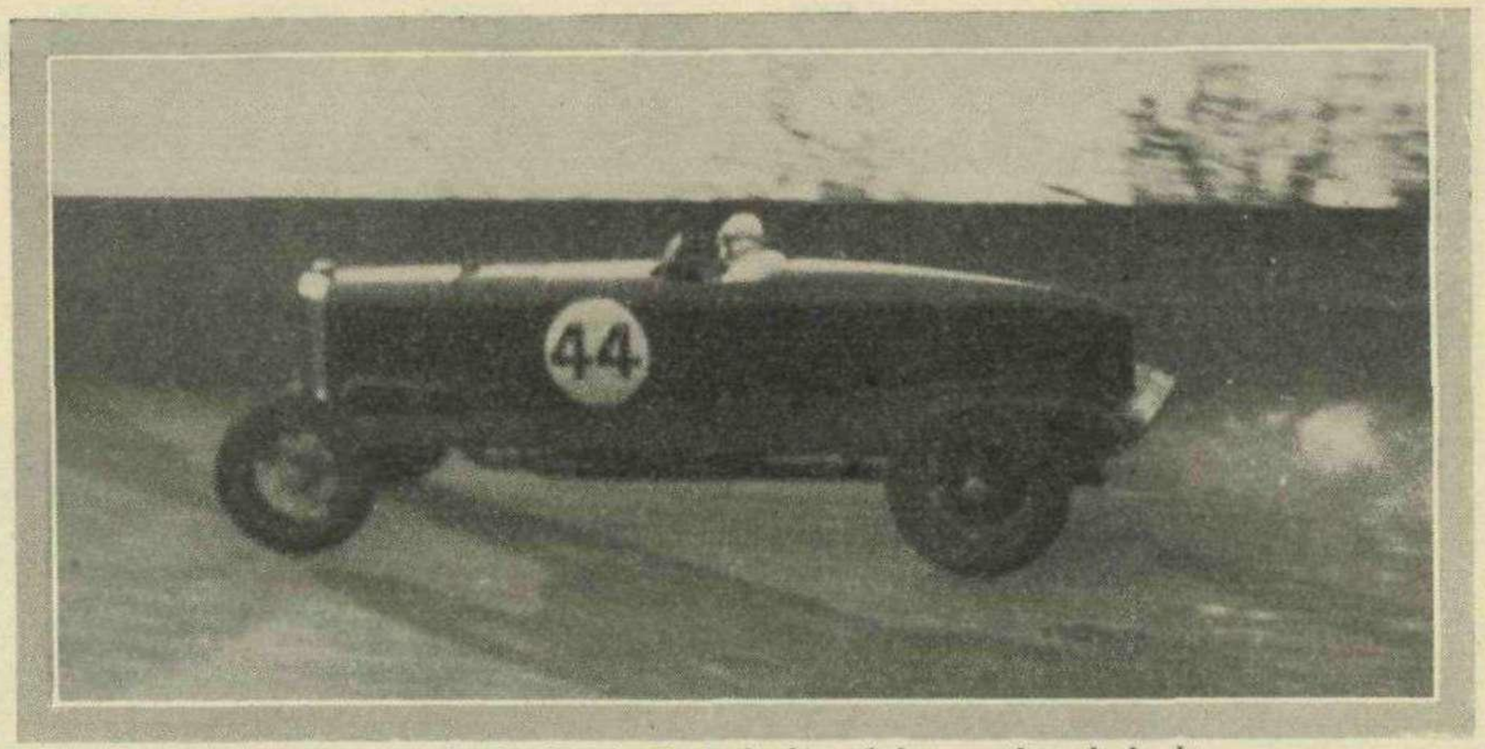
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THE BRITISH EMPIRE TROPHY—continued.

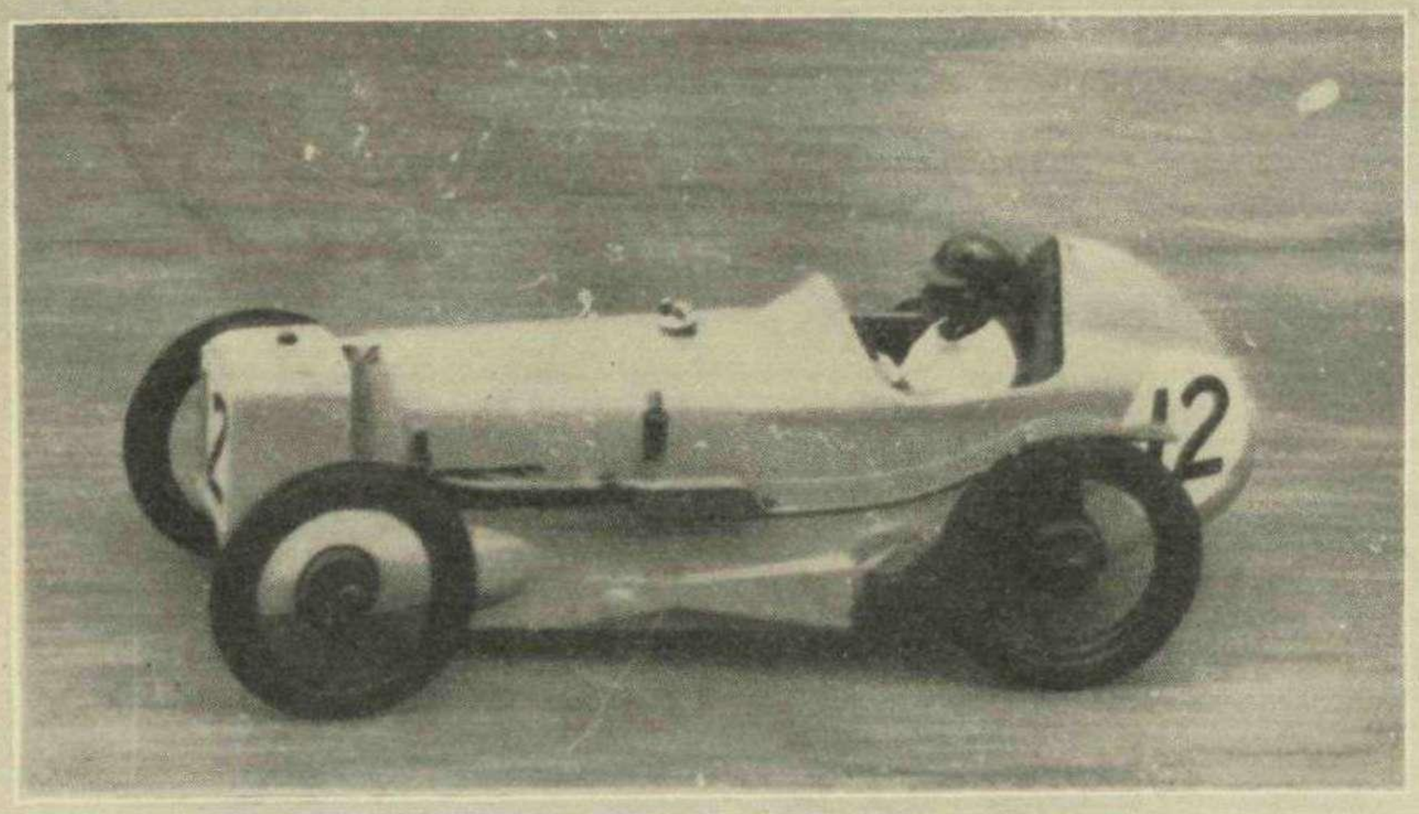
The excitement became intense as the two huge cars thundered round a few feet apart, with Eyston doing his utmost to pass, but in vain. Lap after lap he wrenched his car down off the Byfleet banking and tried to overtake on the near side at the Vickers Sheds, and each time he drew level and then had to fall back as the cars shot onto the members' banking.

From the enclosures, the speed of the cars was evident, but it is only at close quarters that the real meaning of 130 m.p.h. is realised. Watching from a niche on the top of the members' banking, where the public are very rightly not allowed, we were within a few feet of the passing cars, and as they crashed past a gale of wind laden with concrete dust and chippings swept the edge of the track, and for a few seconds we were in some inferno. As it died down we looked up to see the two leaders already a mile away, and still in the same order.

So the race went on and so it finished, and just afterwards the Panhard appeared with a flapping tyre tread beating the track. Dunfee's Bentley burst a rear tyre and skidded down the Byfleet banking, to be directed to the pits a lap too soon, so losing his place to Earl Howe's marvellous little Delage, which had averaged no less than 116.537 m.p.h. for the 100 miles, and had run faultlessly throughout and gone faster at the end than at the beginning. The results were as follows :—



A shot of the Panhard with all wheels clear of the ground on the banking.



[*Motor Sport photographs.*

The Earl of March (Austin), who won his heat at 92.51 m.p.h.

1. Panhard-Levassor, 7,940 c.c., G. E. T. Eyston, 126.35 m.p.h., British Empire Trophy and £100.

2. Delage, 10,688 c.c., J. Cobb, 126.36, £50.

3. Delage, 1,486 c.c., Lord Howe, 116.53.

Heat 1.—Austin, 747 c.c., Lord March, 92.51 m.p.h., South Africa Trophy and £20.

Heat 2.—1, Amilcar, 1,098 c.c., W. E. Humphreys, 82.68 m.p.h., India Trophy and £40.

Heat 3.—1, Delage, 1,486 c.c., Lord Howe, 105.64 m.p.h., Canada Trophy and £40.

O.M., 1,491 c.c., H. Widengren, 103.34 m.p.h.

Heat 4.—1, Panhard-Levassor, 7,940 c.c., G. E. T. Eyston, 126.21 m.p.h., Australia Trophy and £40.

2. Bentley, 6,597 c.c., J. Dunfee, 121.17 m.p.h., £20.

Delage, 10,688 c.c., J. Cobb, 119.11 m.p.h.

Bentley, 4,442 c.c., Sir H. Birkin, 116.95.

Talbot, 2,969 c.c., B. Lewis, 111.38.

Talbot, 2,276 c.c., R. S. S. Hebeler, 95.72.

2,000 MILES PLUG TEST.

THE sparking plug manufacturer probably deserves one's sympathy more than any other supplier of motor car accessories. Motoring nowadays has become such a utilitarian means of transport that even in a sports car the average motorist demands a plug which will both fire regularly in a traffic hold-up and allow the full road performance of the car to be used. Being enthusiasts ourselves, we do not particularly mind changing plugs, but when we find a plug which will deal with a wide range of conditions, we consider it marks a definite advance.

The type 677 plugs embody the usual K.L.G. features of mica insulation and spring clip. The centre electrode is not very heavy, but is protected by heavy mica insulation almost to the point, the ends of the centre wrapping being protected from heat by a metal cap. At the same time, the body has a wide opening, which allows heat to get to the insulation and keeps it free from oil.

The plugs were tested in a 4½-litre supercharged Bentley, which provides a wide range of running conditions. A considerable amount of oil accumulates in the supercharger overnight, so that when the car is started in the morning the plugs have to deal with a good deal of it. The same applies in town driving and traffic stops. When driven all out, the engine runs hot and the compression rises to about 6.3 at 4,000 revs.

A 2,000 mile test has been carried out, and in the course of it, we only had one case of plug trouble, the plugs in the front cylinder oiling up through running the engine too slowly when warming up. Apart from that, they have given no trouble either in running about London or in full throttle work on the road. Type 677 cost 12/6 each, but as they overcome the need of two sets of plugs, for town and open road use, they justify the initial outlay.

FRAZER NASH

ADVICE TO THOSE BUYING A SPORTS CAR

In spite of the flowery, fulsome and exaggerated claims made in advertising so-called " sports " cars, we remain convinced the average buyer of a sports car is intelligent enough to demand something more concrete in the way of actual proof of the car's performance than publicity slogans—particularly as he is in the nature of things an enthusiast, and knows something about cars and what he wants.

We claim the Frazer Nash is the most *genuine* all-round sports car produced, and that it is most definitely THE car for the owner-driver. It is certain that a firm producing mass-production cars cannot devote its serious attention to any particular owner's requirements, whereas we specialise in building cars for the individual.

Road-holding, cornering and braking are most important, and the car should be responsive to the slightest touch and under complete control, not only on A.1 roads and in dry weather but on wet and greasy surfaces. In short, it must be " safe."

If depreciation is low and secondhand value high, this affords conclusive proof that the car can and does stand up to years of hard driving, and may also be taken as evidence of its reputation and the demand for this make of car.

The question of gear ratios is important, inasmuch as we may infer an owner of a sports car wants to enter for sporting trials, etc., with more than an average chance of success. Perhaps we may be pardoned for mentioning here the unanimous concensus of opinion as to the suitability of the Frazer Nash for trials work—they have frequently climbed hills in trials where every other entry has failed ingloriously, and climbed hills which were popularly supposed unclimbable. The fact that gear ratios on a Frazer Nash are to choice is an invaluable asset, with the added advantage, by reason of the Frazer Nash transmission, that alternative ratios are available. " The Light Car and Cyclecar " has said, " *Probably the most successful of all cars in trials is the Frazer Nash.*" " Boanerges," of " Motor Sport," has frequently drawn attention to the success of Frazer Nash cars in difficult trials, and his personal preference for a sports car which has a solid back axle and no differential, giving the car a tremendous advantage on rough and slippery going.

We have never made anything but sports cars, and it is evident that such a policy is bound to produce a car with a remarkable performance. We have for many years entered our cars for strenuous trials and for races which were, in our opinion, of definite value in our unremitting efforts to " improve the breed." Furthermore, they are the same cars as we sell—*not* specialised racing productions, which are as different from the model sold to the man in the street as chalk is to cheese. In fact, the Frazer Nash is a sports car built by enthusiasts for enthusiasts, and we take a very keen and personal interest in our owners' cars, whether new or second-hand. Every essential part of a sports car must have excessive strength, and this means that many parts, which on a touring car could be made of normal material, must on a sports chassis be made of very special metals. Obviously, this must increase the cost of the car, but at the same time it must be remembered that the reliability and life of the car are increased, even under the most arduous conditions, out of all proportion to the additional cost.

As regards other things, an engine " revving " at 5,000 r.p.m. *can* be as fast—for six months !—as one which only revs at 2,500 r.p.m. (A cruising speed of 60 m.p.h. only means 2,500 r.p.m. on a Frazer Nash, and the engine *can* rev up to 5,000 easily, without fuss or vibration). Also hills can be climbed with a 20 to 1 bottom gear as well as with a 10 to 1 ratio at possibly the same speed, but definitely *not* the same engine revs.

These things are well worth the serious consideration of a prospective buyer of a sports car, while he should also bear in mind the *works* cost of the car, as distinct from the retail selling price.

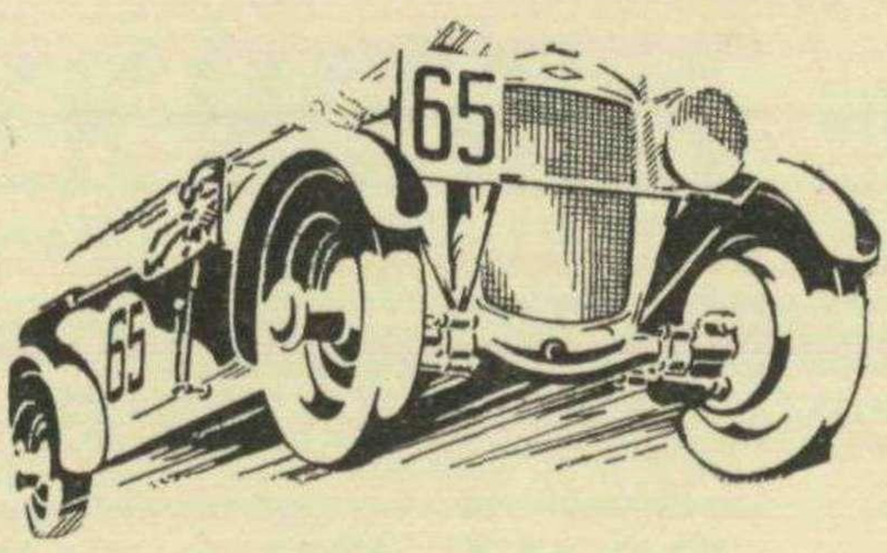
The initial purchase price is not everything—it is often more advantageous and profitable in the long run to buy the more expensive product.

Few people consider a ready-made suit a worth-while economy, but fail to apply the same reasoning to their purchase of a car. You prefer to have your clothes made to measure—why ?—presumably because although it costs more you are fully aware of the advantages of the personal element, with the resultant close attention to your individual requirements, the better materials used and the definite assurance of years of good service. A fair comparison, we suggest, between mass-production and hand-built sports cars.

If you think we exaggerate, why not visit " Falcon Works ? "—we are entirely at your service. All the things enumerated, and which we suggest you should look for in a sports car, are to be found in the Frazer Nash—our reputation has been built up on sheer performance, and because the Frazer Nash *is* all we claim it is, our sales are steadily increasing.

Admittedly in some ways our cars are unorthodox, mainly, however, because we have remained faithful to a design which has proved its worth and thorough efficiency, and not slavishly followed the ordinary, uninspired design which has been adopted presumably because of a public prejudice in favour of anything that is in a majority.

Why not try the Frazer Nash for yourself ?—you incur no obligation by doing so, and we venture to predict you will agree with " Grand Vitesse " of " The Motor," that " *the exhilaration of driving a Frazer Nash must be experienced to be believed.*"



FRAZER NASH CARS

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CONTINENTAL NEWS.

ANOTHER "ROUND-THE-TOWN" RACE

THE FIRST GRAND PRIX OF NIMES

WHEN the Automobile Club of Monaco announced their proposal, four years ago, of running a motor race in the town itself, there were many who were sceptical of its practicability. When the venture was crowned with amazing success, they merely said that Monte Carlo was different to other places, and that the same sort of thing could not be done elsewhere.

However, these critics have been confounded, for it can and has been done elsewhere, and on May 16th the Grand Prix of Nimes was held.

After much argument and opposition, the enterprising organisers of this event, the Auto Club du Gard got their way, and another race in a town was held.

The quality of the entry was enough to satisfy the most particular, and an enormous crowd assembled to watch the event, and if it had not rained in the early part of the day the crowd would have been even bigger. However, the weather soon cleared up and by the time the Grand Prix, which was the chief event, was run, it was dry once more. In the class events, which were run previously, it is interesting to note another victory in the 1,100 c.c. class for Scaron's Amilcar, while another very popular win was that of Mme. Itier (Bugatti), who led her class from start to finish and never made a false move.

The Grand Prix saw 11 cars on the line. Etancelin (Alfa-Romeo) was dogged by bad luck. He became involved at the start in a mild collison with another car, and by the time he was disentangled and a wheel changed he was three laps behind, and unable to make it up.

Incidentally, anyone who has witnessed the concentrated fury of a massed start of modern racing cars must wonder at the skill of drivers in rendering such an incident so unusual.

The race was over 70 laps of the circuit, totalling 203 kilometres. Their appetites whetted by the excellent series of short races which they had already witnessed, the huge crowd watched the terrific getaway of the racers, with Chiron in the lead, but as they all tore for the first corner, two cars could be seen locked together, and officials frantically signalled the other cars to slow down to clear them.

It was then learnt that Canin had collided with Etancelin, causing the delay mentioned above. The latter was delayed 3 laps while the cars were parted, while the former had to retire with a seized brake, which was apparently the cause of the accident.

To add to the general excitement, Jamy's Bugatti caught fire, and although it was rapidly extinguished, he had to retire.

After 3 laps Chiron still held his Bugatti in the lead, 10 secs. in front of Benoit, but at 10 laps the order was Chiron, 13m. 4s. (133.16 k.p.h.), Benoit (Bugatti) 13m. 4 1/5s., Dreyfus (Maserati) 13m. 37s., and then Czaikowski (Bugatti) and Druck (Bugatti). Then on the 11th lap came the great change in the race. Chiron drew in to his pit and waved his hands. "C'est fini." An oil pipe had broken and Benoit was in the lead,—a comfortable lead for a race of this sort of over 30 seconds!

As a result the pace eased ever so slightly, dropping from 133 k.p.h. for the lap to 129 k.p.h. on the 15th lap. At 20 laps Benoit led from Dreyfus by 14 seconds, while a lap behind came Czaikowski, then Druck, then Etancelin, doing his utmost to make up the lost laps and thrilling the crowd by his driving. It was not Alfa's day out, however, and he was unable to cut down the lead.

Dreyfus took up the fight to bring an Italian car into the lead, and on the 29th lap Benoit increased his pace once more and lapped at 137.36 k.p.h. (just over 85 m.p.h.) and managed to lead Dreyfus by 38 secs. At 40 laps he led by 42 secs., and in the thrill of this relentless chase the others were for the moment forgotten. Druck fell back, but no one seemed to notice the fact, although it meant Etancelin was now in fourth place, behind Czaikowski. But Etancelin's delay and Chiron's retirement had robbed the race of interest apart from the struggle for the lead, when the slightest mistake would let the Maserati into first place.

After 50 laps Benoit was only 31 secs. ahead, his time being 1h. 6m. 31s., and Dreyfus was driving a magnificent race in his endeavour to catch him. In such a race, however, between two such cars and drivers, half a minute might have been half an hour for all the chance Benoit gave him of catching up. 10 laps later the gap was down to 26 secs., this after 1 hour and 20 minutes running, while Etancelin had almost caught Czaikowski.

Then the authorities announced that Druck had been called in and excluded from the race for going to get a wheel from his pit, when the regulations forbade any repairs except with what was carried on the car.

Now it was evident that Benoit was an almost certain victor, and after 1 hour 33 mins. 28 2/5 secs. he crossed the line winner of the first Grand Prix of Nimes at an average speed of over 80 miles an hour.

The cheering crowds swarmed over the course to welcome the winner, and so ended another successful "race in a town."

The results were :—

1st, Benoit (Bugatti), 1h. 33m. 28 2/5s. Speed 130.307 k.p.h.
2nd, Dreyfus (Maserati).
3rd, Czaikowski (Bugatti).
4th, Etancelin (Alfa-Romeo).
5th, Consinié (Bugatti).

1,500 c.c. CLASS.

1, Joly (Maserati), speed 117.27 k.p.h.; 2, Veyron (Maserati); 3, Miquel (Bugatti).

1,100 c.c. CLASS.

1, Scaron (Amilcar), speed 105.38 k.p.h.; 2, Boucly (Salmson); 3, Vanoni (Amilcar).

It is interesting to note that all the winners used Dunlop tyres, both in this race and in the Prix Royal of Rome.

The Grand Prix of Dieppe.

THE Grand Prix of Dieppe will take place on the 24th of July, and the course is in excellent condition, and it is hoped that it will not be made slippery if wet. The organisation of this event has been very carefully gone into, and there seems every chance of a first-class race. It is rather early to discuss entries as yet, but that energetic sportsman, Earl Howe, has stated that he hopes to compete. He won the 1,500 c.c. class last year on his G.P. Delage.

The Grand Prix of Oran.

THE Oran G.P. took place on April 24th, and was chiefly remarkable in the big class for the regular running of Wimille's Bugatti.

The opening stages of the race were run at a very hot pace, but mechanical trouble soon eliminated a large number of drivers. These included Etancelin, Lehoux, Gaupillat, de Maleplane, Eberhardt and Jellen.

Delorme and Mme. Mareuse both crashed and turned over, the latter due to a wheel breaking up, but, fortunately, neither of them was seriously hurt.

Wimille just got home in front of Zehender's Alfa-Romeo, while the irrepressible Scaron on his wonderful Amilcar cleaned up the 1,100 c.c. class, the 1½-litre going to Joly (Maserati), another remarkably consistent performer. Scaron was no less than 17 minutes ahead of his nearest rival, and ninth in the general classification. The race was a 3-hour event. The results were :—

OVER 1,500 c.c.

1. Wimille (Bugatti 2,300), speed 126.23 k.p.h.; 2, F. Zehender (Alfa Romeo 2,500); 3, Traintignan (Bugatti 2 litres); 4, Benoit (Bugatti 2,300); 5, Mlle. Hellé Nice (Bugatti 2 litres); 6, Dominici (Bugatti 2 litres); 7, Mouret (Bugatti 2 litres).

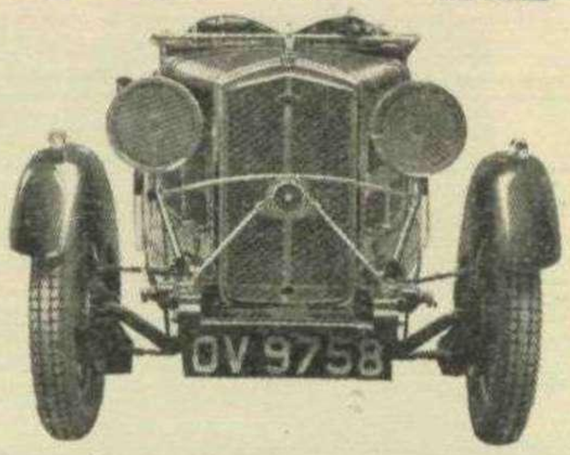
The Le Mans 24 Hours Race.

FOR the convenience of members visiting Le Mans this month, the Automobile Association has a supply of grand stand and box seat tickets for the 24 Hours' Grand Prix d'Endurance to be run at Le Mans on the 18th and 19th June.

Applications by members for tickets should be addressed to the Secretary, The Automobile Association, Fanum House, New Coventry Street, London, W.1.

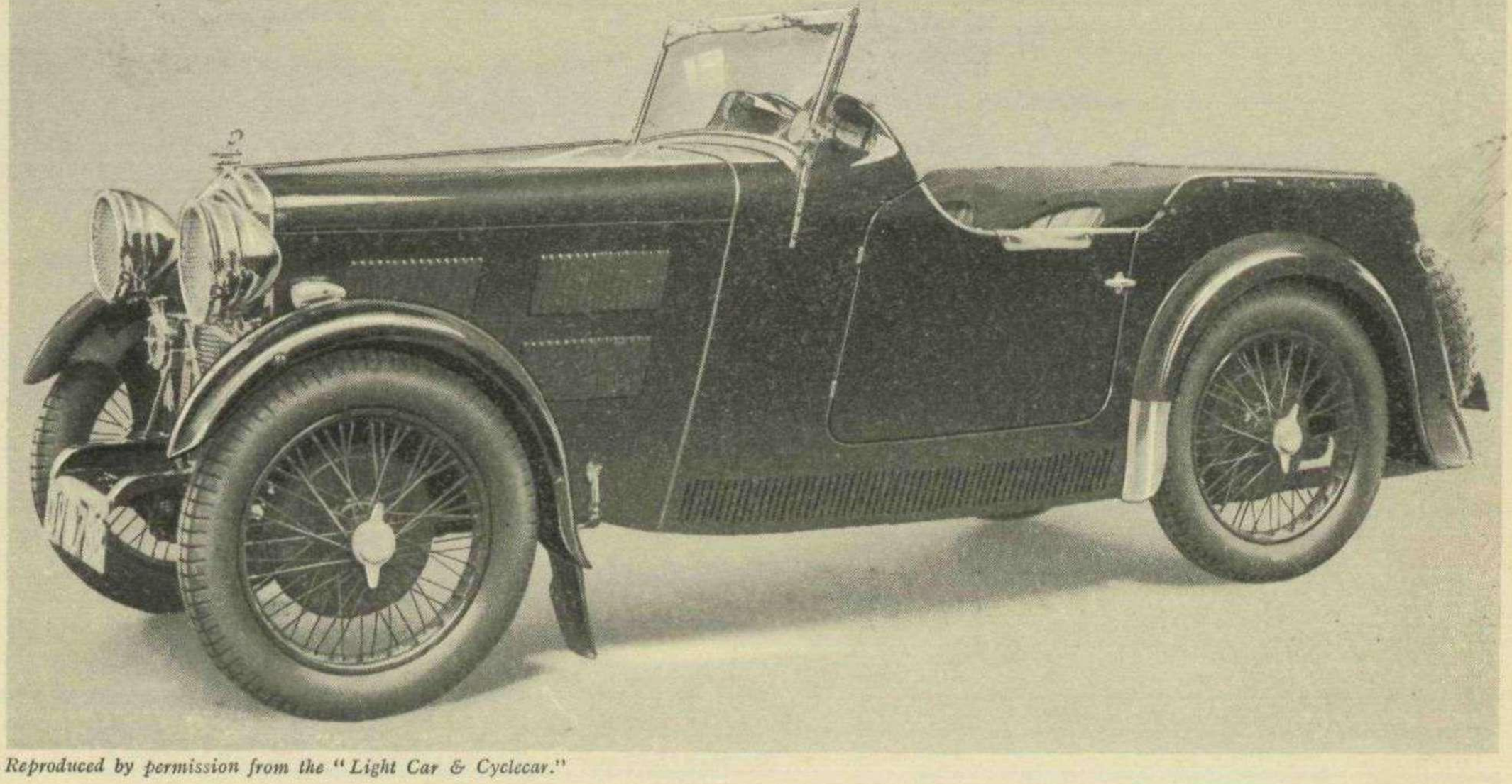
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THE BOL D'OR

VICTORY GOES TO THREE-WHEELER.

This 24-hour race for 3-wheeled and 4-wheeled cyclecars was run off under very wet weather conditions on May 16th and resulted in a win for the designer-driver Sandford on the 3-wheeler bearing his name. He covered the greatest distance of any vehicle, the event being for machines up to 1,100 c.c. capacity, with separate categories down to 350 c.c., both sports and racing. Other particularly meritorious performances included that of Vallon and Galocsy, on Licornes, who were 1st and 2nd in the 1,100 c.c. sports 4-wheeler class at a higher speed than the corresponding racing class. The circuit, owing to the rain, resembled a skating rink, and crashes were fairly numerous. As a test of endurance this race for the Bol d'Or, the 11th of the series, was the most arduous of any, and it was not till the 23rd hour that the weather relented, and the crowds increased once more to welcome the winner.

The class winners were as follows :—

3 WHEELERS.

350 c.c., Chéret (Sphinx-Staub), 881.98 km.

500 c.c., Biolay (Monotrace), 1,279.08 km.

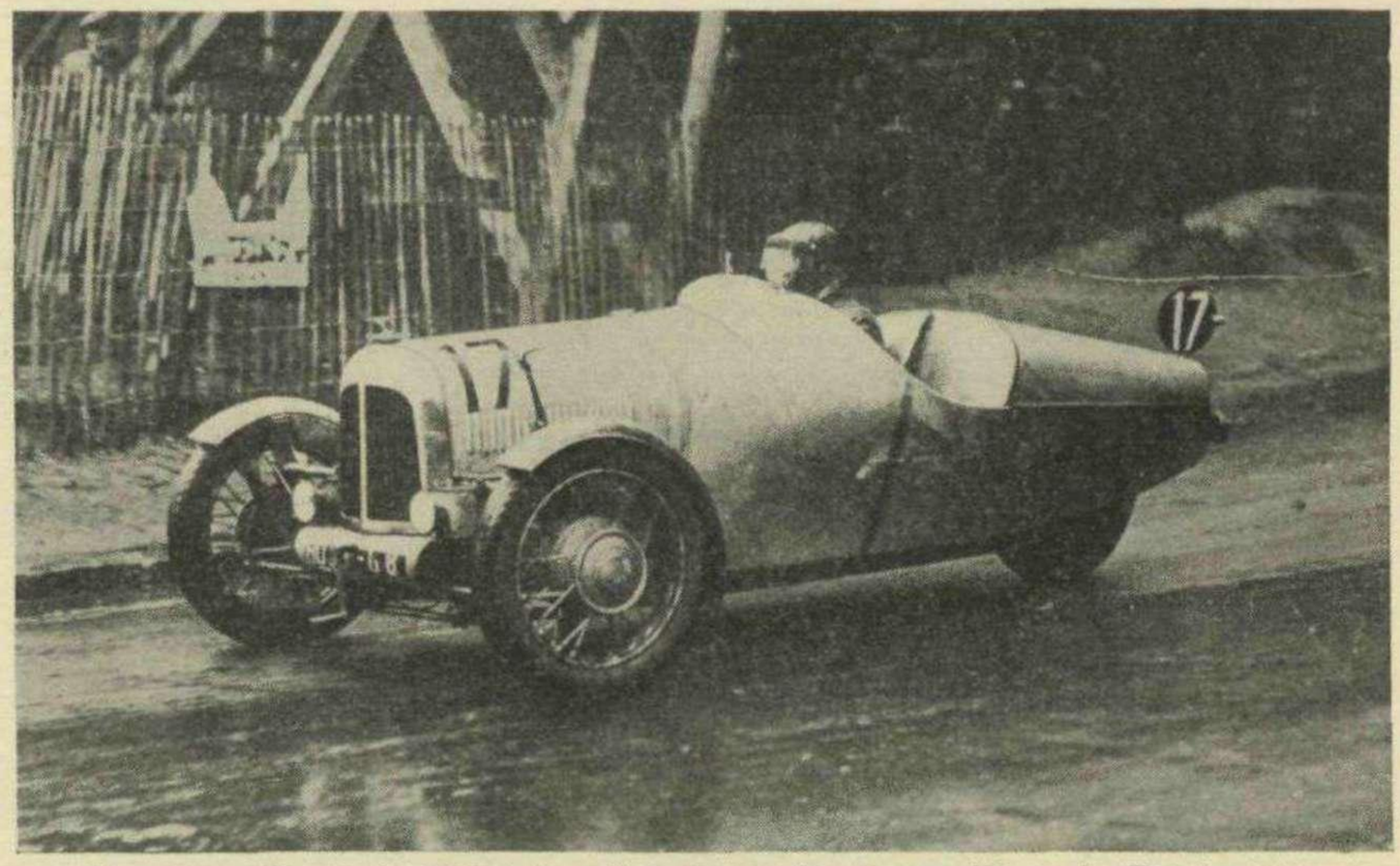
750 c.c., Mme. Violette-Morris (Sandford), 890.34 km.

1,100 c.c., Sandford (Sandford), 1,763.96 km. (best distance any class), 73.5 k.p.h.

4-WHEELED CYCLECARS

350 c.c. Colin (Colin), 957.2 km.

500 c.c. Violet (Major), 1,542.42 km.



The winner, Sandford, driving the vehicle bearing his name. [It is the French version of the Morgan.

750 c.c. Bertholon (Bertholon) 1,107.7 km.

RACING CARS.

350 c.c. Antony (Antony), 633.54 km.

500 c.c. Vroonen (Gillet-Herstall), 1,350.14 km. (class record).

750 c.c. Hellouin (Rosengart), 1,496.4 km.

1,100 c.c. Martin (Amilcar), 1,538.24 km.

SPORTS CARS.

350 c.c. Brissot-Desmaillet (Antony), 806.7 km. (class record).

750 c.c. Jacob (Rosengart), 1,45.46 km.

1,100 c.c. Vallon (Licorne), 1,701.26 km.

Le Mans Prospects.

THE 18th and 19th of this month will see once more the Grand Prix d'Endurance on the famous circuit de la Sarthe. The course is now slightly altered from last year. In future the circuit will have a length of 13.486 kilometres.

Thirty-one cars are entered for the race, one of the most interesting last minute entries being the 4½-litre Bentley to be driven by Mary and Trevoux. It has been prepared by Jean Chassagne.

Six of the cars are running in the final of the Rudge-Whitworth Biennial Cup, including Earl Howe and Sir Henry Birkin, who won the Grand Prix d'Endurance last year on an Alfa.

The entries are as follows :—

1. M. Henry Stoffel (7,100 c.c. Mercedes-Benz).
2. Prince Djordjadze (7,100 c.c. Mercedes-Benz).
3. M. de Tatarinoff (7,100 c.c. Mercedes-Benz).
4. M. E. H. Brisson (5,355 c.c. Stutz).
5. M. Guy Bouriat (4,900 c.c. Bugatti).
6. M. J. Trévoux (4,398 c.c. Bentley).
7. M. Le Bas (3.282 c.c. Ford).
8. A. W. Fox (2,970 c.c. Talbot).
9. R. I. Nicholl (2,970 c.c. Talbot).
10. Lord Howe (2,337 c.c. Alfa-Romeo).
11. Soc. Anon. Alfa-Romeo (2,337 c.c. Alfa-Romeo).
12. Soc. Anon. Alfa-Romeo (2,337 c.c. Alfa Romeo).
13. M. Sommer (2,337 c.c. Alfa-Romeo).
14. M. Heldé (2,337 c.c. Alfa-Romeo).
15. Count Czaykowski (2,300 c.c. Bugatti).
16. Mme. Siko (1,750 c.c. Alfa-Romeo).
17. Aston-Martin, Ltd. (1,500 c.c. Aston-Martin).
18. Aston-Martin, Ltd. (1,500 c.c. Aston-Martin).
19. Aston-Martin, Ltd. (1,500 c.c. Aston-Martin).
20. M. Druck (1,500 c.c. Bugatti).
21. M. Sébilleau (1,500 c.c. Bugatti).
22. M. Jean Danne (1,360 c.c. Rally).
23. M. J. E. Vernet (1,096 c.c. Salmson).
24. M. Labric (1,096 c.c. Caban).
25. M. C. A. Martin (1,092 c.c. Amilcar).
26. M. Ludovic Ford (1,074 c.c. Alta).
27. M. A. de Choqueuse (750 c.c. G.A.R.).
28. Hon. Mrs. Chetwyud (746 c.c. M.G.).
29. F. H. B. Samuelson (746 c.c. M.G.).
30. M. Labric (——).
31. M. Sommer (——).

Final of the 8th Biennial Cup.

3. M. de Tatarinoff (7,100 c.c. Mercedes-Benz).
8. A. W. Fox (2,970 c.c. Talbot).
10. Lord Howe (2,337 c.c. Alfa-Romeo)
17. Aston-Martin, Ltd. (1,500 c.c. Aston Martin).
24. M. Labric (1,096 c.c. Caban).
30. M. Labric (——).

German Grand Prix Entries.

Among British entries in the German Grand Prix to be held at the Nurberg Ring are two supercharged Frazer-Nashes to be driven by H. J. Aldington and A. P. F. Fane, who last year performed so well at Brooklands on a supercharged Salmson, and who has now got one of the latest Frazer-Nashs. His car is the first of the present type O.H.V. cars to have a blower, and the whole engine is specially modified for this. The Power-plus supercharger is chain driven from the front of the crankcase and mounted alongside the cylinder block, giving a very short induction pipe. The car was entered for the Whitsun meeting, but as it was not run in, he wisely refrained from running it. Aldington's car will be of the same type. Both drivers are afterwards running in the Alpine Trial, an event for which a Frazer-Nash should be particularly suitable owing to its high power-weight ratio and extreme handiness on twisty roads.

THE PRIX ROYAL OF ROME

THE Prix Royal of Rome, which took place on the 24th of April on the circuit of Littorio, resulted in a win for Fagioli on the 16-cylinder Maserati, which virtually consists of 2 of the 2½-litre engines combined.

Rain fell heavily before the race and made the course very slippery, but fortunately the sun appeared in time for the race, and conditions were good. First came the eliminating heats over a distance of 100 kilometres, and then the final over 240 kilometres. The results of the heats were as follows :—

1,100 C.C.

1, Decaroli (Salmson) 46m. 58 4/5s. (speed 127.7 k.p.h.) ; 2, Tuffanelli (Maserati), 49m. 25 4/5s. ; 3, Matrullo (Maserati), 51m. 32 1/5s.

2 LITRES.

1, Minozzi (Bugatti 2 litres), 41m. 7s. (speed 145.9 k.p.h.) ; 2, Comte Czaikowski (Bugatti 2 litre), 41m. 32 1/5s. ; 3, Romano (Bugatti), 41m. 34s.

3 LITRES.

1, A. Varzi (Bugatti), 37m. 47s. (speed 158.8 k.p.h.) ; 2, Taruffi (Alfa-Romeo), 38m. 17 4/5s. ; 3, von Morgen (Bugatti), 38m. 33 4/5s.

OVER 3 LITRES.

1, Fagioli (Maserati), 37m. 33 2/5s. (speed 159.9 k.p.h.).

In the final Fagioli drove a fine race and scored a most decisive victory, the terrific speed of his 5-litre car making him unassailable. The order was :—

1, L. Fagioli (Maserati 5-litre 16-cyl.), 1h. 30m. 45s 1/5s. (speed 158.67 k.p.h.).

2. Taruffi (Alfa-Romeo 2,300 c.c.), 1h. 31m. 14 1/5s.

3. Von Morgen (Bugatti 2-litres 300), 1h. 32m. 49s.

4. Varzi (Bugatti 2-litres 300), 1h. 37m. 7 1/5s.

5. Comte Czaikowski (Bugatti 2-litres), 1h. 37m. 25 3/5s.

6. Minozzi (Bugatti 2-litres), 1h. 37m. 40 2/5s.

7. Castelbarco (Maserati 2-litre 500), 1h. 37m. 55s.

8. Comotti (Alfa-Romeo 2-litre 300), 1h. 42m. 56s.

Fastest lap was made by Fagioli at 167.44 k.p.h.

In the special race for drivers unplaced in the heats, the winner was Dreyfus on a Maserati at 155.5 k.p.h.



Cars passing the stands in the Prix Royal of Rome on the Littorio track.

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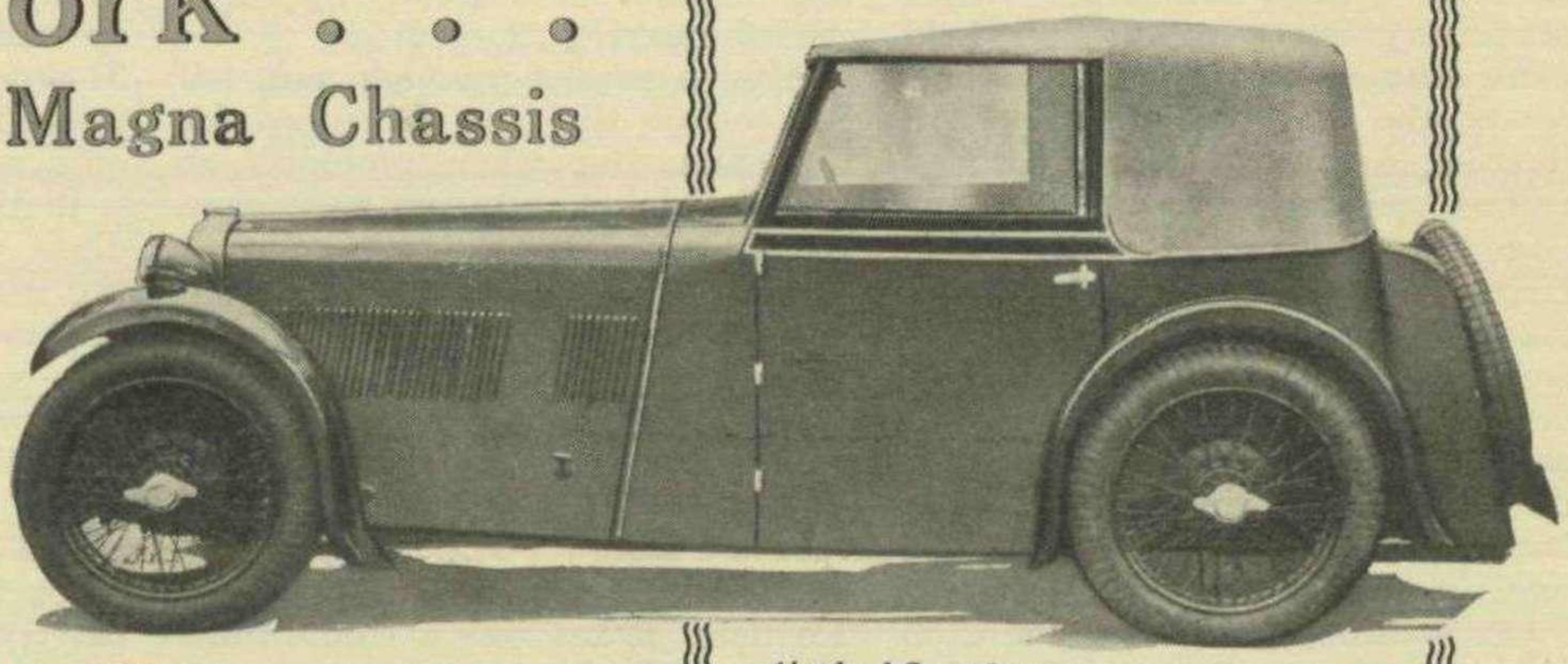
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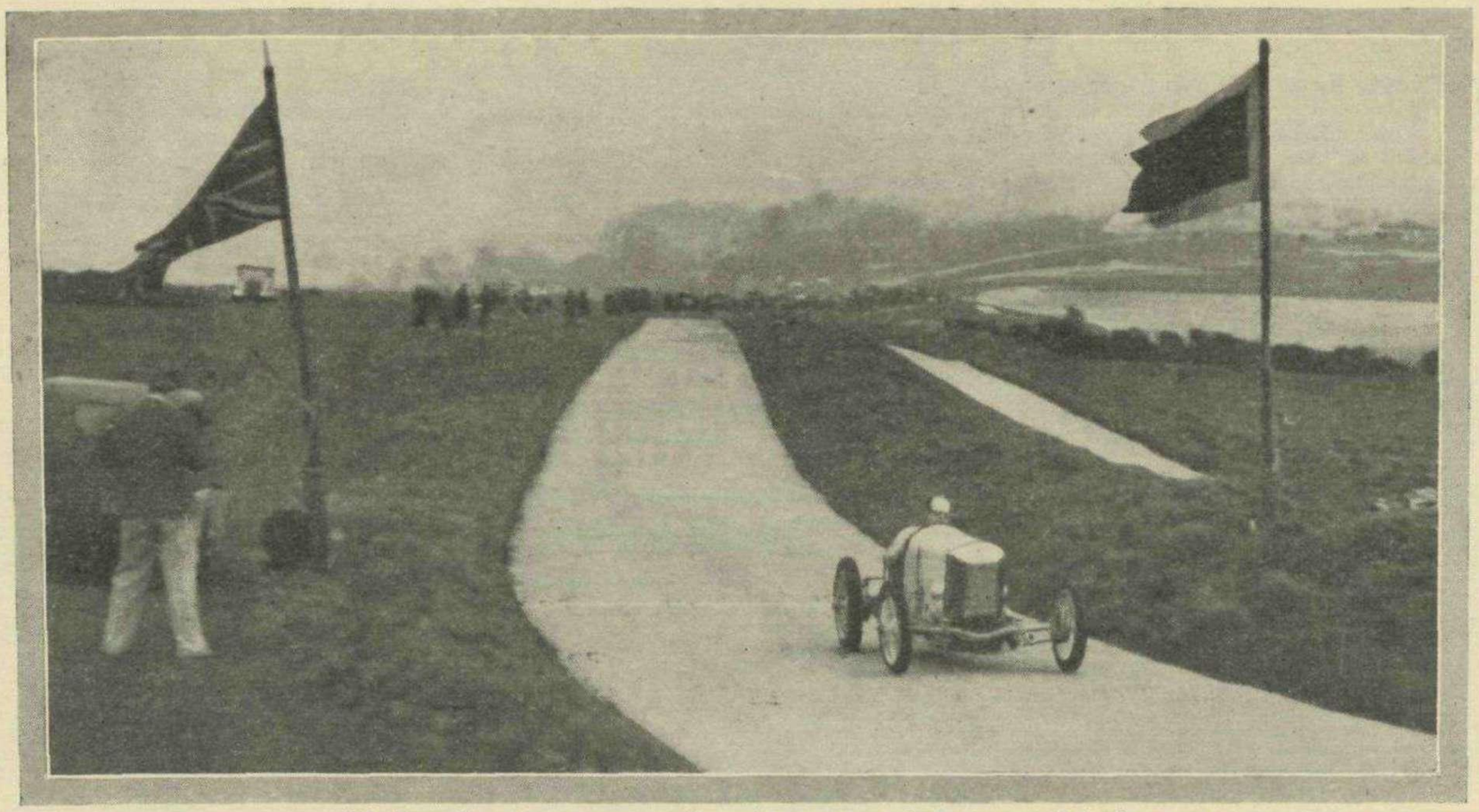
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LEWES SPEED TRIALS

KENT AND SUSSEX CLUB'S POPULAR EVENT AT RACE HILL

THE Speed Trials held on Race Hill, Lewes, by the Kent & Sussex Light Car Club, come as a welcome reminder of those "good old days" when practically every motor-club held some sort of speed trial or hill-climb—the days of Kop, South Harting, Aston Clinton and others. In the "paddock" there is just the same atmosphere of enthusiasm. Here, the driver of a pukka racing car is carefully swathing the bonnet and radiator of his immaculate machine with rugs, there, an impecunious competitor is making frantic efforts to bring his fantastic home-made cyclecar to the starting line.

On Saturday, May 7th, the Club held their first meeting of the year, and are to be congratulated on securing a record entry. In past years, R. G. J. Nash has had things all his own way for the honour of fastest time of the day with his inimitable Frazer-Nash "Terror," but this year he had some worthy rivals in J. H. Bartlett's Salmson, J. Lemon Burton's Bugatti, J. C. Davis's G.P. Delage, and a few spidery "specials," including a dark horse entered by K. Hutchinson which was reputed to be powered by the engine from Mrs. Stewart's record-breaking Morgan.

After a perfect morning, rain fell just before the time scheduled for the start, but when promptly at 2.30 the first car was sent away from the starting-line, the rain stopped and gave place to a biting wind. However, this did not deter the crowd of spectators, which gradually increased as the afternoon wore on.

The proceedings opened with special classes for M.G. Midgets and Wolseley Hornets. In the former, Kenneth Evans was a comfortable winner in his Montlhery model with a time of 31.4 seconds on his second run. Competition was keen in the Hornet class, and a sigh of relief went up from the entrants when it was heard that V. W. Derrington, who had fitted a Cozette blower in front of the radiator of his new special chassis, had been transferred to the racing class. Honours went to W. St. Clair Smith, and N. G. Shoults, who tied for first place.

The standard sports 1,500 c.c. class was a Frazer-Nash event, the winner being S. E. Cummings on his specially lowered car with a time of 31 seconds, although he was closely pressed by Miss Cynthia Sedgwick on a very smart black 3/4 seater.

In the unlimited super sporting class, which followed, an outstanding performance was made by E. J. Kleinwort on a red 4-seater 2.3 Alfa-Romeo. Remarkably quiet, the car swept up the course in 25.2 seconds, faster than most people would have judged. Alec Baker would have done better than his quick time of 26.1s. with his Amherst-Villiers T.T. Vauxhall if the car had been running properly; as it was the car made the most ear-splitting staccato it has ever been our misfortune to have heard.

Then came a sight we shall long remember—J. V. Bolster on his Bolster Special 8. This strange vehicle, its apt name "Bloody Mary," lovingly emblazoned on the bonnet, seemed to give its owner-

LEWES SPEED TRIALS—continued.

designer-driver a full time job as it rocketed up the road, its wheels flapping, and the whole car leaping about in an incredibly hair-raising manner. Nevertheless, he won his class, beating Kenneth Evans's Montlhery Midget by 1/5th second. Before the meeting started we had been informed by Bolster, "Among friends, I advise you to stand back'" After seeing his run, we quite agreed. Our hats are raised to a brave man.

Excitement ran high when the 1,500 c.c. racing class began, for the "Terror" was making its first real public appearance with its neat new body. What a wonderful little car it is! Surely no other vehicle on earth, whether on two wheels or four, possesses such colossal acceleration from a standing start. Nash handled the car perfectly, and won the class with a time of 20.1 seconds. Later, in the 2-litre class, he reduced this to 20 seconds dead, easily the fastest time of the day. Bartlett's Salmson, transformed by a lowered chassis and a smart new body, did exceedingly well to clock 23.2 seconds, especially as it has a smaller engine than the "Terror." The car held the road beautifully. Third place was taken by J. Lemon Burton on a 1½-litre Bugatti, which had a most pleasing exhaust note. J. C. Davis's Delage—the late property of W. B. Scott—was suffering from persistent blowing back through the supercharger release valve, but on his last run succeeded in clocking 25.2 seconds.

A handicap class, won by W. L. Allen on an old str.-8 Bugatti, brought the event to a close, leaving competitors and spectators alike with a desire to return to Lewes for the next Speed Trials to be held on June 18th.

RESULTS.

TOURING CARS, UNLIMITED.

1. E. M. Van Moppes (Standard 16), 42.1s.

M.G. MIDGET (ANY TYPE).

1. Kenneth D. Evans (Montlhery S.), 31.4s.

WOLSELEY HORNET CARS.

1. { W. St. Clair Smith, 33.4s.
   { N. G. Shoults, 33.4s.

SUPER SPORTING CARS UP TO 1,100 C.C.

1. Kenneth D. Evans (M.G. Midget), 30.2s.

STANDARD SPORTING CARS UP TO 1,500 C.C.

1. S. E. Cummings (Frazer-Nash), 31.0s.
2. Miss Cynthia Sedgwick (Frazer-Nash), 31.3s.

SPORTING CARS UP TO 2,000 C.C.

1. S. E. Cummings (Frazer-Nash), 30.4s.
2. K. Hutchinson (Frazer-Nash), 31.3s.

SUPER SPORTING CARS UP TO 1,500 C.C.

1. S. E. Cummings (Frazer-Nash), 30.4s.
2. Miss Cynthia Sedgwick (Frazer-Nash), 32.0s.

SUPER SPORTING CARS UNLIMITED.

1. E. J. Kleinwort (Alfa-Romeo), 25.2s.
2. Alec L. Baker (Vauxhall), 26.1s.
3. S. E. Cummings (Frazer-Nash), 31.3s.

RACING CARS UP TO 1,100 C.C.

1. J. V. Bolster (Bolster 8), 27.4s.
2. Kenneth D. Evans (M.G. Midget), 28.0s.
3. A. H. Lancaster (Amilcar 9), 34.0s.

RACING CARS UP TO 1,500 C.C.

1. R. G. J. Nash (Frazer-Nash "Terror"), 20.1s.
2. J. H. Bartlett (Salmson), 23.3s.
3. J. Lemon Burton (Bugatti), 25.1s.

RACING CARS UP TO 2,000 C.C.

1. R. G. J. Nash (Frazer-Nash "Terror"), 20.0s.
2. J. H. Bartlett (Salmson), 23.4s.
3. J. Lemon Burton (Bugatti), 24.4s.

RACING CARS UNLIMITED.

1. R. G. J. Nash (Frazer-Nash "Terror"), 20.1s.
2. J. H. Bartlett (Salmson), 23.2s.
3. J. Lemon Burton (Bugatti), 25.0s.

HANDICAP CLASS.

1. W. L. Allen (Bugatti), 17.0s.
2. Dennis G. Evans (Bugatti), 18.2s.
3. Kenneth D. Evans (M.G. Midget), 18.4s.

The "Baker" challenge cup and replica for best performance by sporting car: A. L. Baker (Vauxhall).

The "Clayton" challenge trophy and replica, for fastest time in racing classes: R. G. J. Nash (Frazer-Nash "Terror").

Special cup for fastest time by a member of another Club: J. H. Bartlett (Salmson).

Special cup for winner of handicap class: W. L. Allen (Bugatti).

FORTHCOMING EVENTS

INTERNATIONAL FIXTURES—1932

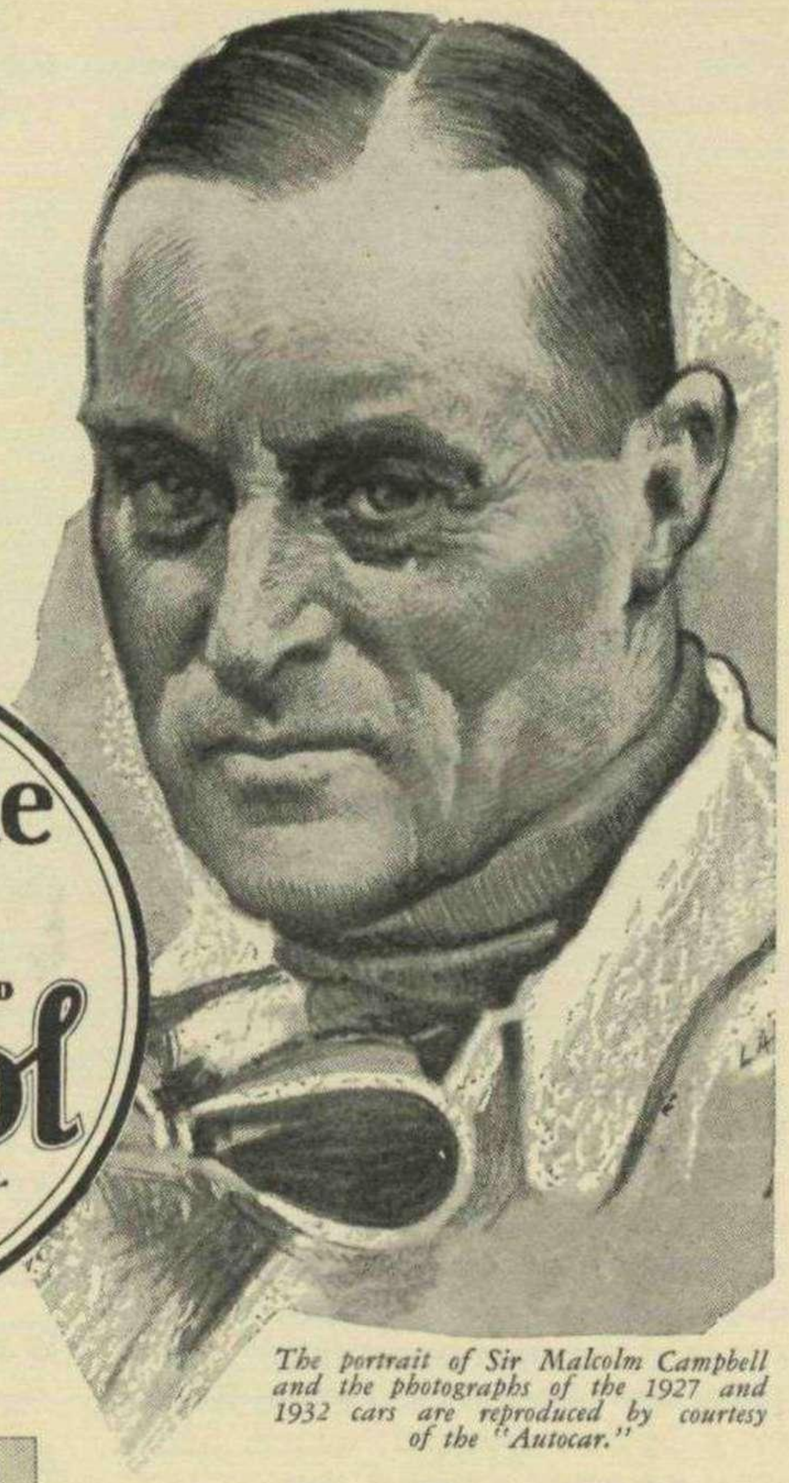
JUNE.

1-8th. *Roumania—Concours International de Tourisme.*
3rd-4th. *Great Britain—Junior Car Club's 1,000 Miles Race.*
5th. *Italy—Gran Premio of Italy.*
12th. *Germany—Internationales Kesselbergrennen.*
12th. *Poland—Grand Prix de Lwow.*
18th-19th. *France—Le Mans 24-hour Race.*
19th-26th. *Poland—Concours International de Tourisme.*
19th. *Italy—Course de Pontedecimo-Giovi.*
26th. *Italy—Coupe Sila.*
29th-3rd July. *Germany—Internationales Baden-Badener Automobilturnier.*

JULY.

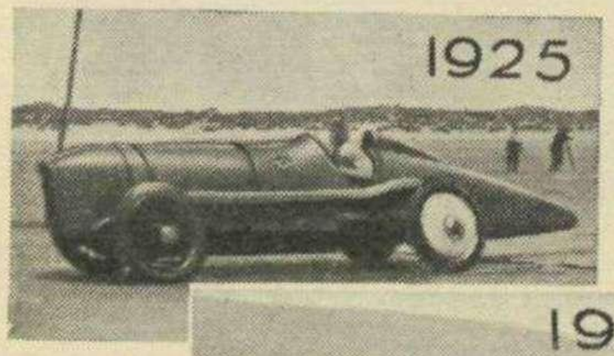
3rd. *France—Grand Prix de L'A.C.F.*
9th-10th. *Belgium—Grand Prix de Belgique.*
10th. *France—Course de Vieil Armand.*
17th. *Germany—Grosser Preis of Germany.*
24th. *Austria—Course de Cote du Gaisberg.*
24th. *Italy—Circuit du Prince de Peimont.*
28th-3rd August. *Italy, France, Austria, Germany, Switzerland* } *Coupe des Alpes.*
29th-30th. *Ireland—Irish Grand Prix.*
31st. *France—Coupe de Provence.*
31st. *Italy—Semaine du Comminges.*

Sir Malcolm Campbell has broken the LAND SPEED RECORD FIVE TIMES

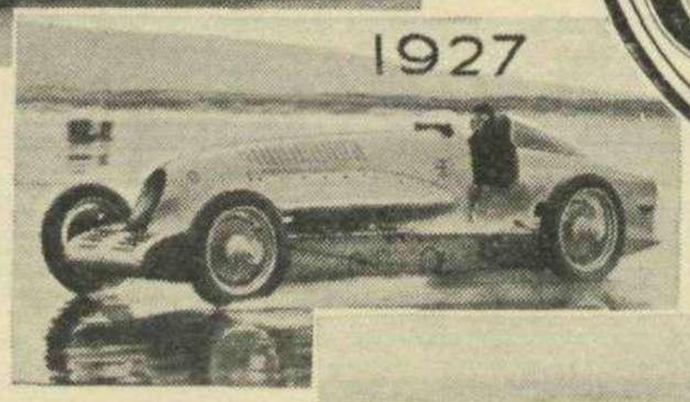


The portrait of Sir Malcolm Campbell and the photographs of the 1927 and 1932 cars are reproduced by courtesy of the "Autocar."

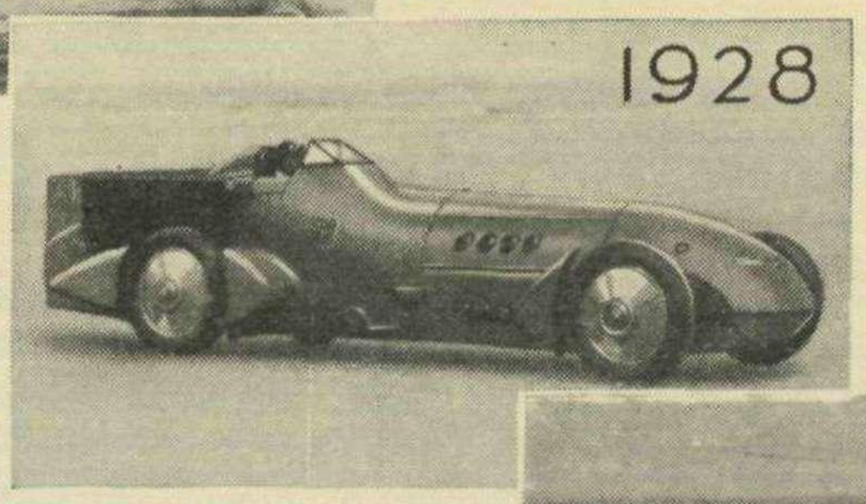
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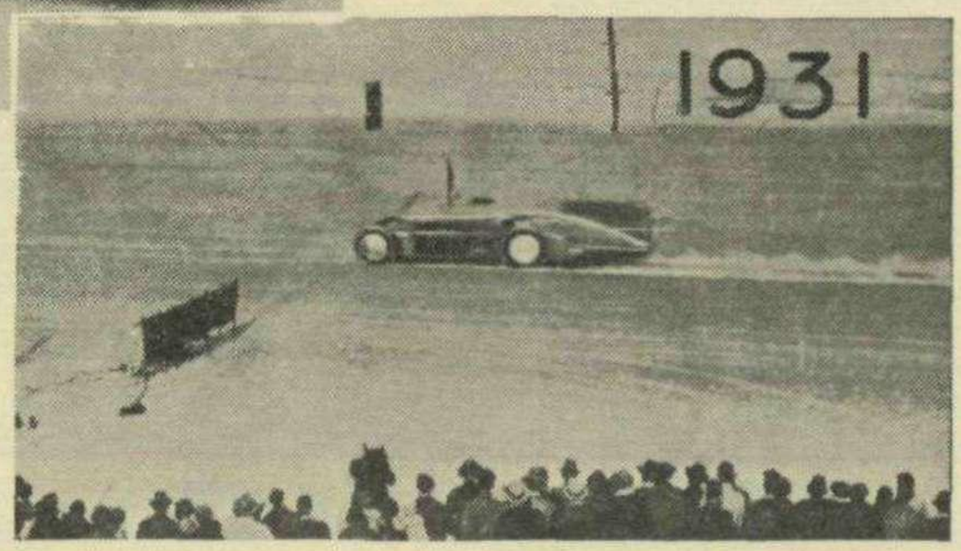
1925. On July 21st, on Pendine Sands in a Sunbeam Car, Sir Malcolm first secured the coveted record at 150.86 m.p.h.



1927. On February 4th, in the Napier-engined "Bluebird" on Pendine Sands he broke the record at 174.88 m.p.h.

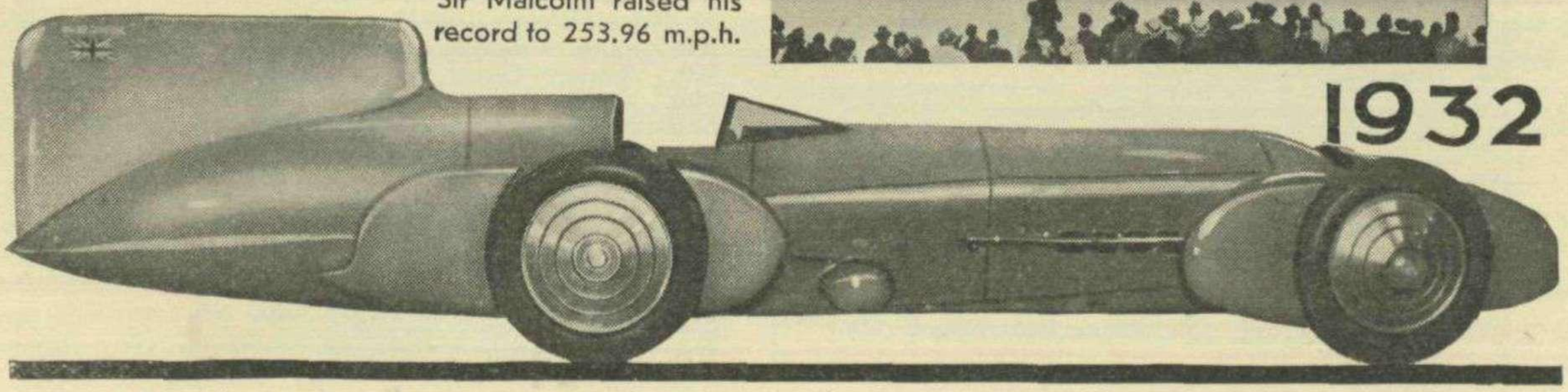


1928. On February 12th, at Daytona for the first time, Sir Malcolm attained 206.95 m.p.h.



1931. On February 5th, again at Daytona with a supercharged Napier-engine in "Bluebird," the record fell at 246.09 m.p.h.

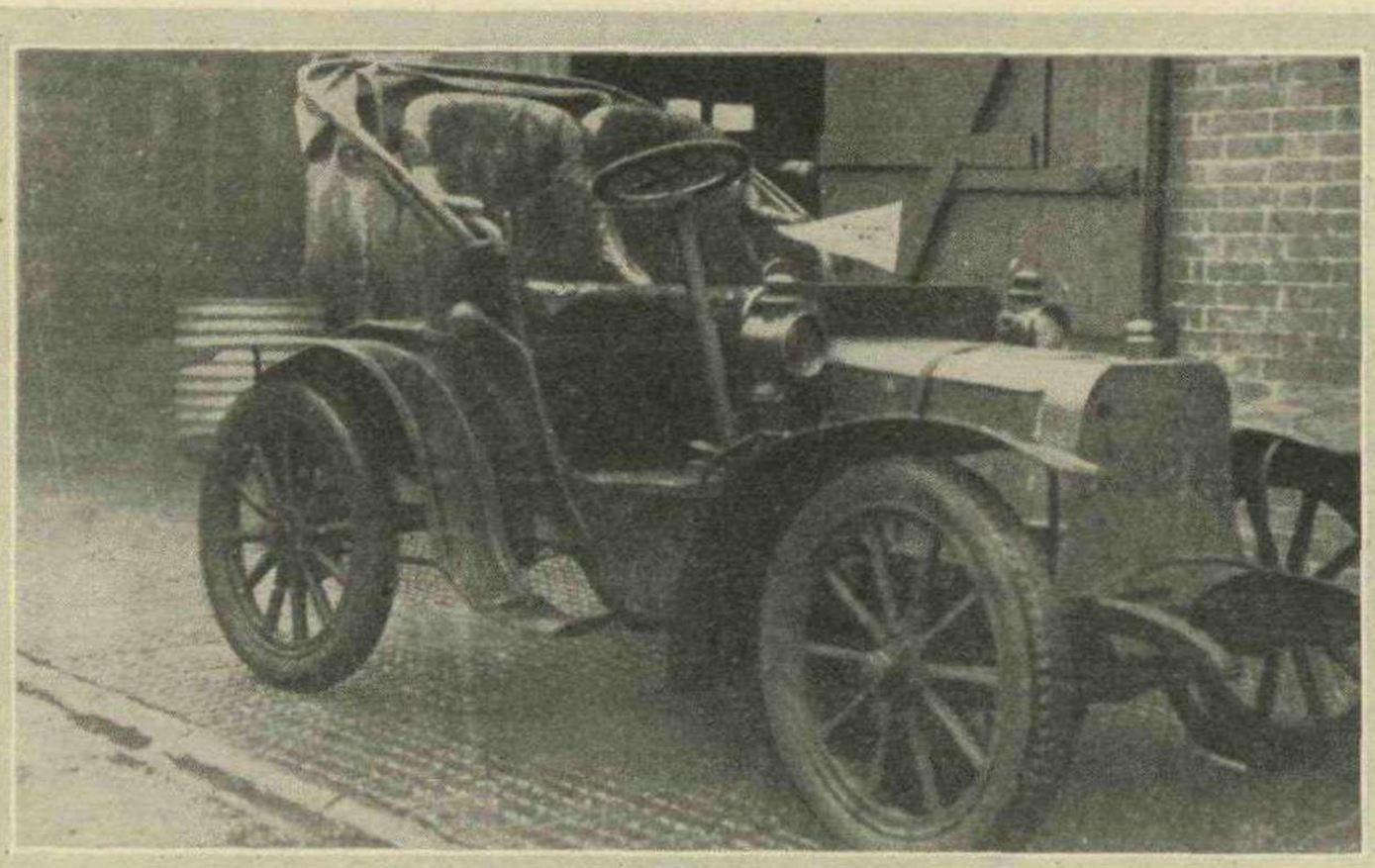
1932. On February 24th, Sir Malcolm raised his record to 253.96 m.p.h.



200 M.P.H. ON LAND HAS NEVER BEEN EXCEEDED WITHOUT Castrol

VETERAN TYPES

X.—A DARRACQ "FLYING FIFTEEN."



A sturdy old timer. The 15 h.p. Darracq which is still "going strong."

"AH. I bet she goes," remarked the village garage mechanic, a man who served his apprenticeship underneath a very early Cannstadt Daimler. "They used to call these the 'Flying Fifteen.'"

The object of his remarks, although undoubtedly a "flyer" in its day hardly coincided with the modern idea of a sports car. Behind a low brass honeycomb radiator and a short bonnet rose an almost vertical steering column, and behind that again, and towering above it, a pair of imposing bucket seats surmounted by a somewhat ungainly hood. Behind the latter there was an equally abrupt fall only terminated by a shallow boot at about the level of the top of the wheel. Only, perhaps, the somewhat rakish angle of the front wings suggested the speed model of another era.

Yet the 15 h.p. Darracq of 1904 was undoubtedly nothing other than a sports light car, the direct descendant of those light racers with which Edmond, Marcellin, Baras, Henri Farman, Gabriel and Hémèty had surprised the world in Paris-Berlin, Paris-Vienna, Paris-Madrid and a score of other lesser contests. Beneath that short bonnet is a 4-cylinder engine with a bore and stroke of 90 x 120 mm., the capacity being thus 3,044 c.c. All the valves are mechanically operated and are arranged side by side on the left hand side of the engine in an L-head. Mounted high up on the opposite side of the engine is a Simms-Bosch magneto, which gives a spark when rotated slowly by hand fat enough to arouse envy in the hearts of owners of many more modern machines, and which is driven by a long chain from the front of the crankshaft. In front of the radiator, and driven from the camshaft is a coil, with its dry battery on the dashboard, one set of plugs being mounted in the centre of the cylinder heads, the other in the valve pocket. A water pump driven by gearing from the front of the crankshaft takes care of the circulation, and mounted low down on the valve side of the engine, in an almost ideally inaccessible position is a Zenith carburettor of almost modern type.

At the rear of the crankshaft is a large leather cone clutch, and behind that again, after a short engine shaft a massive gear-box which looks as if it would do duty for a lorry, if the designer thought he could afford the weight. Apparently in the case of the Darracq, the designer decided to save this in the change speed mechanism, which consists of a most inadequate looking rod leading to the steering column, on which just underneath the wheel is mounted a horizontal gear-lever consisting of a piece of strip iron with a wooden handle on the end. This lever works on a quadrant with notches giving a vague indication of the position of the three forward speeds and reverse.

Behind the gear-box is an open propellor shaft and a massive live rear axle. The chassis is of channel section, with the bottom flat portion extended to form wide trays on either side of the car. Semi-elliptic springs all round provide for suspension, and the wooden wheels are shod with 815 x 105 mm. tyres.

This delectable machine was discovered by a friend of mine some two years ago in a garage in Newbury, and on making enquiries he was informed that it had been left there before the War, and had never since been taken away by its owner. From time to time, however, the latter inquired after its health, and after lengthy negotiations my friend finally acquired it. Investigation proved that little was wrong with the machine, and although it was then too late to enter it officially, the Darracq successfully followed the other veterans in the Brighton Run of 1930. In 1931 it was duly entered for the event, and after succeeding in making second fastest time to Brighton with an average of 25.45 m.p.h., successfully did the return journey to London that same afternoon.

Soon afterwards, the Darracq passed into my possession, and when the Veteran Car Club's Rally at Bagshot was announced for 17th April, 1932, I determined to try out its paces in this event.

The rules of the contest stipulated that entrants could start whence they liked, when they liked, and were to arrive at Bagshot for one o'clock luncheon on Sunday, 17th April. Three prizes were, however, offered for the cars which had come furthest to the Rally, due regard being paid to the relative ages of the machines. After some deliberation in which enthusiasm contended with practical considerations, we decided to make Exeter our starting point, and after minute calculations we worked out

VETERAN TYPES—continued.

that the route which we intended to follow gave a total distance of 155 miles to Bagshot. Actually it proved that this estimate erred on the conservative side, but at least we had the satisfaction of knowing that we had more than fulfilled our claims.

We had intended starting early on the morning of Saturday, the 16th, but unfortunately early rising cannot be numbered among the accomplishments of the crew. However, the Darracq started up like a lamb, and at a quarter past ten, duly armed with a certificate from Messrs. Gould Brothers stating that the motor had left their garage under its own power, we were under way.

Almost at once we were politely arrested by a member of the Constabulary who informed us that even the Darracq might not " filter " to the left in Exeter against the traffic lights. The next moment, however, he wished us " bon voyage" and we were started in earnest.

Gear-change intricacies.

A leather cone clutch operated by a " piano " pedal is never the easiest thing to let in smoothly and it is none too simple to prevent the Darracq starting off in a series of jerks which at least delight the onlookers. A few yards on first, and one makes for second, the position of which is vaguely indicated by the notch on the quadrant. The fault in this respect, I should hasten to add, cannot be laid entirely at the door of M. Darracq. My friend, the previous owner of the car, had discovered on taking it over that the second speed pinion was so badly worn that he decided that it must be replaced. He therefore betook himself to a certain famous firm in Devonshire who deal with motor cars when their journeying days are over. There he found an old man, to whom with no sign of diffidence he said : " Have you any 1904 Darracq gear boxes ? "

The old man without evincing any surprise seated himself on a petrol tin and for some moments was lost in deep thought. " I remember where we put some shortly before the War," he said at last, and crossing to the far corner of a shed where lay a pile of miscellaneous motor parts, he produced after a little burrowing, a gear box which was almost exactly the fellow to that on the car. My friend bore it home in triumph and set about making a good gear box out of the best parts of the two ; but perhaps he didn't get the second speed position quite right.

Tough going.

After gathering a little speed on second one essays the last change up ; with a clonk the top gear dogs go home, and one is really away. Just as we were leaving Exeter the first ominous drops of rain began to fall and before we were well clear of the town it was coming down quite hard. What was worse, too, was that a stiff wind was blowing directly in our faces and the rain stung till one could hardly see. We tried putting the hood up, but that was not a great success, for with the head wind blowing the Darracq lost so much speed that we quickly put it down again. Otherwise, even with the wind against us the old car would do her 35 m.p.h. on the flat with the best of them.

Some four miles out of Exeter we had our first stop to deal with a plug which had fused across the points and was causing the Darracq to run on three cylinders. A few more miles and that number 4 plug had struck work again, and the mechanician was cursing me for starting out with a dud collection of plugs. I explained that they were the pick of the six which I had discarded from a modern motor a short time previously, but nothing would placate him until we had stopped at Honiton and bought a plug of a brand for which he has a particular affection. A few miles further on that new plug oiled up ; comment would have been superfluous.

In the meantime, while all four cylinders could be induced to fire, the Darracq was going really well. Its performance on the hills was really the most remarkable feature. One soon discovered that second does not permit of very high speed, but this really does not matter, for even on quite long steep Devonshire hills one simply remains in top. To hear that old engine pulling is really a remarkable experience as one climbs at about 10 m.p.h. to the steady " plop, plop, plop " of the motor. At first one can hardly believe that she is going to carry on, until at last one realises that the gradient is easing off, and the motor beginning slowly to pick up.

Descending the hill after passing the summit is no less exciting. Unfortunately somewhat hasty preparation of the car had not given us time to get the foot brake to work at all effectively, and although the hand-brake proved quite adequate to hold the car back, one's right hand was not entirely free for its use owing to the Darracq's propensity for jumping out of gear on the overrun. This in fact invariably happened if one did not hang on to the gear lever, and as a result of a setting for the slow-running which gave one a chance of getting into gear when at rest, jumping out of gear invariably resulted in the engine stopping unless one was mighty quick with the throttle pedal. In spite of these difficulties, however, and the wet and slippery roads, we managed to reach the bottom of the hills without experiencing the " deadly sideslip."

A slight set back.

As the result of our plug troubles and the hilly nature of the road, it was a quarter to one before we drove into Crewkerne, having covered 38 miles in 2½ hours. Then, when making a gear-change in the town, the strip iron gear lever calmly snapped inside its wooden handle. This gave the passenger ample scope for remarks about my ham-handedness and caused some slight concern when we discovered that the stub of the lever remaining in position did not give enough leverage to enable one to shift the gears. We decided to enlist the assistance of a garage which was presided over by a youth who quickly caused dissension among the crew, one view being that he was a half-wit and the other that he was merely a native of Somerset and consequently didn't understand the language. However, at last the proprietor returned from his lunch, and with his assistance we succeeded in bolting on to the stub of the gear lever a very rough bar with a remarkably sharp end just where one had to catch hold of it. Then, wet and cold we repaired to get something to eat.

VETERAN TYPES—continued.

It was a quarter past two before we finally left Crewkerne, but the rain had stopped for the moment and our spirits rose as the Darracq bowled along the road to Yeovil. Before long the rain started again, but otherwise our luck seemed to have turned. In an hour and a half we had covered as great a distance as we had done in the whole of the morning. Yeovil and Sherborne were left behind and before long we were climbing the long hill into Shaftesbury. We stopped occasionally for water, once for a fill up of oil, and set off across the wide plain of Salisbury. It was as cold, wet, grey an afternoon as you could wish, but as the Darracq, manfully pulling on top gear, breasted the hills of the " plain," we felt that in spite of the weather the run was proving thoroughly worthwhile. On through Stockbridge and Basingstoke, and at last, eight miles beyond the latter town at about 6.30 p.m., just as dusk was closing in on us, we reached home, wet and cold and thoroughly ready for dinner.

The next morning the Darracq was wheeled out of its stable into the yard, and after a " shot " or two in the compression taps, the engine once more rumbled into life. A fill up with fuel and water, and we set off again, still alas ! in the rain to cover the last 24 miles of our run to Bagshot. At a quarter past twelve we came in sight of the " Cricketers," surrounded by an enthusiastic crowd which closed in on every side of us, and almost prevented our lurching backward progress into our place in the line of veterans outside the hotel. Until that moment we had no idea of how far the other competitors were coming to the rally ; and it was thus as a pleasant surprise that we heard that we had actually covered the greatest distance, and that the Darracq was placed third in the competition.

In actual fact, we reflected as we drove home after lunch, there was little reason why we should not have started 310 miles from Bagshot instead of 155, for the Darracq felt quite capable of covering the whole distance again with ease. In fact in spite of its 28 years one may regard the car to-day as quite a practical runabout—a week later I chose it to go 17 miles to see a friend of mine, for it was a fine day and it was the only open car available. It is not so difficult or so strange to drive as are most of the older veterans, but still it is a great deal more amusing than many a modern car which will go twice as fast.

—E. K. H. K.

"SIDESLIPS"

'THE deadly sideslip " was, as everyone will admit, the bugbear of the early motorist, and I have even come across a writer of the nineteenth century who gave a counsel of despair on the subject and fatalistically remarked that if a sideslip did occur there was absolutely nothing that the automobilist could do but await the inevitable accident.

Of course, we all think ourselves much wiser nowadays ; we call the thing skidding, and bus drivers have a special place to do it in on purpose. However, in journalism the danger still exists with all its old terrors, and nothing is easier than to find the thread of one's discourse sideslipping badly and charging off in quite the opposite direction to that in which one thought one was going. I intend to adopt a fatalistic attitude and see what happens.

Early history.

I suppose that one day some enterprising person will write a biography of M. Bugatti. In the meantime, however, very few people seem to know much about the early history of " le patron " of Molsheim, and until recently I must confess that the first thing I knew about him was that he entered a car in the Grand Prix de France in 1911 which was so small that there was no room to fix a spare wheel on it, and so light that it was too light for the light car class. However, of late I have apparently learnt some more. Everyone who has read Charles Jarrott's " Ten Years of Motors and Motor Racing " (and who is so foolish as not to have ?) must remember the account of the author's adventures with his De Dion Bouton tricycle in the Paris-Bordeaux Race of 1899. But the De Dions were not the only tricycles in that race, for at the start much interest was aroused by " a Signor Bugatti of Milan who rode an Italian built tricycle of exceptionally interesting design." Unfortunately, I have not yet come across a detailed description of the tricycle, which, in common with most others of its kind, did not reach Bordeaux. The gentleman from Milan, however, if he retired from the race, did not retire from history.

The De Dietrich.

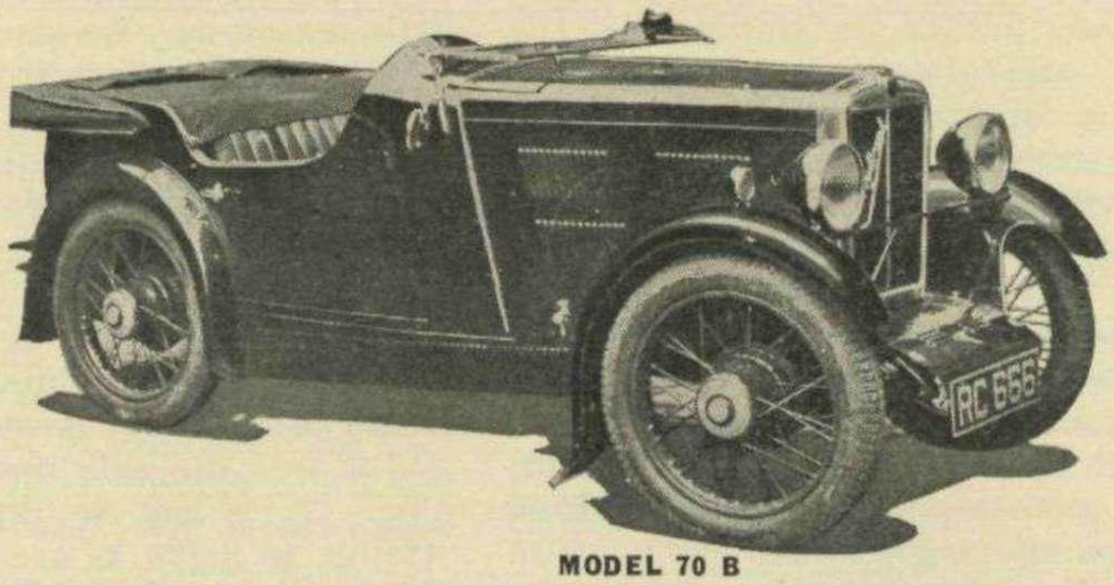
In its earlier days the company which made the De Dietrich car acquired quite a habit of getting other people to make them their designs. They started off by using that evolved by Amédée Bollée, Junior, of le Mans—a rather fearsome affair with a horizontal engine, long belts and a propellor shaft to each back wheel. Then that was abandoned in favour of something more conventional, which owed its origin to MM. Turcat et Méry, the famous engineers of Marseilles. Finally, about 1902 I think, one comes across the 24 h.p. De Dietrich designed by one Bugatti, who can be none other than the great Ettore. The engine of this machine was of an ingenuity for those days worthy of its creator's later efforts. It had four cylinders of 114 x 130 mm. bore and stroke, and cast in pairs. Round each pair was arranged a cylindrical aluminium casing, which gave the engine the appearance of an enormous twin-cylinder. Both exhaust and inlet valves were mechanically operated, and both were in the head. There were two camshafts, one on each side of the crankcase, and they operated pushrods which came up inside the aluminium casing and attacked the valves through incredibly short rockers. The engine speed was variable by a centrifugal governor-controlled throttle from 250 to 1,400 r.p.m.

Unfortunately, I have not yet come across a description of the complete car, but I have discovered a photograph of M. Bugatti on his 24 h.p. De Dietrich competing in the Austrian Semmering hill-climb of 1902. The machine has a rather long chassis, of which the engine takes up considerably less than half. A square petrol tank is mouuted about opposite the driving chain sprockets ; behind that comes the steering column ; and right at the back of all, behind the axle, sits M. Bugatti. The space between the engine and petrol tank is filled up with shapeless objects, which may represent ballast, but which look exactly like suit cases, as if M. Bugatti had brought everybody else's luggage to the climb !

Works changes.

In those days, of course, the De Dietrich car was made at Lunéville in French Lorraine. Later the works were moved to Argenteuil, near Paris, whereupon the car became known as the Lorraine-Dietrich, or even the Lorraine, to show, I suppose, that that was no longer where

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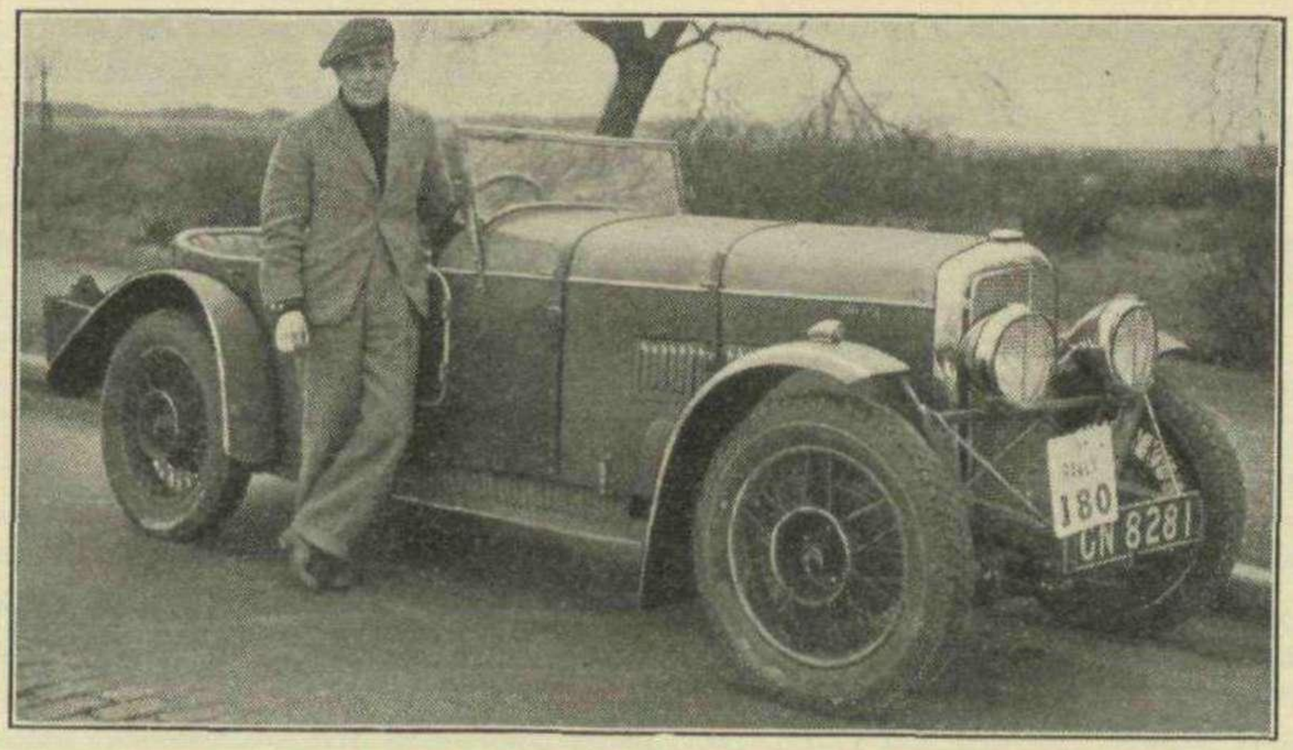
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SIDESLIPS—continued.

it was made. However, the connection with De Dietrich at least seems to explain how Ettore Bugatti came to leave his Italy and how he got to Eastern France. Thus, when he started to build cars himself, Bugatti set up his works not far away, at Molsheim, some 15 miles from Strasbourg, which was then in German territory. It was just the chance of the rearrangement of frontiers after the War that caused this Italian engineer who started to make cars in Germany to be responsible for the majority of the French victories in the great races of recent years.

This is a curious circumstance, for without Bugatti, France would make a poor showing in racing for the country which really evolved the modern automobile. It is, in fact, a remarkable thing that even French racing cars have to go abroad for many of their accessories. Rudge-Whitworth wheels, although now made in France, are one example, sparking plugs are another. Incidentally, has anyone ever come across a good modern French plug? I remember that some years ago there used to exist a wonderful French affair which closely resembled a large, bright yellow Easter egg, and which did occasionally spark. Whereby hangs one, if not two, tales.

Boots and pedals.

Once upon a time I was an amateur soldier. How, amateur can be gathered from the fact that instead of being shod in regulation army manner, I wore a pair of boots which had been built for climbing in the Alps, and each of which carried about half a ton of nails with good claws round the edges. It so transpired that my duties one day included driving a superior officer for some distance in a little Mathis car, with a 760 c.c. engine, and other dimensions to match. For instance, the pedals were evidently intended for use exclusively by Japanese ladies, and were set as close together as possible. Now, with my big boots, one foot easily covered all three; fortunately, the throttle, which was in the middle, stuck up a bit above the others and so was useable, but if I wanted to use the brakes, which were not much good at the best of times, I had first to open the throttle fully before I could simultaneously brake and declutch. In the course of our run we came to a cross-roads on to which I sallied cautiously in third, to find another car bearing down on us at high speed. To brake was difficult, to accelerate was the only alternative, and I stamped on the throttle; but the Mathis was fitted with those lovely Easter egg sparking plugs, and instead of leaping nimbly out of danger she gave a series of ear-splitting splutters and faded out. You should have seen that very superior officer's face as the other car drew up a few inches from his side of the Mathis!

"It's the candles!"

After that, of course, I got to know those sparking plugs pretty well, and got quite used to their periodical incandescent splutter. Some time afterwards a party of us were motoring across France in a 3-litre Cottin et Desgouttes with a fine turn of speed. The driver, a Frenchman, was a man who meant business, and was putting that car along the white dusty roads in a thoroughly satisfying manner. Suddenly, however, the steady roar of the engine was interrupted by a violent staccato splutter. The Cottin was using Easter eggs! "It is the candles," I roared into the driver's ear, nodding wisely; in reply he gave me a contemptuous look, and with his foot still firmly on the floor answered, "Non, non, Monsieur, —c'est l'air!" I am still wondering what he meant.

Actually, I suppose the driver of that Cottin et Desgouttes had no idea of what was wrong with it, and was simply illustrating the Frenchman's determination not to be at a loss for the answer to a question. The difference in national characteristics is, I think, always remarkably displayed if one stops a car to ask someone the way. As everyone who has ever tried this experiment knows, in England the most obvious rustic who has patently inhabited the cottage which one has just passed, all his life will, if asked the way to the next village, invariably reply that he is a stranger in these parts. Not so the Frenchman. Like his English counterpart, he has no idea of the way anywhere, but if you ask him which is the road to Blankville, he immediately answers with enormous excitement, "C'est tout droit, Monsieur, tout, tout, droit; ou peut filer la-bas." Simply, I suppose because it is easier to say that it is straight on and that one can go all out, and he simply cannot resist the temptation to say something.

The other day a party of us were at Exeter with a motley collection of cars, which, however, included a racing Hispano-Suiza and a Frazer-Nash. The driver of the latter was determined to see whether he could keep up with the Hispano, but owing to some delay at the start, he did not get out of the town until a minute or so after the other car. The Nash, however, soon got going to good purpose along the Honiton road, but after travelling for about half an hour, the driver became somewhat disappointed that he had seen no sign of the Hispano. It occurred to him that possibly the latter had taken the wrong road, and he decided to ask the next person he saw whether he had seen his quarry. A mile or so further on he came upon a tramp, and pulled up.

Asked and answered.

"Have you," he asked, mastering his impatience as best he could while the seconds ticked by, "seen a large, grey, open, 2-seater Hispano-Suiza motor car going in the same direction as I am?"

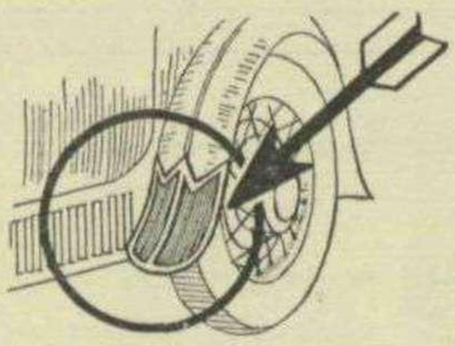
The tramp scratched his head meditatively, spat, and replied that he hadn't.

This was odd, but perhaps, thought the driver, this tramp has only just embarked on the main road from a side turning.

"How long," he asked, a little impatiently, "have you been on the road?"

The tramp scratched his head again. "Since nineteen 'undred and eight" came the final reply.—K.

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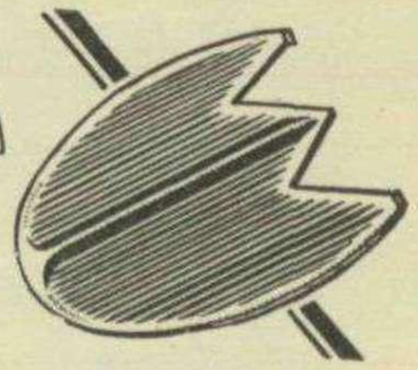


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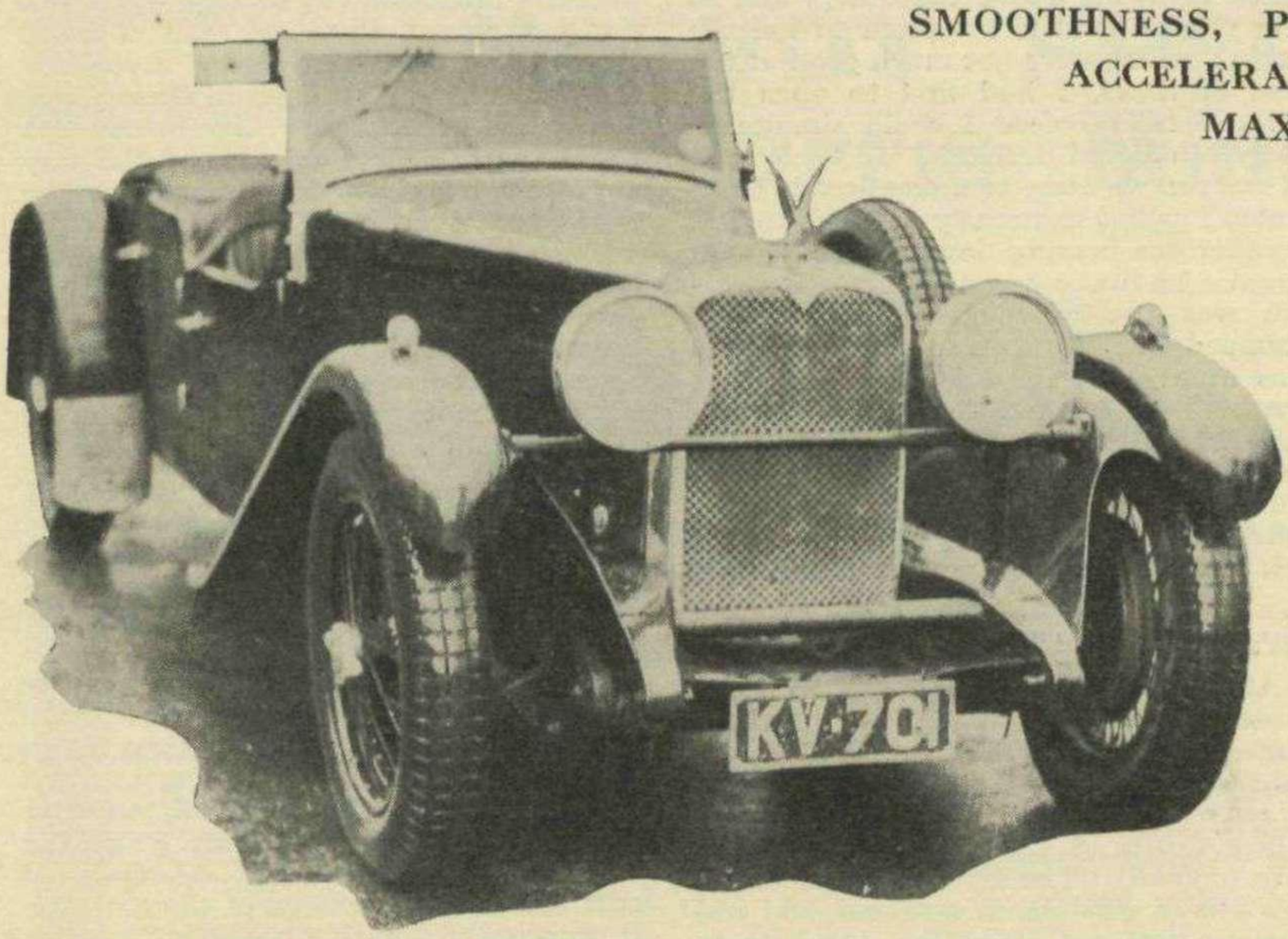
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Gearbox: 4-*speeds and reverse central change. Ratios with* 4.5 *to* 1 *axle ratio.* 14.15, 9.2, 6.52 *and* 4.5 *to* 1.

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Many seasons of racing experience gave them valuable data for the building of their cars, one of their most notable victories being in the 200-miles race of 1924, when one of their famous 4-cylinder 1½-litre models, forerunner of the 12-60 h.p. of to-day, averaged over 94 m.p.h. for the distance, a very wonderful performance for a car which was but little modified from the production machine.

They kept an active interest in records and racing for some years, and only recently decided to wait till our present races give up the handicap system as the means of deciding the winner of the chief trophy.

When they announced their latest model, the "Speed-Twenty," motorists immediately became enthusiastic, and the description of the chassis which appeared in MOTOR SPORT at that time showed how neatly, and with what strength, the new model had been fashioned. Now that we have had an opportunity of testing an example for ourselves we have been able to realise that appearances were not deceptive, and the performance and handling were fully up to expectations.

This model owes a great deal in the power unit to the 3-carburettor Silver Eagle, but in the chassis layout itself, it is entirely new. Those who read our road test of the Silver Eagle in MOTOR SPORT of June, 1930, will remember that our verdict was roughly this—a fine car, but too high for the best results in cornering. Good cornering naturally depends on other things besides chassis height, and the Alvis Company were not to be rushed into producing a car which was low without having the other important factors a so brought into line, and their policy has been fully justified in the "Speed-Twenty."

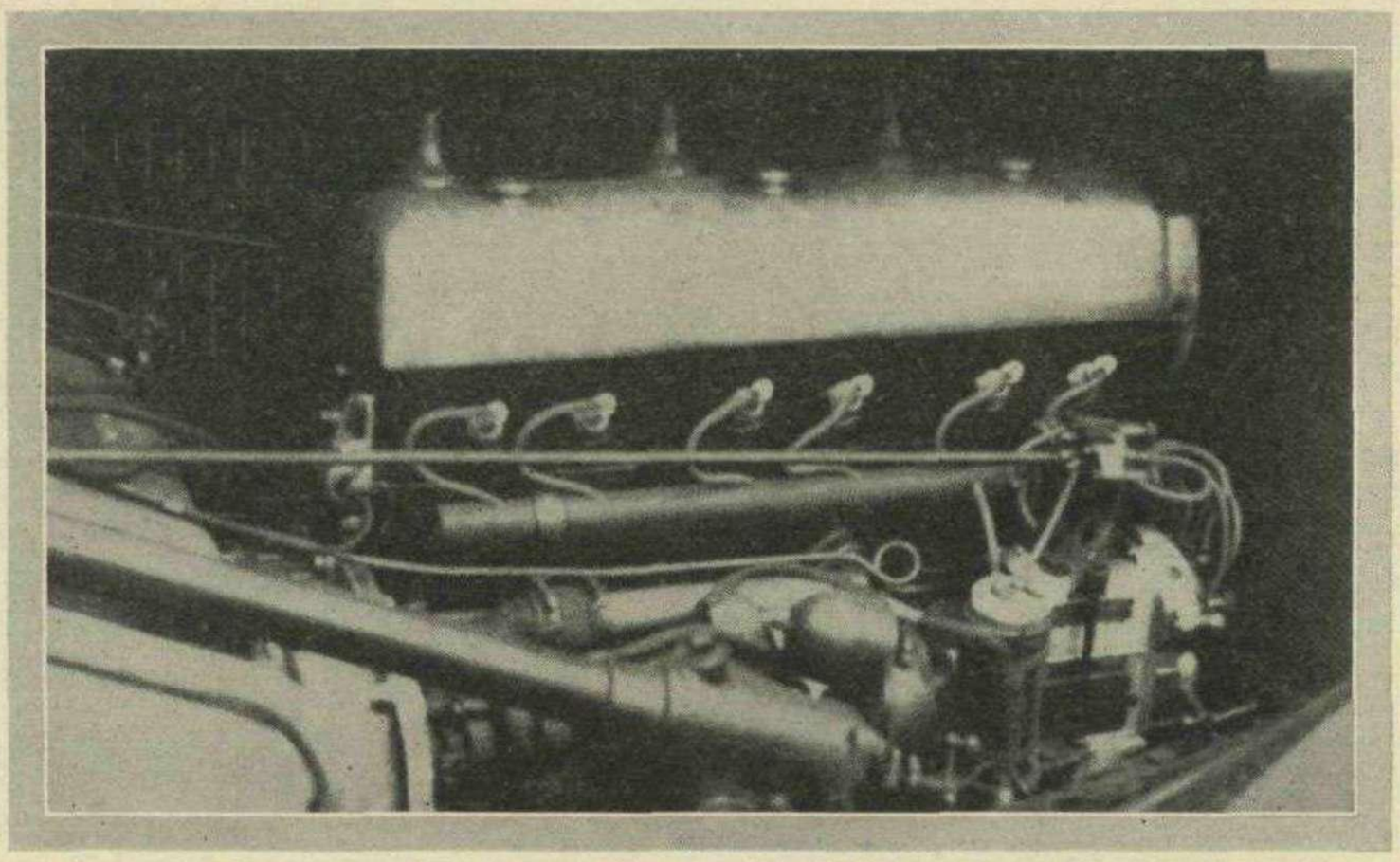
Before describing our impressions of this car on the road, we will run through its main constructional features. The six cylinder monobloc engine has a detachable head, carrying the valves, these being operated by push rods. Separate water passages between head and block obviate the necessity of using the main gasket to seal the water joints.

The 4-bearing balanced crankshaft has oil fed through it to the main and big end bearings by a gear type pump driven from the shaft by spiral gears. The camshaft and auxiliary drives are taken from the rear end of the crankshaft through duplex roller chain with automatic adjustment. The valve rockers and push-rod ends are lubricated under pressure.

Mixtu e is supplied by 3 S.U. carburettors, and ignition by a B.T.H. polar inductor magneto and also by coil, the latter for starting and in the unlikely case of magneto trouble. The fuel is fed from the rear tank by an A.C. mechanical fuel pump. The 4-speed gearbox has a central change lever, and incorporates a silent third gear.

On the road the smoothness and silence of the engine were particularly pleasant, and enabled the car to be driven equally effectively on top gear under all circumstances of traffic, or hard on the gears as the driver's mood dictated. At first we did not feel that the acceleration was much out of the ordinary as it was so smooth and free from fuss and noise. It soon began to dawn on us, however, that other vehicles were overtaken with extraordinary facility, whatever gear was in use, and when we came to get the actual figures against the clock we found that they were really rather remarkable for a 2½ litre unsupercharged car in which weight has no-

THE ALVIS "SPEED TWENTY"—continued.



A view beneath the bonnet. The offside of the "Speed Twenty" engine.

where been skimped and strength has been the primary condition.

The only thing which prevents these figures being better still is the fact that the upward gear change is rather slow,—that is, unless brute force is used to engage the gears. This not being a good method of operation we did not employ it, and normally used, the gear is very pleasant and easily managed, though the necessary wait is bound to produce gaps in the acceleration curve.

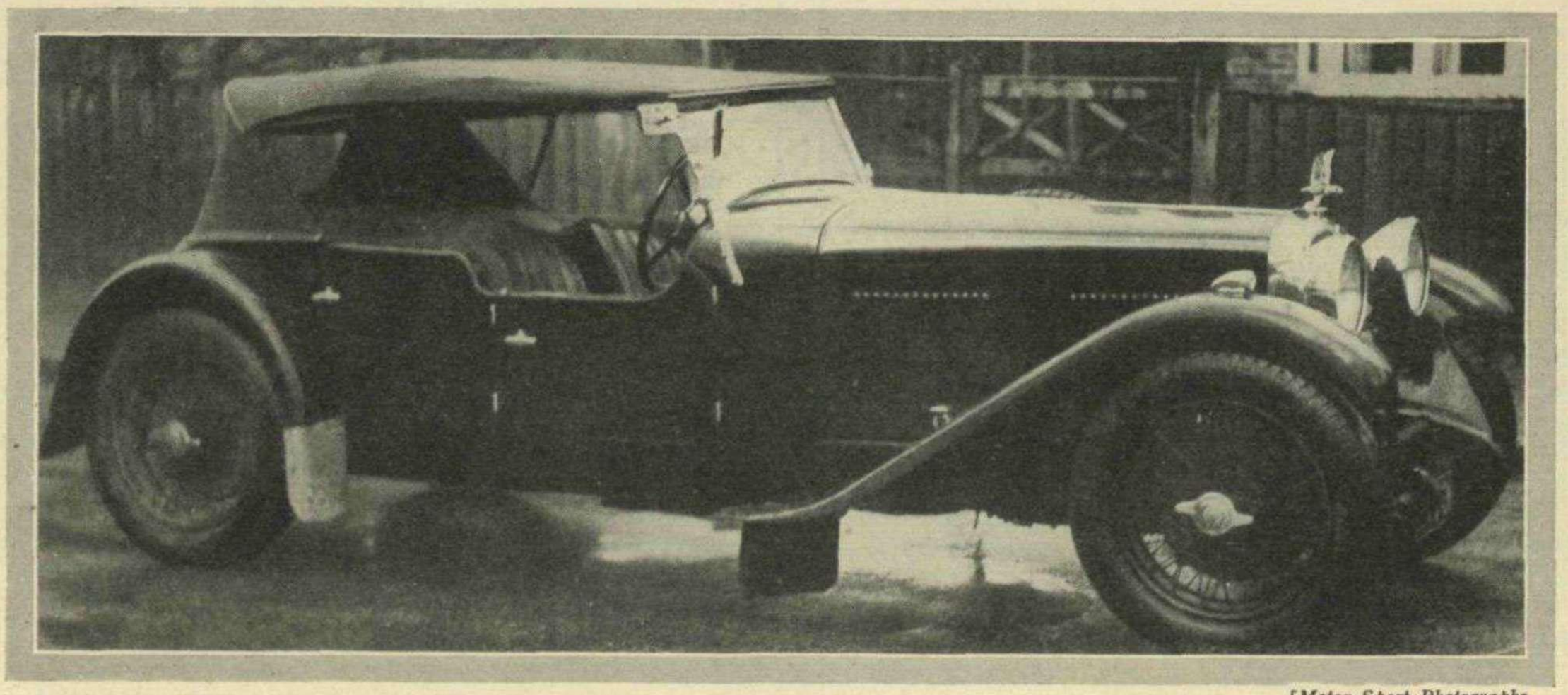
There was a very slight period at just over 2,000 r.p.m. in the engine we tried, but it was hardly noticeable, and at all other speeds up to 4,500 r.p.m. it was as smooth as could be wished. The driving position was comfortable, and the controls well arranged. The accelerator pedal, which is on the left of the brake, has an extension from the tip to the floor, and this makes it easily operated by the right heel when braking and changing down at the same time. This practice, which some racing drivers seem to imagine they have invented, but which is actually quite general on all sor s of vehicles where the pedals are suitably arranged, saves quite a lot of time and trouble in ordinary touring, especially in these days when we no longer drive on the hand brake.

The Alvis brake; are cable operated, the foot brake adjustment being easily operated by the driver while travelling, and they have a slight, but well controlled servo action. When applied hard they are extremely powerful, but are so progressive that locked wheels are rare, even on wet roads, and control is consequently excellent. From 40 m.p.h. the car can be stopped in 57ft. on wet, but not greasy, tarmac, without locking any wheels, and on a dry surface this already excellent figure can be improved on slightly.

The wet weather behaviour of this car is very good indeed, and brings out to the full the excellence of the weight distribution and steering.

When cornering fast it is not only free from rolling,—the low build sees to that—but the layout is such that it clings to the intended path at quite unexpected speeds, and when centrifugal force does eventually produce a skid it is of the rear wheels only, and easily controlled.

When we took over the car the suspension was too lively, as the Andre dampers were quite slack, but once these had been adjusted the springing was really good. The car held the road really well over all sorts of surface without being harsh, and a test carried out with a load of first one person and then no less than six, showed



A very admirable piece of work. The "Speed Twenty" as she appears on the road. [*Motor Sport Photographs*

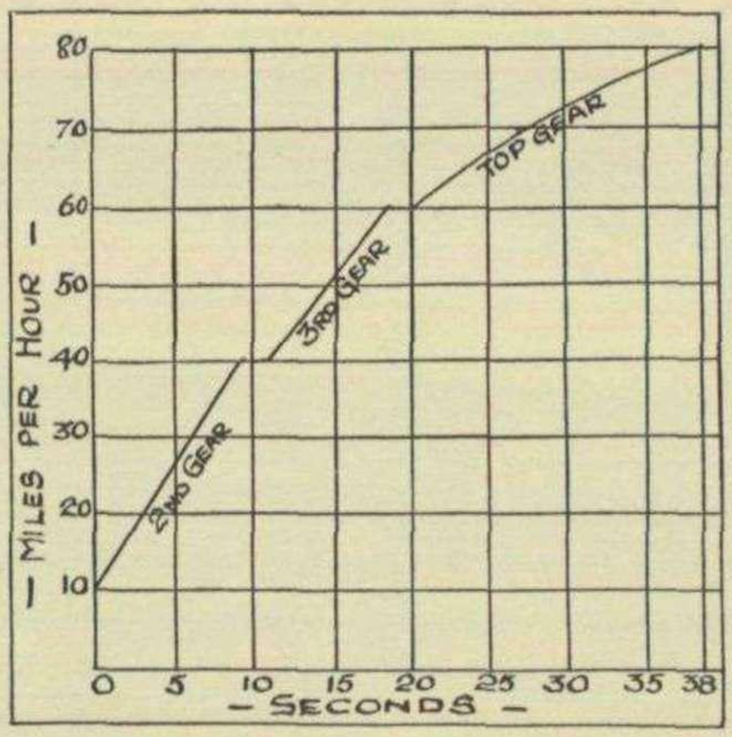
THE ALVIS "SPEED TWENTY"—continued.

that the suspension is thoroughly self adapting to variation in load.

With regard to the shock absorbers we have one small criticism to make. The rear pair of these excellent fitments was so situated that it was necessary to crawl under the car to adjust them, access from above being, as far as we could see, barred by the batteries and cross member.

Although this car is as quiet and tractable as any touring model advertised as a "top gear motor," it is definitely fast. The maximum speed, as handed over to MOTOR SPORT, was 88 m.p.h. on the level, and would doubtless vary on different cars with different bodywork.

The hood on the standard tourer disappears very neatly and gives the car a very finished appearance when down. It is not, however, by any means quick to erect owing to the number of fasteners to undo and do up, and the hood itself is not up to the very high standard set by the chassis as a whole. If a disappearing hood is to be used, there seems to be no reason why some adaption of the "Zip" fastener could not be used where it fits on to the body.



This curve shows the very fine acceleration powers of the Alvis.

It is a very fine achievement, turning out the standard tourer at £695, and it is really remarkable value, both in quality and performance. For those who wish for something a little more individual or luxurious there is a most attractive range of coachwork by Van den Plas on this chassis. These are handled by Charles Follett, Ltd., of 18, Berkeley Street, W.1., the Alvis distributors, to whom we are indebted for the loan of the car tested by MOTOR SPORT.

A TRIUMPH CLUB.

The latest one-make car club to be formed is for Triumph owners. It is enrolling members rapidly, and the social events so far organised have been well attended and highly successful. The programme of future activities includes several sporting events which should have enthusiastic support.

The entrance fee, which covers the cost of a badge, is 5/-, and the yearly subscription 5/- also. "Social," or non-car-owning members, pay the same subscription, but no entrance fee.

Mr. S. Bettmann, of the Triumph Company, is the new Club's President; the Chairman is Mr. B. A. Roy, and Col. Holbrook, also of the Triumph concern, is vice-president. Application for full particulars should be made to the General Secretary, Triumph Motor Club, 39, Selwyn Crescent, Welling, Kent.

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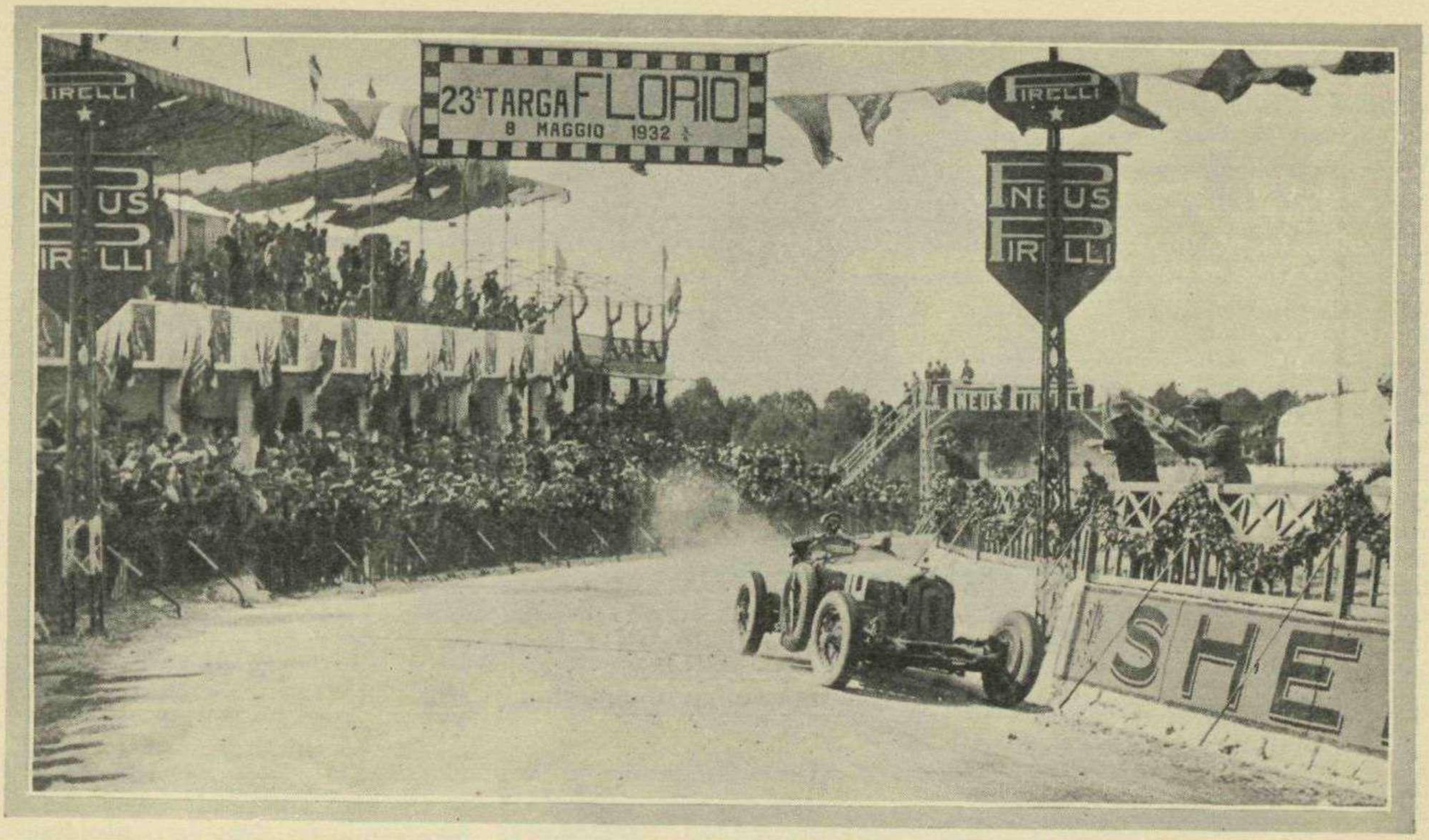
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THE TWENTY-THIRD TARGA

ALFA-ROMEO RETAIN TROPHY FOR ITALY.

EVERY year sees an increase in the number of motor races which are held, and every year sees an increase in the public interest in the sport. No new event, however, has ever challenged the Targa Florio as the supreme test of man and machine. The first race over the mountainous Sicilian roads took place more than a quarter of a century ago, and due to the efforts of Count Vincenzo Florio, this race has held its place in the world's classics in spite of the remoteness of the venue, and the difficulty and expense of sending a team to compete.

Every year that it is held the starters include the cream of the world's cars and the star drivers of the day. The reason is not far to seek. No other race carries such honour to the winning driver, while a make which has won this gruelling and difficult race is stamped for ever as one of the world's finest motor cars.

The very difficult nature of the course is demonstrated by the fact that it suffers from time to time from serious landslides, due to its precipitous nature, and this has meant changing portions of the route on occasion, until the damage to the roads has been repaired. This year the race was run over a shortened circuit, as a result of a serious landslide last year.

Starting, as usual from Cerda, the course cuts across from Caltavuturo to Collesano, via Scillato, and is 72 kilometres round. The race was held over eight laps, giving a total distance of 576 kilometres.

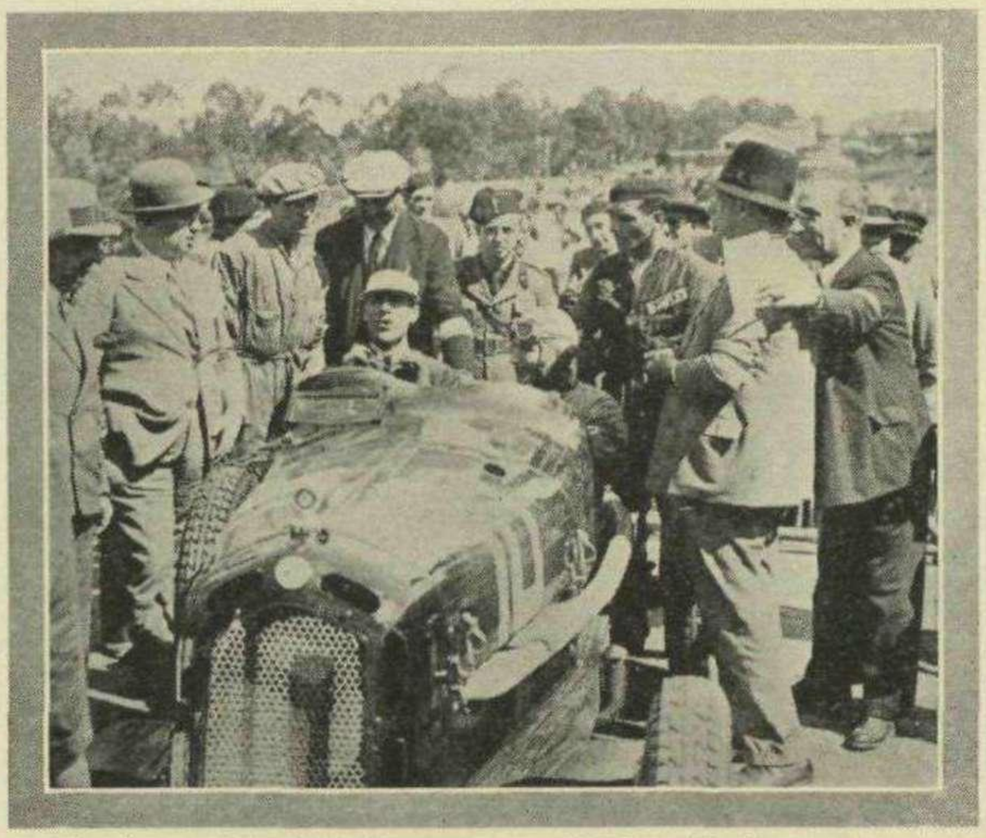
Since its inception the Targa Florio has been the scene of many epic struggles, and every winner has thoroughly deserved his victory. If we look back over the races of the last ten years, we find that each has been notable in some way, which distinguishes it from all others, for those who witnessed it or were interested in it.

In 1921, over the Short Madonie circuit, the race was marked by the victory of Fiats, who returned to the scene of their former triumph in 1907, when Nazzaro won, and in the hands of Comte Masetti held the trophy for Italy once more. 1922 produced a terrific duel between Masetti, this time on a Mercédès, and Goux on a Ballot, resulting in another victory for Masetti. In 1923 the race went to Sivoeci on an Alfa-Romeo after a good fight with a Steyr. Mercédès scored again in 1924 in the hands of Werner, after a great struggle with Masetti, Ascari, and A. Boillot. 1925 saw Bugattis to the fore, and Constantini broke the record for the course. Bugattis followed this up in the following year with a 1, 2, 3 victory, on the new 2,300 c.c. car with Constantini, Minoia, and Goux. Bugatti scored again in 1927, after a gruelling race, with a 2-litre driven by Materassi, and continued their wonderful run of victories in 1928 when Divo on a 2,300 c.c. supercharged car won from 37 starters, and broke the course record, while Minoia, who was second on a similar car, broke the lap record. In 1929 Divo again won and this concluded the series of Bugatti

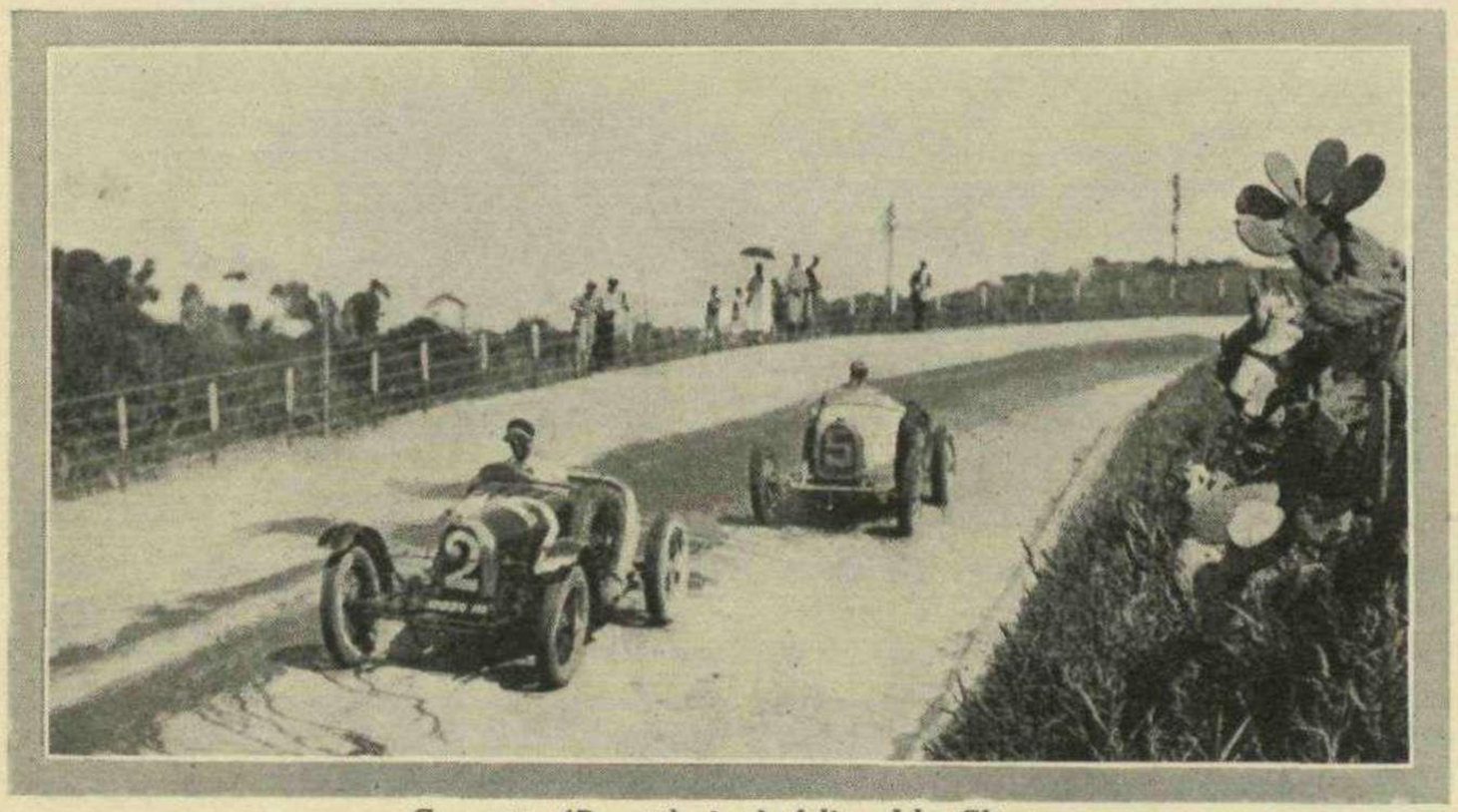
THE TWENTY-THIRD TARGA—continued.

victories, the next year's race going to Italy, with Varzi at the wheel of a 2-litre Alfa-Romeo.

Last year, owing to landslides, the course was altered to the Long Madonie circuit, when victory went to Nuvolari on the new 2,350 c.c. Alfa-Romeo, with Borzacchini second on a 1,750 c.c. car. The race was run under appalling weather conditions, and the Alfas scored by having wings. Varzi fought a lone battle for Bugatti and finished third, being unable to see properly owing to lack of wings.



Nuvolari and his Alfa-Romeo surrounded by and admiring crowd.



Gazzanica (Bugatti) closely followed by Chiron.

This year the runners for the short circuit being used were the following :—

1. D'Ippolito (Alfa-Romeo).
2. Gazzanica (Bugatti).
3. Rondina (O.M.).
4. Brivio (Alfa-Romeo).
5. L. Chiron (Bugatti).
6. Borzacchini (Alfa-Romeo).
7. L. Fagioli (Maserati).
8. Ruggeri (Maserati).
9. Rosa (Bugatti).
10. T. Nuvolari (Alfa-Romeo).
11. Biondetti (M.B.).
12. Ach. Varzi (Bugatti).
13. P. Ghersi (Alfa-Romeo).
14. Sciandra (Fiat).
15. De Maria (Fiat).
16. Sartorelli (Bugatti).

The start from Cerda took place in magnificent weather, and a huge and wildly enthusiastic crowd watched the start, in which the cars left separately in their customary manner in this race, where passing is difficult and massed starts would be dangerous. The cars got away without incident, and there was a general feeling that the Alfa team were going to add another victory to their already successful season.

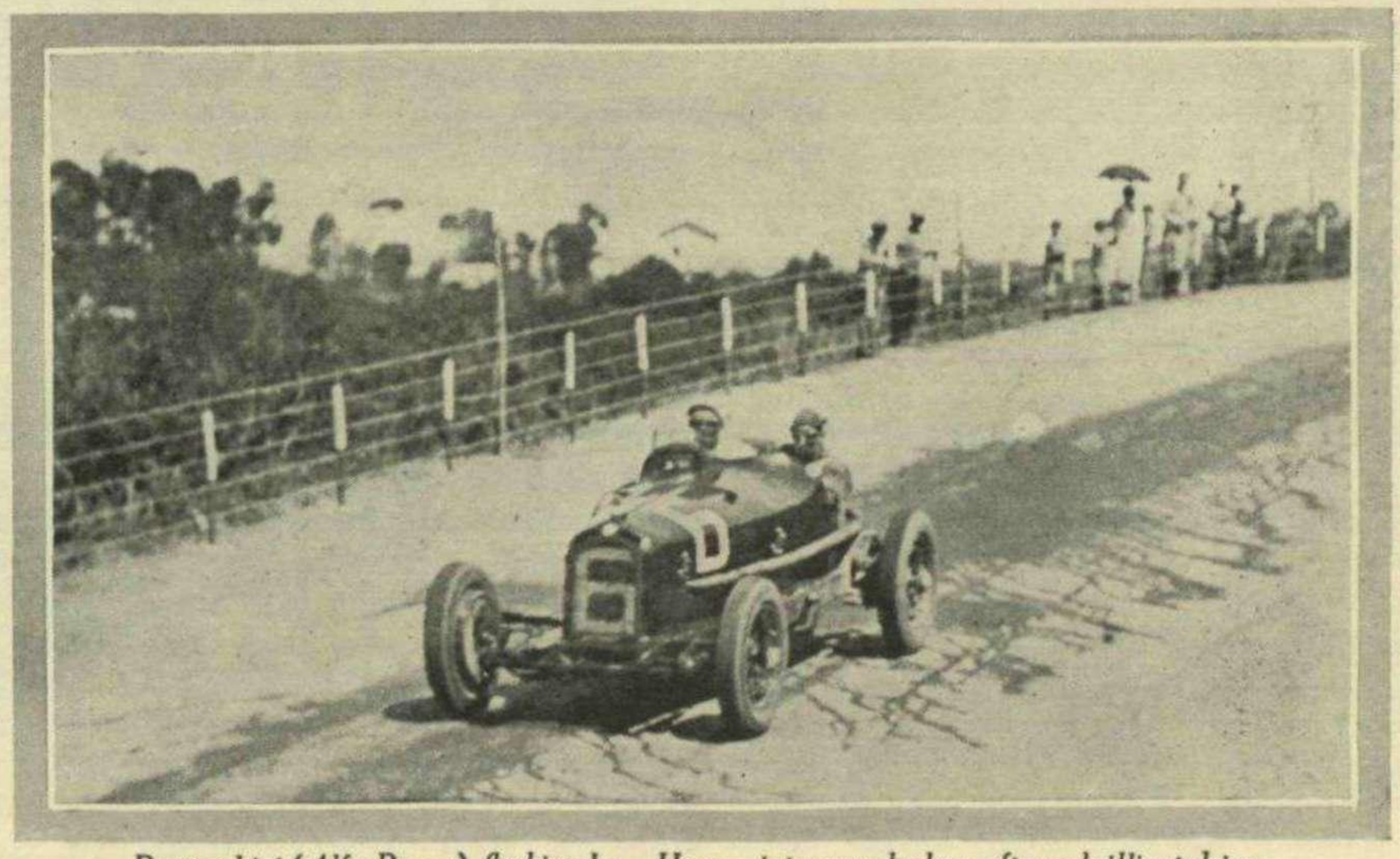
Including as they did last year's winner and second man in Nuvolari and Borzacchini, in addition to many other star drivers, they were chiefly opposed by Chiron and Varzi on Bugattis and Fagioli, the Maserati ace. The result was one of the least closely fought Targas for many years, and towards the latter half of the race the result was merely dependent on Nuvolari avoiding trouble.

However, in the early stages the Bugattis were fairly close, and at the end of the first lap Nuvolari led, with Borzacchini and Chiron dead level in second place. The order and times were :—

1st. Nuvolari (Alfa-Romeo), 53m. 3 4/5s.

2nd. { Borzacchini (Alfa-Romeo), Chiron (Bugatti). } 54m. 46s.

4th. Varzi (Bugatti), 55m. 3s.



Borzacchini (Alfa-Romeo) flashing by. He ran into second place after a brilliant drive.

THE TWENTY-THIRD TARGA—continued.

5th. Brivio (Alfa-Romeo), 55m. 17s.

6th. Ghersi (Alfa-Romeo), 55m. 30s.

7th. D'Ippolito (Alfa-Romeo), 56m. 38s.

8th. Ruggeri (Maserati), 57m. 16s.

Following these came Rosa, Fagioli, Biondetti, Cazzanica and Rondina.

It was already obvious that the Alfas were going to be almost impossible to catch, and, Fagioli, usually the star of the Maserati team, and probably their only driver capable of winning, was dropping back, and in the second lap retired with transmission trouble.

A remarkable feature of this race was the freedom from accidents, which on such a course might well be expected to occur. However, the skill of those who take part in this event is almost beyond the conception of the average motorist, and in spite of the length of the lap and the consequent difficulty of memorising every detail of it, retirements were comparatively few.

For the next two laps Nuvolari kept up his pace and drew steadily ahead, the order after 3 laps being :—

1st. Nuvolari (Alfa-Romeo), 2h. 39m. 20s.

2nd. Borzacchini (Alfa-Romeo). 2h. 43m. 35s.

3rd. Chiron (Bugatti), 2h. 45m.

4th. Brivio (Alfa-Romeo), 2h. 49 m. 44s.

5th. Ghersi (Alfa-Romeo), 2h. 50 m. 30s.

6th. Ruggeri (Maserati), 2h. 52m. 32s.

7th. Rosa (Bugatti), 2h. 53m. 1s.

8th. Rondina (O.M.), 3h. 12m. 58s.

The O.M. was putting up a very consistent race, and once more proved the reliability of what is really more a sports car than a racer. The Bugattis, however, were striking some trouble. Varzi retired with a smashed gear-box, and at the end of the 4th lap Chiron, who had been having trouble with his front brakes, handed his car over to Varzi.

On the 5th lap Rosa left the road, fortunately without serious damage, but the leaders remained unchanged, and Nuvolari continued with marvellous precision till the finish when he was hailed victor by his cheering compatriots, and Borzacchini completed the Italian victory by taking second place.

The final order was as follows :—

1st. Tazio Nuvolari (2,350 c.c. Alfa-Romeo), 7h. 15m. 50 3/5s. Speed 49.2 m.p.h.

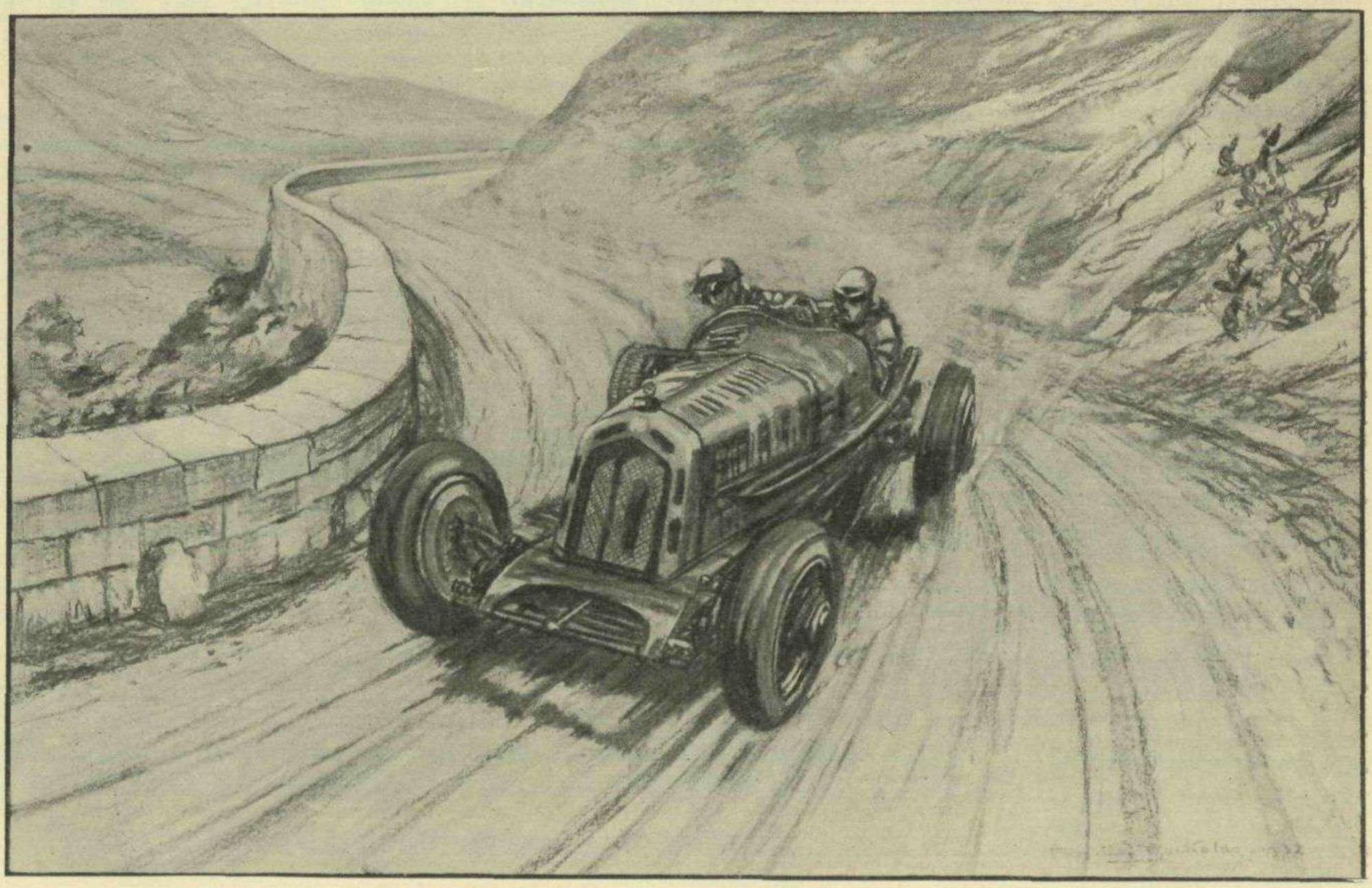
2nd. Borzacchini (Alfa-Romeo), 7h. 21m. 10 3/5s.

3rd. Chiron-Varzi (Bugatti), 7h. 35m. 28 3/5s.

4th. Ghersi (Alfa-Romeo), 7h. 38m. 5s.

5th. Ruggeri (Maserati), 7h. 50m. 16s.

6th. Rondina (O.M.), 7h. 52m. 56s.

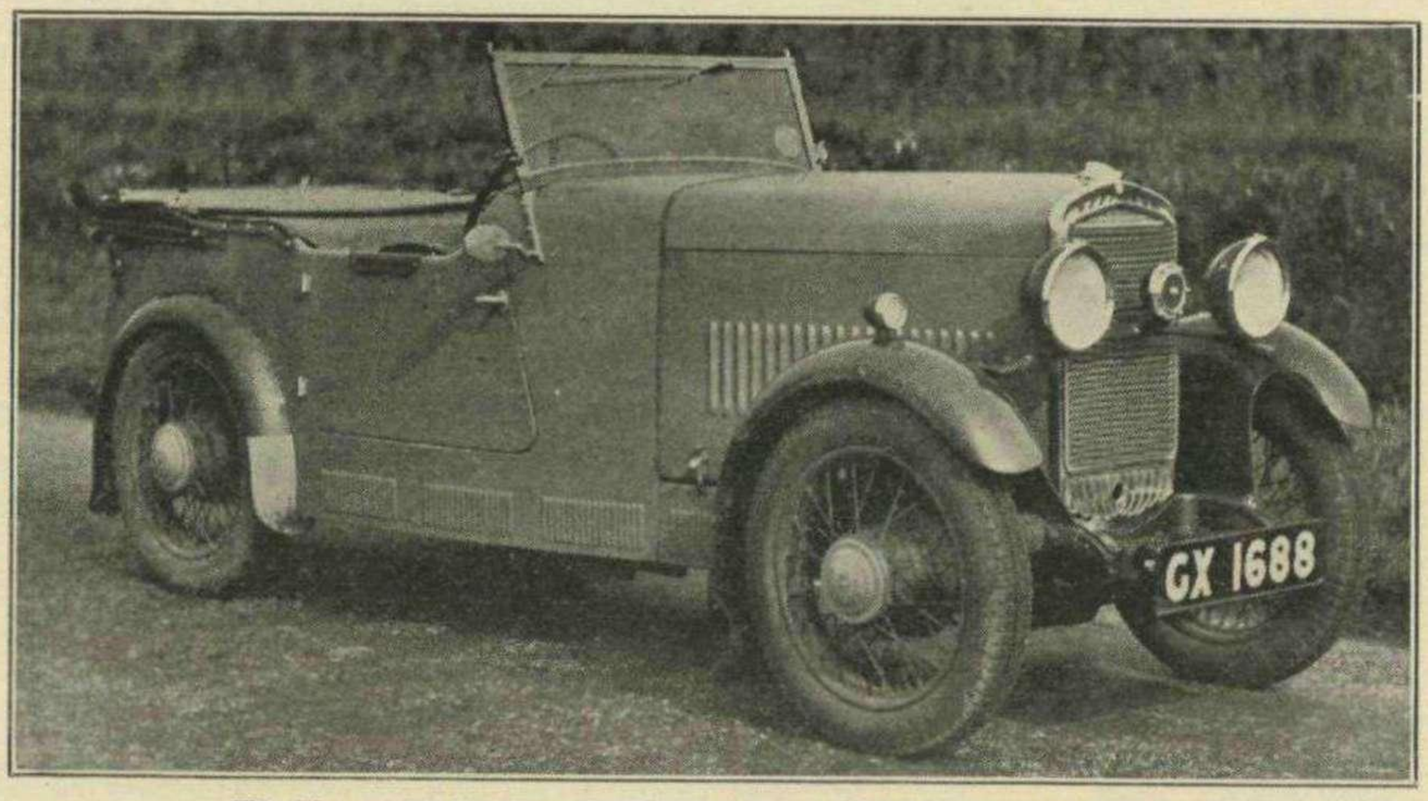


Speeding on to victory. Tazio Nuvolari and his wonderful Alfa-Romeo, winner of the twenty-third Targa Florio.

A NEW SPORTS "NINE"

THE TRIUMPH "SOUTHERN CROSS"

THE cry that was so often heard of late that the open car was dead has long since proved to be wrong. There will always be a number of drivers who hate being shut up in a "glass box" especially on a small car, and the very large number of open bodies of the "short 4-seater" type now on the road is proof enough of their popularity. The most recent example of this excellent type which we have tried is the 9 h.p. Triumph chassis fitted with a very neat and well finished 4-seater body, the *ensemble* being designated the "Southern Cross."



The Triumph "Southern Cross" is a sturdy and pleasing little vehicle.

One of the most noticeable features of the design of this Triumph, and of all the range of Triumph cars for that matter, is the robust chassis and excellent detail arrangement, in which nothing is skimped because the car is small, and where the whole layout is a replica of the best large car practice.

The engine is a 4-cylinder with overhead inlet valves and side exhaust valves, and a 3-bearing crankshaft of extremely rigid design. The whole unit is rubber mounted, and the result is a smoothness of running which many six-cylinder jobs might envy; without doubt the crankshaft is the greatest factor in this very desirable result, and although it is not so cheap a method of building as a 2-bearing engine, it seems more than worth it. The 4-speed gearbox is in unit with the engine and has a central change lever, excellently positioned but rather "springy." On the car we tried the effect of this was rather accentuated as the selector springs were rather tight, making the change a little stiff when getting out of a gear. This would not be noticed so much when the car had seen more use, and could of course be easily altered. The transmission to the rear axle is by underslung worm drive, which gives the coach-builders a good opportunity of fitting low coachwork, and is completely silent.

Excellent features of the body are the sound weather-proofing arrangements, good finish, and comfort of the seating; the only criticism of the seats we could find was that the back of the driving seat was rather too much raked, which, although very pleasant for a short spell of quiet driving, does not give the same feeling of "having hold" of the car which a more vertical position provides, and is not so good for long runs. Again, this is a point which is easily altered to suit individual tastes.

The ample luggage locker behind the rear squab, the flat folding screen with twin electric wipers, the 8½ gallon rear tank with reserve tap, and many other well thought out details lead to the conclusion that the only points over which everyone may not be in agreement are those which are easily modified without cost.

In a couple of hundred miles or so in this car we were chiefly impressed by the amazing sweetness and complete mechanical silence of the engine, and this, combined with a real "big car" feeling of rigidity and steadiness, are responsible for the very definite charm of this very pleasant motorcar.

That strength means a certain amount of weight is almost inevitable, even in the most scientific design, and actual acceleration can be improved at a sacrifice of this.

In this type of car such a policy would be wrong, as the owner would choose a "Southern Cross" as a car which is meant to last without appreciable wear, and what is more, to provide exceptionally pleasant travel meanwhile.

The average speeds possible with the car are greatly assisted by the effortless manner in which the power is given, and there is never any sign, at any speed, that the engine is not perfectly happy.

The maximum speed as tried was 64 m.p.h., which would probably increase when the car has covered a greater mileage, as it had not yet

Brief Specification

Engine: 4-*cyl.*, 60 x 90 *mm. bore and stroke, capacity* 1,018 *c.c. Tax* £9. *Inlet over exexhaust valve gear. Pressure feed lubrication,* 3-*bearing crankshaft. Thermo-syphon cooling. Compression ratio* 6.1.

Gearbox: Unit with engine, single plate clutch, gear ratios 22.2, 13.57, 9.32, *and* 5.75 *to* 1.

Suspension: Semi - elliptic springs with Luvax hydraulic shock absorbers.

Dimensions: Track 3*ft.* 7½*ins. Wheelbase* 7*ft.* 8¼*ins. Ground clearance* 8*ins.*

Tyres: Dunlop 27 x 4.40.

Price £225, *or with* 6-*cyl.* 12 *h.p. engine,* £235.

A NEW SPORTS "NINE"—continued.

reached the stage when a car's performance is at its best. On second and third gear 30 m.p.h. and 40 m.p.h. can be reached, first gear not being normally required at all.

The road holding and cornering is very good, the suspension, controlled by Luvax shock absorbers, being an effective compromise between comfort at low speeds and steadiness when travelling fast. The steering has avoided the modern tendency for ultra low gearing, and gives very precise control as a result. Owing to the newness of the car the pins and mechanism were not yet run in, and the steering was not in consequence as sensitive as it will be, and the self centering was not, therefore, as definite as we should like. However, the chassis of a car takes almost more running in than the engine, and when fully settled down this steering should be really good. The Ashby "Brooklands" spring wheel, fitted to this car, is a great asset on long journeys, and certainly enhances the appearance.

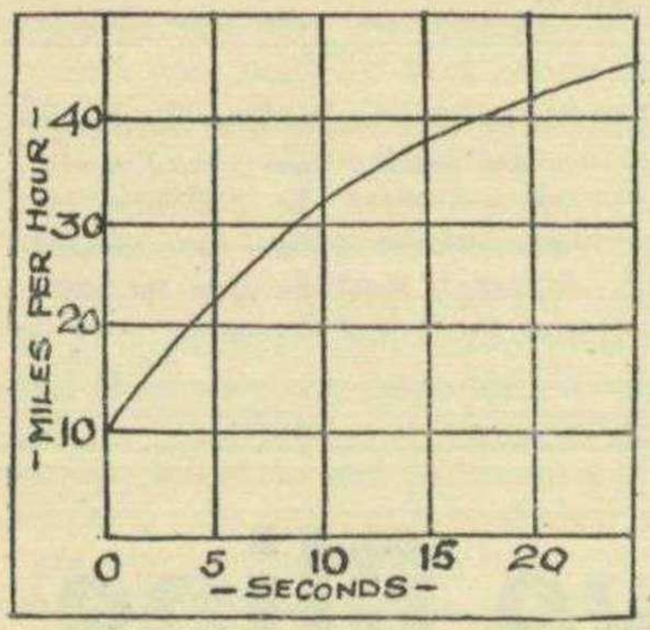
The hydraulic 4-wheel brakes are smooth, progressive, and powerful, and stop the car in 60ft. from 40 m.p.h. while giving the driver that confidence which is so desirable.

The whole car is a thoroughly high class production which should strongly appeal to the motorist who wants a car really economical both in running and in upkeep under the hardest conditions.



[*Motor Sport Photograph*

Three-quarter rear view of the new Triumph. The Ashby steering wheel will be noted.



Acceleration curve of the "Southern Cross."

THE "COLMORE" FRAZER-NASH

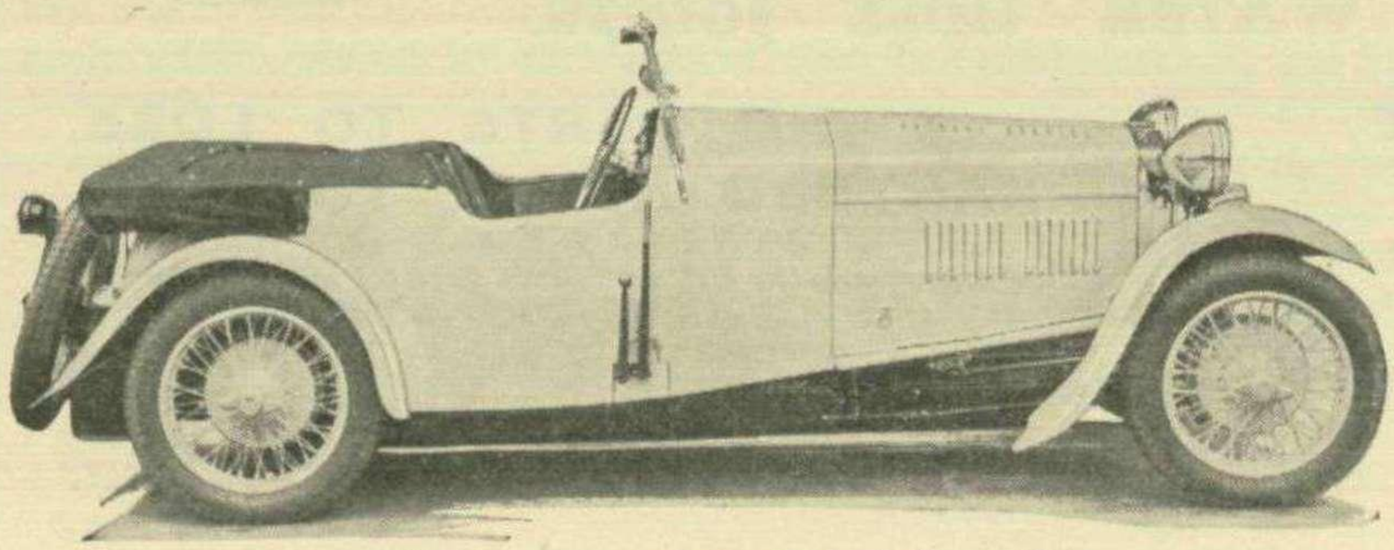
NEW MODEL WITH SPECIAL GUARANTEE.

A PARTICULARLY attractive new model now figures in the range of cars manufactured by Frazer-Nash Cars Ltd., of Hounslow, Middlesex.

Known as the "Colmore" type, it consists of the standard long chassis mounted with a three-four seater panelled sports body. The engine is of 1,496 c.c. capacity, and has overhead valves and twin carburettors. (Amal or S.U. instruments are supplied according to the owner's requirements.) A compression ratio of 6.25 to 1 is used, and each engine is specially tuned before being passed, so as to give a minimum output of 50 h.p. at 4,000 r.p.m. A guarantee is given to this effect together with a bench test report by the makers. As is the case with other Frazer-Nash models, the "Colmore" is available as either a three-speed or four-speed machine, and any deviation from standard in respect of the ratios is possible. Similarly, if the purchaser desires, coil ignition may be supplied in place of the Magneto system.

The bodywork and equipment is of a very high standard. Seats are upholstered in hand-buffed leather, with pneumatic cushions; the windscreen has Triplex glass, and a Bluemel steering wheel is fitted as standard. The equipment includes Lucas 12-volt light and starting, revolution counter, speedometer, and electric windscreen wiper.

The price of the "Colmore" Frazer-Nash, which may well be described as a de luxe sports car, is £499.



A car for the sportsman. "The Colmore" Frazer-Nash.

Club News

MIDLAND AUTOMOBILE CLUB.

THE Midland Automobile Club have now published particulars of the twenty-seventh annual hill climb at Shelsley Walsh, which will take place on Saturday, the 25th of this month. Entries close on Thursday, the 16th of this month, and intending competitors should note that practising on the hill will be allowed on Friday, 24th, from 9 a.m. till 3.30 p.m. The competition will be divided up into the following classes, and these will be subdivided into racing and sporting car classes. They will be :— (1) up to 850 c.c. (2) 851 to 1,100 c.c. (3) 1,101 to 1,500 c.c. (4) 1,501 to 2,000 c.c. (5) 2,001 to 3,000 c.c. (6) 3,001 to 5,000 c.c. and (7) 5,000 c.c. and over.

The competition will start at 1.0 p.m.

Full particulars as to entry forms, regulations and so forth can be obtained by writing to the Clerk of the Course, Mr. Leslie Wilson, of 415, Stratford Road, Birmingham.

ROYAL SCOTTISH AUTOMOBILE CLUB.

The R.S.A.C. has now completed arrangements for the holding of the "Scottish Rally." The dates will be Monday, 4th July, till Saturday, 9th July. The Rally is open to all members of the club, and also to all members of a recognised motoring organisation. The route, as has already been announced, will be approximately 1,200 miles, and it will pass through the following districts :— Oban, Strathpeffer, Dornoch, Gairloch, Fort-William, Inverness, Grantown-on-Spey, Braemar, Pitlochry, etc. There will be six starting controls, viz. :— London, Droitwich, Harrogate, Edinburgh, Glasgow and Aberdeen. The final control will be at Edinburgh, where a coachwork competition will be held at the finish of the road test.

The various tests have been planned as a whole with the object of giving an equal chance to all types of cars and classes of drivers.

ANOTHER ONE-MAKE CLUB?

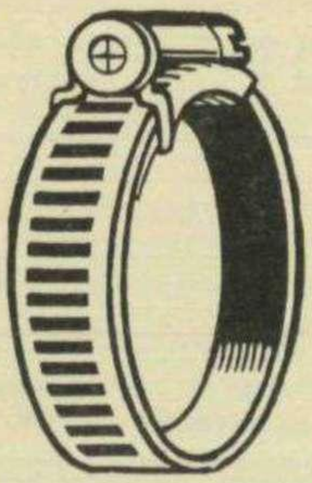
Mr. C. G. Vokes, director of C. G. Vokes Ltd., the well known motor accessory manufacturers of 95-97 Lower Richmond Road, Putney, London, S.W.15, has written suggesting the formation of a Lagonda Car Club.

In a letter to MOTOR SPORT he says: "Judging by the fair number of entries of Lagonda car owners in the various rallies and sporting events of the year, it would seem that there would be quite a considerable measure of support forthcoming for a Lagonda Car Club."

Mr. Vokes adds that as a Lagonda owner he would be only too pleased to assist in the formation of such a club with a view to organising it on modern lines, and he would be glad to receive the names and addresses of those who would be willing to belong. Those Lagonda owners who would be willing to serve on a temporary informal committee, pending complete formation, are asked to get in touch with Mr. Vokes at the above address.

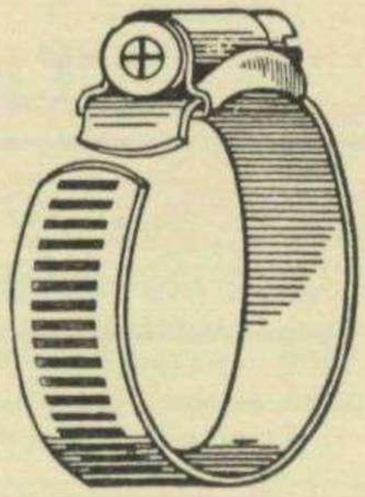
The Editor invites Club Secretaries to send details of their fixtures, sporting and social, for publication in these columns. These items should be sent to reach this office not later than the 16th of the month.

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.

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L. ROBINSON & Co.,
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Rumblings



Shelsley Walsh Again.

IN these columns last month I apparently inferred that Shelsley Walsh was to be no more after this year. What I was really getting at was that the present course would not be kept to after this year, so making this the last chance of breaking the existing record now held by Von Stuck on his Austro Daimler. The M.A.C. have actually renewed their lease for the hill, and in future intend to increase the length of the course, when, of course, a new record will be established and the old battle will start over again.

The fastest British car on this course at present is R. J. G. Nash's single seater Frazer-Nash "The Terror," and there is every hope that it will go even faster than before. Another car which is going to make a very serious effort to get the record is that built by W. E. Harker, who has performed well at this event on small cars, and has built a very light car with a 1,500 c.c. supercharged V-eight engine. I hear he has been trying it out on a straight 500 yards stretch and has had it up to 90 m.p.h. *and stopped it again* in that distance which certainly suggests both acceleration and brakes of no mean order! The climb comes off on June 25th and all particulars and entry forms can be obtained from Mr. Leslie Wilson, Hon. Sec., Midland Automobile Club, 415, Stratford Road, Birmingham.

Ulster Entries.

Final entries for Ulster close on the 27th of this month, but entries at single fees have already closed with 30 cars, and if the hoped for foreign entries materialise this should be considerably increased. The 1,500 c.c class, always a favourite with the amateur, looks like coming more into the limelight, and this year is given added interest by the team of new 6-cylinder Rileys.

The entry list at present is as follows:—

CLASS IV (OVER 2,000 c.c. AND UP TO 3,000 c.c.).
Alfa-Romeo, S (2).—Lord Howe and Soc. Anon, Alfa-Romeo.
Talbot (4).—A. W. Fox (3) and W. Esplen.

CLASS VI (OVER 1,100 c.c. AND UP TO 2,500 c.c.).
Alvis, S (1).—E. Coleman.
Aston-Martin (1).—R. O. Shuttleworth.
Frazer-Nash, S (3).—T. G. Moore, A. F. P. Fane and W. Sullivan.
Riley (3).—V. Riley (3).

CLASS VII (OVER 750 c.c. AND UP TO 1,100 c.c.)
Crossley (3).—Vernon Balls (3).
Riley (4).—V. Riley (3) and V. Gillow.

CLASS VIII (OVER 500 c.c. AND UP TO 750 c.c.).
M.G. Midget, S (9).—Major A. T. G. Gardner (3), Norman Black, S. A. Crabtree, F. S. Barnes, S. B. Hailwood, E. R. Hall and G. F. A. Manby-Colegrave, 1 each.

The New Riley "Six."

The Riley "Six" is interesting, both in view of the racing reputation of its makers, and the fact that a new racing mode is more than welcome in our competitions. This car will have a preliminary opportunity of showing its paces in the J.C.C. 1,000 miles race and then will have plenty of time to attend to details before the Ulster T.T. The engine is a slightly smaller edition of the Alpine Six, so as to bring it into the 1,500 c.c. class. The bore and stroke are 57.546 by 95.2 mm.

The engine has many new features as well as adaptions of those found so successful on the Brooklands "9." The cylinders are mono-bloc and in one with the top of the crankcase. The crankshaft is carried in three plain bearings. The crankshaft can be threaded in from the end of the case, necessitating a very large centre bearing, the housing of which is water-cooled. The head and valve gear arrangements follow the successful arrangement used in the "9," that is, inclined valves are operated through push rods from two camshafts, situated on either side of the cylinder block.

Three S.U. carburettors supply the mixture, the system being balanced. The valve rockers are carried on hollow shafts and lubricated under pressure.

A dry plate clutch takes the drive to a 4-speed gearbox with the usual Riley helical third speed, the gears with a 4.77 axle ratio being 5.96 on third, 7.155 on second, and 11.78 to 1 on bottom.

The chassis differs somewhat from previous Rileys in that the frame is nearly straight and is carried from over the front axle to under the rear axle. The engine and also the radiator are carried on rubber mountings. A 26 gallon rear petrol is so shaped that the spare wheel can be carried vertically in the tail, part of it being recessed into the tank. Cable operated brakes are used and adjustment is within reach of the driver.

As it is to be run in standard sports car races the model is now in production, the price being £595.

RUMBLINGS—continued.

The 1,000 Miles.

The 1,000 Miles Race has an entry of 38 cars, so that we should see quite a lot of motoring on the 3rd and 4th. The Talbots and M.G.'s will not differ greatly from last year but the new Rileys will be interesting, while Vernon Balls has been working hard on the Crossleys and has been getting better results. A water pump has overcome the overheating troubles, and he has also gone into the question of keeping the oil cooler. A 2-gallon aluminium sump has been fitted with air pipes running through it transversely to avoid them getting choked with dirt. An air scoop assists in cooling the sump and the oil temperature is now much more reasonable. This race should be an excellent chance of finding out further troubles, so that by the end of the season the cars should be getting really fit.

The entries are as follows :—

No.	Car	Entrant	C.C.
CLASS 2 (OVER 5,000 C.C. AND UP TO 8,000 C.C.)			
	Mercedes (S.)	Capt. Sir Malcolm Campbell	7068
CLASS 3 (Over 3,000 C.C. AND UP TO 5,000 C.C.)			
	Invicta	J. H. Berger	4467
	Bentley	A. Bevan	4398
CLASS 4 (OVER 2,000 C.C. AND UP TO 3,000 C.C.)			
	Talbot 1	A. W. Fox	2970
	Talbot 2	(Fox and Nicholl, Ltd.) ...	2970
	Talbot 3		2970
	Talbot 4	W. Esplen and L. G. Wrathall	2276
	Talbot 5	R. S. Hebeler	2276
	Talbot 6	E. Burt	2276
	Alfa Romeo (S.)	The Earl Howe	2336
	Aston Martin 1	L. Prideaux Brune	1493
	Aston Martin 2	(Aston Martin, Ltd.)	1493
	Aston Martin 3		1493
	Aston Martin	M. H. Morris Goodall ...	1493
	Riley	Victor Riley	1486
	Riley	(Riley (Coventry) Ltd.) ...	1486
	Alvis	Chas. Follett (Chas. Follett, Ltd.)	1496
	Wolseley Hornet Special	S. N. H. Justice	1271
CLASS 7 (OVER 750 C.C. AND UP TO 1,100 C.C.)			
	Riley 1	Victor Riley (Riley (Coventry), Ltd.)	1089
	Riley 2		1089
	Riley 3	Mrs. E. Wisdom	1089
	Riley	W. A. Cuthbert (Cuthbert & Houghton, Ltd.)	1089
	Riley	P. R. Mitton Waterfield ...	1089
	Riley	E. K. Rayson	1089
	Crossley 1		1098
	Crossley 2	Vernon Balls	1098
	Crossley 3		1098
	Amilcar (S.)	W. E. Humphreys	1094
CLASS 8 (OVER 500 C.C. AND UP TO 750 C.C.)			
	M.G. Midget 1		746
	M.G. Midget 2	A. T. G. Gardner	746
	M.G. Midget 3		746
	M.G. Midget 4	S. W. B. Hailwood	746
	M.G. Midget 5	D. N. Letts	746
	M.G. Midget 6 (S) ...	G. F. A. Manby Colegrave ...	746
	M.G. Midget	Norman Black	746
	M.G. Midget	H. Leeson	746
	M.G. Midget	Hon. Mrs. Chetwynd	746
NOT CLASSIFIED.			
	O.M.	L. C. Rawlence	

The British Empire Trophy.

Naturally there has been a good deal of argument about the result of the British Empire Trophy Race, and some wild and heated comments have been heard amongst Brooklands "fans," so perhaps there is no point in going further into the matter now. However, a good many people have asked, "Why did Eyston lodge a protest?" so it will be as well to make the whole of this part of the business clear. Had Eyston been running his own car for his own amusement, he would have been quite content to leave things alone, but as he pointed out to me afterwards, Panhards sent their car over for him to drive in the race, and said "Please win," or words to that effect. When he saw them again they would naturally say "Did you win?" and he would say "No!" They would say "Why, your car was the fastest." To which he would only have been able to reply, "I could not pass Cobb because there was not room."

The answer to which would only be, "If you were faster and another car was in the way why the —— didn't you lodge a protest?"

Actually I think it is a very good thing that he did protest, because it brings up such a host of knotty problems about track racing with cars which are really too fast for the track. It is suggested in some quarters that such an event should be run as a handicap, an idea which I think is entirely wrong. We have more than enough handicaps and not enough scratch races as it is, and there is no doubt that scratch events are the most satisfying for spectators, and also for the drivers of anything but the small cars. Also handicap races are liable to give the public an entirely wrong idea of a car's merits, as many of them fail to realise fully what is a handicap, and it is very trying to hear some ordinary motorist holding that some 750 c.c. car is a better motor than some 2½ litre racer because it has "beaten" it in a race. Everyone has the greatest admiration for the amazing performances of small cars, but it would be better for everyone if we laid less stress on comparisons which are purely arbitrary.

G. W. R.

TOURIST TROPHY RACES

ISLE OF MAN, JUNE 6, 8 and 10.

EXCURSIONS to DOUGLAS

as under:—

FRIDAY, SATURDAY & MONDAY, JUNE 3, 4 & 6.

Paddington depart 9.10 a.m. and 1.30 night on Friday and Monday, June 3 and 6, and Paddington depart 9.10 a.m. on Saturday, June 4.

RETURN FARES:

3rd Class and Steerage 45/6

3rd Class and Saloon 53/-

HOLIDAY RETURN TICKETS to DOUGLAS (Isle of Man) are also given from principal G.W.R. Stations on certain days each week.

SPECIAL!

Cheap One-day Excursions to Douglas.
From Chester District on June 5, 7 and 9.
From Gloucester, Hereford and Central Wales Districts on June 9.

All information obtainable at G.W.R. Stations, Offices or Agencies.

JAMES MILNE, General Manager.

THE LONDON - EDINBURGH RUN

139 CARS IN M.C.C. ANNUAL TRIAL —PARK RASH CHIEF OBSTACLE

ALL the M.C.C. runs necessitate travelling a long way before there is much of interest in the way of hills, but to many drivers the long preliminary run through the night is all part of the fun, and it certainly gives a chance to those who have not had time for very full preparation to do odd jobs on the cars, and so be more prepared for the obstacles when they arrive.

Also, the early part of this year's Edinburgh was rendered rather less tedious than usual by reason of being run at 26 m.p.h. average, which, although hardly quick for the Great North Road, was better than the 20 m.p.h. of early events. The cars, for the first time in the history of this event, headed the procession, and 139 of them left Barnet for the North at 9 p.m. on the Friday evening.

The course followed the Great North Road to Wetherby, where it turned west to Harrogate, and breakfast was served at the Granby Hotel, the first man leaving here again at 5.30 a.m., and the first observed hill, Middle Tongue.

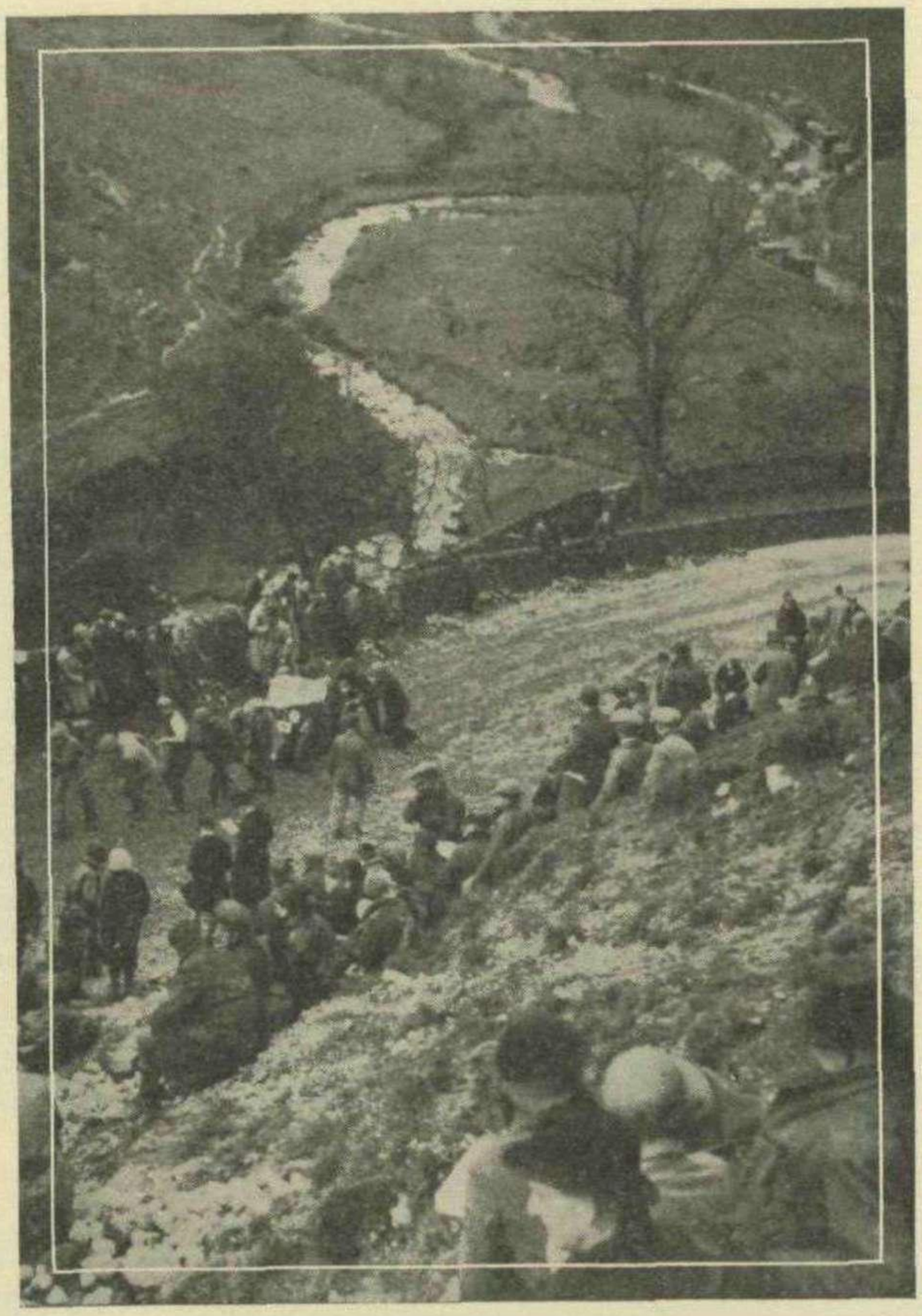
Owing to the water splash at the foot, the early cars carried a good deal of water up the hill, making it less pleasant for the later cars in the manner of Hustyn in the Lands End of last year. However, the results were not serious, and those who treated the right hand bend with care and respect found little difficulty, and failures were chiefly due to trying to be clever.

From here the course led over hilly and winding roads to Kettlewell, where the notorious Park Rash had to be attacked. This hill, which consists of a very steep straight ascent, followed by a left and right acute S-bend, was in very loose condition, and failures were numerous. Following the corners, the hill continued over a grassy section, which was not improved by efforts on the part of the natives to direct the natural course of a stream over it, with the result that many cars got bogged near the top.

The hill was, however, in perfectly fair condition for a suitable car properly handled, and the performances of the entry on this hill gave an excellent idea of the various competitors' ability, in that it combined the worst features of a trials hill, namely, deep, loose going, sharp bends, and (higher up) slippery surface.

The main trouble seemed to occur on the first steep slope, which, owing to the depth of the loose stones, as well as the gradient, caused a large number of failures with complete lack of power. On being pushed as far as the corners, however, most of the failures contrived to keep going on their own.

The early cars were mainly good, Patrick's Hornet and C. M. Davis' Austin Seven being particularly noticeable. Bear and Giles, on 2,300 c.c. Bugattis, were very fast indeed. Failures then became more numerous. Heard's 3-litre Bentley failing low down with wheelspin, aggravated by terrific wheel - bounce, which a tighter setting of his shock absorbers might have eliminated. Major Douglas - Morris (Wolseley Hornet) had to be pushed round the first bend before he could get going again.





Our top picture gives a view down the "Rash" where many failures occurred. The unfortunate shown is B. O. Nicholas (M.G. Midget). The lower photograph is of H. C. Hunter (Riley) on the same hill.

THE LONDON-EDINBURGH RUN—continued.

Then followed a series of excellent climbs by Powis-Lybbe (Alvis), Bickford (Lancia-Lambda), though his small tyres caused much wheelspin, H. C. Hunter (Riley), J. Torromé (Standard-Avon) and P. Lees (Frazer-Nash), whose was quite the fastest climb so far recorded. This make shone above any, not only because of the excellent climbs made, but because they all performed well. They played with the hill, Roberts, Wright, Cadbury, Jones, and Appleby, to mention but a few drivers of the marque, being excellent. A climb deserving special mention for its speed, irrespective of size, was R. A. Brown in a sports Austin Seven, who evidently mistook the corners for their counterparts on Shelsley Walsh!

Smeaton's H. E. and Gamble's Angus-Sanderson caused a certain amount of delay, having to depend entirely on locally supplied horse-power to ascend at all, but generally speaking there was little delay, and the marshalling was very efficient.

Many makes showed considerable variations in performance, the M. G. Magnas being an example. A. W. Smith and S. W. Cottee gave examples of what should be done with this model—though the latter had hardly sufficient ground clearance. Other good climbs in this class were made by A. C. Cookson (Magna), E. J. Erith (Hornet), who also grounded on bumps, but A. P. Wright (Hornet) failed and was towed, as was Stone (M.G. Midget), C. H. Barnett (Singer), H. Jeffris (Riley), Manzoni (Salmson), and H. F. Deane (Standard).

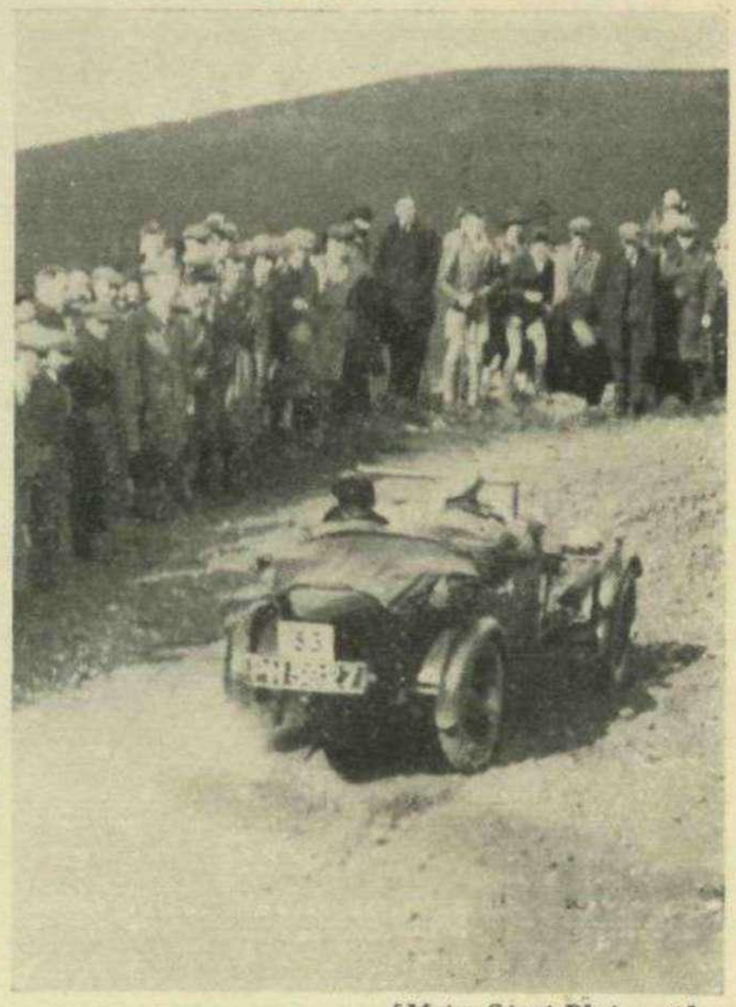
Kehoes' M.G. Magna was good, but, like others of this type, grounded repeatedly. Waddicor's Riley Gamecock was very good indeed, as were several other Rileys, while individual climbs which should be noted were Scrogg's old Trojan, slow but absolutely certain, and Collier's old Morris Cowley, which was as fast as many of the sports cars, both being well cheered. Morris-Goodall's Aston Martin was misfiring badly, but climbed well in spite of this.

The next test after Park Rash was Askrigg, normally fairly simple, but this year complicated by the stop and restart test which was held on it. Failures were numerous, as a nasty gully was chosen as a suitable restarting place. Here the performances varied more with drivers than with makes of cars, there being good and bad of most makes. After some









[*Motor Sport Photographs*

Grappling with the gradient. Four cars on Park Rash, the piece de resistance of the trial. Top left—W. Waddicor (Riley "Gamecock"); top right—M. H. Morris-Goodall (Aston-Martin); bottom left—L. Butler-Henderson (Frazer-Nash), and bottom right—K. M. Roberts (Frazer-Nash).

THE LONDON-EDINBURGH RUN—continued.

indifferent road but pleasant scenery competitors arrived at West Stonedale, which caused little trouble, and so on to Carlisle, and then a dull run to the finish.

The restart test and Park Rash really made up the trial, and so effective were they that the M.C.C. should not find this event much of a drain in the way of first-class awards.

OUR FRONT COVER.

THE very fine action photograph which appears on the cover of this issue depicts Sir Henry Birkin and his supercharged 4½-litre Bentley, with which he recently covered a lap at Brooklands at 137.96 m.p.h.

CARS ON I.O.M. T.T. COURSE.

RACING cars will figure for the first time in ten years on the Isle of Man curcuit, the birthplace of British motor racing, during the motorcycle T.T. races on 6th, 8th and 10th of this month.

This is the result of a suggestion by Mr. Cecil Kimber, Managing Director of the M.G. Car Company Ltd., that the course is suitable for light car T.T. races and that demonstration runs should be given during the motorcycle T.T. races.

Two racing M.G. Midgets will be the official cars and they will cover the 38 miles circuit each morning.

They will be driven by Mr. Norman Black, winner of last year's R.A.C. T.T. Ulster race and Mr. S. A. Crabtree.

BRITISH EMPIRE TROPHY DECISION.

AS we go we press to learn that the appeal of Mr. John R. Cobb against the decision of the stewards of the British Empire Trophy meeting has been allowed by the Royal Automobile Club.

Mr. Cobb is, therefore, the winner of the first British Empire Trophy Race, driving Mr. K. Thompson's 10-litre Delage.

HENLYS AT HESTON.

NEXT Saturday, the 4th June, a big gymkhana and rally will be held at Heston Airport. The event has been organised by Henlys Ltd., and in addition to a concours d'elegance (for Alvis, Rover, Riley, Swallow, Standard, Austin and other makes of cars) there will be sundry races and competitions. Aviation will figure conspicuously in the programme of events and there will be demonstrations of the Autogiro, Mr. John Tranum will do his usual parachute drops and there will be a race for private owners of aircraft. The afternoon's programme will be further enhanced by a display of aerobatics by pilots on various types of machines.

The function opens at 2 p.m. sharp.

READERS' QUERIES

AS an interested student of motor car design, I was intrigued with the the performance of a small C.I.-engined road-roller here this afternoon. To outward appearance this engine would appear suitable for, say, an Austin Sixteen chassis. Perhaps you would know something of its drawbacks. In your opinion, would such a conversion prove satisfactory apart from the saving in fuel ? Please give me the name of the manufacturers of these C.I. engines. J. N. Q.

We regret we are unable to state the makers of the particular engine you saw, as there are now a large number of firms making heavy oil engines for lorry and transport work.

Extensive experiments are being carried out with a view to adapting this type for private cars, but there are many difficulties yet to be overcome.

The chief difficulty lies in getting a sufficient degree of flexibility in the Diesel engine. Considerable success has been obtained on 'bus engines, which in some cases run up to 2,000 r.p.m., but this is low for private car work.

These engines are also much larger in individual cylinder capacity than car engines, and with small cylinders there is at present great difficulty in getting a fuel pump which will accurately measure the very small quantities of fuel required for each charge.

It is likely that these difficulties will be overcome, and a Bentley chassis fitted with a Gardner Diesel engine has undergone successful tests by Gardners, and shows that for larger cars the C.I. engine should soon be practical.

An article on modern developments in high-speed Diesel engines appeared in MOTOR SPORT for November, 1930, on page 24.

I AM writing to ask you to settle a question which has been troubling a friend and myself for some time.

He states that a Bentley chassis on trial was stopped in 25 yards from 90 m.p.h. I argued that it was practically impossible, but my friend states that it was done, on an arterial road,—the Watford by-pass, I believe, and that a garage owner and car expert of Bushey Heath says that it is possible. I've failed to get anyone to pass judgment on this statement, and being a regular reader of MOTOR SPORT, I thought maybe you could settle the argument. The car is passing point "A" at a speed of 90 m.p.h., and is braked to a standstill at point "B," about 25 yards distance. Can it be done ?

W. H.

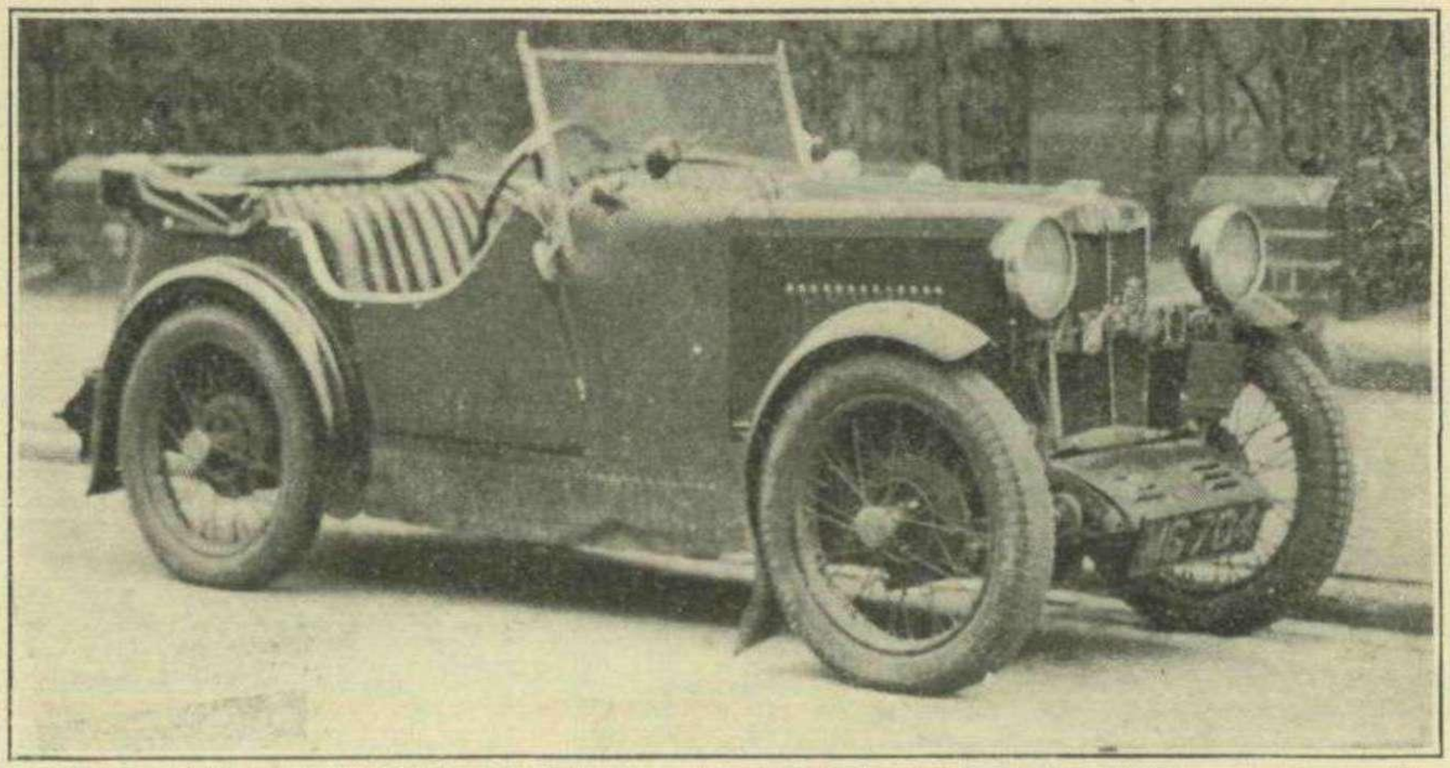
You are perfectly right in holding that a Bentley, or any other car for that matter, can stop in 25 yards from 90 m.p.h.

Assuming that the best possible conditions—that is correct ratio of braking on front and rear axles and road surface, giving the almost impossible adhesion coefficient of 1 (½ is more usual)—obtain, the stopping distance is given by the formula :—

$$S = \frac{V^2}{2\mu g}$$

where S is the stopping distance in feet, V is the speed in feet per second, μ is the coefficient of friction (assumed in this case to be equal to 1) and g is the acceleration due to gravity, which is 32 feet per second per second.

At 90 m.p.h. the distance will be 274 feet, or 91 yards. Under actual road conditions this distance will probably be doubled.



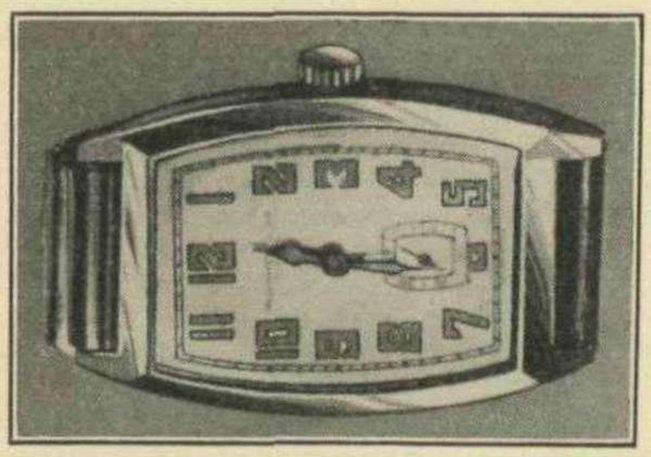
A MIDGET INNOVATION. M. A. McEvoy (London) Ltd., of 146, Notting Hill Gate, are responsible for this conversion of the standard M.G. Midget. The standard two-seater body is altered to a four-seater. Well finished and neatly executed, the work costs £25.

IF YOU WANT TO KNOW THE TIME. . . .

THE sports car owner is liable to be particularly hard on watches owing to the vibration and general rough treatment to which he subjects them. This has led to the introduction of several makes of watches specially designed to stand vibration.

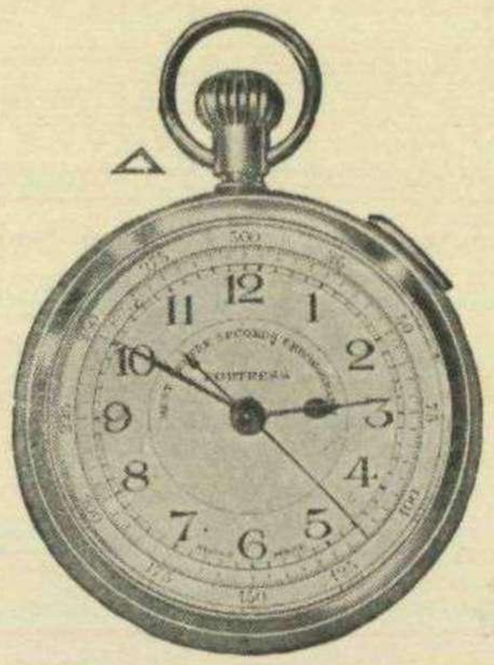
The Schneider Watch.

A watch which has achieved great popularity recently is the Schneider wrist watch, marketed by Roberts & Co., of Albion House, 59-61, New Oxford Street, London, W.C.1. It has a fully jewelled



The well-known "Schneider" Watch.

shock absorbing movement, with a waterproof case, which is unbreakable. Mr. R. C. Cole, of the staff of MOTOR SPORT, who recently made a trip from London to Paris in an outboard engined motor boat, used one of these watches and found it eminently satisfactory, in spite of getting it repeatedly wet with salt water. This model costs 55s., with either flexible metal or leather strap, and is also supplied on deferred terms.



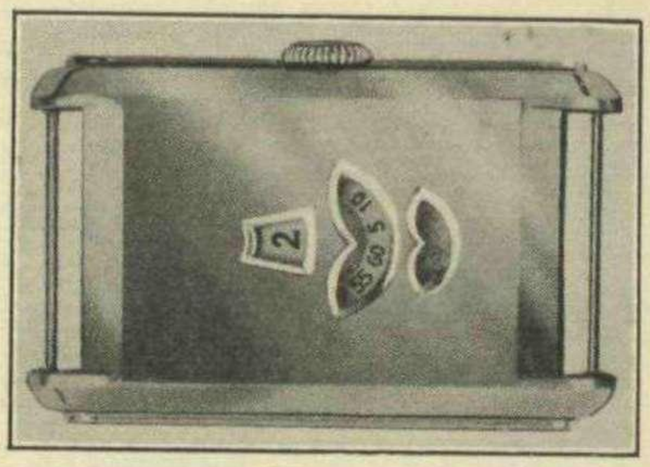
Typical stop-watch marketed by Arnold & Co.

The Blue Bird Watch.

This strikes an original note by having, in place of the normal face, figures appearing under windows in the metal cover, giving an instrument which is almost immune from the roughest treatment. It has a 15-jewel movement, and sells for 59s. 6d., being also obtainable on the instalment plan if desired. One model is chromium-plated, but a gold case model is also available. This watch is sold by Peter Roland, Ltd., 12-13, Hatton Garden, E.C.1.

A Range of Stop Watches.

Everyone who ever watches a motoring event, and also those who wish to check the performance of their own cars, have



A novelty in wrist watches—"The "Blue Bird."

plenty of use for a stop watch, and these are included in the range listed by Arnold & Co., 122, St. John Street, Clerkenwell Road, E.C.1.

A wrist watch at 15s., and a stop watch at 10s. 6d., both have stop mechanism for the centre second hand, but in the case of these models there is no fly-back arrangement for setting to zero, as they are not intended for timing speed events, but for ordinary time recording where continuous movement can be used. A fly-back pattern stop watch with minute and second hands is listed at the very reasonable price of 15s., while for those who require more specialised instruments of higher quality there is a combined time recording and stop watch with fly-back mechanism, with a very high class movement, at 85s.

NEW ACCESSORIES.

A Wing Protector.

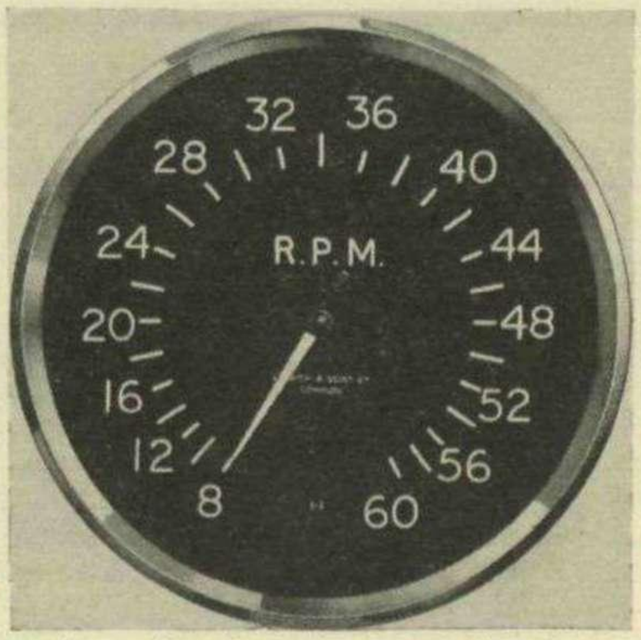
THE detail equipment of the modern sports car has become increasingly important, as owners wish to preserve the finish as long as possible. A new fitting designed with this object is the Everflex mudguard protector which is supplied by Hellewell & Co., Ltd., 2-3, Quadrant, Lime Street, Liverpool. This is a neat rubber guard designed to bolt on to the forward tip of the rear mudguards, and so to protect this spot from the shower of grit and small stones from the front wheels, to which the abolition of running boards has rendered it liable. The guard is moulded to fit round the end of the wing, and a pair costs 15s. 6d.

Spring Lubrication.

Attention to the springs of a car is usually deferred as long as possible owing to the rather unpleasant nature of the task of dismounting and greasing them, till recently the accepted method of dealing with rusty leaves.

The introduction of penetrating oil has rendered this procedure unnecessary, as it will creep into the smallest cracks and work its way between the leaves, so keeping them in good condition without trouble. The well known firm of C. C. Wakefield, Ltd., have recently added such an oil to their range, and it is sold at 6s. the quart tin, or 3s. 3d. the pint. A very useful adjunct to this new lubricant is the powerful squirt, which is sold at 4s. 6d., and which enables the oil to be projected into inaccessible places without difficulty.

In addition to springs, many other parts, such as brake connections, etc., may be attended to by this convenient method.



The latest Smith production. The 5in. dial revolution counter. It is now standardised on the Hornet "Special" and other sports cars.

Comfort in Strenuous Driving.

Every athlete, even when in first-class training, realises the need of artificially supporting muscles normally unaccustomed to much strain. For the sporting motorist, who in many cases occupies his life in between strenuous events with an indoor job which is no use as training, it is specially necessary to avoid strain when driving in a rough trial or race, or even a long day's run. The Litesome body belt, introduced by Fred Hurtley, Ltd., of Victoria Park Mills, Keighley, obtainable at most chemists and stores, is designed to give the necessary support and obviate fatigue. Most racing drivers wear something of this kind, and there is no doubt of its benefit to the ordinary motorist as well. All further particulars can be obtained from the makers.

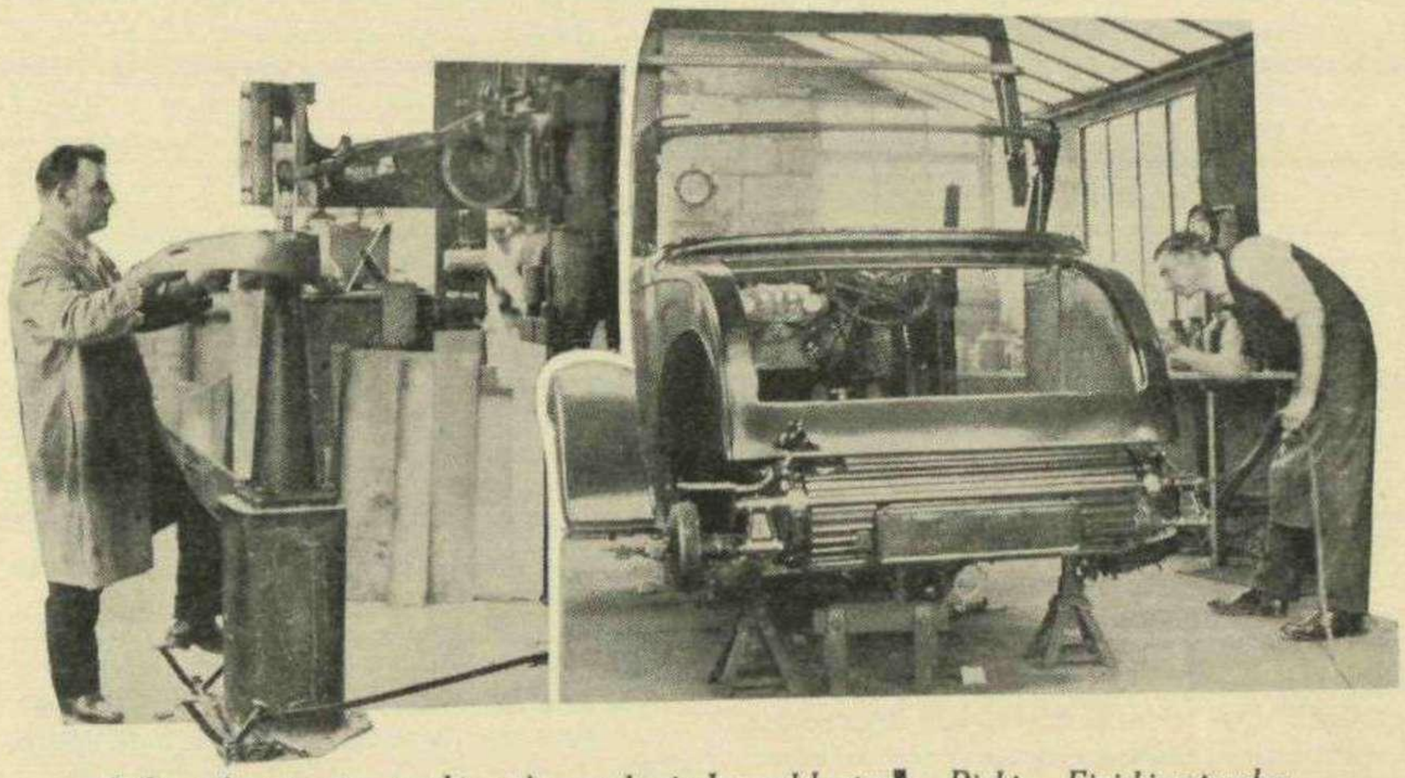
MODERN METHODS IN BODY BUILDING

MANY readers of MOTOR SPORT will have noticed in passing along the Portsmouth Road the works of Abbott and Co., just outside Farnham. This firm has long been well known in the motor trade as high class coach-builders, and they have recently introduced a very neat drop-head coupé on the M.G. Magna chassis.

I was down there the other day to have a good look at the new model, and a very nice job it is. It is one of those bodies which will really stand looking into in detail, which of course is the result of experience in building genuine luxury coach-work on expensive chassis. The lines are extremely attractive, the room given is as big as could possibly be arranged on a car of this size, and the comfort and vision extremely good.

Not having previously been over their works I was glad to accept Mr. Lloyd's suggestion to have a look through the works, and found it was one of the most completely self-contained establishments one could wish. Every kind of body building was in progress, for vehicles ranging from M.G.'s to 'buses.

In one shop was a 25 h.p. Rolls in course of completion for Mr. Rudyard Kipling, while a sideline which calls for extreme skill and craftsmanship is the building of sail-planes.



Left.—An operator working the mechanical panel-beater. Right.—Finishing touches in a spraying "booth."

All the machinery is very modern and extremely cunning, and I was particularly intrigued with the way in which a power driven panel beater was turning flat surfaces into beautiful bulbous curves.

After a glance at the wood mill and spraying shop, we passed into the engineering department, where a number of cars in various states of assembly were undergoing overhaul. Tools for everything one could think of, such as reboring, grinding, etc., were to hand, and on one bench was special machinery for testing every part of a magneto or dynamo.

After a further examination of this shop I buttonholed its manager.

"Just to save time," I said, "you might tell me what you can't do to a motorcar."

He scratched his head, and thought for a minute. "Well, we don't rewind armatures here, but we can get it done for you in a few hours."

I must remember this firm.

W.S.B.

THE AMERICAN WAY

SOME NOTES ON MOTORING CONDITIONS IN THE U.S.A.

IN 1928, when I left England for America, the sports car was still represented by the old 30-98 Vauxhall and the 3-litre Bentley, while the 4½-litre was just being introduced. Among lighter cars the Alvis in the 1500 c.c. class, and such cars as the Amilcar, Salmson and the Cup model Austin were popular.

Leaving such conditions, the American idea of motoring and their conditions, which have only altered in detail since then, came as a great surprise.

The wide concrete surfaces and the streams of cars made the eastern side of the United States seem like a perpetual London week-end exodus. In all this motley stream of cars, nearly all closed, there was hardly a sports car at all. A few of the old County Club Kissels, whale-back two-seaters with a wicker carrier for golf clubs, and one or two Stutz Bearcats, not the present immaculate models, of course, but 4-cylinder machines with a couple of bucket seats and a bolster petrol tank, were the only vehicles with any suggestion of the sports car.

How, then, did the "youth" of America amuse itself in cars? Actually, with the exception of the cars mentioned, and the Chrysler 75's with their pale blue bodies, yellow wheels, and flat folding windscreen, all the cars I saw were staid and rather dull-looking saloons.

As I got better acquainted with the country and its conditions, I began to understand why the sports car as we know it in England was not to be found. The American motorist regards his car entirely as a means of transport. He leaves his house on an icy morning—and remember, in parts of the U.S.A. you get temperature of 30° below zero—jumps into the car, and switches on. The American automobile is almost invariably a good starter, and almost before our friend has released the starter key he has engaged first gear and is off. He drives into the city, leaves the car outside the office all day, and at night, boards the car again and repeats the performance. Traffic is very heavy and the gear changing which would be required on a small sports car under such circumstances, would be most exhausting, so that a smooth running, flexible engine and a sweet clutch are essential. Finally, when any small trouble develops, the average owner does not attend to it himself, but hands the car over to the service station which specialises in the make of car he is driving. The English sports car is a reliable vehicle, but it does require a little consideration in warming up and in driving, and also occasional adjustments

THE AMERICAN WAY—continued.

to keep it up to its best form. The average American driver is not willing to do this, so that there is no call for the light and lively machine which delights the youth of Europe.

Shortly after my arrival in America new programmes were announced. Led by Chrysler, low models came into vogue and the four was altogether replaced by the six, and this in turn by the eight. The marketing of Ethyl petrol enabled a higher compression to be used without detracting from the slow running and flexibility which the American public had learnt to expect. Lighter moving parts permitted higher power to be produced, while the " double dropped " frame made the cars safe at the greater speeds obtainable. This sounds like a movement towards European practice, but this is only as far as European performance is concerned, as will be seen from the following facts.

There are three ways of improving performance : raising engine speed, lightening the chassis, or increasing the engine size. The European sports car usually combines the first two, but the first necessitates gear changing, and the second makes the car less resistant to bad road conditions unless expensive materials are employed. To obtain the higher performance, therefore, there is nothing left except to increase engine capacity.

30 h.p.—£3 tax !

The tax of a car varies in different parts of the U.S. In any case, it is only about £3 on a 30 h.p. car. Petrol varies in price, from about fourpence to tenpence a gallon, so one can easily see how the development of the large car has been favoured.

There is a good story about oil which shows how great is the influence of mass advertising on the American motorist. Some advertising expert suddenly decided that the sales of lubricating oil ought to be increased, so he started a coast-to-coast campaign proclaiming that oil ought to be changed every 500 miles. This was so successful that no one ever thinks of filling up their car, but religiously brings them to a service station after the allotted period to have the sumps drained. Another firm has now gone one better by bringing out a 2,000 mile oil at a greatly increased price ! So the struggle goes on, in cars as well as accessories, each maker vowing that his frame is more " double-downdropped," more fully equipped, more nearly a sheet of chromium plating, than the next.

Engine sizes have gone up, a higher compression is possible by using " doped " petrol or through improvement in cylinder head design, and engine revs. have been raised without roughness owing to the lighter moving parts of the eight-cylinder engines. To take a concrete example, the Oakland which I drove for a year, on one or two occasions reached 88 m.p.h. by speedometer, and must have been doing a genuine 75. Not bad for a £300 car !

Speed capabilities.

Higher grade cars such as the Packard are capable of ninety miles an hour with a light body, all without the slightest sign of roughness. The Auburn group, which also produces the Cord and the Duesenburg, are now concentrating on one size, the " 105," which is good for 80-85 m.p.h., while the Duesenburg is supposed to do anything between 90 and 110 according to the truthfulness of its owner. We must not forget the Imperial Chrysler, a product of the company who pioneered good looks and sporting lines in America, which should also do about 85 m.p.h. Almost the only car produced specifically as a sports machine is the Stutz Bearcat, which is a straight eight, and is stated to reach 100 m.p.h.

The du Pont was a special car with overhead camshaft specially made for this famous family, some with sports chassis, and a few were bought by the general public.

A special cylinder head is also made for Fords, called the Police Head, with which a speed of 80 m.p.h. is claimed.

The United States is subject to extremes of temperature, and in the Middle West ice storms occur in winter, with snow-drifts 12 feet deep, while in summer tropical conditions are reached. The closed car is therefore the choice of most Americans, but in the summer a fair number of " roadsters with rumble seats " (two-seaters with dickeys) are seen. Special " custom built " bodies are seen on Packards, and other high-grade cars, and America can claim to have found the solution of the draught-problem in the back of four-seater bodies. This is contrived by having a movable coach-built flap, complete with windscreen, in front of the near passengers, which is supported by means of pneumatic cylinders, so that it can be raised and lowered without effort. This fitting would add considerably to the weight of an English sporting body, but forms a very small proportion of the load of the luxurious American chassis.

Fabric bodies never caught on in America, but it would have been interesting to see what the Packard or the Buick could accomplish relieved of its heavy burden of steel coachwork.

In the last year or so the principal advances have been " floating power " free-wheeling, synchro-mesh gears and " ride-control." The first is the two-point suspension of the engine, which is free to pivot on bearings fore and aft, being merely steadied by a leaf-spring. This system damps out a great deal of the vibrations of the four-cylinder engine, and might quite possibly be applied to sports engines. Free-wheeling and synchro-mesh gears are self-explanatory terms, while " ride control " means control of the shock absorbers from the dash. This lay-out should have important effects on the stability of American cars, and it overcomes their habit of rolling on corners at speed while preserving their suppleness when running over bad surfaces.

The importance of " ride control " has already been realised by English sports car manufacturers, and the " André telecontrol " allows the principle to be applied to friction dampers.

The New York car show revealed only one feature of interest other than those mentioned above, and that was the super charger action obtained on the Franklin by connecting the intake of the carburettor to the air passages round the cylinders. Value for money is still more marked, and the 8-cylinder engine fitted to last year's £200 Oakland is now on the £120 Pontiac. Everything is " servo " or " synchro," and we seem at last on the verge of the one-pedal car.

A striking contrast.

On my return to England I was amazed by the number of small cars, sports and otherwise, on the road. An attempt to introduce them into America failed, for apart from their " parkability " there was nothing to recommend them to a public which could get four-seater Fords at three dollars a time. However, in England, with our crushing horse-power and petrol taxes, I suppose they are inevitable, and all credit is due to those who have brought them to their present state of perfection.

It is evident that the sports car in England is more popular than ever, and provides a welcome relief to one who has spent some time in the dull atmosphere of American motoring, where the only motto seems to be, " Press the button, and the service station does the rest."

J.G.

THE AVUS GRAND PRIX

MORE than 200,000 people assembled to watch the race which resulted in a narrow win for Von Branchitsh is a Mercédes, who beat Caracciola on an Alfa-Romeo by 4 seconds only.

The 1,500 c.c. class was won easily by Earl Howe (Delage), who drove faultlessly and led from the start. Barnes (Austin) was second, a very fine performance.

Results.

1st. Branchitsch (1,944 c.c. Mercédes), covering 294.426 kilometres in 1h. 30m. 52s. Speed 194.4 k.p.h.

2nd. R. Caracciola (2,350 c.c. Alfa-Romeo).

3rd. Stuber (2,300 c.c. Bugatti).

4th. Kotte (2,400 c.c. Maserati).

1,500 C.C. CLASS.

1st. Earl Howe (1,486 c.c. Delage), covering 196.561 kilometres in 1h. 6m. 42s. Speed 176.9 k.p.h.

2nd. Barnes (749 c.c. Austin), 1h. 23m. 53s.

3rd. Steinweg (Amilcar), 1h. 24m. 2s.

AIR.

THE TREND OF DESIGN

HOW MANUFACTURERS ARE BREAKING NEW GROUND IN AIRCRAFT CONSTRUCTION.

AT no time in the history of aviation have there been so many new ideas in process of development as nowadays. Inventors and designers both in this country and abroad are working along original and varied lines to bring about an increase in safety, greater economy in production costs, running and maintenance charges, and with all these, improvements in general performance.

Those designs which have already reached a practical form have been proved to possess characteristics of definite value, and it seems reasonable to suppose that before many years have passed the more successful productions will have a marked influence in the trend of design of aircraft in general. There is the Autogiro, for example. This highly-unconventional aeroplane is now being built on a production basis. And within a few weeks of its having been placed on the market the Autogiro Company have received a number of orders from private individuals in England, on the Continent and even further afield. In addition to this, it has received the "hall mark" of the Air Ministry in having been granted a Certificate of Airworthiness which permits the machine to be used as a "commercial aircraft" for hire or reward. This fact is significant because the standards set down by the A.I.D. are easily the most stringent in the world; before any new aeroplane is granted a certificate, a tremendous amount of calculations have to be gone into, the manufacturers' figures and drawings are checked, and the completed machine is tested over and over again by R.A.F. pilots at Martlesham. If it emerges successfully from its trials it can be taken for granted that there is not much wrong with it.

The Autogiro, however, is not the only newcomer with fresh standards and principles to break into the conventional circle of modern aviation.

At Croydon aerodrome General Aircraft Ltd., are busily engaged in building a batch of Monospar monoplanes. These are not experimental machines; they represent the first issue of a type which without doubt will compel considerable attention as soon as they are put into regular operation. The designer of the Monospar is Mr. Stieger, a Swiss engineer who has been closely associated with the British aircraft industry for several years. At one time he was with the Beardmore Company, and it was while with this concern that he conceived the principle which is embodied in this new machine—the single-spar arrangement of wing construction. His aim was to produce a cantilever wing of much lower structural weight than that of the orthodox type. In the opinion of many, the monoplane will ultimately wholly supersede the biplane on account of its cleaner exterior and absence of drag-producing excrescences, which makes greater speeds possible. But it has one disadvantage; its structural weight is high.

With the Monospar, however, the system of construction gives the added attraction of a very considerable lightness, while the troubles, which were met with in earlier attempts at making single-spar planes, of lack of rigidity in torsion and poor safety factors, have been completely overcome.

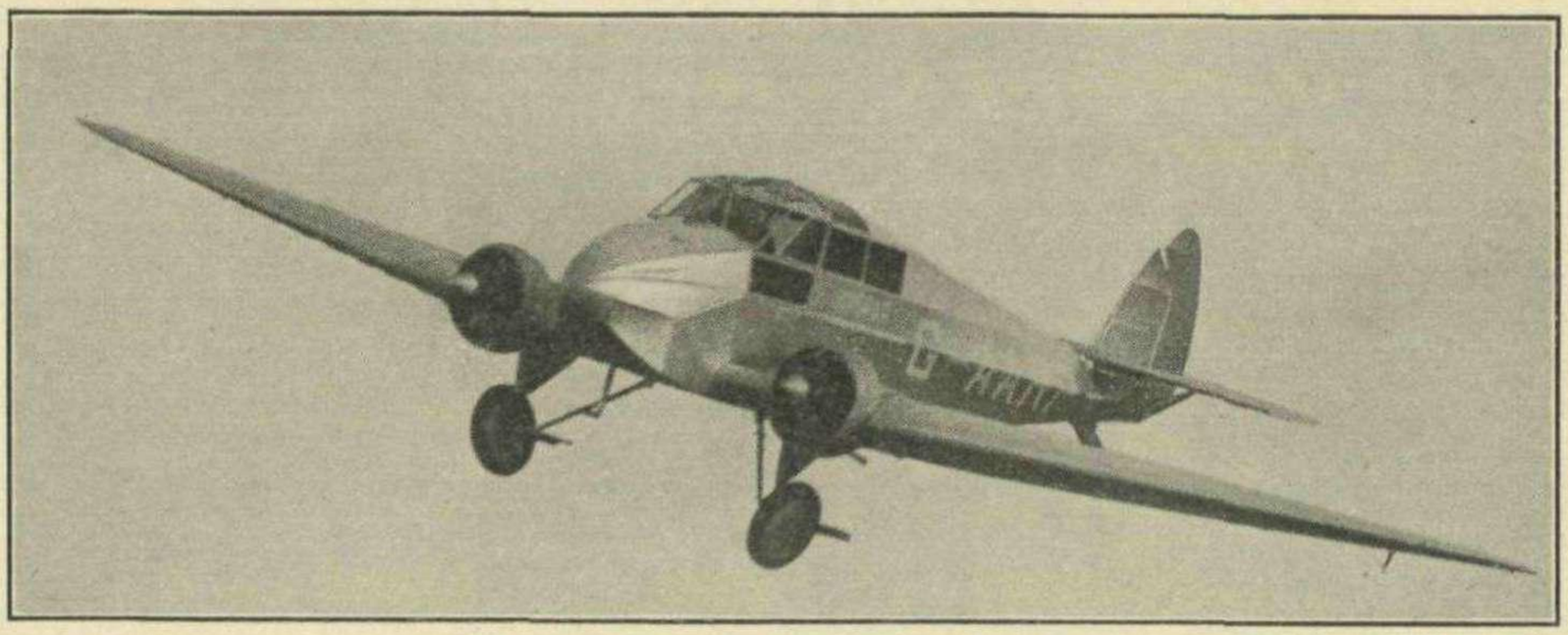
The Monospar system consists of a single main member which is strong in bending and which is braced against torsion by an arrangement of struts and ties. The struts take the form of cross-members and are made either as ribs or tubes, and the ends of these are used as the apices of pyramids of tie-rods which run from the top and lower flanges of the spar. These pyramids are disposed along the spar at suitable intervals, and extra members are fitted to deal with the drag and anti-drag loads. Mr. Stieger's early



[*Motor Sport Photograph*

A production job. The C.19 type Autogiro, which is now being marketed after years of experiment and test.

THE TREND OF DESIGN—continued.



"Aeroplane" Photograph

The twin-engined Monospar which has now come out of the experimental stage. The clean lines and light weight give it an excellent performance.

experimental wings were constructed with wooden spars, but the latest type is wholly metal, and the assembly has been considerably simplified. The ST.4, as the new Monospar is called, has its fuselage constructed on the same principle as that of the wings, with a single girder, an arrangement of torsion bracing, and stringers and formers to which the covering is attached. It is a four-seater twin-engined cabin machine, and when it is stated that the tare weight is only 1,250 lb., it will be realised that Mr. Stieger's system of construction offers very remarkable possibilities in the building of aircraft of low structure weight. These two aircraft form striking examples of the recent evolution to practical form of machines of really original design. Each has been produced with a very definite object in view—the Autogiro as a "safety" aeroplane, the Monospar as a craft of high performance and low power.

For a great number of years manufacturers have been seeking to improve the controllability of aircraft by overcoming the stall, and introducing features which allow of lower speeds at which manoeuvribility is possible. Research is continually going on in the matter of wing sections, arrangement of controlling surfaces and so forth, and investigations and theories have resulted in the bringing forth of interesting designs.

The Westland Company are working on a tailless monoplane which is based on the Pterodactyl machine which was demonstrated for the first time publicly some years ago. Originally designed and built by Captain Hill, this strange looking machine had a remarkable speed range and an exceptional control at and below stalling speed. The first type was fitted with a 32 h.p. Bristol "Cherub" engine, and a subsequent type in which sundry improvements were made was powered with a Siddeley "Genet." They thus came in the light 'plane category. The latest model, which is here illustrated, has a D.H. "Gipsy" engine and has much cleaner lines than its prototypes. The tailless type of aeroplane is being favoured quite a deal abroad, especially in Germany where there are now several versions flying and under test. Their evolution, it is interesting to note, has been aided in most cases by preliminary experiments carried out with engineless models at the Rhön, and there are examples of machines which appeared first as sailplanes, and which have afterwards been fitted with engines. One such craft is the Hermann Kohl, a cantilever monoplane of 43 feet span. It has a Bristol "Cherub" engine driving a pusher propeller, installed behind the pilot's cockpit. The wings are unique both as regards section and plan contours, the latter being those of an equilaterial triangle. The trailing edge on each side has two hinged surfaces, the outer acting as ailerons, and the inner formed as elevators. To the wing tips are attached vertical fins with normal type rudders. The cockpits are entirely enclosed with the upper fairing continued back to the engine, while the three-wheeled undercarriage is completely faired in. The machine as a whole, thus presents an extraordinarily clean if peculiar appearance. The Hermann Kohl is only one of several of these tailless aeroplanes; there are others in Germany, France and America. The latter country has always been prolific as regards new types, and while many of them are freakish, some of them (generally those which bear the stamp of German influence) are highly interesting and are, from all accounts, of promising design.



["Flight" Photograph

The Westland "Pterodactyl" tailless machine. It has a D.H. "Gipsy" III. engine.

Striking as the advance has been in revolutionary designs of aircraft, the progress which is being made in aero engines is none the less marked. From being unreliable, extravagant, and poor as regards power-weight ratio, the aero power unit has now become phenomenally dependable,

THE TREND OF DESIGN—continued.

and efficient. The last few years has seen a steady rise in power output with a corresponding increase in reliability, and we are now getting to the stage where the heavy-oil engine can be accepted as a practical proposition. The Beardmore Company have done much in this direction so far as British developments are concerned, while two years ago the Packard concern in the U.S.A. produced a Diesel type which gave highly encouraging results. The Packard engine is a nine-cylinder, air-cooled radial, and is rated at 225 b.h.p. It weighs 510 lbs., which thus gives 2.26 lb. per horse power—a remarkable figure for a heavy-oil engine. In Italy also the Diesel type is being worked upon, notably by the Fiat Company, and definite progress is being made.

It is sometimes said that there is a tendency towards stagnation in modern aircraft design. How far from the truth is such an opinion is made obvious from the foregoing. We are undoubtedly nearing a fresh phase in aviation when it may well be that the aeroplane as we know it to-day will be swept aside, and craft such as those which are just emerging from the drawing-board and experimental stage will take its place. What type will eventually predominate, and in turn become commonplace? Perhaps in the next five years the trend will be made clear.

NEW AIRCRAFT.

THE D.H. "FOX MOTH"

A "FAMILY" MACHINE WITH SINGLE ENGINE AND THREE-SEATER CABIN.

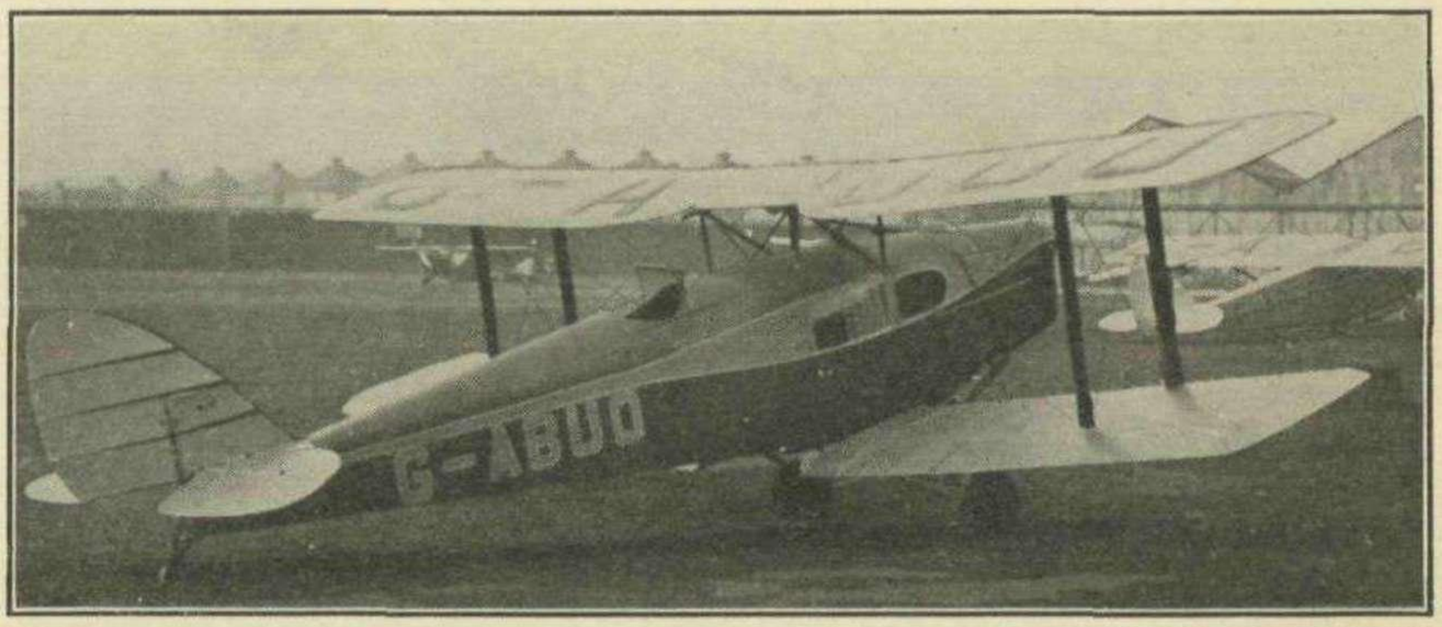
AS the private-ownership of aircraft grows in this country so are the requirements of purchasers becoming more varied and more clearly defined.

Manufacturers are finding that besides the normal two-seater, there is now an increasing demand for other types—"sports models," single-seaters, cabin machines, and—very definitely—light aeroplanes which will accommodate more than the usual pilot and passenger. The trend of design is, in fact, now following along similar lines to that found in the automobile industry where the types range from the small economy runabout to the lavishly equipped "super" car, and from the utility machine to the one-hundred-per-cent. racing model.

The De Havilland Company have never lagged behind in the matter of fresh developments, and it is, therefore, not surprising that they have just lately added yet another model to their range of aeroplanes designed and produced primarily for the private owner. This is the "Fox Moth", a single-engined biplane powered with a "Gipsy" III.

In appearance and characteristics this machine is typically D.H., and when one looks into its construction it is easy to understand why this is so, for most of the main components are identical with those of the "Tiger Moth," the "Puss Moth" and the "Gipsy Moth." The main planes, for example, are the standard units used on the "Tiger Moth," very slightly modified at the roots, while the tail unit, rudder and fin are exactly the same as those of the "Puss Moth." As on the "Tiger Moth" the wings have a pronounced sweep-back and stagger.

The fuselage is built up of wood with plywood covering, and has a cabin arranged forward and immediately behind the engine, while the pilot's cockpit is situated behind this. The cabin accommodates three passengers—two facing forward in a hammock seat and one facing backwards in a swivelling bucket type. Doors are arranged on each side, and a telephone is provided so that conversation may be carried on between the pilot and his passengers. By careful padding of the cabin interior and the use of a long exhaust pipe and a silencer, passengers can converse comfortably and without strain. The "Fox Moth" has the usual split axle type undercarriage with Dunlop air wheels and Bendix brakes, and a thoroughly up-to-date feature is found in the swivelling tail wheel, the whole making the machine very easy to handle and manoeuvre when on the ground.



[*Motor Sport Photograph*

The latest D.H. machine. The "Fox Moth" with "Gipsy" III. engine.

As has been stated the power unit of the "Fox Moth" is a "Gipsy" III, which is a four-cylinder air-cooled inverted engine of 120 h.p. This has been very neatly installed and cowled to give the machine a clean and well-streamlined nose, as well as providing the pilot with a good forward vision. When normally equipped, the fuel is carried in a tank housed in the centre section, the feed to the carburetter being by gravity. An auxiliary tank of 20-gallon capacity can be fitted, if required, as an extra however; this is housed inside the cabin, and the supply in this case is maintained by an engine-driven pump.

The following are the main dimensions, weights and so forth of the "Fox Moth":

Span 30 feet 10 inches; overall length 25 feet 9 inches; width when wings are folded 9 feet 6 inches; area of main planes 239 square feet; area of tail plane 13.4 square feet. Tare weight 1,050 lbs.; maximum permissible loaded weight 2,050 lbs. Maximum speed 110 m.p.h., cruising speed 90-95 m.p.h., stalling speed approximately 45 m.p.h. Normal cruising range 360 miles.

The price of the "Fox Moth" with usual equipment is £995, which for an aircraft of this type is exceptionally reasonable.

It is interesting to note that three "Fox Moths" have been entered for the King's Cup Race which will take place on the 8th of next month.

NEW AIRCRAFT.

THE AIRSPEED "FERRY"



An interesting new commercial aeroplane. The Airspeed "Ferry" (three "Gipsy" engines).

AMONG the numerous types of aircraft which are being used in connection with Sir Alan Cobham's tour, one newcomer is of particular interest.

This is the "Ferry," the first machine to be turned out by the recently-formed company of Airspeed Ltd., York.

The designer is Mr. A. Hessell Tiltman, B.Sc., A.F.R.Ae.S., who some years ago was associated with the De Havilland Company and was also concerned with the construction of the airship R.100.

The "Ferry" is a cabin machine of low horse power, and it has been built primarily for use on "feeder" lines and for charter work. Its cabin will accommodate ten passengers at an average weight of 165 lbs. each, but for ordinary air service the disposable load of 2,100 lb. would probably be divided up into seven passengers with a small amount of luggage and fuel for five hours' flying.

The "Ferry" has three engines, two mounted outboard on the bottom wings and the third in the centre section. The wing engines are D.H. "Gipsy" II and the centre engine is a "Gipsy" III. Behind and slightly above the latter is fixed the fuel tank which feeds all three power units by gravity. In a later type, this tank will be lowered into an extension of the centre engine's cowling. The aircraft is constructed mainly of wood with wings of orthodox type with spruce box spars, and the fuselage is flat sided with spruce framework covered with birch three-ply. An unusual feature is the anhedral angle of the lower wing roots; the design of the machine necessitates this arrangement, and in incorporating it, two added advantages have been introduced since it gives a very good view from the side windows of the cabin, and also blanks off the port and starboard engines so that exhaust and airscrew noise is appreciably reduced. Absence of noise in the passengers' compartment is, in fact, a noticeable feature in the "Ferry," and this is probably due to the fact that in addition to the blanking off of the wing engines by the wing roots, the middle engine is mounted in the centre section and not in the nose.

The cabin measures 12 feet 7 inches long, is 5 feet 9 inches high and is 3 feet 9 inches wide. The pilot's cockpit is arranged in the nose and it is enclosed. The two doors by which the passengers enter the machine are set low, and with the tail down, they are only about 12 inches from the ground, thus obviating the necessity of steps. The pilot enters the cockpit through a door in the front bulkhead of the cabin.

The undercarriage is of the split-axle type, and in the shock-absorber legs are springs which may be compressed 4 inches, and there is an oil damping device which allows of a further travel of 6 inches. The landing wheels are fitted with Palmer hydraulic brakes. These are applied by a lever in the pilot's cockpit, and small plungers actuated by the rudder-bar give increased braking on whichever wheel it is desired to turn.

The "Ferry" has a top speed of 108 m.p.h., and she stalls at 49 m.p.h. Fully laden with ten passengers up, and fuel for two hours flying, she unsticks in 100 yards in still air, and the initial rate of climb is 520 feet per minute. At a loaded weight of 5,000 lbs., the machine will not only maintain height at 5,000 feet with two engines running only, but will, in fact, climb at the rate of 50 feet per minute.

The following are the main dimensions of the aircraft:—

Span 55 feet, length 39 feet 8 inches, height 14 feet 3 inches, weight (empty) 3,450 lbs., (gross) 5,600 lbs., service ceiling 15,500 feet.

The "Ferry" is interesting in showing the growing tendency of manufacturers to adopt the multi-engine principle for machines of comparatively small size and power, and it is quite possible that before long such a practice will be used in the construction of so-called light aircraft.

PROGRESS IN THE GLIDING MOVEMENT

IF the gliding movement has not gone ahead quite as rapidly nor reached as high a state of popularity as was at first anticipated by those enthusiasts who worked to establish the pastime some two years ago, there are at any rate a few clubs which have made good progress—generally in the face of considerable difficulties.

The London Gliding Club, which operates at Tottenhoe, near Dunstable, Bedfordshire, is a notable example of what can be done by sound organisation and sustained endeavour, and there is no doubt that it has now reached a stage when it can be regarded as the premier gliding club in the country.

Originally the L.G.C. had two machines—a German Zögling and a Dagnall-built primary type. At first, members operated at Down Farm, near Albury, and although the site was not suitable for anything but short flights, a good deal of initial training work was put in at week-ends. The gliders were housed in a barn, which, being of extremely limited dimensions, necessitated the complete dismantling of the machines.

Subsequently the club removed to Ivinghoe Beacon, some few miles distant, and the gliders were housed in a marquee. Shortly after their establishment at the Beacon, the club acquired its third machine—a Prufling; with this, and also with the primary gliders, a number of successful soaring flights were made by sundry pilots, and members were further encouraged by a visit by Herr Kronfeld and Herr Magersuppe, who readily gave advice on many matters regarding such points as launching methods, the training of ab initios, suitability of sites, the requirements for soaring, and so forth. They also gave demonstrations of sailplaning on several occasions.

Some time later, owing to their failing to reach an agreement with the National Trust in regard to the continued use of the Beacon, the London Club again had to seek another site, and ultimately they secured the very fine ground where they

PROGRESS IN THE GLIDING MOVEMENT—continued.

are at present installed. Meanwhile the membership has steadily increased, a very respectable number of pupils have secured "A," "B" and "C" licenses, and soaring is regularly carried on practically every week-end.

Some members of the club have their own gliders at Tottenhoe, and these, with the club's fleet, are housed in the two hangars which have been erected. Attached to these is a workshop, where a ground engineer carries out maintenance and repair work. The L.G.C. can also boast of a quite commodious club house, which was built by the members themselves, and at week ends the fact that teas and refreshments are available adds considerably to the pleasure of one's visit.

In other respects the club is run on thoroughly sound lines. For instance, by the use of mechanical means—in the shape of "hack" cars—the laborious method of manhandling the machines to and from the hangars to the points of take-off is practically eliminated, while a winch and endless rope conveys them to the summit of the hill with great effectiveness and ease.

One of the most pleasing characteristics of the London Gliding Club is the complete absence of exclusiveness and formality, so that the uninvited visitor is always assured of a hearty and friendly welcome.

"SLIPSTREAMS"

Atlantic Flights Again.

THE Fly-the-Atlantic season, it appears, has once more opened, for in the past few weeks two pilots have set off from America to come to Europe. The first effort—which was unsuccessful—was made on 12th May, when Lou Reichers set off from Newark, New Jersey, in a Lockheed "Altair" low-wing monoplane with the idea of flying to Paris via Newfoundland. Having landed at Harbour Grace—where some repair work was necessary following some damage to his machine—he set off on the long hop on 13th. No news was heard of him until it was reported that the American liner, *President Roosevelt*, had sighted the "Altair" in the sea 47 miles off Fastnet Light, County Cork. Reichers, when rescued was in an exhausted condition, and owing to the heavy seas, the machine had to be abandoned. While congratulating him on his good fortune in being picked up, one feels with him that it was bad luck indeed that he came so near to getting across when his engine failed.

A few days later Miss Earhart pulled off her successful trip with her "Veega." And in doing so she has established three records. In the first place, she is, of course, the first woman to fly the Atlantic solo; secondly, she now holds the woman's record for a flight in a straight line (2,206 miles), and finally she is the holder of the record time for an Atlantic flight with 13 hours 15 minutes. Whether one agrees with the stern critics of these Atlantic flights, who say they serve no practical purpose, or not, one cannot help admiring the pluck of these people and their implicit confidence in the machines they fly. And if they are doing nothing else they serve to remind us of that great British exploit of 1919, when Alcock and Brown brought their old Vickers "Vimy" over from Newfoundland to Clifden, Ireland. Their time was 16 hours 12 minutes, which considering the flight was done just thirteen years ago, and that their machine was merely a converted War-time bomber, is not so slow.

We are apt to regard long-distance non-stop flights, and particularly flights across oceans as a modern development of aviation. That is far from the case. There was Gran's flight from Scotland to Norway in a Bleriot before the War, Seguin's non-stop trip from Paris to Bordeaux and back, a distance of 650 miles in 13 hours 5 minutes in 1913, and Garros' crossing of the Mediterranean in the same year—460 miles in 8 hours. All were outstanding achievements, and are worthy of remembrance. In view of what is being done to-day in the way of regular non-stop flights it is interesting to learn that in 1907, Lanchester estimated the maximum possible range of an aeroplane built at that time as only 360 miles. It is facts like these which show how great has been the progress of flying during the past twenty-five years.

Air Race in the I.O.M.

It is interesting news that an air race has been arranged to take place in the Isle of Man this month. Organised by the June Season Extension Committee of Douglas, the event will comprise two circuits of the Island, with the start and finish at Ronaldsway aerodrome, Castletown. The course will total about 104 miles, and it will be diverted inland to Peel in order to avoid the dangerous area in the southwest corner of the Island.

Unfortunately the race, while being open to all types of aeroplanes, will be limited to only ten machines, as the aerodrome at Castletown is licenced for a limited number of aircraft. However, the character of the course should help to make it quite an exciting event both from the point of view of the entrants and the spectators.

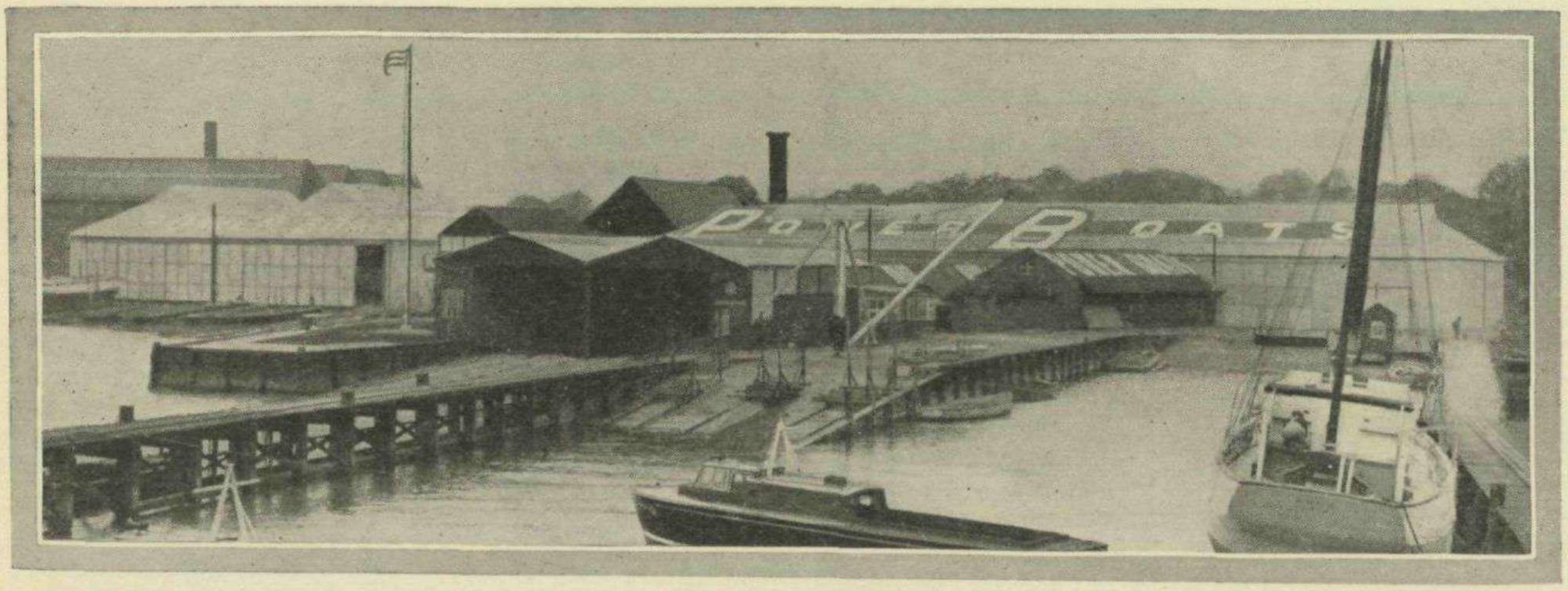
A quite bright suggestion on the part of the organisers is that all competitors should assemble at Blackpool aerodrome and make the trip to the Island en masse, accompanied by a flying boat, and that the return journey should be made in a similar manner. Numerous money prizes are being offered in connection with the race, including one of £250 which will be divided among the winner and the pilots who secure second and third placings.

"RUDDERBAR."

THE SPORT AFLOAT.

THE HOME OF BRITISH SPEED BOATS

ROUND THE POWER BOAT WORKS AT HYTHE.



UNTIL recent years, there has been no serious challenge to American supremacy in the speed boat world. Not so long ago, however, the water speed record was taken from them, their own 'Detroit News' trophy was won by Mr. Scott-Paine, and Charles Harrison came in first in the Colonel Green Trophy Race at Miami.

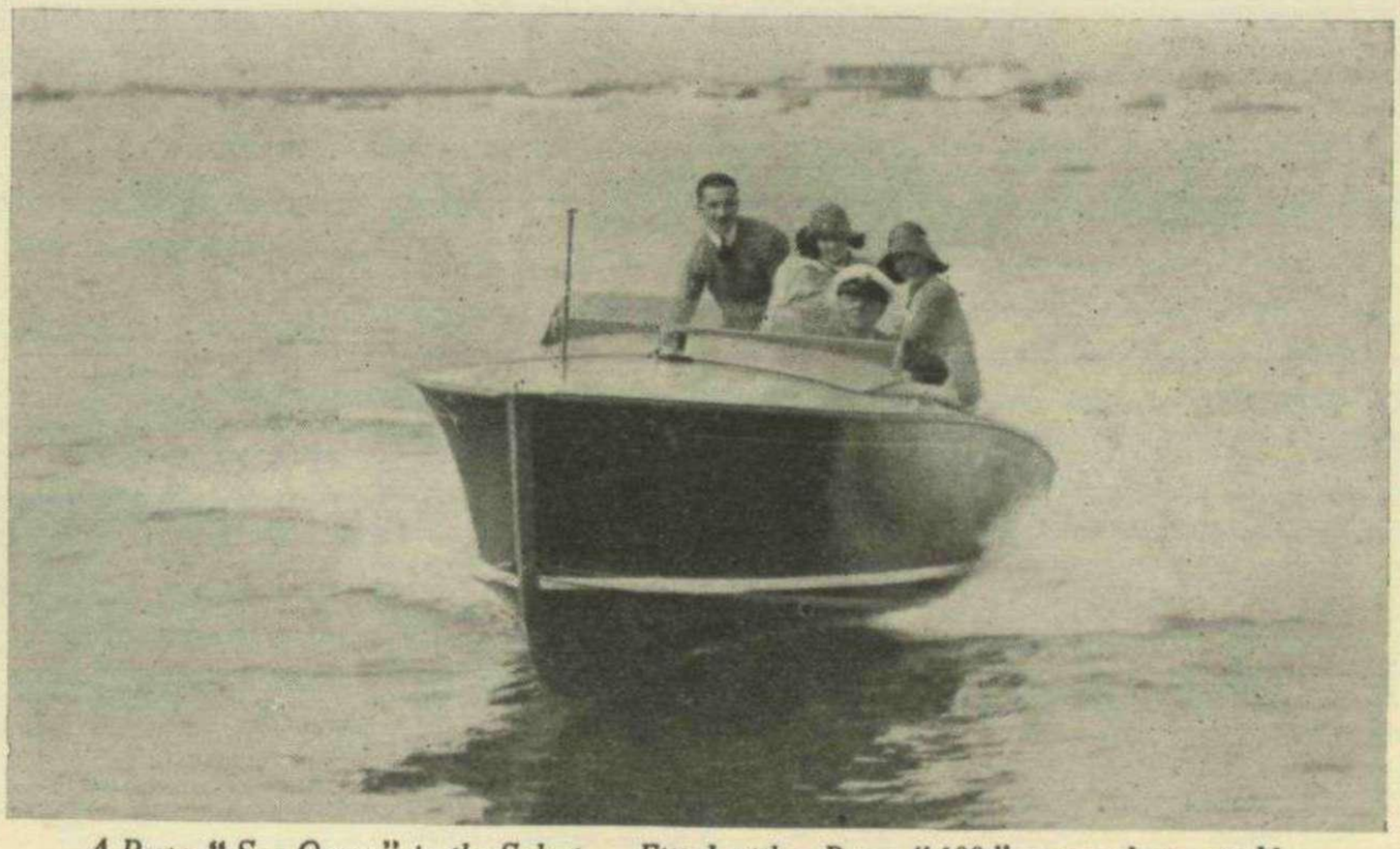
Now, at the little village of Hythe, near Southampton, there is a modern factory producing standard craft, the quality and price of which is giving the American motor boat barons some considerable food for thought.

As is generally known, the British Power Boat Co.'s works were burnt down some time ago, together with several of Mr. Scott-Paine's valuable racing boats: a severe blow to him. But, without any waste of time, a new factory sprang up, equipped with all the latest machinery, and employing all the latest methods of production. A contract for a large fleet of R.A.F. tenders was secured and the work re-started with characteristic enthusiasm.

Well before schedule, the fleet was finished, and out went the boats for their trials: Air Ministry trials (which means a run of two hours at full throttle to start off with), followed by various others means legalised "boat murder." There was not a fault to be found anywhere with any of the boats or engines.

On arriving at the Power Boat works you are agreeably surprised at the absence of the uniformed official who usually stands outside a British factory to scare away prospective customers. In his place is a notice telling you which way to go. You are met by a courteous gentleman, who asks the type of craft which interests you, and he takes you for a run in it. He will also answer any question you like to ask, or if you are a professional question-asker—nearly any question.

The activity inside the works is considerable. All types of craft are in the course of manufacture. The beautiful "Sea Queen" speedboat which is capable of 35 m.p.h., with



A Power "Sea Queen" in the Solent. Fitted with a Power "100" engine she is capable of 35 m.p.h.

THE HOME OF BRITISH SPEED BOATS—continued.

seating for five people, selling for £450; the "Sea Jack," a utility speedboat which can seat 12 persons, also selling at £450; and the "Sea Ace," an express cruiser, sleeping 6, with a speed of 18 m.p.h. Price £980.

The little "Sea Joker," a new product, is being manufactured in large quantities. This little 16-footer is powered with a 30 h.p. engine and has a speed of 25 m.p.h.

In all standard "Power Boat" craft "Power" engines are used, and here again the American high speed marine engine can teach us nothing. The hundred horse-power model has twin carburettors and overhead valves, and an oil cooler, while the 30-h.p. model also has overhead valves.

The fast tenders supplied to the R.A.F., although not pleasure craft, embody all the latest practise in marine engineering, and a run in one of them proved extremely interesting. They are fitted with two "Power 100" engines, controlled by the "Power-Hyland" hydraulic control system, by which means the forward and reverse gears and throttles are controlled by two little levers mounted on the dash-board, rather like a miniature ship's telegraph. This makes the handling absurdly easy and positive. Occasionally, Mr. Scott-Paine can be seen amusing himself by manoeuvring on of these boats alongside a stake and then circling round it backwards, keeping exactly 2 feet from the stake.

The maximum speed of these boats is about 30 m.p.h., and even at this speed the handling is unusually easy. Even the MOTOR SPORT representative could control it, and did.

The British Power Boat Company has the most modern and most completely equipped marine service station in the country. Boats can be taken from the water in a few minutes by means of trolleys on rails, and propeller repairs and so forth executed without delay; even the flexible tubing from the petrol pumps is sufficiently long to reach a petrol tank which may happen to be in a stern locker, a point which may be copied by some other marine service stations when they hear about it.

It is indeed gratifying to come across a British firm that is actually prospering. The British Power Boat Co. is working day and night to complete orders already placed, and the season has only just begun.

The Albany-New York Race.

THE annual Albany-New York Marathon resulted in a win for Charles Cabot, driving an Evinrude 4-60, with Kenneth McKenzie one second behind. This is generally considered to be the world's finest motorboat race. The course is 133 miles long, and the entry is usually large.

On this occasion 98 boats started, the winner's time being 2hrs. 56m. 39s. Speed 44.4 m.p.h.

That American Budget.

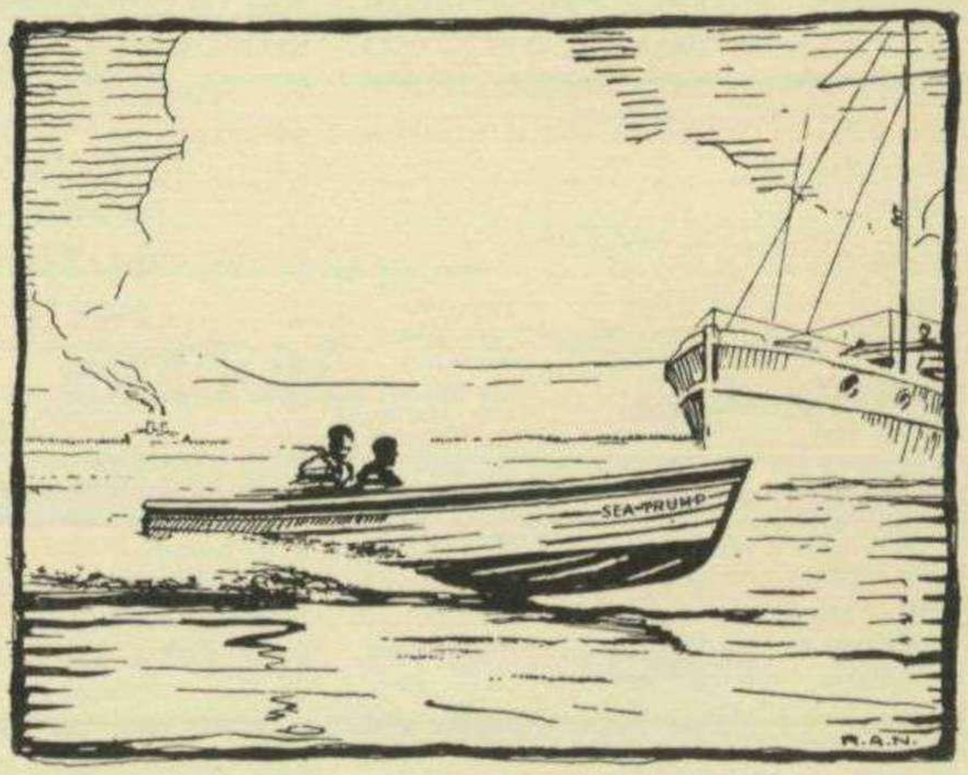
THERE is every possibility that the frantic efforts to balance the American budget will affect the motor boat

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The **SEA TRUMP** **£187** 25 m.p.h.

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***The British* POWER-BOAT**

THE SPORT AFLOAT—continued.

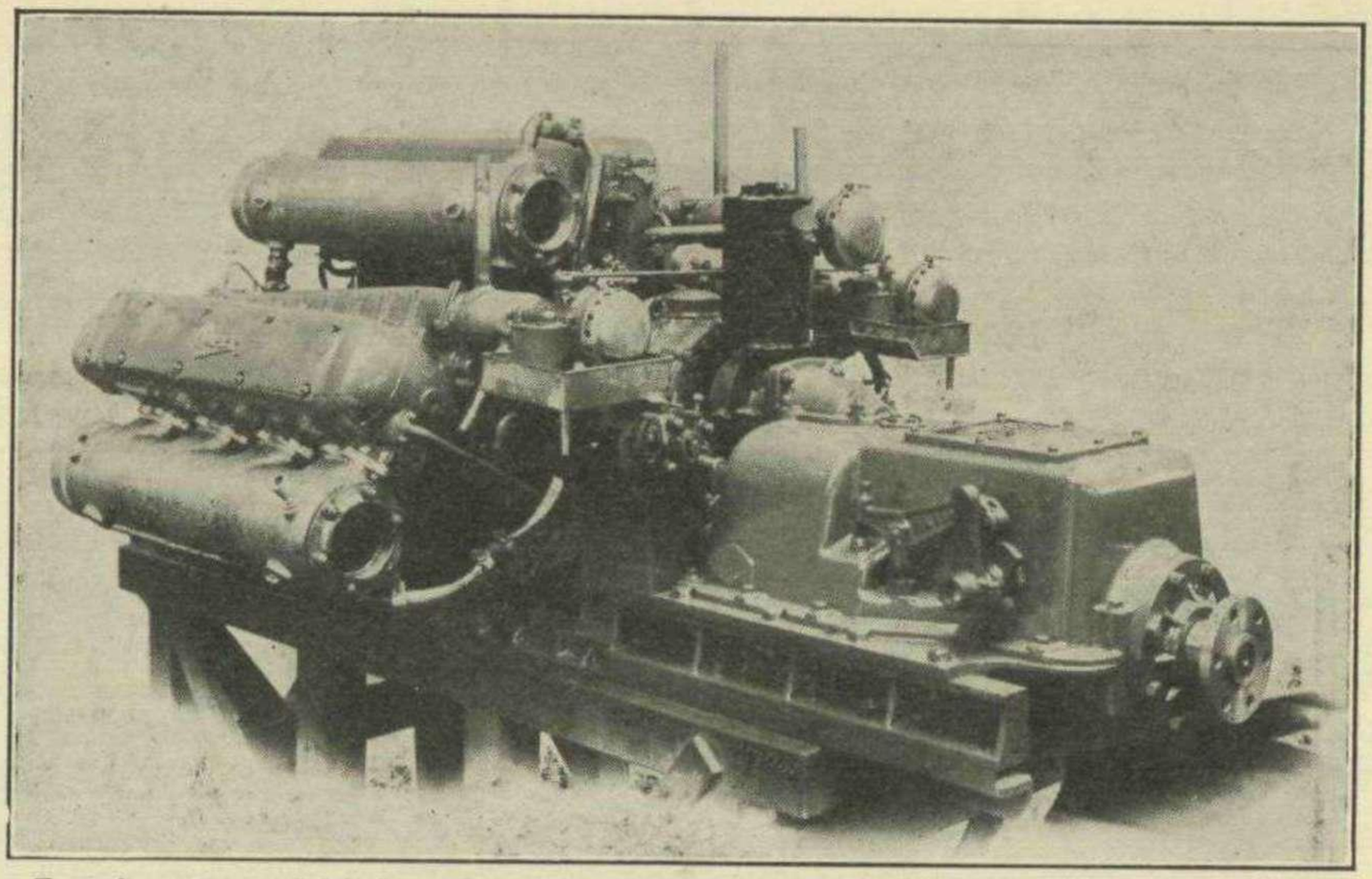
owners. There is already a small tax on motor boats in the States, but the new proposal is that there shall be a tax of 10% on the purchase of any pleasure motor boat.

Enterprise.

IN view of the present economic conditions, Messrs. W. D. Fair & Co. have produced a complete inboard motor installation for £39. This model is to be known as the "Economy 3," and includes a reversing propellor and impulse starter. Messrs. W. D. Fair & Co. are the manufacturers of the Watermota outboard engine which has won for itself such an enviable reputation for reliability on long distance record trips such as London to Brussels, Antwerp, Paris, to mention a few.

Miss England III.

IT is with deep regret that we announce the death of an Italian seaman, who was drowned while Miss England III. was being towed across Lake Garda. Miss England III. was rapidly filling with water which was coming through the water scoops, and it was decided to connect up the automatic bailers, during which operation the tragedy occurred.



Europe's most powerful high-speed marine engine. Known as the "Power Lion," it is now marketed as a standard job by the British Power Boat Company, and is a modification of the famous Napier "Lion" aero power unit.

Another Continental Outboard Trip ?

MISS E. L. THOMPSON is due to start shortly on a run from London to the Continent by outboard dinghy. It will be remembered that she recently made a successful run from London to Amsterdam in a Lee dinghy, assisted by, or rather, accompanied by, a mechanic.

A Fast Outfit for Someone.

THE 17ft. Vanadium dinghy which was built for Mr. Myers to enter in the Poole Hundred is for sale, owing to his being called back to the States suddenly.

This is the only 16ft. dinghy at present in the country, and with it is one of the latest F class Laros motors, also for sale.

It is to be hoped that this outfit will run, even in the hands of somebody other than Mr. Myers.

MODERN PIONEERING

MANY of us have read books on the old days of motoring, and thought to ourselves "If only I'd lived then." Visions spring up before us, of being the first man to drive a motor car from London to Edinburgh or some other distant place, or of arriving at, say, Chester, and the whole town turning out to see that wonderful vehicle that had actually come all the way from London. And, with a sigh, we flop into our silly little motor car and drive away.

You can, however, still pioneer if you have a motorboat, especially an outboard motorboat. You can for instance, be the first man to drive an outboard boat from London to Berlin. The fastest official run with a "B" class British engine is somewhere about 20 m.p.h. for the mile course. You can now buy a British engine capable of at least 40 m.p.h. without tuning. Only one boat has ever been from London to Brussels and back, and that took about three weeks over it. Only one man has been from London to Paris by outboard, and he also took about three weeks. Why not do the double journey ? The non-stop endurance record for an outboard motor is in the region of one month ; held by America, of course. Why not have a go at the endurance record with a tiny British lightweight, price £25 ? There is no lightweight record at the moment.

These are only a few of the thousands of things that can be done by an ambitious youngster without much money.

Surely a glorious holiday could be spent manufacturing a little piece of history, however small. What do you usually do for a holiday ? Go touring ? Where millions of other people have already gone touring. You go abroad, perhaps, where millions of other people have gone. Or, maybe, you just go to the seaside, where millions of people are already.

Instead of watching that silly little motorcar being loaded onto the Ostende steamer beside dozens of other silly little motorcars, wouldn't it be more fun to be standing in front of the chief customs official telling him that you are going abroad with that little boat, whether he has ever "heard of such a thing, or not" ? Instead of waiting for the silly motorcar to be dumped on the quay at Ostende, wouldn't it be more fun to get hold of a customs official and tell him that you have come from England by outboard, and here is your passport ? Just watch his face.

Just watch all the traffic stop as you roar through Ghent, and watch the lock keepers "jump to it" when you tell them that you are creating a record. A record is an almost holy thing on the Continent.

Then again at night. Think of the thrill of tearing along a deserted canal with your lights trained on the banks, and a thousand shadows dancing around. And then, finally, your destination. Crowds of people waiting, many of them with peculiar gifts which you will treasure for years to come ; and somewhere in the background, the inevitable Englishman, and his wife who has got a bath ready.

Think about this pioneering business. It is worthy of consideration ; and if there is anything you want to know, write to us. We probably know it.

Motor Sport Classified Advertisement Section

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USED SPORTS CARS FOR SALE.

AMILCAR

AMILCAR Grand Sports, fabric body, splendid condition, £35.—Box 481, c/o MOTOR SPORT.

AUSTIN

1930 AUSTIN 7 Brooklands Special 2-seater, black, green wheels and green cycle-type wings, outside chromium-plated exhaust, Aero springs, numerous extras, genuine 75 m.p.h., exceptionally smart, perfect mechanical condition, £105.—Box 486, c/o MOTOR SPORT.

1928 AUSTIN 7 h.p. Cup model, very carefully used, £40.—Box 485, c/o MOTOR SPORT.

AUSTRO-DAIMLER.

3-LITRE Austro-Daimler, special low chassis sports Viennese 4-seater torpedo, very fast and in wonderful condition, 3 new tyres, taxed; £165.—Box 487, c/o MOTOR SPORT.

BUGATTI

1928-29 3-litre Bugatti Low Built Sports Saloon, 4 doors, locker at rear; £125.—Box. 497, c/o MOTOR SPORT.

1928 3-litre Bugatti 4-seater Touring, one owner, serviced solely by Bugatti's, very carefully handled and in excellent condition; £165.—Box 498, c/o MOTOR SPORT.

USED SPORTS CARS FOR SALE (*continued*).

BUGATTI.

1½-LITRE 12 h.p. modified Brescia Bugatti, ball-bearing engine, fitted with attractive super sports 4-seater, recently repainted, overhauled, exceptionally fast.—Box 496, c/o MOTOR SPORT.

2300 c.c. Supercharged Straight Eight Bugatti, solid roller Crankshaft, new type pistons, car practically brand new and the last chassis to arrive in this country. Sports 3-4 seater with tail, specially upholstered in crocodile brown leather and finished in blue cellulose, polished aluminium wheels. Car fitted up regardless of cost. An amazingly fast car. Very carefully used. Taxed for year. Original owner. £650.—G. M. Giles, 9a, Cumberland Terrace, Regent's Park, London, N.W.1.

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USED SPORTS CARS FOR SALE (*continued*).

BUGATTI.

MODIFIED BRESCIA, Grand Prix type body, rebored, overhauled. £31.—71, Endlesham Road, Balham.

DERBY

£150 9 h.p. 4-cyl. black sports 2-seater, Twin Solex carburetters. Special exhaust system. Under 9,000 miles. Taxed till December. Very fast. Run by arrangement.—Neal, Pipsden, Hawkhurst.

FRAZER NASH

FRAZER-NASH Special 2-seater, 1927 specification, long, low racing body, fitted wings, etc., large headlamps, pneumatic upholstery, whole car in very fine condition, very fast, with terrific acceleration, suitable for ordinary touring work or speed trials, bargain for enthusiast at £75; exchanges, deferred. Park Garage, Skeltons Lane, Leyton. Leytonstone 1437.

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

H.E.

£40—H.E. 13 h.p. super sports 4-seater, registered 1924, reconditioned 1930, F.W.B., starter, 4 practically unworn tyres (2 spares), complete all-weather equipment, tonneau cover, extremely fast and attractive, sound throughout, taxed.—Box 488 c/o MOTOR SPORT.

HISPANO-SUIZA.

HISPANO-SUIZA 15.9 h.p. "Alfonso" type (80 mm. x 180 mm.), 3-4-seater sports body, Rudge-Whitworth wire wheels, Bosch Z.R.4 magneto, S.U. carburettor, brand new hood and sidescreens, latest type Ashby "Brooklands" fully sprung steering wheel, finished in white and black. This car is a really distinctive veteran of smart and up-to-date appearance, solid and reliable with a good all-round performance. Petrol consumption averages 24 miles per gal. Taxed till end of June. For further particulars see MOTOR SPORT, July, 1931 issue, page 429. Price £32. Write c/o MOTOR SPORT, Box N.K.1030.

LAGONDA

£65—Lagonda 1926 2-litre semi sports tourer, excellent.—Box 474, c/o MOTOR SPORT.

1931 Lagonda 2-litre Supercharged Sports 4-seater, exceptional condition; £425.—Box 479, c/o MOTOR SPORT.

£215—1929 2-litre sports Lagonda 4-door saloon, engine just rebored, beautifully kept.—Box 477, c/o MOTOR SPORT.

CAREFULLY Maintained 2-litre Supercharged Lagonda 4-seater Tourer, delivered 1931, is offered at £450; the car is perfect throughout, has run a small mileage, one owner only, and passed for Lagonda guarantee.—Box 478, c/o MOTOR SPORT.

LEA FRANCIS.

£245—1931 Lea-Francis 12-90 h.p. saloon, supercharged Hyper sports, black and red, wire wheels, 4 doors, chromium, sloping windscreen, luggage trunk, sloping radiator, only had occasional usage, unscratched, every accessory.—Box No. Y619, c/o MOTOR SPORT.

Motor Sport Classified Advertisement Section—*continued.*

SECOND-HAND SPORTS CARS (*continued*).

LEA FRANCIS.

55 Pounds.—Lea-Francis 1927-28 10 h.p. special sports 2-seater, concealed dickey, excellent tyres, morocco leather interior and bodywork excellent throughout, V screen, good hood and equipment, perfect mechanically, fast, unusually attractive.—Box No. B610 c/o MOTOR SPORT.

M.G.

MARK II 4-door saloon, four speed gear box with silent third, painted green with black wheels. Many extras. 75-80 m.p.h. Box BJ. 4928, c/o MOTOR SPORT, 39, Victoria Street, S.W.1.

1932 Montlhery Midget, mileage 500 only, colour green, literally as new; price £295.—Box 495, c/o MOTOR SPORT.

1931 Montlhery Midget, colour cream and red, spotless condition, small mileage; £275.—Box 499, c/o MOTOR SPORT.

MERCEDES

1½-LITRE Special Supercharged Mercedes 12-40, small 4-seater, close ratio, 4 speeds, 6 wire wheels, Triplex folding flat windscreen, full Bosch equipment, Tonneau cover, rigid side curtains, licensed, Bosch long range head lights, dimmers, most completely equipped, first class mechanically, 4-6-24, cost £600, 60 m.p.h. on third, truly wonderful condition.—Box 491, c/o MOTOR SPORT.

MERCEDES. Special 4-seater sports. 11.5, Super charged. Two spare wheels, cut out. Very fast; colour red; beautiful condition. Send for photograph. £78. The Borough Garage, Otley. 'Phone 156.

O.M.

£87/10—O.M. 1927 sports, English body 4-seater, 2 carburetters, taxed, repainted, super condition.—Box No. 4600, c/o MOTOR SPORT.

VERY Late 1925 O.M. 4-seater Sports, cut away body by Cadogan Motors, 2 carburetters, wire wheels, flared wings, black and red, 70 m.p.h.; £77/10.—Box No. A621, c/o MOTOR SPORT.

RILEY.

1930 Brooklands Model Riley Nine 2-seater Sports, beautiful condition, capable of over 80 m.p.h., £195.—Box 470, c/o MOTOR SPORT.

1929 Mark IV Brooklands Model Riley (Ulster Type), finished blue, cream wheels, many extras, used very little since a complete overhaul, £180.—Box 475, c/o MOTOR SPORT.

MARK IV Riley Nine special 2-carburettor sports 4-seater, moderate mileage, 5 new India tyres, tax paid to 1933, rev. counter, tonneau cover, chromium plating, really exceptional car; £120.—Box No. R620, c/o MOTOR SPORT.

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SECOND-HAND SPORTS CARS (*continued*).

ROVER.

ROVER Ten Sportsman's 4-seater coupé. Engine just overhauled. Excellent condition throughout. Bargain, £75.—Apply Box N.C.Z.140, MOTOR SPORT.

SALMSON

£55—1928 Grand Prix twin o.h.c. Salmson super sports 2-seater, new tyres, whole car entirely overhauled by Salmsons, wings, wheels, etc., repainted.—Box 471, c/o MOTOR SPORT.

SCHNEIDER.

1930 13/55 Le Mans Schneider sports four seater. £195. Denmans, 132-3, Long Acre, W.C. Temple Bar 8132-6-7. Open Week Ends.

TALBOT.

1924 10-23 h.p. 4-seater tourer. New tyres, recently overhauled, re-bored and fitted with new pistons. Perfect mechanical condition. £20. Apply Box 4434, MOTOR SPORT.

VERNON DERBY.

1929 Special Vernon-Derby 6-cyl. Super Sports 2-seater, underslung, fitted with special high compression head, 4-speed close ratio gear box, twin Solex carburetters, lavishly equipped, including rev. counter, new hood, etc., fitted with magneto and coil ignition, new tyres, this car has just had a genuine overhaul, any trial, taxed; £95, or exchange for M.G. Midget.—"Heatham House," Twickenham. Popesgrove 1163.

1928 Vernon Derby 9 h.p. two seater. Cellulosed Ivory and Red. Completely overhauled. Capable of 70 m.p.h. Guaranteed. Park Garage, Skelton's Lane, Leyton. Leytonstone 1437.

WOLSELEY HORNET.

HORNET two seater special black-green semi-sports. Hood, Sidescreens, Commodious Boot, Pneumatic Upholstery Leather, Fine Condition. Nearest offer to £100. View, Ripley Motor Works, Ripley, Surrey.

ABBEY A.S.1. sports 4-seater. Excellent condition throughout, capable of 70 m.p.h., a really smart car, looks as good as new. £145. Box J. 4930, c/o MOTOR SPORT, 39, Victoria Street, S.W.1

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1928 LEA FRANCIS; sports 4-seater body, and other components.—4, Avenue Road, Willesden, N.W 10. Willesden 1236.

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£20 Evinrude Speeditwin. Very fast. Or with skimmer. Wheel steering, £25.—Neal, Pipsden, Hawkhurst, Kent.

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THE J.C.C. HIGH-SPEED TRIAL



E. K. Rayson (Riley) and G. Taylor (Alta) leading another Riley through the "tub" hairpin.

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.

MOTOR SPORT (1929) LTD.,

39, Victoria Street, London, S.W.1.

INDEX TO ADVERTISERS

	PAGE
Alvis Car & Engineering Co. Limited	back cover
Aston Martin, Ltd.	348
British Power Boats	389
Bugatti Owners' Club	341
C. C. Wakefield & Co., Ltd. ...	360
Charles Follett, Ltd. ...	345 & 368
Dunlop Rubber Co., Ltd. ...	342
E. D. Abbott, Ltd.	357
Ferodo Ltd.	front cover
Frazer-Nash Cars, Ltd.... ...	353
Fred Hurtley, Ltd.	364
Great Western Railway ...	376
Hellewell & Co., Ltd.	366
Jarvis	351
Junior Car Club	341
M. A. McEvoy (London), Ltd.	364
Patrick Motors, Ltd.	355
Riley Record	341
Roberts & Co., Ltd.	351
Robinson & Co., Ltd.	374

Sir HENRY BIRKIN says of the "SPEED TWENTY"

SIR HENRY BIRKIN, BT.

TELEPHONE. REGENT 3342/3

166, PICCADILLY
LONDON, W.1.

"I have never driven a more delightful motor car"

22nd. March, 1932.

T. G. John, Esq.,
Alvis Car & Engineering Co., Ltd.,
COVENTRY.

Dear Mr. John,

I have to thank you very much for the loan of the new ALVIS Speed Twenty Model this week-end, and offer you my heartiest congratulations on having produced such an extraordinarily good car.

My outstanding impressions of this car are, firstly, that I did not like giving it back to you, and secondly, that I have never driven a more delightful motor car from every point of view.

The steering is superb and appears to be ideal from the point of view of control. The springing is excellent. The brakes are very powerful. The engine is very smooth throughout its range and is extremely docile and smooth-running at slow speeds.

The road-holding qualities are in my opinion second to none, whilst the driving position and the position of the controls are admirable.

I can find no fault with the car whatsoever. It is, in fact, an extremely fine product and a truly magnificent motor car for the man who is a connoisseur, whilst the speed is ample even for the most blase speed merchant.

As a standard production I feel you have nothing to fear from anything now in existence, and I should like to wish you every success with this very fine British product.

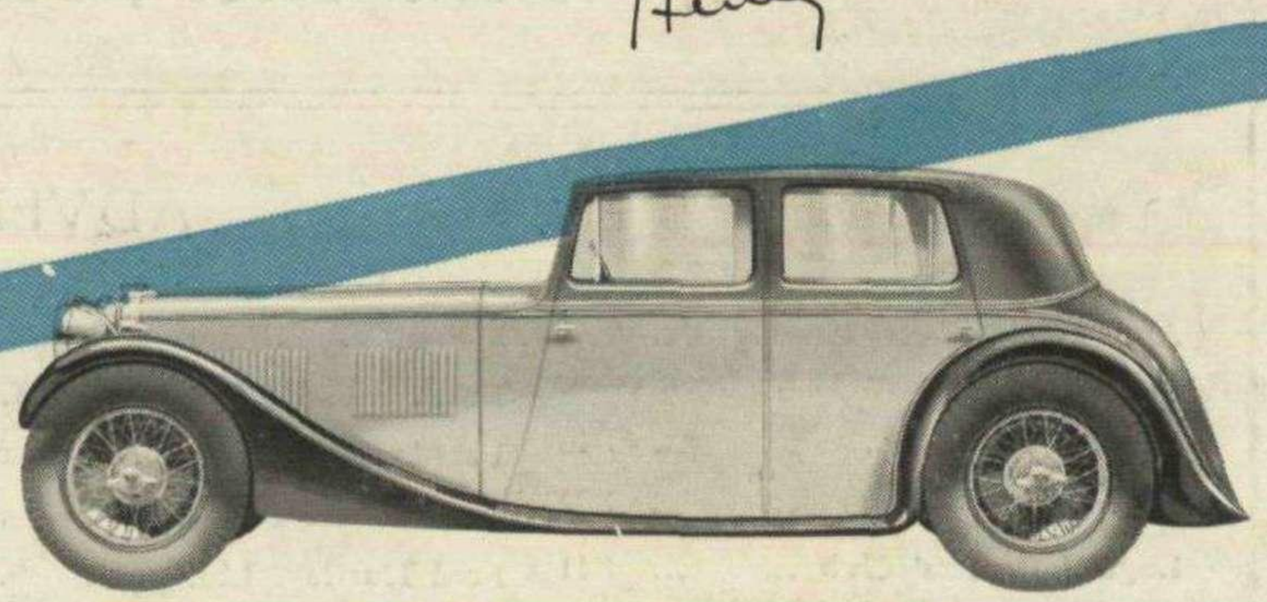
Yours sincerely,

Henry R.S. Birkin.



Sir Henry Birkin, the famous competition driver, and holder of Brooklands lap record, is one of the most experienced and successful drivers upholding British motor racing reputation.

ALVIS



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Printed by W. Mate & Sons (1919) Ltd. Bournemouth, and Published by the Proprietors, Motor Sport (1929) Ltd.
39, Victoria Street, London, S.W.1. Agents for Australasia · Gordon & Gotch (Australasia) Ltd.
Copies obtainable and subscriptions received by W. H. Smith & Son, 248, Rue de Rivoli, Paris; and
W. H. Smith & Son, 78, Rue du Marché-aux-Herbes Brusselles, Belgium.