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Vol. 4 No. 2
August
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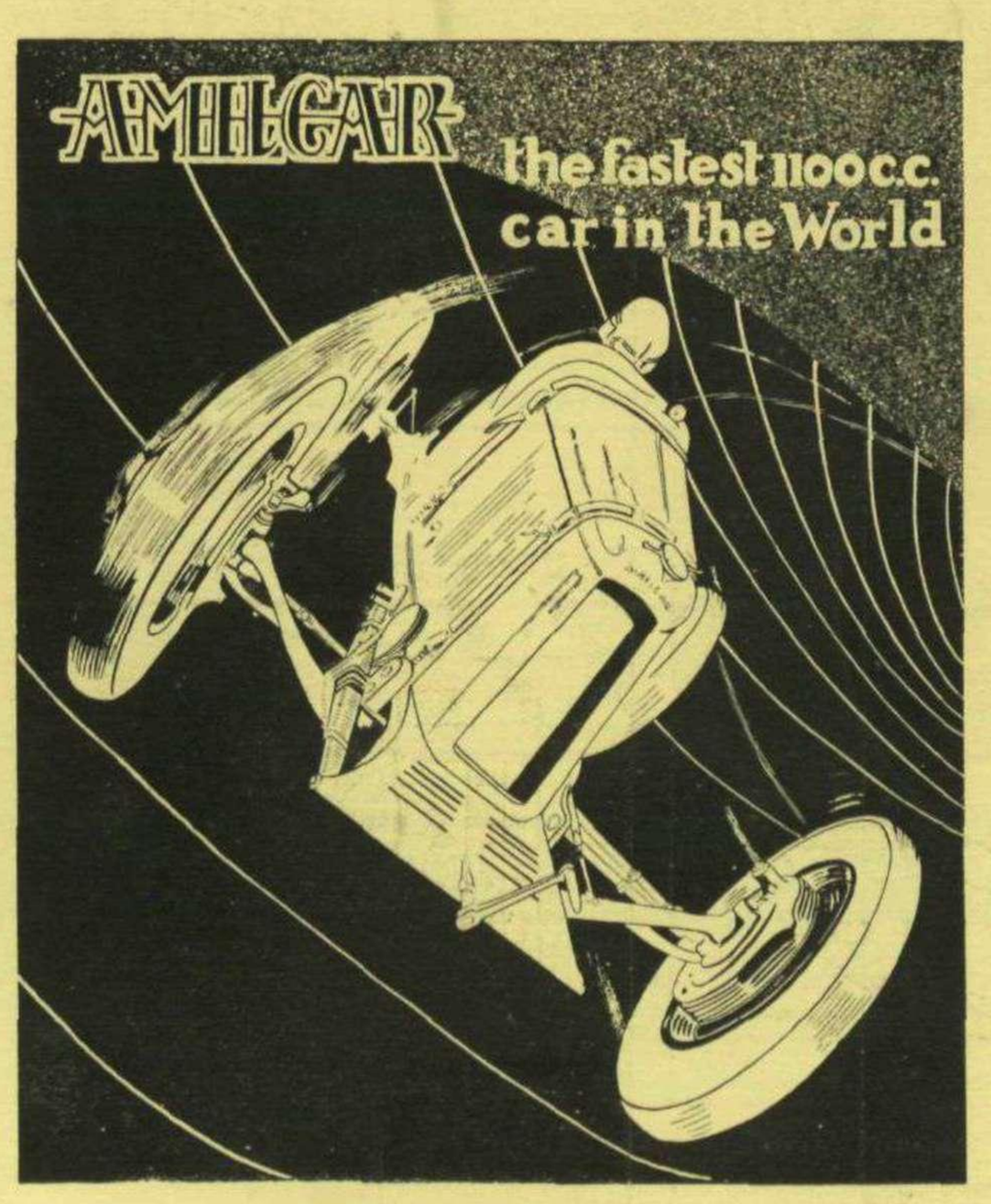

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ANOTHER GRAND PRIX VICTORY
reported in this issue, page 35.

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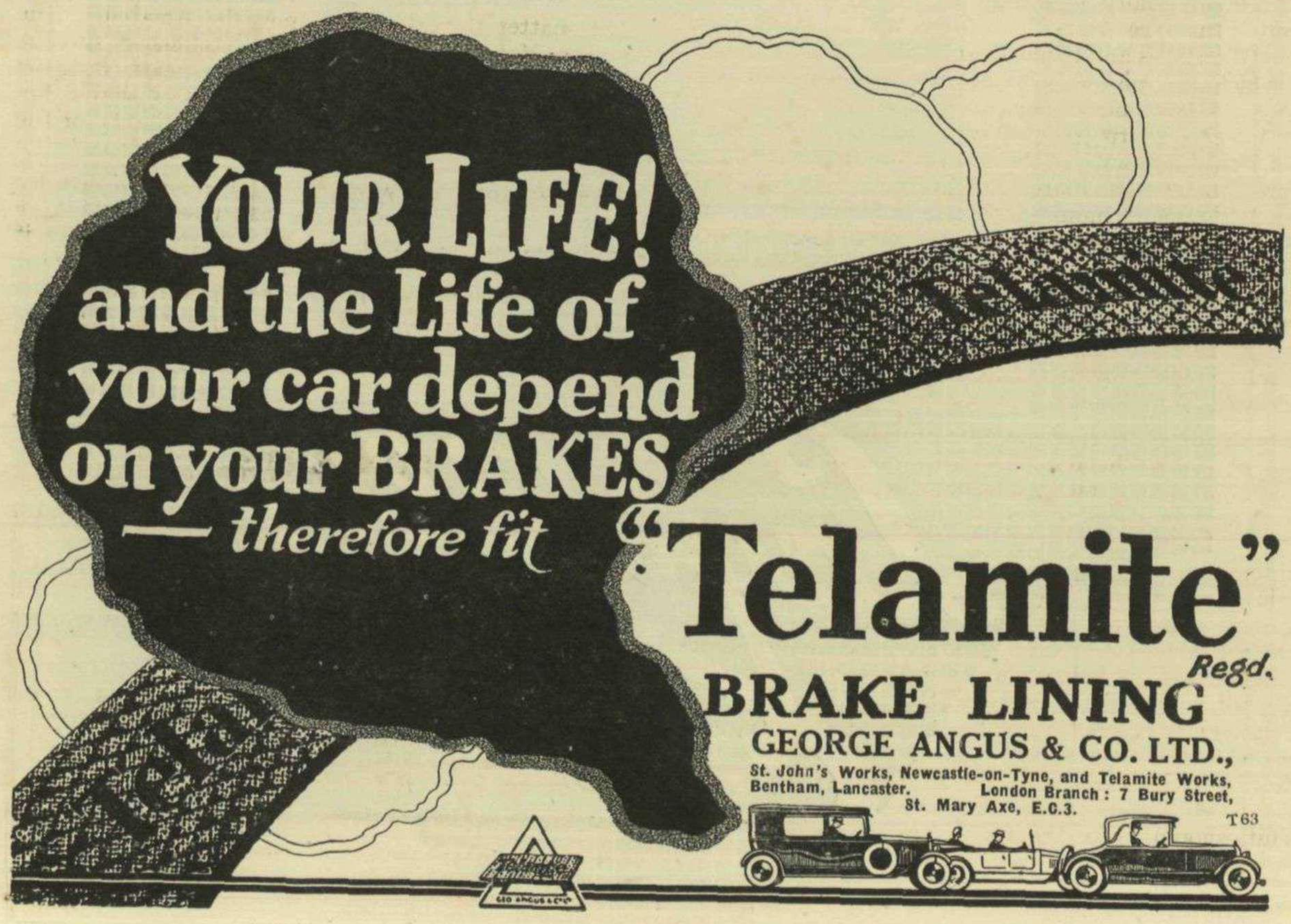

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No 2. VOL. 4

Edited by L. A. HUTCHINGS.

AUGUST, 1927.

EDITORIAL NOTES.

Why Not a Car T.T. for Amateurs?

YEAR by year it seems, the number of genuine car road races is decreasing. All the Grands Prix are gradually migrating to the artificial "road circuit cum race track" courses, which, with their concrete surfaces and banked turns, allow of great speed, but which fail miserably to provide genuine road conditions. I have never seen a car road race, but each year I feel a sharp pang of envy and real excitement when I read accounts of the one surviving event of this nature—the Targa Florio. This race, held over an extremely difficult mountain course in Sicily, never fails to attract a far larger entry than the great International races. The explanation is quite simple. Great speed on the track is only obtainable by the huge factories, backed by a substantial racing allotment, but the Targa Florio shows that many smaller firms and amateur drivers can enter with a reasonable chance of success, since maximum speed is not of paramount importance.

The tremendous speeds attained by one or two concerns on the artificial road circuit is gradually killing the sport of motor racing; feeling themselves not justified in spending vast sums of money on racing freaks, capable of 140 m.p.h. or so, firm after firm reluctantly decides to abstain from racing. If only the great races would return to the road, where driving, braking and road-holding count for as much as speed, I feel sure that we might some day return to the glorious state of affairs which existed in 1914, when the French Grand Prix attracted over forty starters. This race was run over the famous Lyons circuit, and as a spectacle as well as a test, must have been superb. A comparison of this race with the 1927 French Grand Prix, when seven cars droned mournfully round an uninteresting artificial circuit, should make the racing enthusiast weep tears of regret for the "old days."

Such regrets are very well, but surely something ought to be done about it. In view of the apathy of the British Trade; nothing much can be expected from them!

The matter then devolves upon the Amateur. The Amateur Motor Cycle T.T. is an established success, thanks to the Manx M.C.C., while the hearty support given to the A.C.U. Tourist Trophy Races should lay once and for all the bogey of the inaccessibility of the Island.

Given an entry of twenty-five, I feel sure a race for Amateur car drivers would be a success, and that an organisation exists which would "stage" the race if assured of that support. I should be very glad to hear from any Amateur drivers who would enter in such an event—if sufficient enthusiasm is displayed I am convinced that 1928 will see another Car Tourist Trophy Race.

CONTENTS.

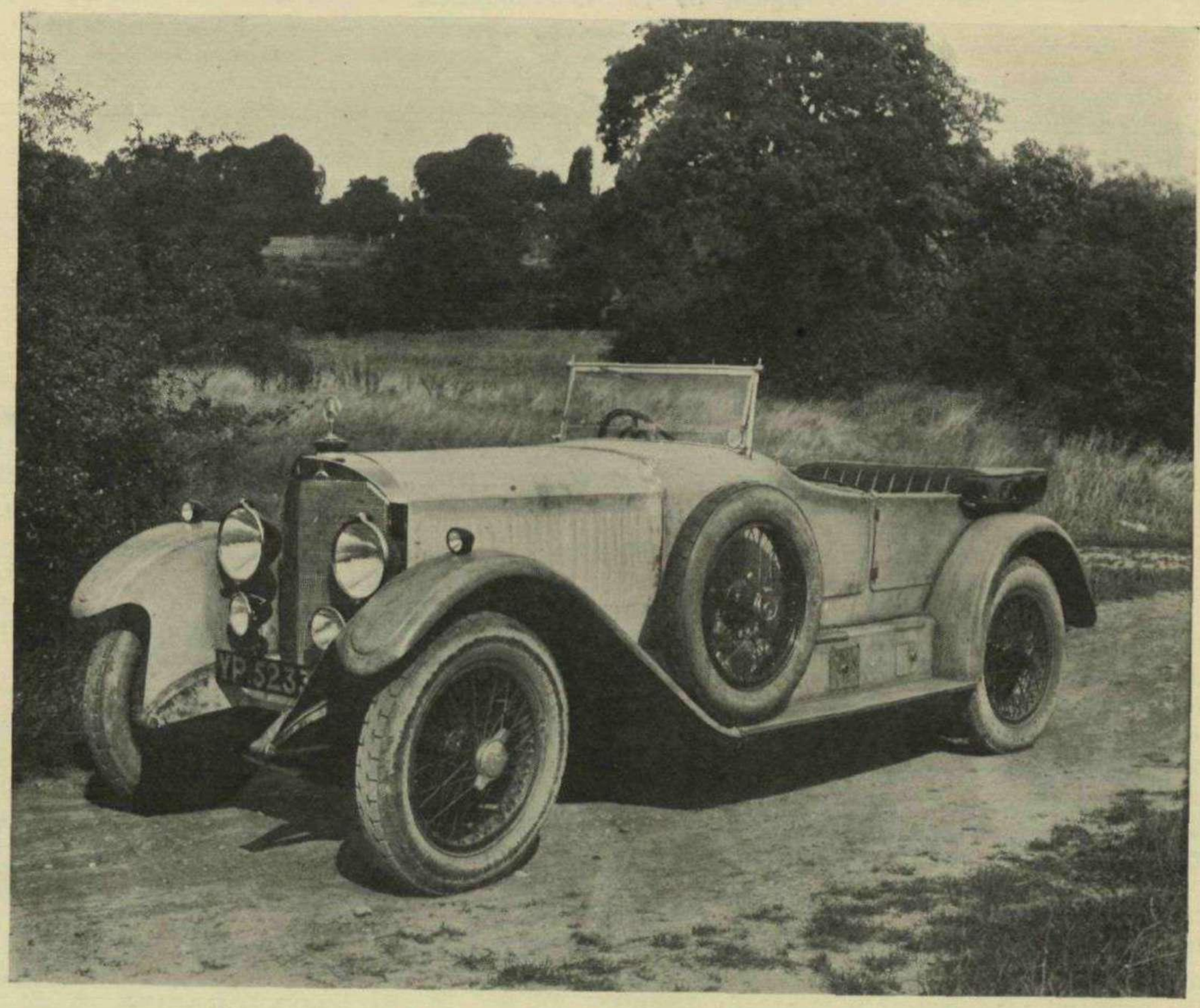
SPORTING CARS ON TEST.

THE 33-180 h.p. SUPERCHARGED MERCÉDÈS.

By THE EDITOR.

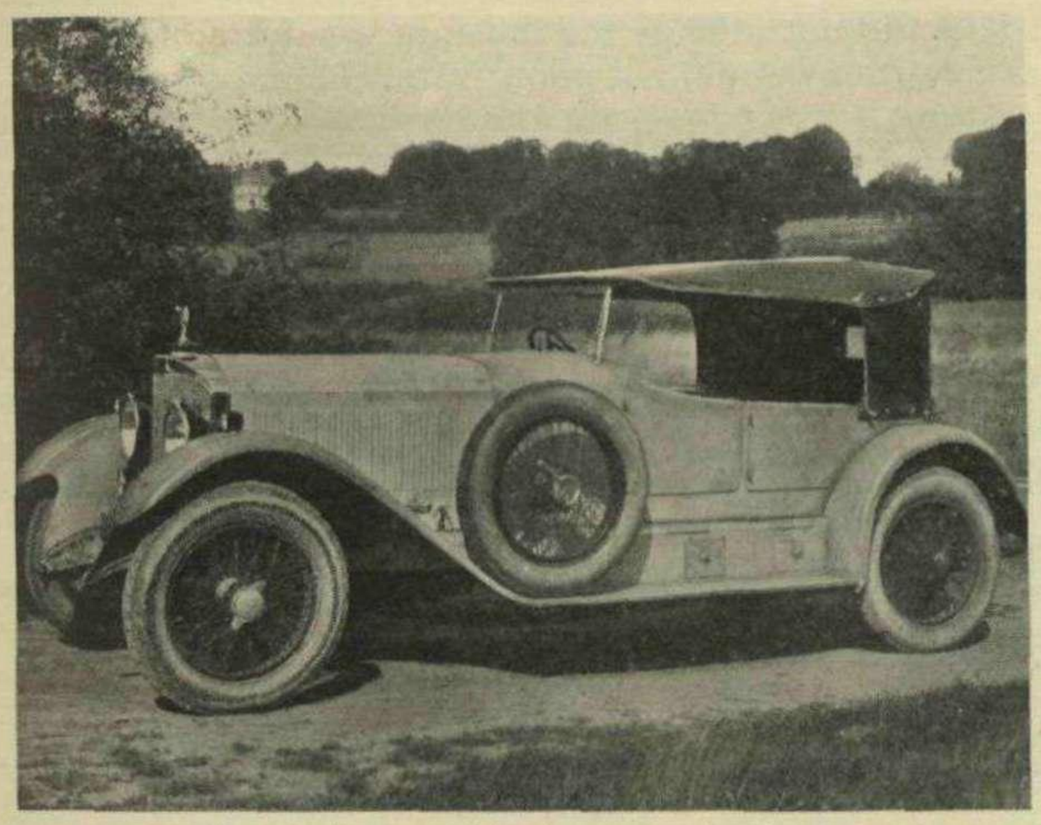
IT has seldom been my lot to try out any really interesting car ; I have driven 70 m.p.h. Sports models—very safe, I have driven 50 m.p.h. touring models—very dangerous, but never, until I drove the big Mercédès, have I had even an inkling of what it must be like to handle a real racing car.

From time to time in the motoring press furious arguments are waged as to maximum speed and average speed possible on the road. One school of thought finds it quite impossible to credit anyone with an average speed of more than 30 m.p.h. on a long run, or with a maximum speed of more than 60 m.p.h. on a public highway, while admitting that one or two complete lunatics may possibly approach these figures, at great risk to life and limb, and to the everlasting damnation of any good name that motorists can hope to hold. After a trial of the supercharged Mercédès, I should expect even the most ardent follower of this doctrine to be wholly converted from the folly of his beliefs—but no ! Before setting pen to paper on this fascinating subject, I casually glanced through one or two press reviews of the identical car which I sampled. One writer in particular emphasises again and again that while it would give him great satisfaction to know that his car is capable of 90-100 m.p.h., he would not dream of attempting any such speed under any circumstances whatsoever, save on the race track—goes on to say that the car has a delightful cruising speed of 60 m.p.h. and is ideal for traffic driving in the Metropolis. All this is wasted breath and ink spilt in vain ; thousands of cars have a 4 m.p.h. top gear performance, and hundreds can do an effortless 60 m.p.h., but why the writer in question should recommend a £1,600 car for these purposes I cannot imagine. £500 will purchase a car with this performance. Obviously the man who desires a car like the Mercédès, and intends to use it as it should be used, is an enthusiast of the first water, and he would not be very disappointed if it was a trifle inflexible and harsh at low speeds. Imagine, then, his pleasure at finding that the car combines all the virtues of an electric sedan with the capabilities of a Grand Prix Winner !



AN EXTREMELY RAKISH BODY DISTINGUISHED THE MERCEDES ON WLICH WE HAD OUR TRIAL RUN.

SPORTING CARS ON TEST—continued.



THESE VIEWS FAIL TO CONVEY AN IMPRESSION OF THE LARGE SIZE OF THE MERCEDES.

It is no exaggeration to say that the 33-180 h.p. Mercédès is a car which fulfils both these requirements. Our trial embraced all conditions of road and street driving, and showed that for docility in traffic the "Merc." was second to none, in spite of its phenomenal road devouring ability.

I have been accustomed to reasonably fast travelling, on motor-cycles and smaller cars, but quite frankly was a trifle doubtful as to the wisdom of exceeding 70 m.p.h. on an ordinary traffic-infested road. 80 m.p.h. on an uphill stretch, less than 20 miles from Hyde Park therefore, was something of an eye-opener, even to me, while to gentlemen of the breed referred to previously,—well, I think they would be afflicted with serious eye-lid trouble for life!

On the occasion of our trial we left Long Acre, en route for Coventry at 10.40 a.m., and naturally for some miles we were unable to sample any virtue of the Mercédès which would not be shown by many inferior cars, except perhaps for a wonderful booming drone in the exhaust note, which occurred only in the neighbourhood of 40 m.p.h. At all other speeds the exhaust note was completely unobtrusive, even to the specially tuned car of the Police Force.

A slight indication of Mercédès power was granted on the climb up a bye road to Highgate, a gradient of about 1 in 7, which was surmounted at 60 m.p.h. from a slow start on top gear. The supercharger, which is brought into action by a complete depression of the throttle pedal, was used here, and even on top gear produced most satisfactory acceleration.

Before going further it would be as well to mention a few points of the specification. Chief interest, of course, centres on the supercharger, which is driven by a multiple plate clutch off the front end of the crankshaft. In the normal way air is drawn to the carburettor through an intake, which allows either hot or cold air to be induced, but when the supercharger is engaged, the ordinary intake is blanked off by a butterfly valve and the blower delivers air at from five to six pounds pressure into the carburettor. The overhead camshaft is driven by a vertical worm drive at the rear of the unit, and is hollow—oil being forced through and on to the working surfaces of the cams by way of suitable holes. Long rockers are interposed between the cams and the valve stems. The top half of the crankcase and cylinder block are cast in aluminium, liners being inserted as working surfaces for the pistons.

The springing is half elliptic throughout, and the four-speed box provides ratios of 3.28 to 1, 4½ to 1, 7 to 1, and 11½ to 1.

The Mercédès firm seem to have little to learn on points of durability of material, as after 23,000 miles, when this car was decarbonised, no valve grinding was necessary, and not even the valve clearances required adjustment.

To return to the open road, where this car surely belongs, we soon found that 90 m.p.h. was quite an ordinary speed for the "Merc." and we were continually subjected to irritating delays by lorries and wholly despicable road craft of the 60 m.p.h. maximum type! At such speeds, braking and road holding must be judged by entirely their own standards, and I was forced to remind myself continuously that the car weighed 2½ tons and that we were doing over 80 m.p.h. on a decidedly indifferent road, if for one moment I imagined that the car was becoming at all restive, or that the brakes were not adequate.

100!

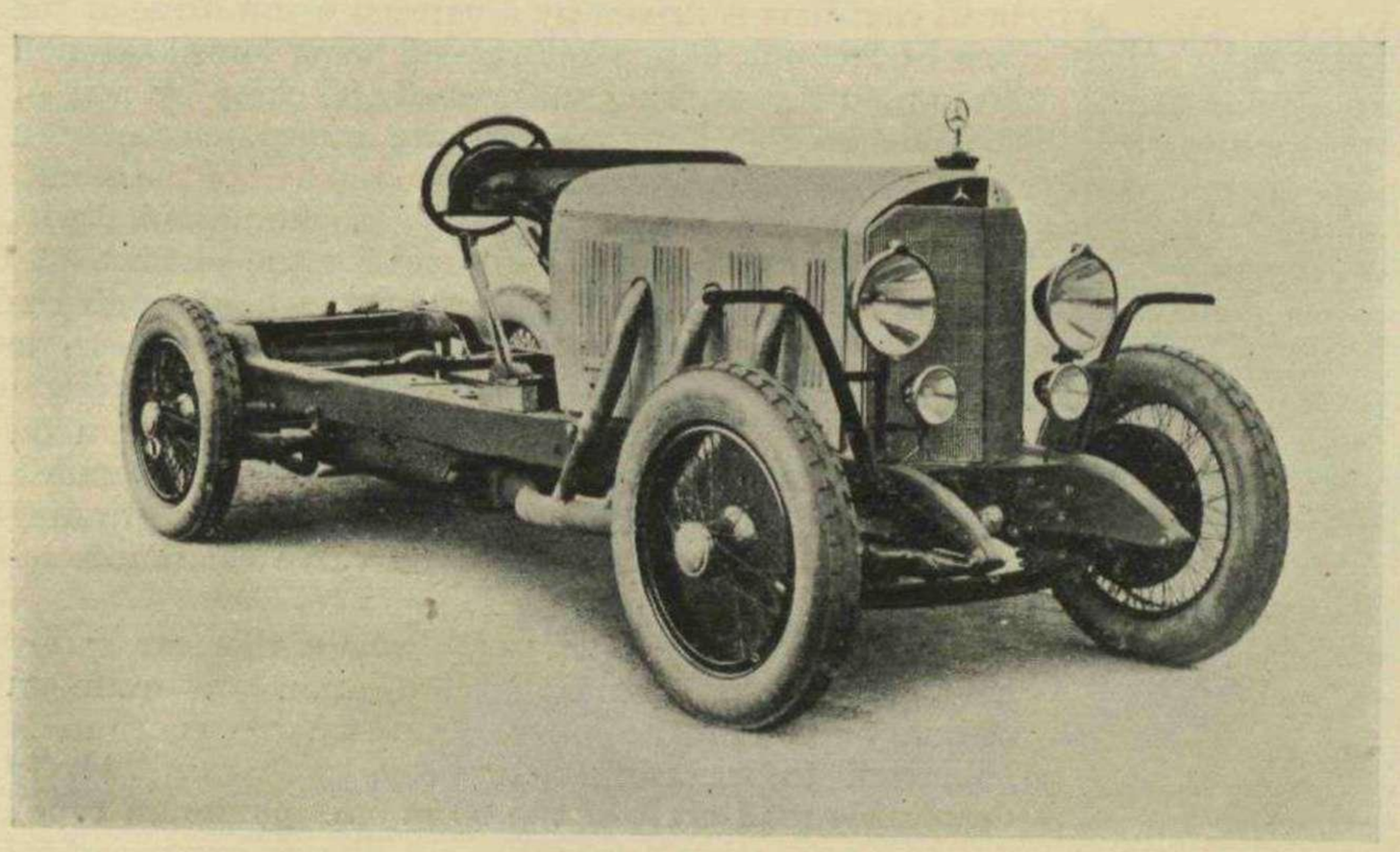
We twice attained the level 100 m.p.h. on the only clear stretches of road encountered, and at this, and neighbouring speeds, although considerable concentration was desirable and necessary, the car required less effort to hold than any touring car at half the speed. Proportionately greater distances had to be allowed when slowing down, but in spite of being slightly out of adjustment the brakes really left nothing to be desired, always bearing in mind the speed and the weight of the car.

Corners could be treated with great contempt and the car evinced not the slightest suspicion of roll. Considering the lamentable state of the Coventry road and, once again, the indecent speeds indulged in, comfort was remarkable, so much so that we never gave it a thought while in the driver's seat. In the rear seats, however, we found the conveniently placed hand grips distinctly useful! Gear changing in an upward direction was easy, but when changing down, never really necessary, it was easy to make a mistake, while unaccustomed, owing to the closeness of the ratios and the extreme liveliness of the engine. However, after a little practice, a quiet change proved quite simple.

We eventually reached Coventry (90 miles) at 1 p.m., having strictly observed all 10 mile limits, having taken no risks, and having had one stop of five minutes. The return journey was made in almost identical time, again in spite of heavy traffic on the road. The petrol consumption varies from 11 to 14 m.p.g., according to the speed, which, considering the engine capacity (6240 c.c.) and the performance, is distinctly good.

SPORTING CARS ON TEST—continued.

As will have been noted, the gear ratios are extremely well chosen, and in conjunction with an engine developing its maximum power at 3,000 r.p.m., enable the most phenomenal road averages to be performed; on our trial I did not indulge too much in this form of driving, as conditions would not allow it, but I can fully appreciate the possibilities of the car in this direction.



THE MERCEDES IN CHASSIS FORM—NOTE THE CHARACTERISTIC EXHAUST PIPES.

It is unlikely that I should have any criticism to offer of a car in this class, costing £1,650, as it does in chassis form, and although it is usual in press reports to pick at least one small hole in the subject, I must, for once, confess myself beaten.

All sportsmen who have the necessary means, let me earnestly entreat you, do not buy a car until you have experienced the joy of a hurricane dash in the Mercédès at 80 m.p.h., and listened to the fierce whine of the super-charger as you approach the century mark—you can only arrive at one conclusion—you will buy a Mercédès.

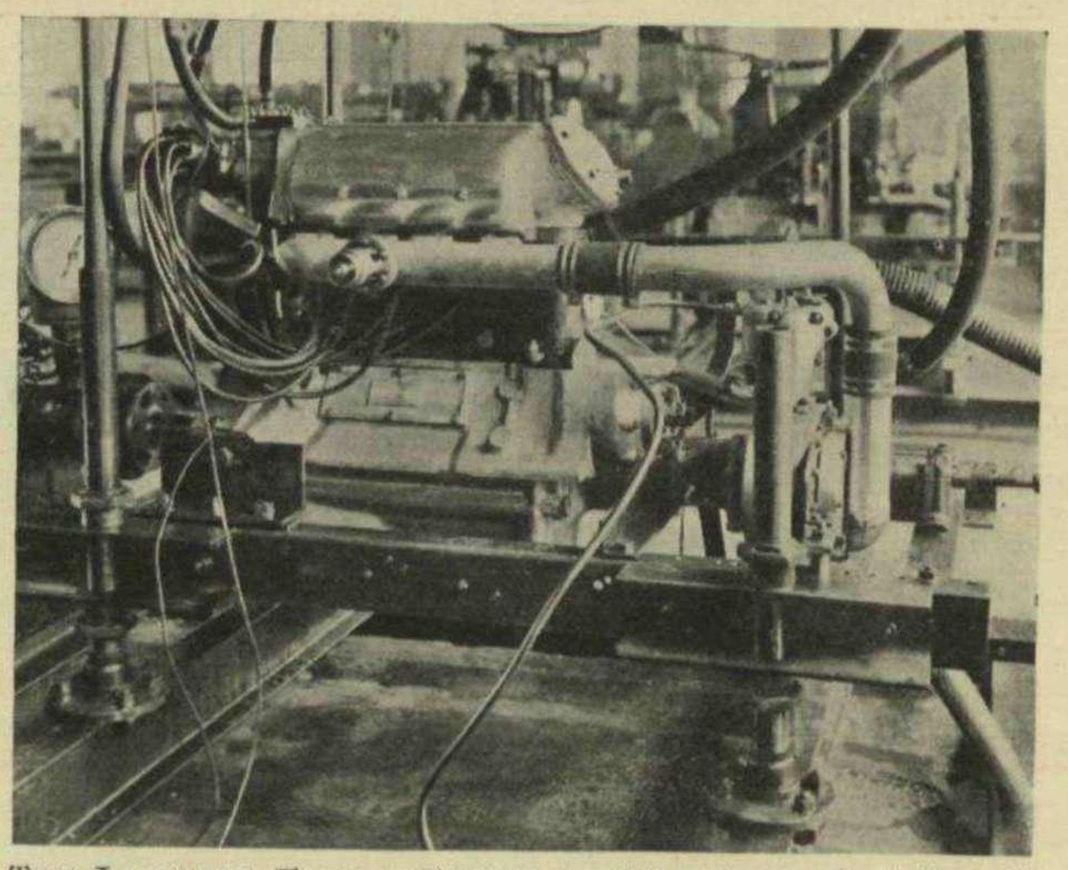
MOTOR BOAT RACING.

MANY FAMOUS CONVERTS TO THE NEW SPORT.

IN view of the generally unsatisfactory state of all forms of motoring competitions in this country and the crowded state of our roads, it is not surprising to find that considerable interest is being displayed in the sport of motor boating. Several well known figures in the motoring world have recently taken to the water, among them being Major Segrave, George Newman and F. T. Bersey (of the Laystall Engineering Co.). Mr. Bersey has just built an extremely attractive boat for racing, which we illustrate in this issue, and we have pleasure in reporting that as a result of certain trials, it has been selected to represent Great Britain in the forthcoming International Races.

Boats of this type, of course, are not for the masses, but it is not generally realised that it is actually possible to produce a really sporting little craft for about £50. These boats are fitted with "outboard" engines of 500 c.c., working on the 2-stroke principle, and with suitable hulls are capable of over 20 m.p.h. This speed does not sound very great, but on water it has a thrill of its own, quite different from any possible sensation on air or land.

Racing for this type of craft has already taken place on the "Welsh Harp" Reservoir at Hendon with great success, so that Londoners have a race-course at their very doors. The transport difficulty does not exist, as, owing to their small dimensions and light weight these boats can easily be carried on a car. One of the "Welsh Harp" enthusiasts recently carried his boat to Dover on a car and successfully "motored" across to Calais at a very creditable speed, singlehanded. Another enthusiast, Kenneth Twemlow, an ex-T.T. winner, has built a craft on somewhat more ambitious lines, employing an 8-45 h.p. o.h.v. J.A.P. engine, which is capable of well over 30 m.p.h.



THE LAYSTALL ENGINE FITTED TO MR. BERSEY'S "BELA."

Altogether it seems that the sport has great possibilities, and we feel sure that it will gain many new adherents in the near future.

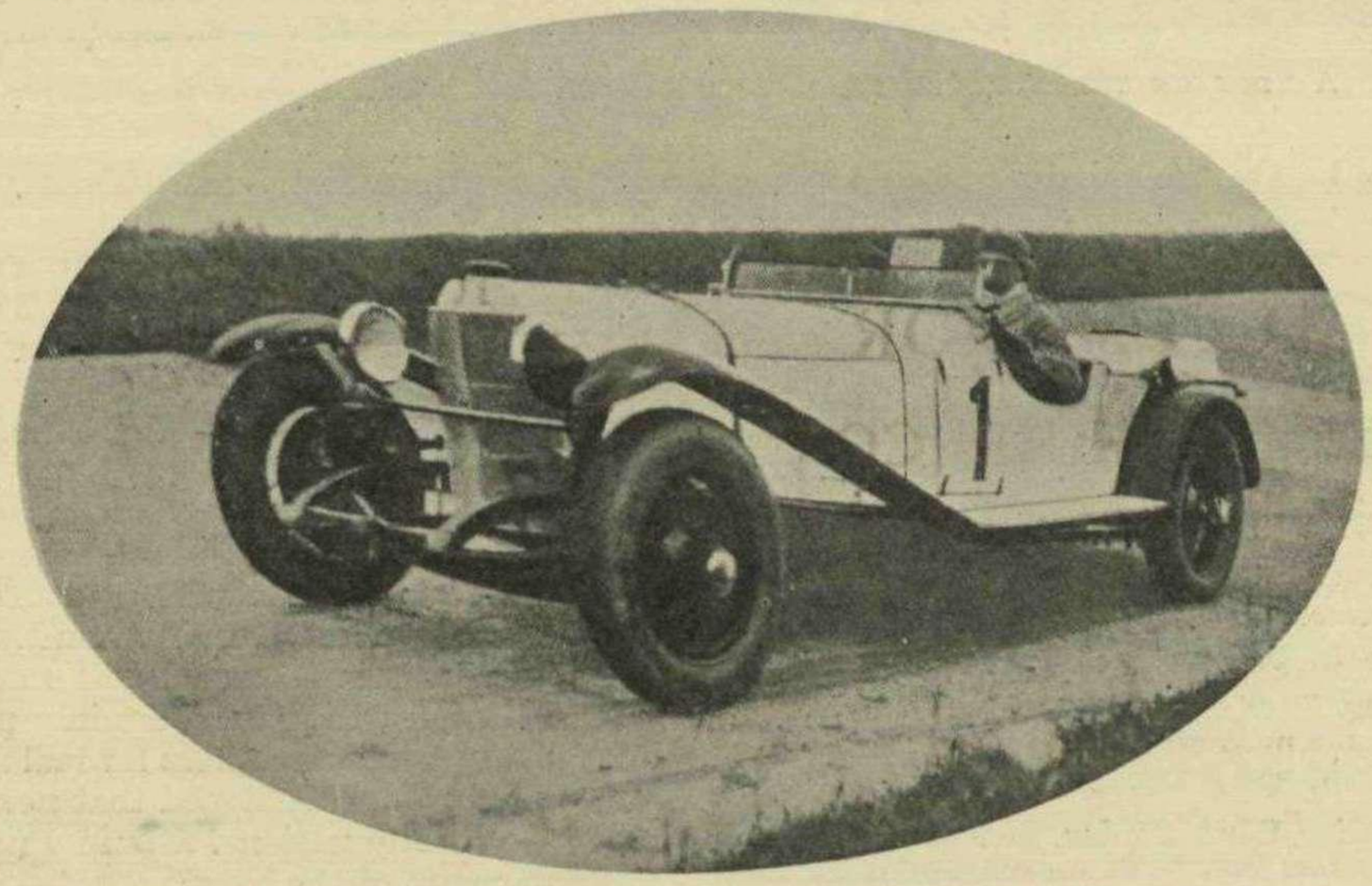
RACING NEWS.

THE GERMAN GRAND PRIX.

ANOTHER WIN FOR MERCÉDÈS DRIVEN BY MERZ.

THE German Grand Prix for Sports cars, which was run on Sunday, 17th July, was the first important motor race on the Nürburg Ring, the new mountainous road circuit near Adenau on the Rhine. The race proved a triumph for the Mercédès cars, which finished first, second and third, the winner Merz averaging 63.75 m.p.h.

The German Grand Prix was for 318 miles, or 18 laps of the Nürburg Ring, which is 17.7 miles round, and attracted 20 starters, divided into three classes. In the first class for cars with engines of more than 3,000 c.c., a single Steyr with a 6-cylinder engine of 4,850 c.c., driven by Paul von Guilleaume, had to face the competition of seven Mercédès of the well known 6-cylinder 6,789 c.c. type. These cars were, of course, supercharged, and the engines had been made to develop 220 h.p. Five of them were entered by the firm, and had Werner, Caracciola, who won the race last year, Rosenberger, Merz and Walb as their drivers. The other two were private entries, and were driven by Max Prinz za Schaumburg-Lippe and Georg Kimpel.



The second class was for cars with engines of 1,500- 3,000 c.c., and attracted six starters. Of these four were Bugattis, of which one, driven by Count Kalnein, was of the 2,300 c.c. Targa Florio type. The other three were 2-litre cars, and had Franz Baader, Carl Kappler and Madame Junek, who did so well in the opening rounds of this year's Targa Florio, as their drivers. Their opponents were a 6-cylinder 2-litre O.M. driven by Willy Werner and a 2-litre Bignan with Pierre Clause, the well known French driver, at the wheel.

There were six starters also in the smallest class for cars up to 1,500 c.c. One of these was a real racing car in the shape of one of the 4-cylinder 1,500 c.c. "invincible" Talbots, which was driven by Hugo Urban-Emmerich of Prague. It will be remembered that this car appeared in last year's Grand Prix de Boulogne. Its fastest rival was an 8-cylinder Bugatti driven by Willy Cleer, who was driving an Alfa-Romeo last year, while the third French car was a 1,098 c.c. B.N.C. with a Cozette supercharged S.C.A.P. engine, driven by C. H. de Jouey. The German industry was represented by a 1,487 c.c. 4-cylinder Hag-Gastell, a 1,088 c.c. Opel and an 1,104 c.c. Pluto.

As soon as the word to start was given, the big Mercédès shot to the front, Rosenberger taking the lead at the outset. Sixteen minutes after the tail enders had disappeared from view, the scream of the superchargers was heard again at the grandstands, and Rosenberger shot past, with his team-mate Caracciola hot on his heels. Behind them came the other Mercédès, and then, easily outclassed, the 6-cylinder Steyr, which was being gradually overhauled by the smaller cars. The latter were running well, but the public attention was concentrated on the much faster Mercédès. At the end of the second lap Werner had come up to third place, while two laps later Merz, the ultimate winner, improved his position from seventh to fourth.

Caracciola had meanwhile crept up to within 30 yards of Rosenberger, but Werner was spending his time making lap records and breaking them, and looked like gaining the lead. He covered a circuit at 65 m.p.h., increased it to 66.25, and finally set up the lap record at 66.875 m.p.h. At the end of the fifth round, Caracciola, who was still in second place, drew up at the pits and retired, with gear-box trouble, the spring of his selector mechanism having broken. This let Werner up into second place, but on the next lap he passed Rosenberger and gained the lead. Rosenberger was now second, with Walb and Merz third and fourth.

About this time, Kappler, who was driving one of the 2-litre Bugattis, found that his throttle had jammed open just as he was approaching one of the numerous bends on the circuit. He went into the bend at full speed and crashed, but luckily got off with minor injuries. This left only Baader and Madame Junek on their Bugattis as serious contestants in the 3-litre class. In the smallest class Urban-Emmerich held the lead on the Talbot, hotly pursued by Cleer on the Bugatti.

In the meantime, however, important changes had taken place in the order of the big cars. On the ninth round, or just before half distance, Rosenberger was put out with the same trouble as Caracciola had suffered, and on the next lap Werner was passed by Merz, who

GERMAN GRAND PRIX—continued.

A VIEW ON THE NURBURG RING, WHERE THE GERMAN GRAND PRIX WAS HELD; MOTOR-CYCLE RACE IN PROGRESS.

now gained the lead. On the thirteenth lap, however, Werner regained it, but on the last round but one he decided to stop for refreshment, and lost the lead for good to Merz, to whom he finished a good second. Walb, the other remaining member of the official Mercédès team, finished third.

The 3-litre class was actually won by Baader (Bugatti), but as he was disqualified for a breach of the rules, the winner was officially Madame Junek, who drove her Bugatti with great skill and finished second. In the smallest class Urban-Emmerich (Talbot) was never headed, and finally finished first, with Cleer (Bugatti) second. The results were as follows:—

CLASS I. OVER 3,000 C.C.

1. Merz (Mercédès), 4 hrs. 59 mins. 35.6 secs. Average 63.75 m.p.h.
2. Werner (Mercédès), 5 hrs. 2 mins. 54.6 secs. Average 63.13 m.p.h.
3. Walb (Mercédès), 5 hrs. 10 mins. 49.4 secs. Average 61.5 m.p.h.
4. Guilleaume (Steyr), 6 hrs. 10 mins. 24.4 secs.

CLASS II. 1,500 C.C.—3,000 C.C.

1. Baader (Bugatti), 5 hrs. 34 mins. 14.6 secs. Average 57.25 m.p.h. (Disqualified.)
2. Madame Junek (Bugatti), 5 hrs. 40 mins. 7.6 secs. Average 56.18 m.p.h.

CLASS III. UP TO 1,500 C.C.

1. Urban-Emmerich (Talbot), 6 hrs. 0 imns. 32 secs. Average 52.94 m.p.h.
2. Cleer (Bugatti), 6 hrs. 7 mins. 11 secs. Average 51.5 m.p.h.

The Nürburg Ring has certainly proved itself one of the most marvellous courses for real motor racing in the world, and it is to be hoped that next year we shall see there a big international Grand Prix counting for the Championship of the World.

THE FLORIO CUP.

THE race for the Florio Cup was held at St. Brieuc in Brittany on Sunday, 17th July, and was won by Laly on a 3-litre Ariès. The Ariès has distinguished itself this season by winning the Burgundian 6-hour race on 26th May, and the 3-litre class of the Belgian Grand Prix on 9th and 10th July. This victory comes as a good recompense for the very hard luck experienced by the Ariès firm in the Grand Prix d'Endurance, when the last minute breakage of the overhead camshaft driving shaft robbed them of second place.

Second place was gained by Wagner on a 3.8-litre Peugeot, whose builders were organising the race. The Peugeot actually won the race on time, but did not win the Cup which was competed for on a formula basis similar to that used for the Rudge-Whitworth Cup. The results by classes were as follows:—

OVER 3-LITRES.

1. Wagner (Peugeot). 4 hrs. 2 mins. 45 secs. (62.2 m.p.h.).
2. Rigal (Peugeot).
3. Bloch (Lorraine-Dietrich saloon).

UNDER 3-LITRES.

1. Laly (Ariès), 4 hrs., 11 mins., 29 secs. (60 m.p.h.). Winner of the Florio Cup (formula).
2. Brunet (Talbot), 4 hrs., 27 mins., 31 secs.

UNDER 2-LITRES.

1. Etancelin (Bugatti) / Eyston (Bugatti) } 4 hrs. 18 mins. 28 secs.
3. Imbert (Bugatti).

UNDER 1,500 C.C.

1. "Sabipa" (Bugatti), 4 hrs. 56 mins. 51 secs.

UNDER 1,100 C.C.

1. Marse (Salmson), 4 hrs. 21 mins. 5 secs.
2. Grégoire (Tracta).
3. Madame Violette Morris (B.N.C.).
4. de Brémond (G.M.).

RACING NEWS.

THE FRENCH GRAND PRIX.

OVERWHELMING VICTORY FOR DELAGE IN THE 13th GRAND PRIZE OF THE AUTOMOBILE CLUB DE FRANCE.

WHEN Robert Benoist brought his 1500 c.c. straight-eight Delage first over the line in the French Grand Prix at Montlhèry, he scored the second win in the classic race for the French manufacturer. Louis Delage therefore now makes the fourth manufacturer with two wins to his credit, the others being the F.I.A.T. which won in 1907 and 1922, Mercédès with victories in 1908 and 1914, and Peugeot, which carried off the honours in 1912 and 1913. An interesting point in connection with these double wins is that each of the four firms has scored its two wins with the same driver. Georges Boillot, of course, raced consistently for Peugeot in 1912 and 1913; Robert Benoist has done the same for Delage since his first victory in 1925; but Mercédès had quite a long interval between their wins in 1908 and 1914, yet on the second occasion the winner was again Lautenschlager; while after his victory in 1907, Felice Nazzaro left Fiat and became a manufacturer on his own, but it was not until his return in 1922 that the great Italian firm scored another win.

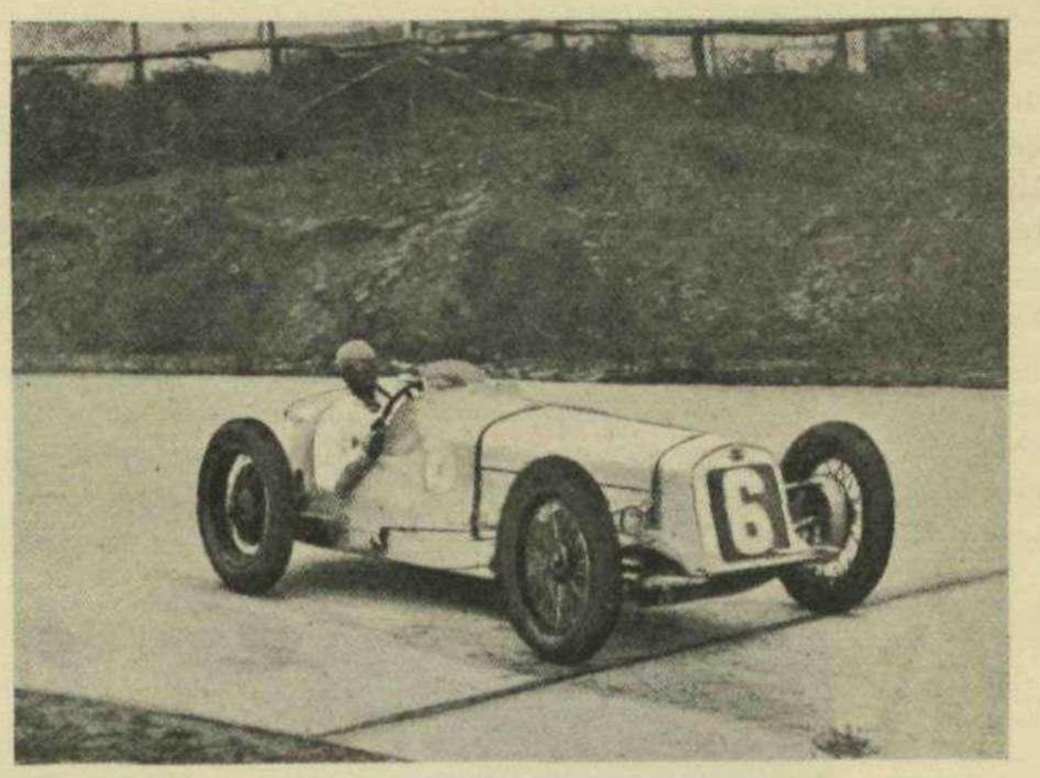
Benoist was followed home by his two team mates, Bourlier and Morel, who thus secured the first three places for Delage. So complete a victory has only once before been gained in the Grand Prix—in 1914, when Mercédès occupied the first three places. But the Delage performance is even more magnificent, for in 1914 five Mercédès started and only three finished, while this year three Delages started and scored a 100% victory.

A colossal crowd estimated at about 100,000 people crushed their way into the grounds of the Autodrome at Montlhèry on Sunday, 3rd July, to witness a race which was to feature the long-awaited event, a meeting between the three leading French racing car manufacturers, Bugatti, Delage and Talbot. Then rumours began to circulate that Bugatti would not start, and when the cars were drawn up on the starting line, there were only the squat blue Talbots and Delages and the solitary green Halford Special. Bugatti, usually so popular, was reviled. There was booing and cries of "Froussard!" but no Bugattis appeared. Various explanations of Bugatti's absence have been put forward, but it is probable that if he had started the result of the race would not have been much altered, as his cars have not quite the speed of the Delages and Talbots. The annoyance of the crowd, however, was understandable. The writer himself once journeyed nearly 1,000 miles to see a race for which 21 cars were entered; and when he got there, found only 6 starters; and remembering his feelings on that occasion, can excuse those who cried, "Il a peur" to Ettore Bugatti.

Just before one o'clock a curious hush fell over the great crowd at Montlhèry as Levine, the Atlantic flyer, stepped on to the track to give the signal to the seven waiting cars. He dropped the Tricolour, and Albert Divo, the French champion on Talbot I., shot to the front, with his great rival, Robert Benoist, on Delage I. hot on his heels. Behind them came the two other Delages, W. G. Williams, the English driver of the second Talbot and G. E. T. Eyston on the Halford Special. Left on the starting line was the veteran Louis Wagner's Talbot with an engine which refused to start. At last he too got away and dashed off in pursuit of the field.

He had hardly left when the first car appeared again; it was Divo's Talbot, and not 50 yards behind him came Benoist on the Delage, with Williams on the second Talbot third, and Boulier and Morel fourth and fifth. The Talbot-Delage duel was evidently going to be keen.

For three laps Divo held the lead, and then on the fourth Benoist forced his Delage to the front. Meanwhile Wagner was making up time which he had lost at the start, and on the third lap clocked 78.5 m.p.h. for a full circuit. The Halford was comparatively slow and was dropping steadily back. The leaders, however, were spending their time making lap records and breaking them. Williams soon proved himself the equal of the best known drivers by covering a lap at 81.25 m.p.h., but Benoist soon eclipsed this with 81.5 m.p.h., and finally set up a lap record for the Montlhèry road circuit at 81.99 m.p.h.



ROBERT BENOIST ON THE WINNING DELAGE IN THE FRENCH GRAND PRIX.

On the tenth round Williams, who was running second, stopped at the pits to change tyres and work on his petrol pump. This let Divo into second place and Bourlier (Delage) into third. Another lap, and Morel brought his Delage into the pits, for he also could not get the petrol through fast enough. Eyston had been in twice to change plugs, but even so the Halford could not catch up with the leaders in any wise. After twenty laps, the order was as follows:—

FRENCH GRAND PRIX—continued.

1. Benoist (Delage). 80.91 m.p.h. average.
2. Divo (Talbot).
3. Bourlier (Delage).
4. Wagner (Talbot).
5. Williams (Talbot).
6. Morel (Delage).
7. Eyston (Halford).

After the twentieth round Bourlier came into the pits, filled up with petrol, changed all plugs and tyres, and got away again so smartly that he did not lose third place. A little later Divo came in, and while he was filling up, Bourlier got past him and gained second place. Divo made one more lap, and then reappeared with his engine misfiring badly. He changed all plugs, but this did not affect a cure, and he finally came to the conclusion that he had broken a valve and withdrew his car. With the fastest Talbot out of the race, things looked bright for Delage. After thirty laps the order was as follows :—

1. Benoist (Delage).
2. Bourlier (Delage).
3. Wagner (Talbot).
4. Morel (Delage).
5. Williams (Talbot).
6. Eyston (Halford).

After thirty-one laps, Benoist came in to fill up, and got away again without losing the lead. In the meantime Wagner had made several stops at the pits, but he was still only a lap behind and in a position to threaten the leading Delages. Williams had turned his Talbot over to Moriceau, but it was not near the leaders, while the Halford after six pit stops was hopelessly in the rear. Forty-five miles from the end Wagner failed to reappear, his Talbot having broke down on the circuit with magneto trouble. This let Morel into third place, and the order thereafter was unchanged to the end, the three Delages coming home solid in the first three places. No one had expected so complete a victory, and, indeed, many would have prophesied Talbot as the victor. The Delages, however, now look as if they will be the racing cars of the year, and everyone will congratulate Louis Delage on the production of three such perfect machines. These cars have 5-speed gear-boxes with direct drive on 4th, a single supercharger is now used with a Cozette carburettor, and equipment included Dunlop tyres, a Bosch magneto, Champion plugs, Hartford shock absorbers and Réné Thomas steering wheels.

RESULT OF THE RACE.

1. Robert Benoist (Delage) 4 hrs. 45 mins. 41 1/5 secs. 77.24 m.p.h.
2. Edmond Bourlier (Delage). 4 hrs. 53 mins. 55 3/5 secs. 76.1 m.p.h.
3. André Morel (Delage). 5 hrs. 11 mins. 31 2/5 secs.
4. W. G. Williams and Jean Moriceau (Talbot). 5 hrs. 24 mins. 30 secs.

G. E. T. Eyston (Halford Special) was flagged to stop when 93 miles from the finish.

START OF THE 24-HOUR TOURING CAR GRAND PRIX, HELD ON THE SPA CIRCUIT IN BELGIUM; EXCELSIOR NO. 1 TAKES THE LEAD.

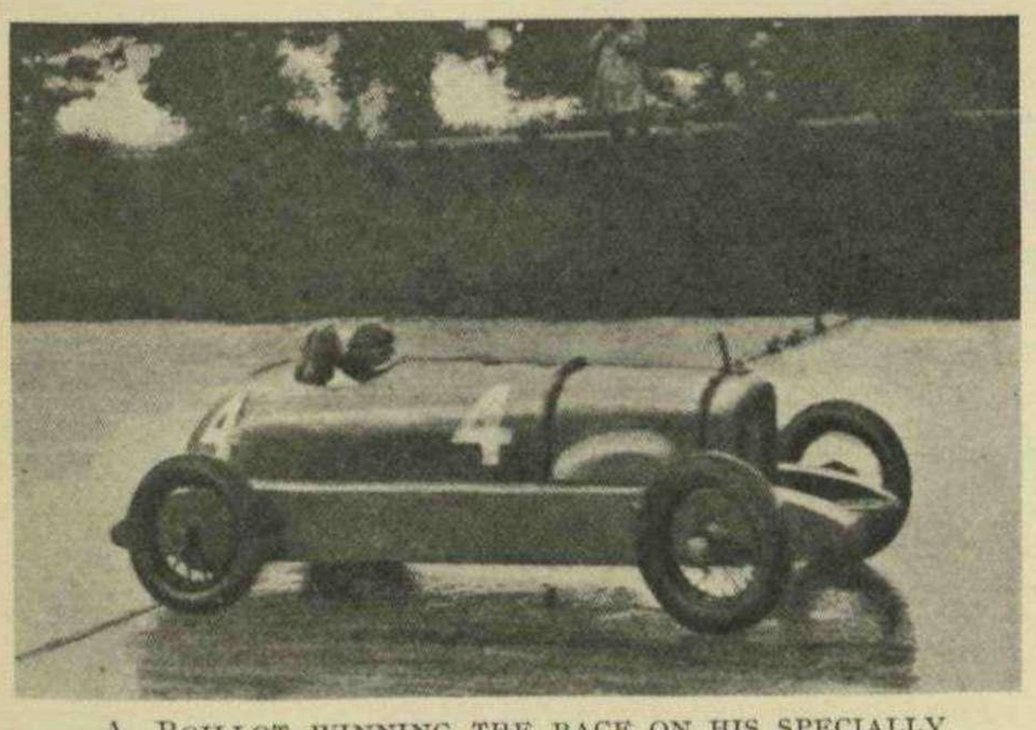
RACING NEWS.

THE RACE FOR THE COUPE DE LA COMMISSION SPORTIVE.

RESULT.

		Time.	Speed.
1.	André Boillot (Peugeot),	3 hrs. 53 mins. 20 1/5 secs.	63.89 m.p.h.
2.	Doré (Corre La Licorne).	3 hrs. 53 mins. 21 3/5 secs.	63.79 m.p.h.
3.	Goux (Bugatti),	3 hrs. 54 imns. 27 4/5 secs.	63.59 m.p.h.
4.	Goutte (Salmson).		
5.	Conelli (Bugatti).		
6.	Casse (Salmson).		
7.	Rost (Georges Irat).		

THE race for the Cup presented by the Sporting Commission of the A.C.F. provided one of the most thrilling finishes which have been witnessed in a long distance race for many years, when André Boillot on the sleeve-valve Peugeot finished first, with Doré on the Corre La Licorne less than 20 yards behind.



A. BOILLOT WINNING THE RACE ON HIS SPECIALLY DESIGNED PEUGEOT.

This dramatic finish is of especial interest, for Peugeot, which won such undying fame in racing during the years just before the war, has lately only appeared in France in touring car races. This victory, therefore, marks the first appearance since the war of the Peugeot in a big French race.

The rules for the race limited the amount of fuel and oil which could be used by the competitors, but placed no other restrictions in their way. The eighteen starters therefore presented many interesting contrasts. The largest cars in the race were the Montier Spéciales, which are really Ford conversions, and which had 4 cylinder engines of 2,780 c.c. ; and which were closely followed by the two Peugeots driven by Boillot and Louis Rigal with sleeve-valve engines of 2445 c.c. At the other extreme was a tiny Leroi, driven by Violet, which had a 2-stroke engine of only 735 c.c. The three Bugattis which were driven by Goux, Conelli, and Dubonnet were 4 cylinder 1500 c.c. machines, and in spite of the fuel consumption limit, employed superchargers. Two other cars in the race were also supercharged, these being the 1100 c.c. B.N.C.'s driven by Billiet and Goupillat, which had S.C.A.P. engines and Cozette superchargers. A third B.N.C. driven by Madame Violette Monis was also an 1100 c.c. car, but was unsupercharged. Both the Salmsons, which were driven by Casse and Goutte, were of the well known 1093 c.c. type, and the three Lombards had engines of the same size placed beside the driver. These cars are made by the ex-Salmson driver, who, it will be remembered, ran second in the 1100 c.c. class of the first 200 Miles Race. Finally, there was the 1500 c.c. Corre La Licorne driven by Doré, which eventually gained second place, and the 2-litre Georges Irat driven by Rost.

As fuel consumption had been cut down to a minimum, many of the engines proved sulky starters when the word to go was given. The cars went off in twos and threes, but both the Peugeots and Dubonnet's Bugatti proved obstinate. Finally Boillot got away, then Dubonnet, but it was not until 8 minutes 20 seconds after the word to go had been given that Louis Rigal moved off on the second Peugeot. At the end of the first lap, Casse and Goutte on the two Salmsons were in the lead with Doré (Corre La Licorne) third, while having completed it the three Lombards were driven off the course and stopped. These cars were nothing like ready in time for the race, but as they were made by a small firm, it had been decided that they should start in order to regain their entrance fees, but should be withdrawn after one lap.

On the second lap Casse dropped back, allowing Goutte to take the lead with Boillot (Peugeot) second, while Doré remained third. On the next lap Goutte lost the lead to Boillot, and after six laps the order was as follows :—

1. Boillot (Peugeot).
2. Goutte (Salmson).
3. Doré (Corre La Licorne).
4. Conelli (Bugatti).

The two supercharged B.N.C.'s were early in trouble, Goubillat stopping to change plugs, while Billiet having fractured an oil-pipe, lost all his lubricant and had to withdraw his car. On the seventh lap, Count Conelli (Bugatti) got into third place, and on the ninth passed Goutte and was second. The order after fifteen laps was therefore as follows :—

1. Boillot (Peugeot).
2. Conelli (Bugatti).
3. Goutte (Salmson).
4. Doré (Corre La Licorne).

The second Peugeot having lost so much time at the start, was far in the rear, and was finally withdrawn. On the sixteenth lap Conelli began to weaken, and was passed by Goutte, and eight laps later by Doré also. Boillot had now established a comfortable lead, but he was evidently rather anxious as to whether his fuel would hold out, for he began to slacken speed, and Goutte slowly reduced the gap between himself and the leader.

RACING NEWS—continued.

Conelli continued to weaken and was passed by his team mate, Goux, who now began to threaten the leaders from fourth place.

As the cars entered the last lap, Goutte was only 16 seconds behind Boillot, and both were racing hard for the finish. All eyes were fixed on the high banking where the cars would appear in sight for the last time. High up on the saucer a blue car flashed into sight; it was André Boillot's Peugeot, but the next car, which was right on his tail, was not the Salmson, but Doré's Corre La Licorne. On the last lap Goutte had discovered that his petrol tank had dropped, so that the last few drops of petrol would only just reach the carburettor. He had therefore had to slacken speed and had been passed by Doré and Goux's Bugatti.

André Boillot drove a very plucky race, for he was suffering from neuralgia and started with a very swollen and much bandaged face. Doré ran very regularly on the Corre La Licorne and very nearly carried off the prize. In spite of the use of the supercharger, all the Bugattis finished with plenty of petrol in hand, and Dubonnet, who suffered from a partially blocked petrol pipe, had nearly three gallons of petrol left at the end of the race.

THE FREE-FOR-ALL RACE.

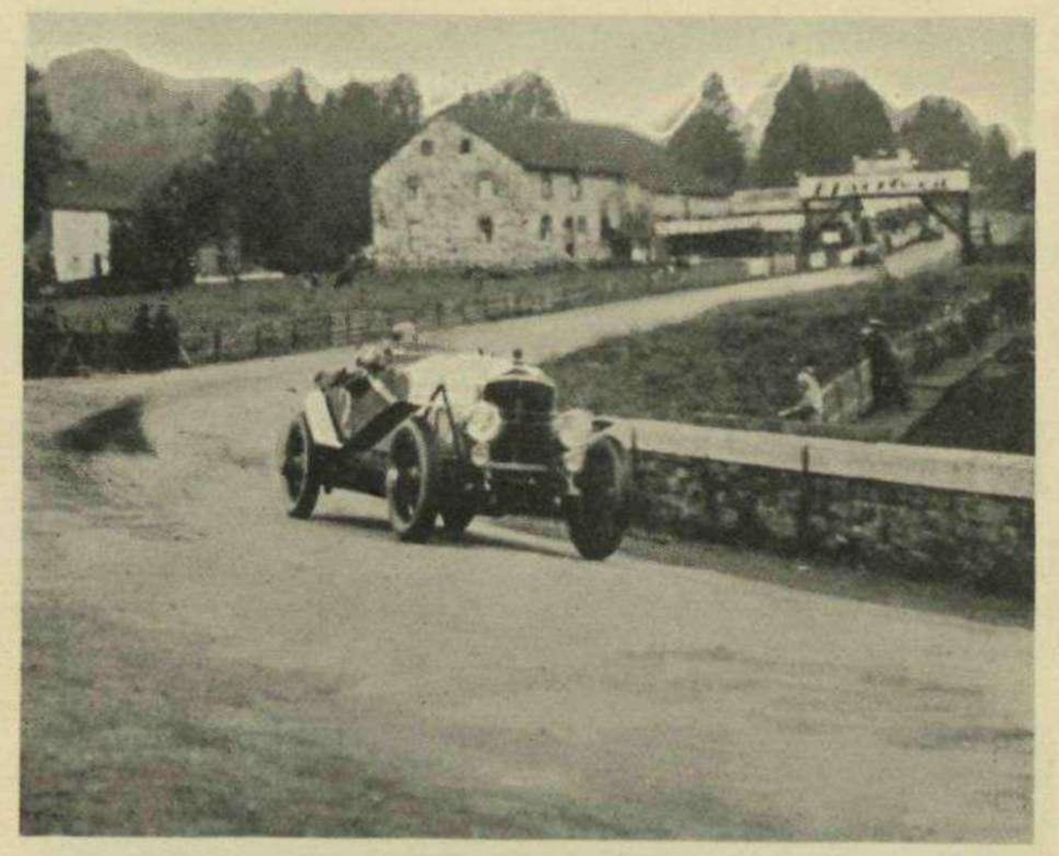
THE Free-for-all race organised in conjunction with the French Grand Prix, and run on July 2nd, united only seven starters, made up as follows:— W. G. Williams and Louis Wagner on 4-litre 12-cylinder Sunbeams of the type with which Segrave took world's records at Southport in March, 1926; Albert Divo on a Grand Prix type straight-eight 1500 c.c. Talbot; Henri de Courcelles on a 1500 c.c. 6-cylinder Guyot of the type which ran at Indianapolis in 1926; G. E. T. Eyston on a supercharged 2-litre Bugatti; Louis Chiron on a 2.3-litre Targa Florio type Bugatti, and Madame Derancourt on an 1100 c.c. Salmson.

The race was unfortunately marred by the death of Henri de Courcelles, who will be remembered as a Lorraine-Dietrich driver in the Grand Prix d'Endurance, having won the race in 1925 and run second last year. During the race his Guyot got out of control on the road circuit, hit a tree end on and was smashed to smithereens, the driver being killed instantly.

W. G. Williams took the lead on the first lap, but Wagner on the second Sunbeam retired early with gear-box trouble. On the second lap, Divo on the 1500 c.c. Talbot got the lead from the big Sunbeam, which was hampered on the road-circuit by a 3-speed gear-box, and which was also passed by the two Bugattis. On the third lap Williams, like Wagner, withdrew his Sunbeam, his trouble being a seized pinion in the gear-box. The Montlhèry circuit may lack some attributes of a road, but it at least can teach makers not to use 3-speed gear-boxes à l'Americaine. The two Bugattis were not able to catch Divo's Talbot, and the final result was as follows:—

1. Albert Divo (Talbot), 1 hr. 2 mins. 20 2/5 secs. 74.69 m.p.h.
2. Louis Chiron (Bugatti), 1 hr. 2 mins. 50 3/5 secs.
3. G. E. T. Eyston (Bugatti), 1 hr. 6 mins. 9 3/5 secs.

Madame Derancourt (Salmson) was flagged to stop before the end. The distance of the race was 77.6 miles, and Divo made his fastest lap at 77.05 m.p.h.



AN EXCELSIOR CORNERING DURING THE BELGIAN GRAND PRIX.

GRAND PRIX NOTES.

It is regrettable that the de Coneys entered for the Coupe de la Commission Sportive did not start. These cars have straight-eight engines of 51 x 76 mms. bore and stroke (1243 c.c.) with two overhead camshafts driven by a train of pinions. They have 5-speed gear-boxes, and were very carefully stream-lined.

The Montiers are converted Fords, but there is perhaps more Montier than Ford about them. The Ford gear-box has been discarded in favour of a 3-speed box of conventional design, and the cars have been given a crab track. Perhaps their most interesting feature is a special device invented by M. Violet by which the compression is kept constant irrespective of the throttle opening and thus of the amount of fresh gas inhaled. This is done by adding to the fresh gas a certain quantity of exhaust gases, which quantity decreases with the throttle opening, so that the amount of gas inhaled by each cylinder is always the same.

* * * * *

M. Violet himself was driving the little Leroy which has a 4-cylinder engine of 60 x 66 mms. (723 c.c.) designed by himself. The engine works on the 2-stroke principle, two cylinders having opposed pistons and common combustion chambers. It was, however, too small to consume the amount of fuel allowed for the race, and so lacked the power and speed of the larger cars.

RACING NEWS—continued.

GRAND PRIX NOTES—continued.

Henri de Courcelles, who was killed during the free-for-all race, was during the war a daring member of the French air force. His previous racing experience had been confined to touring-car events, this being his first appearance in an event for racing cars pure and simple. The Guyot which he was driving was of the same type as that which is sold to the public, and is made by Charles Guyot, who was well known before the war as a Delage driver.

* * * * *

The Talbots and Delages which fought such a splendid duel in the Grand Prix are very similar in design, each having straight-eight engines of nearly the same bore and stroke, with two overhead camshafts. Their most notable difference, however, is that while the Talbots have torque tubes, the Delages employ the Hotchkiss drive, thus saving unsprung weight but using an extra universal joint.

* * * * *

The French press is complimentary to the general design and presentation of the Halford, but estimates its maximum speed as some 20 m.p.h. slower than that of its French rivals. It is a pity that one of our more powerful English firms could not have entered a team which was capable of representing to our French friends what the British industry really can do.

THE BELGIAN TOURING GRAND PRIX.

GOOD PERFORMANCES BY EXCELSIOR AND ARIÈS.

CORNERING IN THE WET—THE EXCELSIOR DRIVEN INTO FIRST PLACE BY SENECHAL AND CAERELS.

THE Belgian 24-hour touring car race was run at Spa on July 9th and 10th, and was won by Caerels and Senéchal on the big 6-cylinder 6½-litre Excelsior. The car covered 1368 miles in the 24 hours, averaging 57 m.p.h. over the difficult Francorchamps circuit, and thus won the Henri Mathys Cup and the special prize of 10,000 francs presented by the Royal Automobile Club of Belgium for the greatest distance covered in the 24 hours.

Chassagne and Laly on the Ariès which they drove at le Mans proved victorious in the 3-litre class, covering 1,247 miles, and thus averaging 51.9 m.p.h. The 2-litre class was won by Burie and Rossie on a Georges-Irat which covered 1,228 miles (average 51.2 m.p.h.), and which was followed home by two other cars of the same make, which thus secured for the firm the cup presented by the King of the Belgians for the best team performance. Another Ariès of 1,100 c.c. which was driven by Delano and the veteran Duray also won its class, and so secured two class victories for this marque.

* * * * *

F.N.'s in England.

Messrs. Hayward Automobiles Ltd., of King Street, St. James Street, S.W., have recently been appointed sole concessionaires and agents for the well known F.N. cars, manufactured in Belgium. It is their intention to stock a full range of models, cars, motor cycles and cycles, together with all spare parts, while repairs service will be quickly executed by a staff of expert mechanics.

MUD !

By E. V. G.

IN answer to the perfect tornado of requests showered upon me from all directions (mainly in the form of single tickets to Colney Hatch, and even a few, oh ! most unkindest cut ! to Broadmoor), subsequent to the publication in these columns of any previous outburst, I am perpetrating another, and, if possible, a still more terrible, contribution.

My last effort consisted, if you remember, and even if you don't, of a series of definitions, put together in the form of a glossary, the whole purporting to be a useful collection of information culled from the uttermost, yea, and even the nethermost, sources, for the sole benefit of those frequently landed gentry who ride in trials in that category known as the Novice Class.

This month, however, I am going to assume that all these brethren, even those who are sistren, have become bored with their perpetual removal of first-class and even premier awards. (By the way, with regard to the penultimate word of the last sentence, I have lately heard this pronounced both as " Preeeemyer " and as " Prymearah " ! The correct pronunciation is, I think, " Premm-yer," the " e " being short as in the case of a 4ft. 6in. policeman.)

However, let us regain control—To return to the prize-winners, I am now about to give these stalwarts a little rather more specific information about the art of Trials riding, as I am sure that by this time, many of them are aching to enter for a really hot-stuff, Number One, L for Leather, B for Honey, Sporting Trial, but are just lacking in that confident knowledge, so necessary to a successful display in the stressful circumstances of a slippery sylvan setting, but which can only be acquired when experienced persons condescend to explain the technique of the game—not that I think it is really a matter of condescension,—far from it,—actually it is that we expert fellows fail to recognise the almost unbridgeable gulf which exists between us and our less-educated (motoristically, of course) comrades.

These few lines will form the first (and the last, ED.) of a series of discourses on subjects closely connected with riding in Sporting Trials, and I hope to produce the others at short intervals (every time the cam comes round) (Isn't " cam " spelt with a " K " ?—Office Boy). As it is almost always the first (and also the middle and last) thing encountered in a Sporting Trial, mud is to be the subject on which this month's notes are written.

A diligent search in the tome of one of the more noted of the lexicographers will probably produce the information that mud is a semi-liquid formed by the admixture of earth to a volatile liquid, such as water. This definition, whilst being all very well in its way, and doubtless, up to a point, correct, does not convey to the seeker after knowledge any profound truth as to the exact nature of this widely-known and all-important substance.

Let us, therefore, be more concise. Looked at from a technical point of view, muck is known to the more advanced chemists by the formula $M\mu D$. From this we learn that the substance under review is a compound with two components, present, in a chemical sense, in equal quantities.

Now, what are these two ingredients ? Aha ! What are they ? Is it necessary for me to tell you that the symbol $M\mu$ represents that little understood element, the co-efficient of friction, or, where, as in the case of mud, friction is a negative quantity, the co-efficient of lack of friction ? This fact alone gives us a basis upon which to start, as we have already ascertained that we are dealing with a slippery substance. Taking timely warning from our newly-acquired knowledge, we dash out and purchase some of those chains so frequently (and, may I observe, erroneously) connected with the clergy, and arm (?) our driving-wheels with a perfect battery of anti-skid devices, only to awake on the morning of the competition in view, to find that a heavy frost has set in, thus rendering the expenditure of both time and £ s. d. unavailing.

The component D in the formula set out above stands for the word " dirt," a comprehensive name covering all classes of earth, loam, gravel, clay and chalk.

Thus, a rapid and fairly accurate translation of the formula is : " Slippery dirt." How much more precise a definition is this than the one which, as I intimated above, would be given you by Mr. Nuttal or one of his contemporary competitors.

Looked at from any other point of view, mud is objectionable to a degree ; it has a retarding effect on both man and beast, in consequence of which, each of these animals is inclined to run not when encountering mud.

And if pedestrian and equestrian are impeded in their progress through mud, a fortiori, how much more so, and more than that, shall a ferro-equestrian be subjected to the loss of a few never-to-be-regained moments ?

You must not infer, however, that mud is a totally useless nuisance : far from it. How would the natives of Central Africa make their houses it there were no mud ? I don't know. What would be the use of the duck's two-port throat if there were no mud for him to eject ? Ah ! what ? So you see, one man's meat is another man's poison. (And it's an ill wind that blows no one any mood.—Lancashire Editor.)

Having thus shown you that mud is, and must be, I will endeavour to instruct you in the ways in which you may meet this barrier, the surmounting of which proves, from time to time, and yet again to another time, such a difficult task to the competitor.

At first, there seems to be three courses open to you. They are :—

1. Take out the clutch, put the feet firmly on the ground, change into neutral, let in the clutch (hoping and praying that, in your hurry, you have not selected first in mistake for neutral), and finally close the throttle. Detach your competition numbers, locate the nearest observer, and make him a present of them. *But* (and in

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N.B.—μ=greek letter used in mathematics for cœfficient of friction.

MUD !—continued.

this you must be firm), insist on his returning to you any deposit you may (or may not) have made before being trusted with those valuable properties.

2. Approach and proceed through the morass in a gingerly manner.

3. Cast all care to the winds, engage a snappy second gear, and cross the Rubicon flat out.

It is, perhaps, hardly necessary for me to point out that the first of these methods can scarcely be relied upon to accelerate the influx of gold medals.

With regard to the other two methods, such a lot depends on the nerve, verve, vim, and joie-de-vivre of the individual, that it is practically impossible to give any definite advice. Personally, and as far as I am concerned, that is to say, in my case, by which you will gather that I mean to say that my experience is, that in endeavouring to carry out the second motion, I usually find myself executing the third :—not by reason of a sticking throttle, let me hasten to assure you, but rather by reason of the very free construction placed on the word " flat."

But there is much more in it than meets the eye. (I beg to differ !—Act.-Ass.-Jun.-Sub-Ed.) I mean to say, so much depends on local conditions. There may be a gradient, and if there is, you may take it from me that it may be either up or down. There may be observers ; (this can be checked by Ordnance Map—1 inch to mile—which marks all observed sections and Secret Checks with the mystic letters Inn.)

I have before now met in colonial sections :—

(a) Bull.
(b) Disaster.
(c) Farmer, complete with shot-gun.
(d) Geese (most vindictive, not to say pugnacious).
(e) Waterloo.

In case (a), shrieking " Matador " at full bore, and hastily stoning my red handkerchief in the inner breast pocket of my gents.' D.B. natties (Impossible, you haven't got any—Temp.-Very-Ass.-Ed. !), I beat it (not the bull).

Item (b) is one the regularity of which is now becoming monotonous. When confronted with (c), I quickly remembered that I was paying a call on the bailiff, and, being a cripple, could not walk across the farmer's property. The worthy agriculturalist sent me about my business with the remark that I should very shortly be unable to sit if I didn't durn-well remove my blithering self. I looked at him hard and long. He seemed to me to be a man of sound common-sense, so I took his advice.

With regard to geese, under Schedule D, I am afraid I cannot advise here, as I am always terrified by the noise they make. It sound for all the world like the note of an O.H.V. 500, 10 to 1 compression ratio, doing 12 m.p.h. on a 2 to 1 gear, into a head-wind at gale strength, with mag. fully advanced.

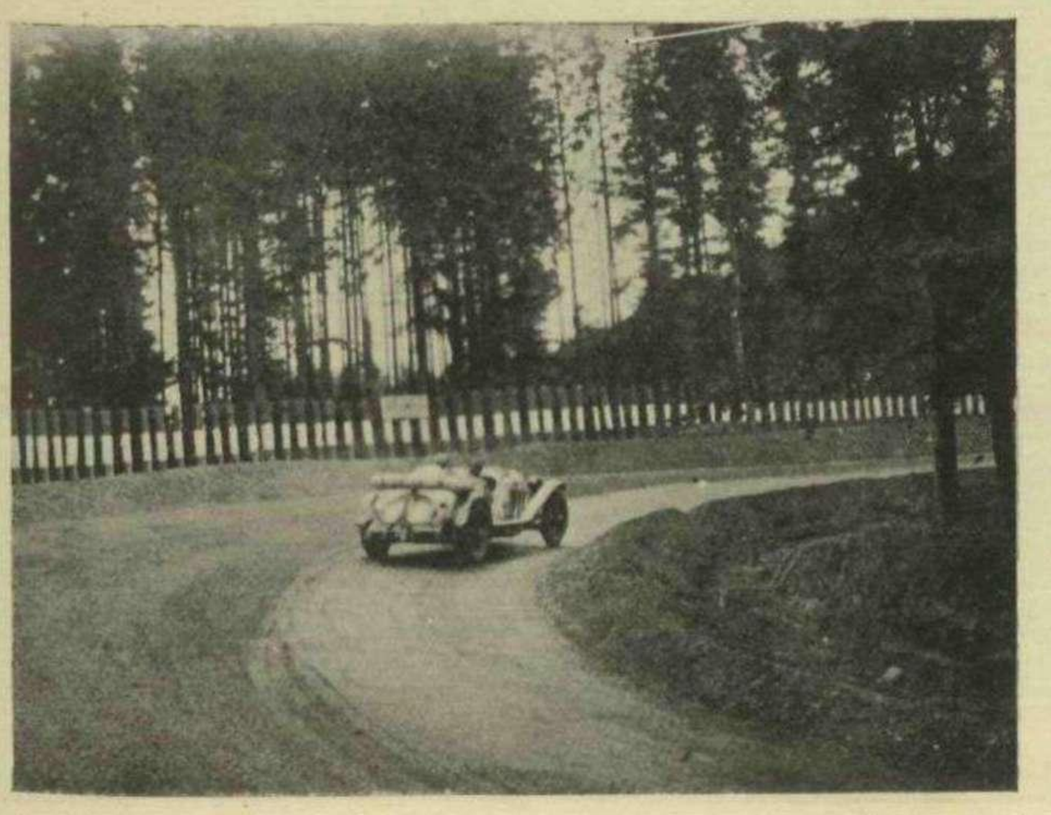
(e)—Waterloo. Well, just look at the first five letters—one of the ingredients of Mud. I maintain that if Comrade Nap. had received education on a motor-cycle, rubber waders would never have been called Wellingtons.

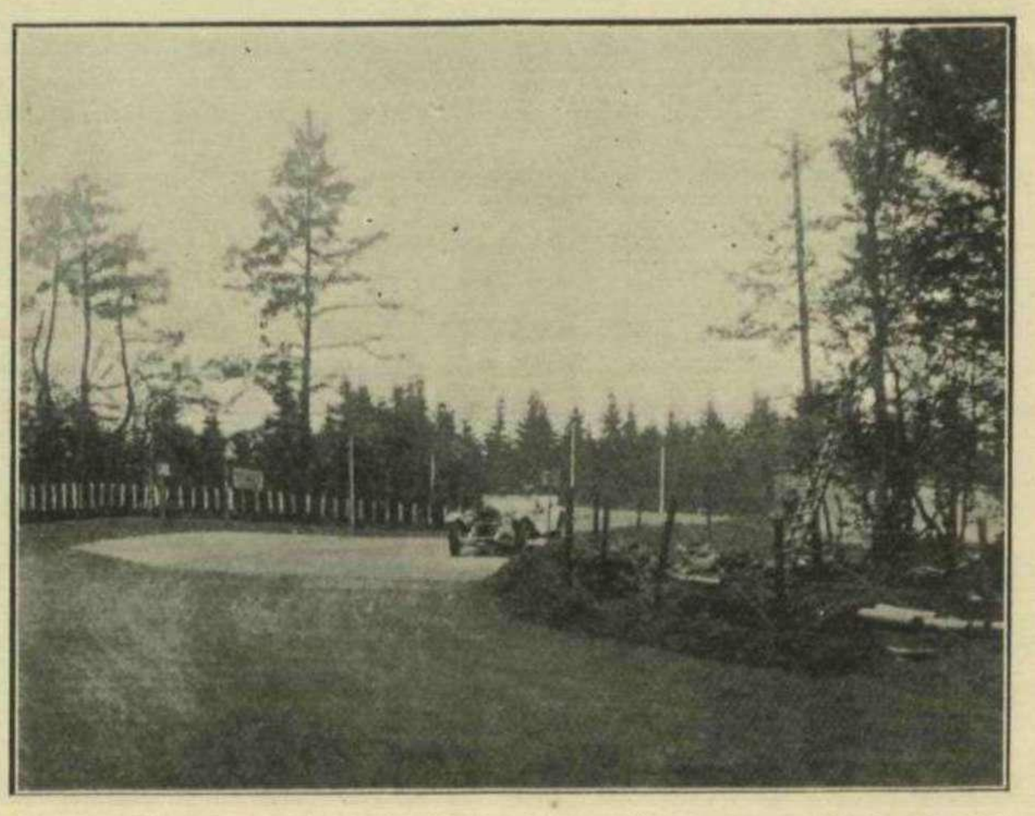
But after all, given a clear run, not necessitating hurried contact with any horny-handed sons of toil, any domestic (?) fowl, or any railway stations, the navigation of mud boils down to a matter of confidence. The longer you think you'll stay on, the sooner you'll come off ; and, obviously, the sooner you're off, the sooner you'll be on again.

With regard to the selection of gear and throttle setting, I must leave it to the individual, but remember—Keep your feet up as long as is humanly possible, set the throttle so that the 'bike goes as fast as you dare let it, then open it a bit more, and either you're through, or " Zip ! ! ! "

As an aid to carrying out the former admonition, chewing-gum on the footrests is a wonderful help.

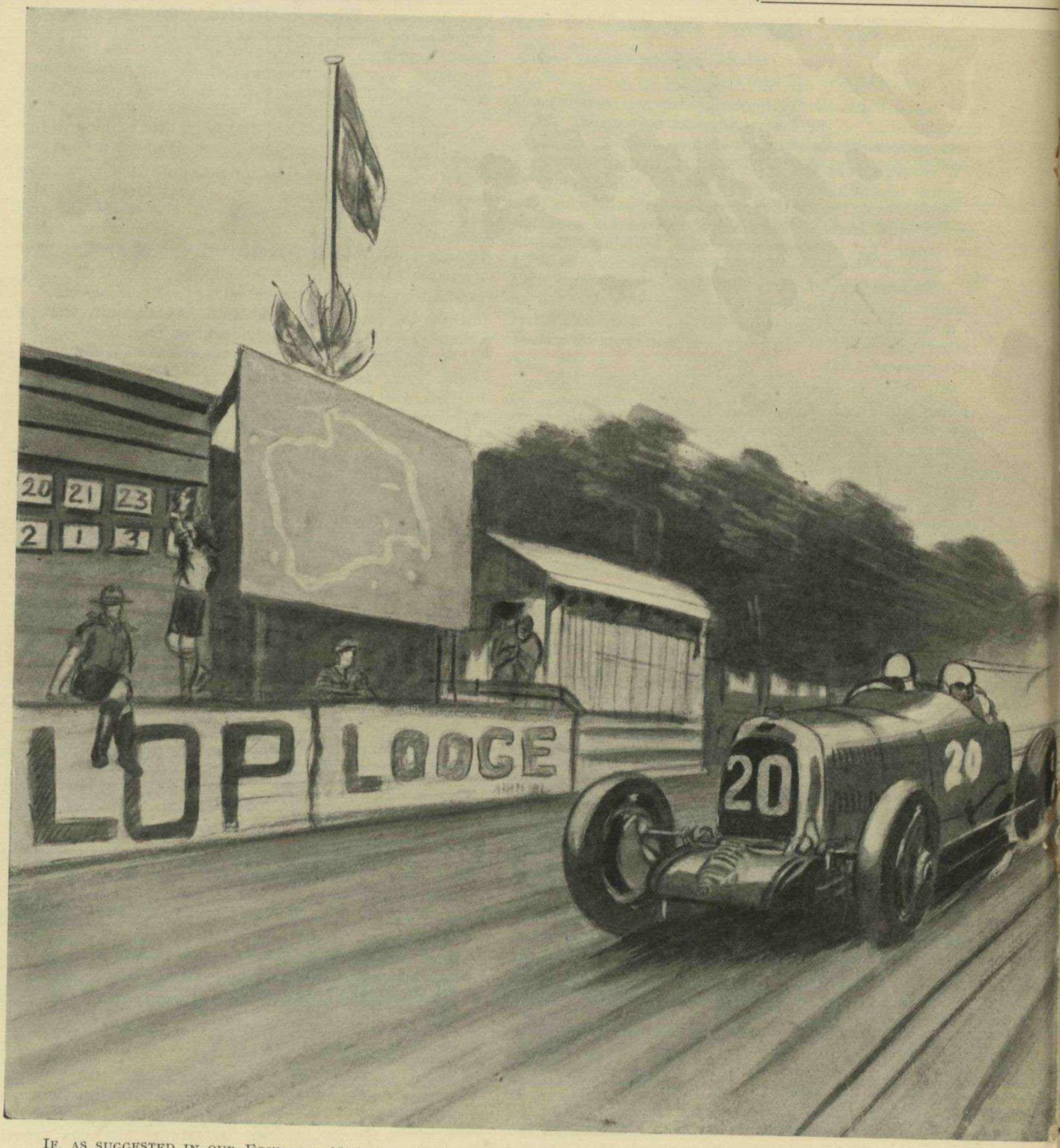
Apart from this, learn to control wet and dry skids, but don't practice on the bye-pass on Sunday when the " Tooting Belle " is about !





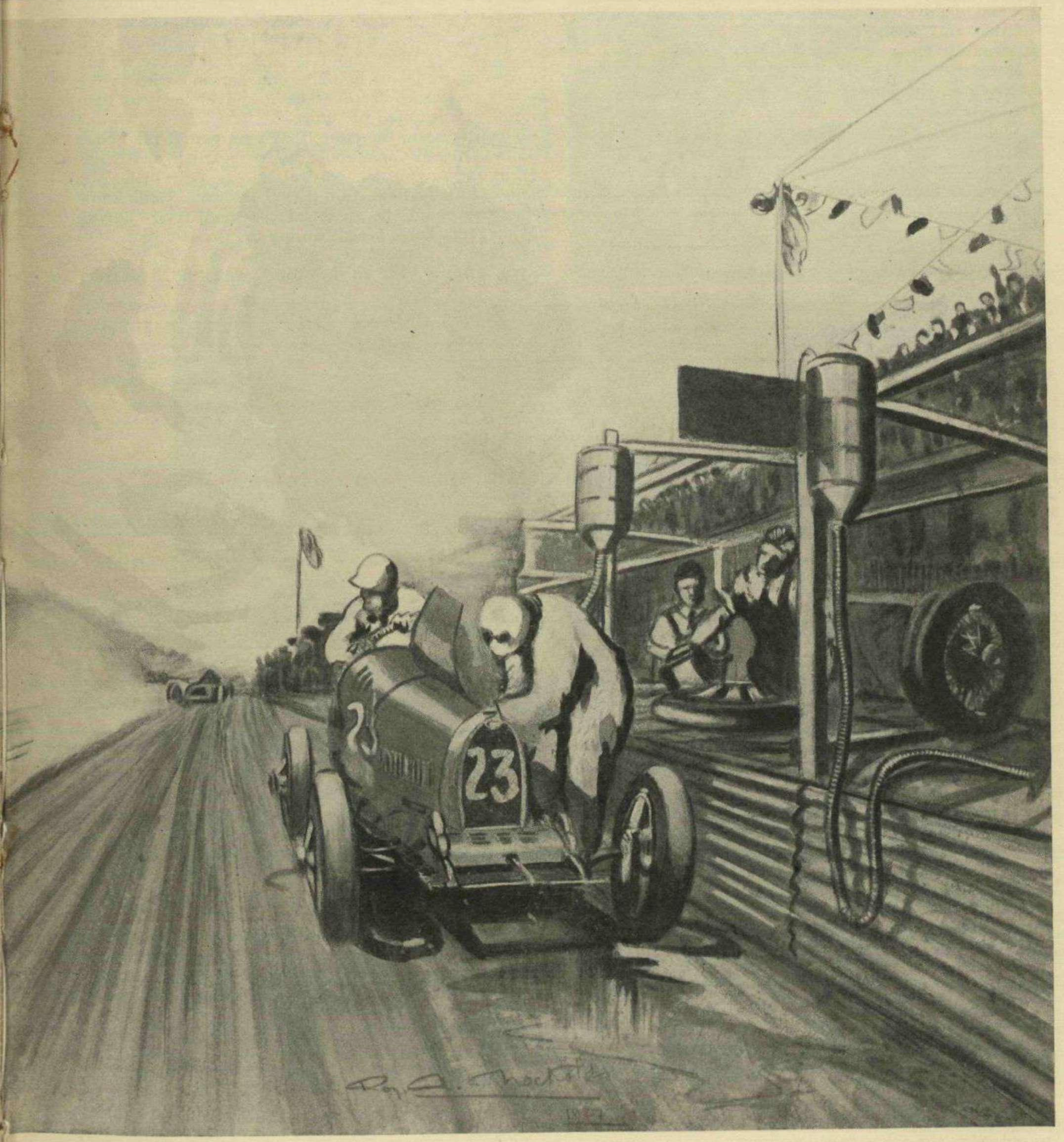
TWO VIEWS ON THE NURBURG RING DURING THE GERMAN GRAND PRIX. THE VICTORIOUS MERCEDES CARS ARE SEEN ABOVE.

"WHY



If, as suggested in our Editorial Notes, an Amateur Car Tourist Trophy Race could be organised, thrilling scenes suc

NOT?"



H AS THIS WOULD BE WITNESSED. ROAD RACING HAS AN APPEAL, ENTIRELY ITS OWN—HERE WE SEE A BUSY MOMENT AT THE PITS.

SPORTING MACHINES ON TEST.

The Model V. Matchless Sidecar Outfit.

IT is very human to suffer from violent prejudices, and dogmatically to proclaim from time to time that this is, or that is not, without being able to substantiate these opinions in any legitimate manner.

Motor-cyclists are victims of this failing quite as much as most of the human race, and we ourselves must confess to several not very secretly nourished antipathies to one or two makes of motor cycle.

For some reason or other we always looked on Matchless machines with great dislike, although until recently the only example of this marque which we had ridden was an ancient 5 h.p. single geared model of extremely doubtful age.

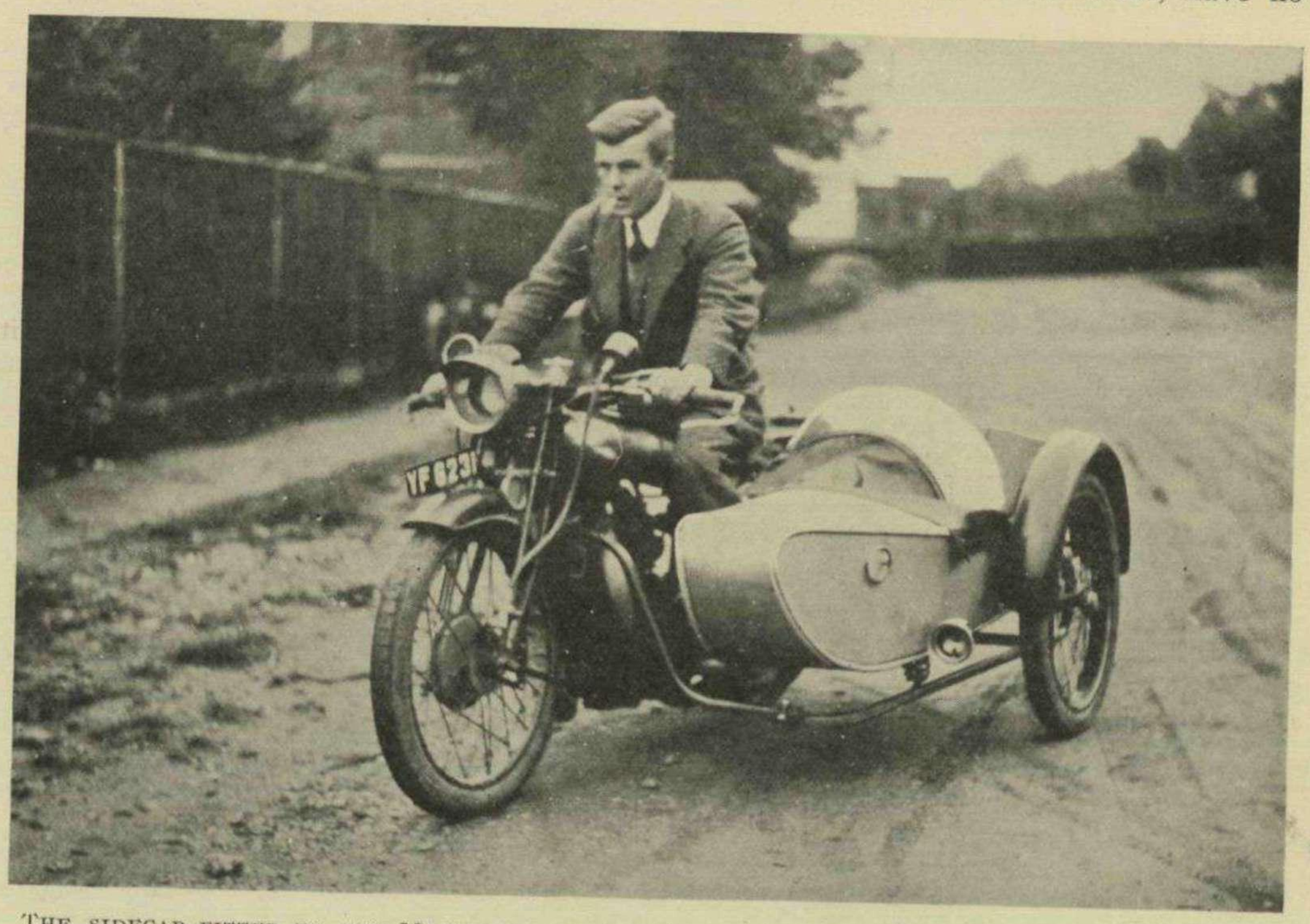
This dislike was certainly unfair, and must appear highly reprehensible to the old school of motor-cyclists (of which we are not) who remember the amazing performances of the Colliers brothers in early Tourist Trophy races.

However, hero-worship either of man or machine is usually a result of performances actually witnessed, or of personal experience, or, lastly, perhaps of attractive appearance!

Consider the Matchless from a post-war standpoint; Messrs. Colliers have religiously abstained from serious racing work since the war, we ourselves had never tried a modern Matchless, and to our eyes there is no sports model in their range of sufficiently attractive appearance to outweigh the other two defections.

Since we are always anxious to broaden our outlook, however, we recently availed ourselves of Messrs. Collier's extremely courteous offer of a machine for staff use in the I.O.M. during T.T. week, and before we say another word, let us humbly offer our apologies to the makers concerned for ever having given way to such totally unwarranted prejudice.

It will be seen, therefore, that item two of the above points is already answered. With regard to Matchless performing in future races we can say very little, but there are indications that the "old firm" still know something about the great game, several riders having put up remarkable speeds during the present year. On the score of appearance, opinions differ, but we ourselves, after a visit to the works, have no hesitation in saying that certain "hush-hush" 1928 models from Plumstead will leave nothing to be desired in this direction.



THE SIDECAR FITTED TO THE MATCHLESS IS LIGHT AND SPORTING, VERY SUITABLE FOR COMPETITION WORK, AND YET VERY COMFORTABLE.

The machine delivered to us was new just before the London-Lands End run, in which event, as in the London-Edinburgh, it had gained a gold medal. It did not appear to be specially prepared in any way, but looked what it was—a works hack in good condition, to be placed at the disposal of those semi-independent competition riders who are so often on the look-out for a machine for such and such a trial.

After our experience we should imagine that the model V is in great demand for this sort of work, an

SPORTING MACHINES ON TEST—continued.

opinion which was heartily endorsed by Mr. Heather, the Matchless Sales Manager.

Before taking over the machine we accompanied a tester on a short trial run up the local hill, a long stretch of about 1 in 6 gradient, approached round an awkward bend necessitating a drop to about 20 m.p.h. On any other machine, his negotiation of this bend and hill on top gear would have seemed rank ill treatment, but the Matchless actually liked it, pulled away in the most praiseworthy fashion, and accelerated up to about 35 m.p.h. on the steepest portion without a sign of distress.

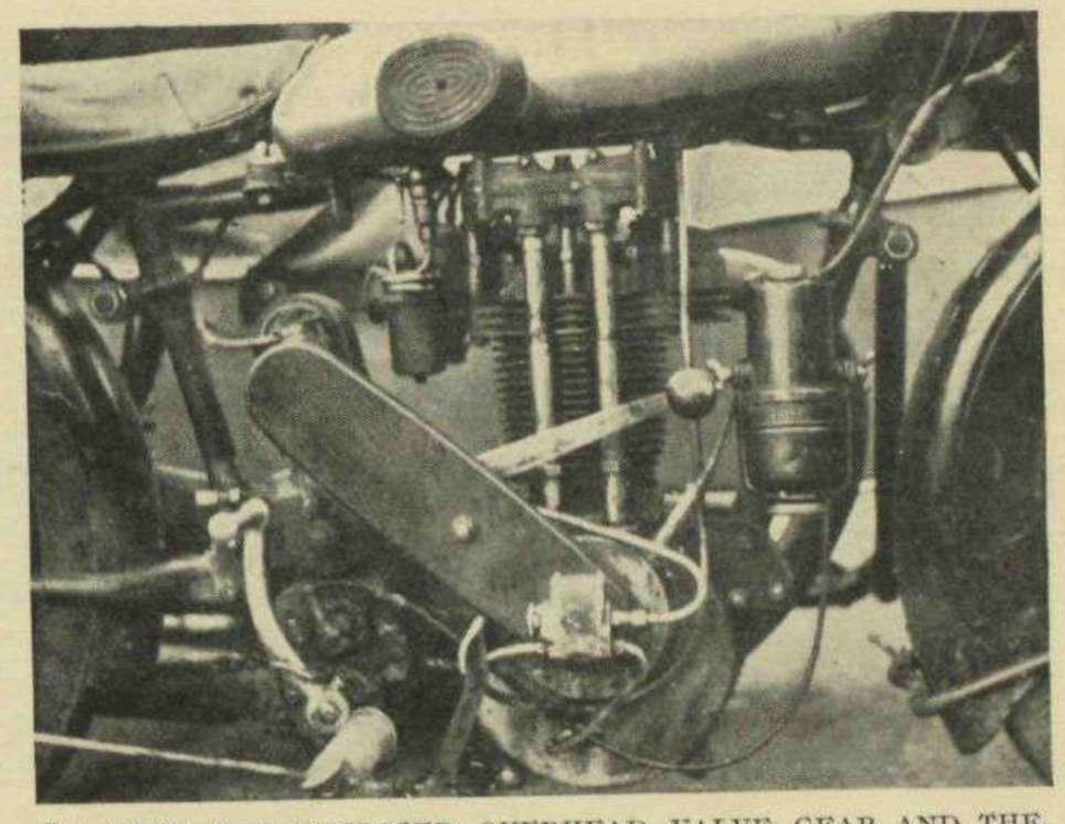
This performance would appear to indicate a large and fluffy motor of low compression, pulling a low gear, but on investigation we found that the compression ratio was as high as 6.6 to 1 and that the top gear ratio was 5.4 to 1. We then took over the combination and drove home with empty sidecar through London traffic. The photographs show that the outfit is of the narrow and light sporting type, so that considerable restraint had to be exercised on left hand corners until a passenger was found.

With passenger, the steering remained light and certain, and we noticed no undue tendency to upset in either direction.

A particularly full week-end included the South Midland Centre Championship Trial, in which we drove model V, on the Saturday ; grass track racing on Sunday morning (on another machine), and a journey to Liverpool on Sunday afternoon and evening in time to catch the 1 a.m. boat to Douglas.

In the S.M. Trial we grew to respect the Matchless as a real 100% motor-cycle. As other competitors will remember, the course included miles of rough and winding lanes, miles of switchback common land in the Chilterns, two really wicked watersplashes and several genuine frame smashing colonial sections, the latter baked rock hard by weeks of drought. Partly from exuberance, partly owing to necessity, and partly to thoroughly test the Matchless, we treated these sections as speed trials and covered most of them very fast in the second gear of a close ratio box. The machine suffered some heart-rending bumps and crashes, and many times was flung bodily into the air, but nothing broke, and at all times it was possible to hold the machine on a reasonably straight course, at speeds which would have unseated most solo riders. In spite of the high bottom gear, all the steep hills, some with hairpin corners, were negotiated with ease, and the engine would always accept second gear incredibly early, once the slowest bends had been negotiated.

The observers' cards show that we officially failed in one of the splashes. These were both over a foot deep and fairly long. In both we paused momentarily—the back wheel sent a spray of water straight into the carburettor, causing the engine to splutter and necessitating a hurried withdrawal of the clutch and furious wangling of the levers, but in neither did the engine stop or the machine require assistance. Beyond the second splash we saw literally dozens of competitors' machines, either abandoned or being " dried out."



SHOWING THE ENCLOSED OVERHEAD VALVE GEAR AND THE MECHANICAL OIL PUMP.

Out of an entry of 180, only 6 sidecars gained awards ; two of these only were first class awards, and both are the subject of protests and liable to exclusion. The Matchless was one of the four second class award winners, and it is interesting to note that over 60 finishers gained no awards at all—a sufficient indication of the severity of the trial.

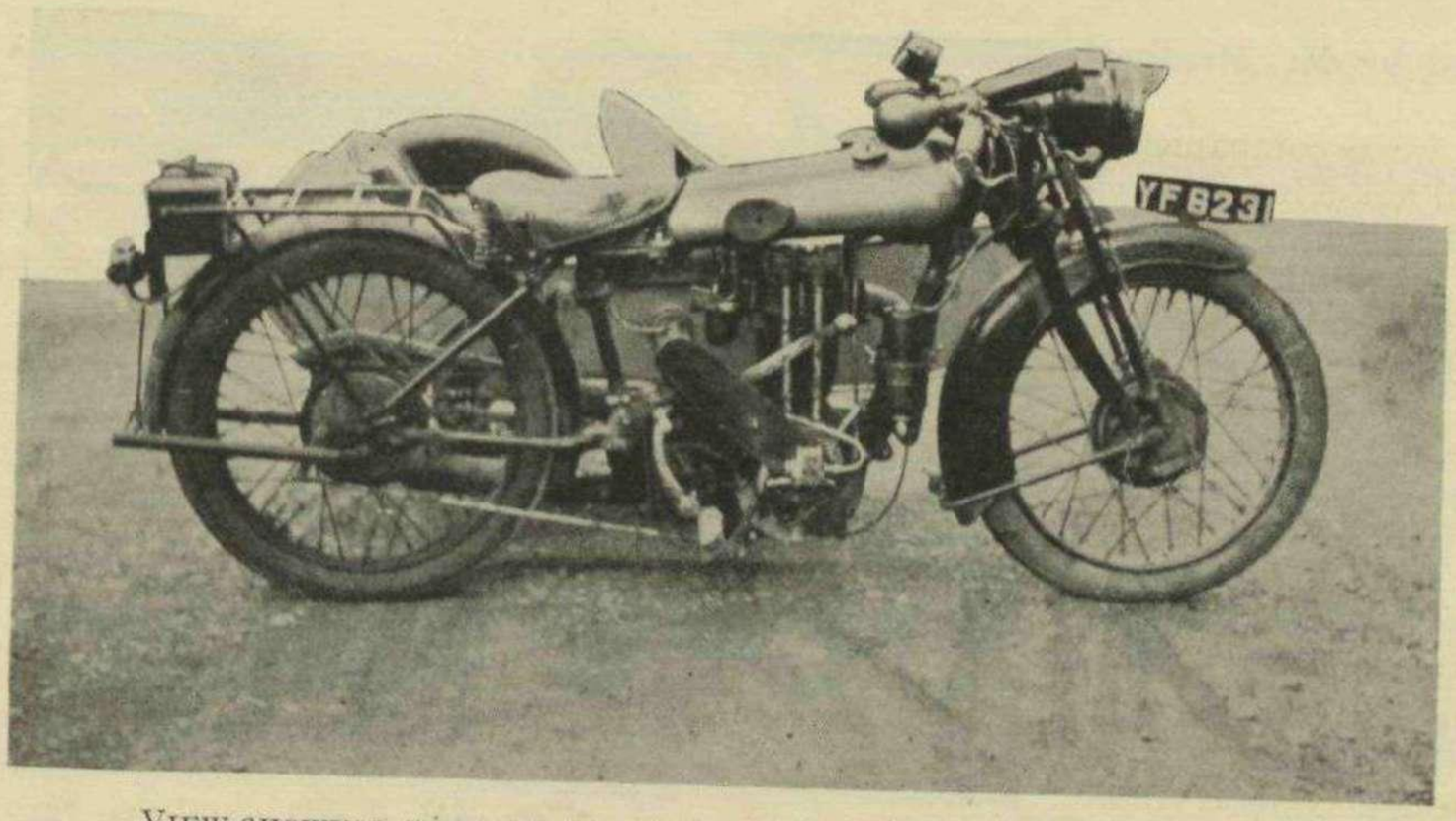
The journey to Liverpool was an epic in itself : how three machines, four people and their luggage started off at 4.30 p.m. to do 190 miles, how one machine gave out after 60 miles, and another got lost after 80 miles, thus leaving the Matchless with a crew of three and all the luggage thundering across England in the dusk. Coventry, after all the previous delays, was passed at 9 p.m. ; Chester at 12 midnight ; and the Birkenhead ferry reached at 12.30 a.m. The ferry left at 12.45 a.m., and we eventually boarded the " King Orry " at three minutes to one ! In spite of the enormous load, the Matchless had been clocking 60 m.p.h. for miles on end, and had proved a complete revelation in sustained power to the whole party, and withal showed never a sign of overheating.

Up to this point our only disappointment was with regard to the petrol consumption.

The carburettor (a B. & B.) seemed to supply a correct mixture, but would only give about 35 m.p.g. Accordingly we lowered the taper needle, and without affecting the performance in the least we improved the consumption to about 60 m.p.g., which, considering the furious driving, is an eminently satisfactory figure.

During our stay in the island we visited Ramsay for dinner. Naturally we went via the course and were amazed to find that we covered this section in exactly half an hour. Later we continued over the Mountain and back to the start—in 23 minutes. Allowing for the section missed out in Ramsey and for possible inaccuracies, this gives us a lap of the 37 mile course in 55 minutes, which is a really phenomenal performance for a standard sporting machine, on which the passenger cannot assist cornering to the left, owing to the sidecar mudguard bumping on the tyre.

SPORTING MACHINES ON TEST—continued.



VIEW SHOWING THE GENERAL LINES OF THE 1927 MODEL V. MATCHLESS.

Furthermore, traffic possibilities were given every consideration, and no risks were taken in villages or on blind corners.

The Matchless maintained a steady 40 m.p.h. up the Mountain, and we were able to use either top gear or second gear at this speed, as the gradient eased or stiffened. Down the Mountain was somewhat terrifying, as we must have exceeded 70 m.p.h. at times, and we confess to having lifted the sidecar wheel at Brandish Corner.

At the conclusion of this performance a match placed on the exhaust port would not ignite spontaneously, thus proving that overheating should never occur.

Sixty-five miles an hour was possible on the level, and there seems no reason to doubt that we approached 75 m.p.h. between Craig-ny-Baa and Hilberry without being quite fully extended, as at this speed, owing to the bumps, the outfit required most of the width of the road!

The return south was a somewhat milder experience, but on one occasion we covered 37 miles (Atherstone-Weedon), of by no means smooth, straight or level road, in exactly 50 minutes, with passenger and luggage.

It will thus be seen that the "V" Matchless is a machine of really excellent performance, far more so than the average sportsman realises, though a study of the maker's catalogue supplies some hint as to its capabilities:—22½ b.h.p. at 4,800 r.p.m. is very good for a standard 500 c.c. machine, and with the high compression piston (7.6 to 1) relatively higher speeds should be obtainable for serious racing work. That this power is really delivered was shown by the back tyre—a brand new heavy cord, which was worn completely smooth in one week.

Every component of the machine worked with unfailing reliability, mechanical silence was good, brakes very good, gearbox—Sturmey-Archer, and oil consumption extremely moderate. With regard to the brakes, although both were excellent, they both required a great deal of adjustment, as the linings appeared to wear very rapidly. Admittedly they were used hard, but we imagine better linings could be obtained—we were actually able to set back the foot brake arm one whole serration on its axis, i.e. about 45 degrees, which is too much in one week.

On returning the machine, the only troubles we could find were one or two spokes broken in the back wheel, which, in view of the harsh treatment administered, was not altogether to be wondered at.

The general specification is fairly well known, but one or two interesting points include totally enclosed push rods and overhead rocker gear, Lycett-Aero saddle, Pilgrim oil pump, Matchless forks with shock absorbers and steering damper, and a total weight of only 260 lbs. The price is £62 10s. solo, and £77 with the sidecar illustrated, both remarkably good value, while a postcard to H. Collier & Sons, Ltd., Plumstead, S.E.18, will produce a most attractive and instructive catalogue of the entire range of Matchless models.

The Seventh International 200 miles Race, Brooklands, October 15th, 1927.

The Junior Car Club has issued the Regulations for its Seventh Annual 200 miles Race, which is to take place at Brooklands Racing Track on Saturday, October 15th next.

The course will be the same as was instituted last year, with the fast "S" turns on the Finishing Straight and the double "hair-pin" at the Fork, all these points being in full view of the large public that attends this annual classic.

The event is for racing cars with engine capacities not exceeding 1,500 c.c., and the winner will receive the T.B. Andre Gold Challenge Cup to be held for one year and a cash prize of at least £250. Cash awards will also be made for second and third places in the respective classes into which the entries are divided. The entry fee is 10 guineas per car, and the closing date at single fees is September 1st.

It is confidently anticipated that several continental entries will materialise this year, as it is the last big race of the season, and coincides with the Motor Exhibition at Olympia, which is always attended by many representatives of foreign manufacturers.

Entry forms and full particulars can be obtained from the Secretary, Junior Car Club, Clock House, Arundel Street, Strand, W.C.2. (Tel.: Central 3926).

The Jubilee Worm Drive Clips.

Owners of water cooled vehicles, who desire high-class fittings and are dissatisfied with the ordinary type of clip for radiator hose connections, should take notice of L. Robinson & Co.'s advertisement on the back page. Of extremely simple, yet ingenious design, these clips are sold at very reasonable prices in all sizes, and are fitted as standard by many manufacturers of high grade automobiles.

The fastest speed ever attained on land was attained on

DUNLOP TYRES

Just as they emerged triumphantly from the gruelling test imposed by Major Segrave when he travelled at over 200 m.p.h., Dunlop Tyres emerge triumphantly from the daily tests of track and road service.

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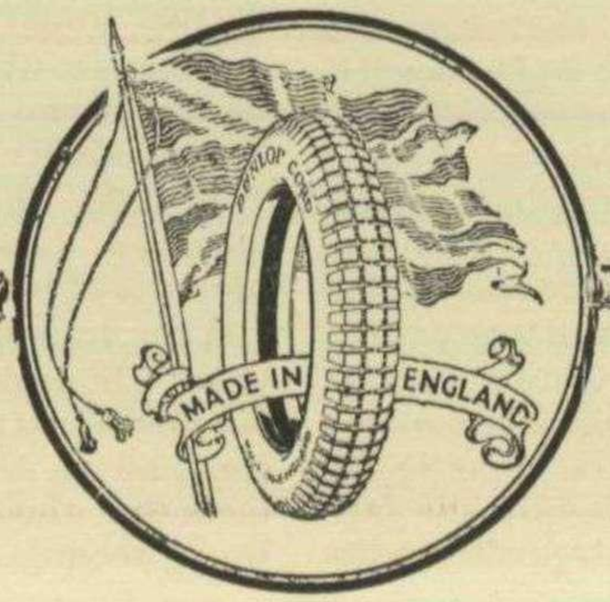


C.F.H. 679

PROMINENT SPEEDMEN:

Mr. J. L. Emerson.

By THE EDITOR.

ALTHOUGH by reason of an almost complete abstinence from racing, during the last two years, Jack Emerson may not be very well known to the youngest enthusiasts, yet among those who know him more intimately and those who have followed racing since pre-war days, he is generally acknowledged to be one of the cleverest tuners in the country.

Belonging, as he does, to the older school of racing motor cyclists, his experiences and successes date back to pre-war days, so that it is not surprising that after fifteen years he should have learnt one or two useful tips on the subject of " fast motors."

Jack Emerson was born at Walthamstow, but his father's business moving to Hull, most of the earlier years of his life were spent on the Humber. During these years he was educated at Hymer's School, where no doubt he gained much of the scientific and mathematical knowledge which has proved so useful to him in his work of tuning internal combustion engines. After matriculating, it was at first intended that Emerson should continue the study of science at a University, but for some reason or other this plan was not followed, and in 1912 we find him articled to Messrs. Roland Winn & Co., of Leeds, manufacturers of marine engines.

At this time Jack Emerson was the owner of a Norton motor-cycle, of the single geared belt driven type, which after a certain amount of tuning seemed very fast. Emerson accordingly entered in the 150 mile race at the August Brooklands meeting. In this race he was competing against such acknowledged cracks as O. C. Godfrey and the Collier brothers, but, despite the fact that it was his first race, he won in the extremely creditable time of 140 minutes. Continuing, he also annexed the 3 hour record in his class.

In 1913 Emerson became a trade rider, in so far as he owned a motor and motor cycle agency in Hull—known as the Kingston Garage, though he was still, in effect, a private owner where racing was concerned.

Emerson has always been good at the longer races—one hour and upwards, and in 1913, still on the Norton, we find him winning several hour races, thus confirming his success of the previous year.

In 1914 Jack Emerson joined the firm manufacturing the flat twin A.B.C., a *marque* on which he was destined to make a great name for himself, his first achievement being to put up a new record for the Class C flying kilometre at 80 m.p.h. Riding the same make of machine he finished 6th in the Senior T.T. of that year, thus making his début as a road racer and incidentally registering the first of the three occasions on which he has finished 6th in a T.T. race!

Then came the war, and the A.B.C. concern devoted its whole time to the development and perfection of the aero-engine.

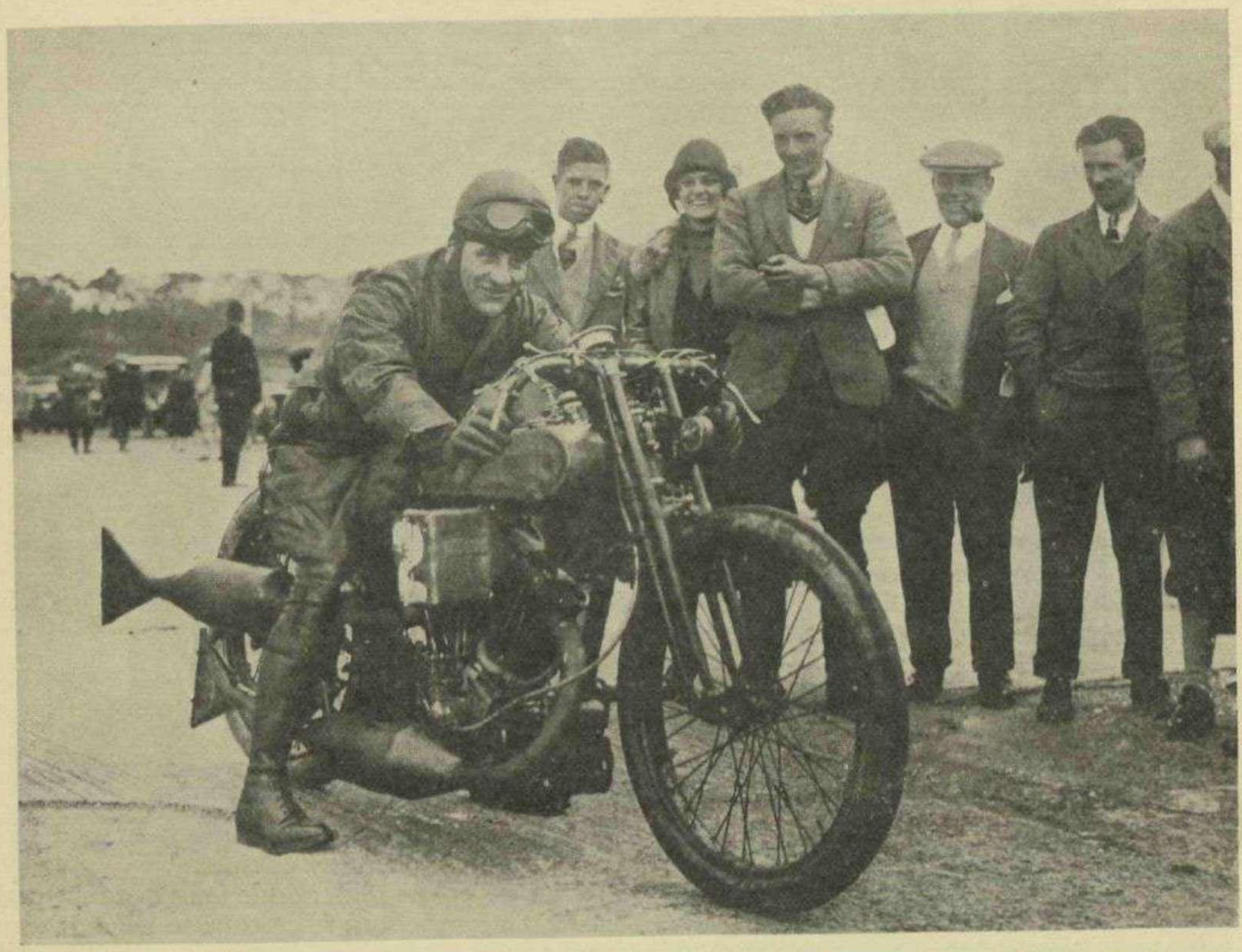
After spending some time in Paris on this job, Emerson endeavoured to enlist as a pilot in the R.A.F., but being then over 25 years of age he was turned down and advised that his services were required far more in the experimental departments of the aeroplane engine works. Accordingly, during the whole period of hostilities Emerson was in France, at times subjected to bombing raids and gunfire, engaged in developing the Dragonfly and Wasp engines for our fighting 'planes, work of supreme national importance, although he was actually still in a civil capacity.

After the war Granville Bradshaw dropped the design of the old 500 c.c. A.B.C. with the engine mounted in a conventional frame and produced the famous 400 c.c. 4-speed spring frame model, with its flat twin engine carried transversely.

Emerson was engaged on experimental work with this design during 1919, and he rode the earlier examples in a few reliability trials and hill climbs during the year.

In 1920, Emerson, still in his capacity of experimental engineer, decided to race the A.B.C. at Brooklands; his success is fairly well known, for in spite of conceding 100 c.c. to most of his rivals, he several times broke the Class C hour record, eventually achieving approximately 70 miles in the time. Nor were Emerson's successes confined to this record, as he won numerous events, including the Brooklands T.T. race of that year, and broke records up to 400 miles at various times.

PROMINENT SPEEDMEN—continued.



JACK EMERSON WITH RIDDOCH'S BIG ZENITH BLACKBURNE ON WHICH HE ATTAINED OVER 100 M.P.H.

During the winter of 1920-1921 Emerson was engaged jointly by Granville Bradshaw and Zenith Motors for six months to test the oil cooled flat twin Bradshaw engine which Zeniths were fitting. In the course of his work he attained 90 m.p.h. on one of these machines, but the belt drive would not stand up to this speed, and as, at that time, Zenith Motors would not agree to the adoption of chain drive, further developments were somewhat hindered.

At the end of his six months' agreement with Zenith Motors, Emerson joined the Douglas racing stables, and his first appearance on the famous Bristol machine was in the Brooklands Senior T.T. Race, held over a distance of about 75 miles. In spite of strong opposition from Horsman (Norton) and Le Vack (Indian), Emerson took the lead on lap 1 and held it throughout, his 3½ h.p. Douglas averaging over 70 m.p.h. for the whole race. Race after race fell to his credit during 1922, and he established new times for the 500 c.c. hour record no less than three times between August, 1921, and May, 1922, at speeds ranging from 72.87 m.p.h. up to 78.91 m.p.h. In the 1922 T.T. Emerson rode a Douglas, but the frame design was not suitable for road racing, and he met with no success. During this year he again finished first in the Brooklands T.T. race, this being the occasion on which he averaged 78.91 m.p.h. for the hour.

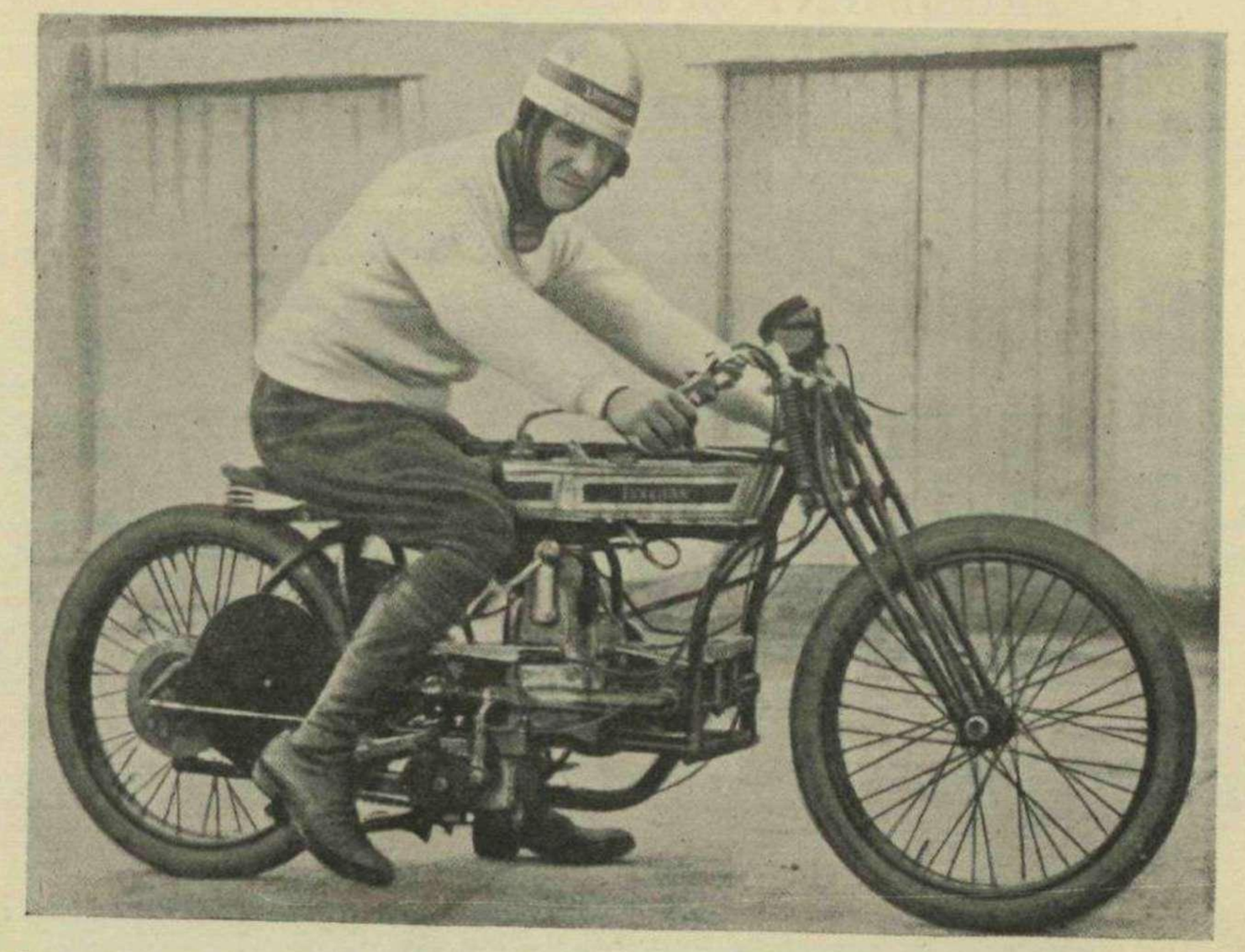
In 1923 the improved I.O.M. Douglas, with the low frame, was introduced, and Emerson finished 6th in the Senior T.T. on one of these machines. But for the delay incurred in removing a dangerously flapping back-mudguard, and the subsequent watering up of the rear sparking plug on the last lap, Emerson would almost certainly have finished second to Tom Sheard, who averaged 55 m.p.h. through rain and mist on his Douglas.

After three years with Douglas Motors, Jack Emerson again returned to a Bradshaw product, this time the 350 c.c. single " oil boiler " made by Walmsley's. After months of hard experimental work he eventually extracted useful speeds from these engines, and in 1924 he finished sixth in the Junior T.T. on a Dot-Bradshaw. It was during the Senior Race of that year, again riding a 350 c.c. Dot, that he touched handlebars with Hassall when passing the grandstands, fortunately without serious results.

During 1925 Emerson worked for Messrs. Burney & Blackburne, being chiefly occupied in coaxing speed out of an experimental o.h.c. design. Riding a 350 c.c. push-rod machine, however, he put up a fine race with Handley in the 200-mile solo race, but eventually broke a valve and retired.

Owing to various serious breakages, in which several valuable components were distributed over the neighbouring country, the o.h. camshaft engine was never entered in a race, although at times it was very fast. Emerson's most interesting ride for Blackburne's, how-

PROMINENT SPEEDMEN—continued.



EMERSON'S MOST FAMOUS EXPLOITS HAVE BEEN ON THE DOUGLAS MACHINE ILLUSTRATED.

ever, was when he made his début on Riddoch's big twin Zenith and won his race at over 100 m.p.h., thus joining the select few who have handled 1,000 c.c. motors at this speed. During 1926 Emerson represented the H.R.D. interests at the track and won the 200 mile solo race for 500 c.c. machines at 84 m.p.h. His only other appearance was in the 200 mile sidecar race, when he and V. Horsman shared the lead until Emerson's fork springs broke and caused his withdrawal.

Emerson is now working on his own in a well equipped workshop at Brooklands, where he undertakes the tuning of any vehicle for racing and competitions; he has invented several aids to high speed reliability, and his special design of big-end bearing is used in all racing J.A.P. and Blackburne engines.

In view of the remarkable long distance performances Emerson has put up from time to time, it would appear that he is a past master in the art of making a fast motor go a long way. Actually, however, he claims to use heavier moving parts than the average racing man, so that in reality his special *forte* is to make the reliable type of engine go remarkably quickly.

At present Jack Emerson is using one of the new Marchant designed M.A.G. engines, and we may confidently expect that before long he will add to his already remarkable list of successes, as by virtue of his perseverance and real knowledge he thoroughly deserves.

A Day's Good Bag.

The standard 350 c.c. Enfield (model 352) which came into the racing limelight by winning the Team Prize in the Junior T.T. is still going great guns. Its latest successes have been in Holland, where, at the Dordrecht races, one rider won the 350 c.c. and the 500 c.c. class, picking up two gold medals and several other awards. Incidentally, a machine of this type now holds the record for a lap on Phœnix Park course at Dublin at 66.39 m.p.h. This is interesting in view of the fact that the Phœnix Park course has been chosen for the famous "Leinster Hundred" event this year.

Our Price Reduction.

Those loyal souls, the regular subscribers to MOTOR SPORT, will doubtless be wondering how the price reduction will affect them. Let us hasten to reassure them that we have been through the list very thoroughly and have extended the period of all prepaid subscriptions in proportion to the new price. May we draw readers' attention to the fact that a full year's subscription to MOTOR SPORT can now be obtained for eight shillings post free.

Sketches.

We are instructed by Mr. Nockolds, our artist, to state that a few copies of the originals of sketches, coloured and otherwise, are available for sale. Mr. Nockolds has many excellent drawings of famous racing cars, and anyone interested should write, c/o MOTOR SPORT.

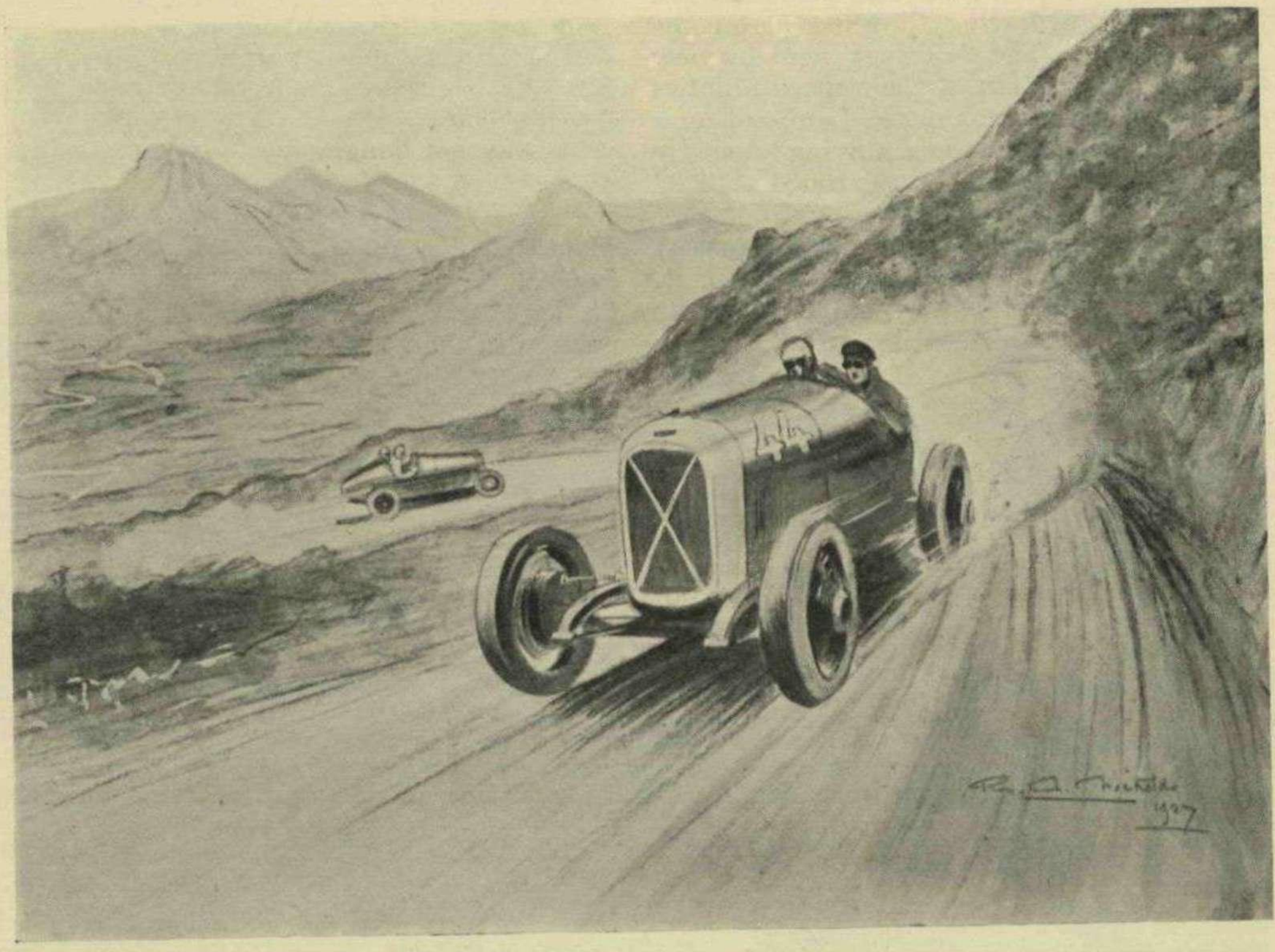
Amateur T.T.

Seventy-seven entries have been received for this important event, to be held on Sept. 8th. Among other well-known competitors are E. Archibald (Triumph), C. W. Provis (Norton), W. C. Birch (Sunbeam). and W. S. Braidwood (P. & M.).

GREAT RACING MARQUES.

VI.—SALMSON.

By E. K. H. KARSLAKE.



SALMSON CARS WERE 1ST AND 2ND IN THE 1.100 CLASS CC. OF THE TARGA FLORIO THIS YEAR.

LA Société des Moteurs Salmson was a well-known concern before the car bearing its name ever came into existence. Their original business was the manufacture of aeroplane engines, which acquitted themselves with great credit in the service of the French Air Force, and it was not until after the war that M. Armand Bovier, who realised the future of the light car, introduced to their notice the English G.N. It was not long, however, before the French patents for this car were purchased, and manufacture was started in France.

Salmson, however, soon began to be interested in the " small four," and in 1921 the first 4-cylinder Salmson was built. The engine of this car had a bore and stroke of 62 x 90 mms. (1,024 c.c.), with two overhead camshafts. It was entered for the French cycle car Grand Prix, and was driven in the race which was run at le Mans by A. Lombard. Twenty cycle cars started, but at the end of the first few laps Lombard appeared in first place, and there he stayed until the end of the race. The Salmson ran with clocklike regularity and averaged 54.6 m.p.h. for the 193 miles of the race, an increase of over 7 m.p.h. on the winner's average in the 1920 race.

After this victory the Salmson was sent across to England, and with Lombard again as its driver, was entered for the first 200 Miles Race. In the 1,100 c.c. class, all the competition lay between the lone Salmson and the team of G.N.'s ; but in the end Lombard had to be content with second place, finishing some nine minutes after Frazer Nash's G.N., and averaging over 67 m.p.h.

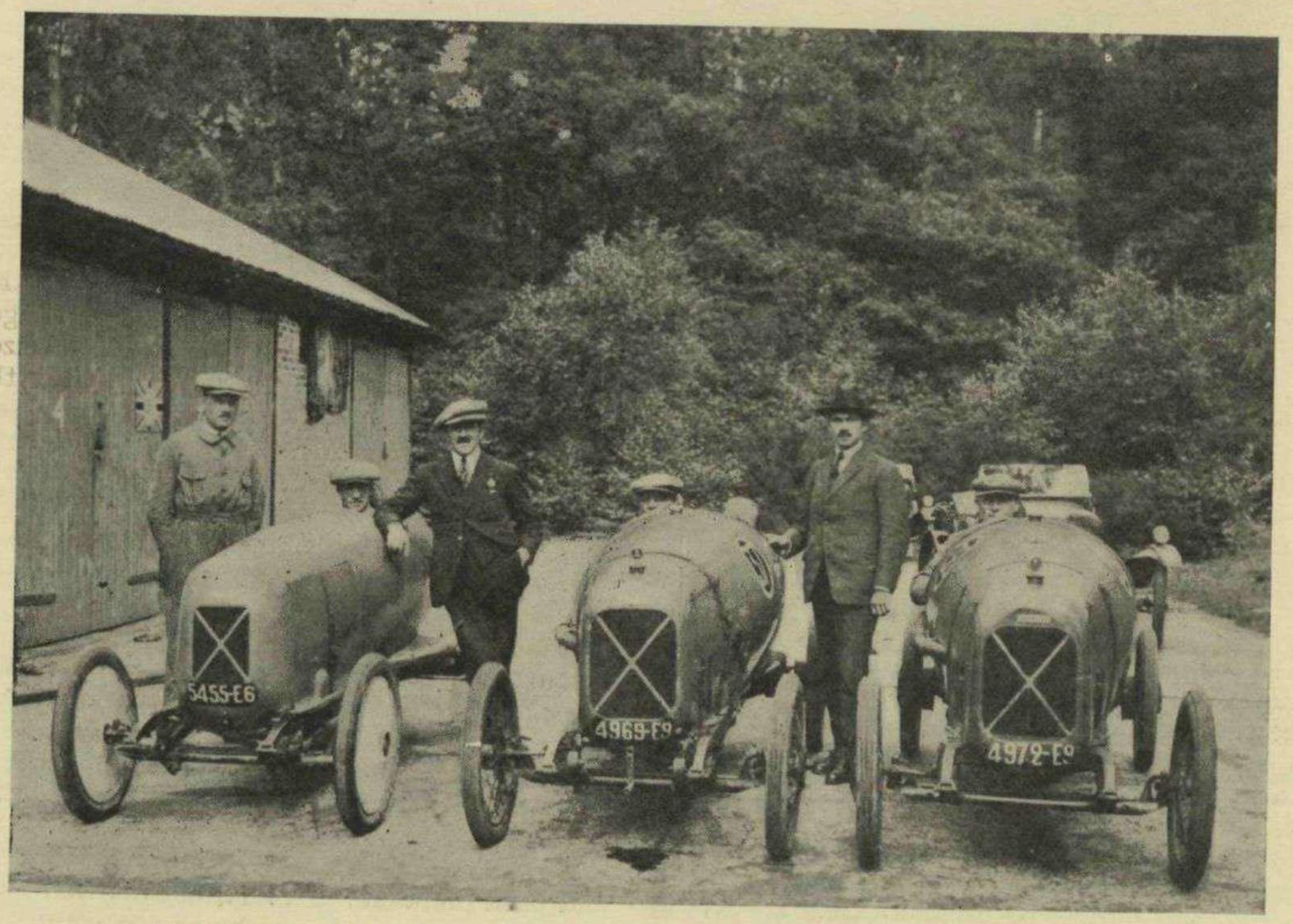
By the next year's race, however, a team of three cars had been preparen, and in the hands of Benoist, Bueno and Desvaux, once again faced the competition of the G.N. team. Throughout the early part of the race it was first Salmson, then G.N. in the lead, but at half distance the regularity of the French cars had scored and the three Salmsons were in the lead. On the forty-third lap, however, Bueno's car cracked its water jacket, owing to the fact that the radiator cap had been screwed down so tight that the bent pipe orifice had been blocked. The other two cars continued to run perfectly, and finally finished first and second, Benoist, the winner, averaging 81.88 m.p.h., an improvement of 14 m.p.h. on Lombard's performance the year before. Desvaux finished two minutes after him, and the two Salmsons beat all the 1,500 c.c. cars except the first three.

The Grand Prix des Voiturettes, as in 1921, proved another triumph for the Salmsons. Four cars started,

GREAT RACING MARQUES—continued.

with Benoist, Bueno, Desvaux and Casse as their drivers, and once more competition was very keen. The Salmsons soon showed themselves the fastest cars on the course, but on the sixteenth lap Bueno overturned, and had to retire. Benoist and Desvaux, however, finished first and second, with Casse on the third Salmson fifth, Benoist averaging 61.3 m.p.h. on the difficult le Mans circuit. The Salmsons were by now very fast, and a demonstration of their speed abilities was given at the end of the year, when Lombard on a single-seater averaged 94.9m.p.h. over a flying kilometre in the Bois de Boulogne, and Benoist was timed at 82.82 m.p.h. on the 2-seater.

In 1923 was run the first Grand Prix d'Endurance at le Mans, and a team of Salmsons were entered for it. Both ran well for the 24 hours, and the one driven by Desvaux and Casse covered thirteenth greatest distance



THE SALMSON TEAM WHICH DID SO WELL IN THE 1922 J.C.C. 200 MILE RACE.

and Benoist and Bueno's sixteenth, the two cars being easily first and second of the 1,100 c.c. cars.

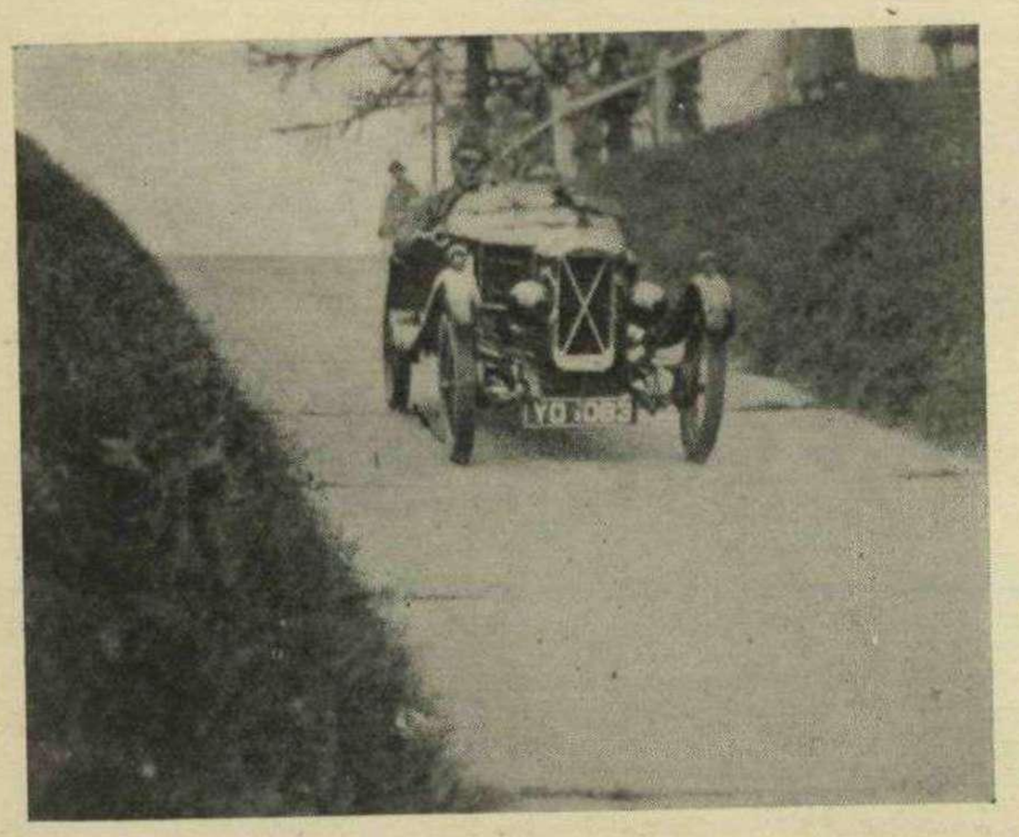
A week later the Salmsons took part in another 24-hour event. This was the Bol d'Or, and four Salmsons, driven by Benoist, Desvaux, Casse and Chappaz, started in it. Chappaz overturned on the first lap, but the other three cars ran with great regularity, Benoist and Desvaux finally dead-heating for first place, with Casse on the remaining Salmson third. The winners averaged 46 m.p.h. for the full day over the difficult course in the Forest of St. Germaine in spite of the fact that they slackened speed towards the end, when they found they had the race well in hand.

The next outlet for the Salmson activity was the Touring Grand Prix at Tours, for which three Salmsons were entered in the 2-seater class, and had Lombard, Benoist and Desvaux as their drivers. They started the race well, and at the end of four laps held the first three places in their class. Then, however, Desvaux began to drop back, and just before the end of the race Lombard and Benoist had to retire with empty radiators, which the rules did not allow them to refill. Desvaux, however, continued, and finally finished third in the 2-seater class.

It was not long, however, before this defeat was avenged. A race for cars up to 1,100 c.c. was combined with the Grand Prix de France motor-cycle race at Montargic, and for it three Salmsons were entered, with Benoist, Bueno and Desvaux as their drivers. As well as this a new smaller Salmson driven by Lombard was entered in the 750 c.c. class, but it was badly damaged by fire two days before the race, and although it started, it was not in good condition, and had soon to retire. The three 1,100 c.c. cars, however, successfully showed clean pairs of heels to all their rivals, and finally finished first, second and third, Desvaux, the winner, averaging 61.5 m.p.h. for the 284 miles.

Three 1,100 c.c. cars started once more in the Grand Prix de Boulogne in August, and had Benoist, Bueno and Casse as their drivers. Their chief rivals were the Frazer Nashes, but after the first three rounds the Salmsons held the three leading positions. Casse, however, was forced to retire before the end, but Benoist and Bueno finished first and second, the latter averaging 66.3 m.p.h. and beating all the 1,500 c.c. cars with the

GREAT RACING MARQUES—continued.



SALMSONS HAVE BEEN MOST SUCCESSFUL IN J.C.C. EVENTS

exception of the winning Talbot-Darracq.

The 750 c.c. Salmson made its first real appearance some three weeks later in the Grand Prix des Voiturettes, in which it was driven by Lombard. At the same time Benoist, Bueno and Casse started in the 1,100 c.c. class with the larger machines. Once more the Salmson superiority was clearly proved, the three bigger machines at once taking the lead in their class, and although Bueno failed to finish, Benoist and Casse came home first and second. Benoist averaged 65.5 m.p.h., and covered one lap of the difficult le Mans at the amazing average of 70.4 m.p.h.

The three Salmsons were entered for the 200 Miles Race, and their drivers were officially announced as Lombard, Benoist and Bueno. At the last minute, however, Lombard was replaced by O. Wilson-Jones, but the Englishman soon showed that he was well able to keep up with his French team-mates. For the first half of the race, the three Salmsons ran in good order in the lead, but thereafter both Benoist and Jones had trouble with their petrol feed, and dropped back considerably. Bueno, uowever, continued serenely and finally finished first at the amazing average for an 1,100 c.c. car in 1923 of 82.73 m.p.h. In the course of the race he annexed the class records for 50, 100 and 200 Miles, and for one and two hours. The record for 150 miles went to Benoist, who eventually finished third, while Jones' Salmson was still running when the race was called off.

At the end of this magnificent season in 1923 Salmsons, to everyone's regret, announced that for the present they would retire from racing, and the team was broken up. For all this, three cars were again entered in 1924 for the 200 Miles Race, this time with English drivers,—O. Wilson Jones, Count Zborowski and Douglas Hawkes. Jones took the lead from the outset in the 1,100 c.c. class, followed by Zborowski and Hawkes, but on the fifteenth lap the latter had to retire with a sheared magneto drive. Zborowski's engine, too, had been damaged in practice, and was finally put out with a broken connecting rod. Jones, however, finished an easy winner and successfully eclipsed the Salmson performance of the year before by averaging 85.7 m.p.h., and taking the 1,100 c.c. records for 200 Miles and for two hours.

By this time many Salmsons of the Grand Prix type had found their way into the hands of amateur enthusiasts, and it was not long before they made their mark in Italy, where fast cars are not unpopular. It is not surprising, therefore, that one appeared in the first Grand Prix de Rome in the hands of an Italian driver, Clerici, and succeeded in winning the 1,100 c.c. class at 47.8 m.p.h. A month later two Salmsons driven by Didier and Bac started in the Grand Prix de Provence at Miramas, and finished first and second in the 1,100 c.c. class, Didier, the winner, averaging 62.7 m.p.h. for 313 miles.

The first big race of the year from the Salmson point of view, however, was the San Sebastian Grand Prix, in which two cars started, driven by Casse and Le-Nane. The latter overturned after holding the lead for ten rounds, but Casse went on to win the 1,100 c.c. class, averaging 58.8 m.p.h. for the 330 miles of the difficult Lasarte circuit. A week later, the scene was changed to Brooklands, for the 200 Miles Race again numbered three Salmsons among the starters, this time with Goutte, de Marnier and Newman as their drivers. As usual, they soon proceeded to dominate the 1,100 c.c. class, although George Newman had a good deal of trouble and finally went out with a seized big end. Goutte and de Marnier, however, held the lead unchallenged, and finally finished first and second in the 1,100 c.c. class, and what was perhaps even more creditable, gained third and fourth positions in the 1,500 c.c. division. That year turns were introduced in the course for the first time, and Goutte's average, therefore, when he scored the fourth consecutive win for Salmson in the classic English race, was 68.55 m.p.h.

After this victory, three Salmsons, driven by Casse, Goutte and de Marnier, started in the 1,100 c.c. class of the Grand Prix de France, accompanied by Peuot, an amateur driver, on another Salmson. But on this occasion fortune did not favour them, and minor troubles having robbed them of what looked like a certain victory, de Mariner finished second, with Goutte, Perrot and Casse immediately behind him. Before the year was out, however, a Salmson appeared once more in a big race, when Clerici, who had won the 1,100 c.c. class of the Grand Prix de Rome, finished second in the 1,100 c.c. class of the Circuit del Garda race.

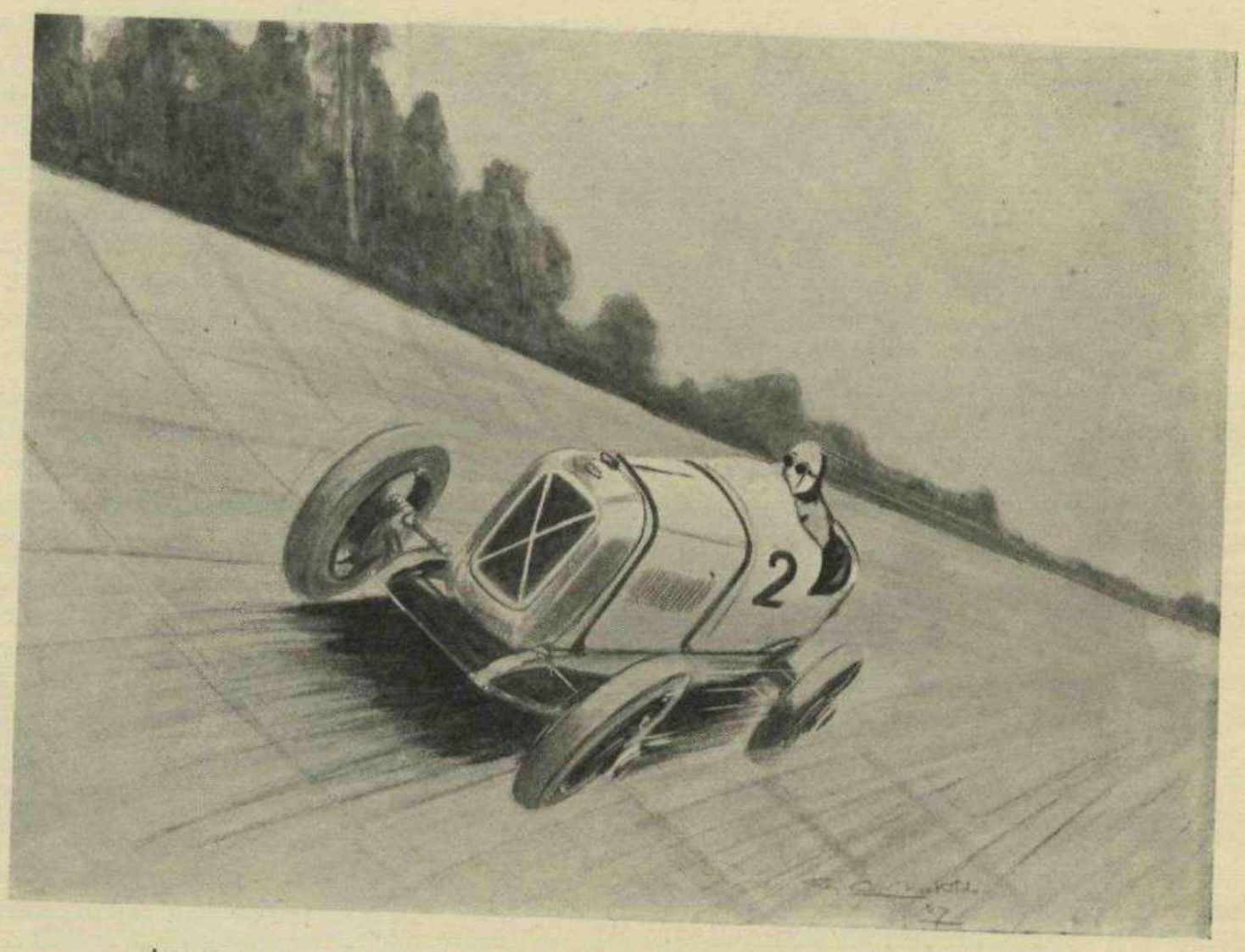
1926 opened with more activity in Italy, when three Salmsons, driven by Borzacchini, Rallo and Geri Gino started in the 1,100 c.c. class of the Targa Florio, and succeeded in finishing first, second and fourth, Borzacchini overaging 38.38 m.p.h., an extremely creditable speed on the Madonie circuit. That year, however, Salmson decided to return to serious racing in France, and a car driven by Casse and Rousseau covered tenth greatest distance in the Grand Prix d'Endurance and qualified for the final of the third triennial Rudge-Whitworth Cup.

In conjunction with the French Grand Prix at Miramas, a race was held for 1,100 c.c. cars, and in it four

GREAT RACING MARQUES—continued.

Salmsons started, with Casse, Rousseau, Geudrot and de Victor as their drivers. They had to meet the new 6-cylinder Amilcars of which much was expected, but in the end Casse finished first, averaging 65 m.p.h., with Geudrot second, Rousseau fourth, and de Victor seventh.

The J.C.C. production car race proved one of the greatest of Salmson triumphs. The race was open to all standard cars up to 1,500 c.c., and two Salmsons, driven by Hazlehurst and Martineau, started in it. The amazing speed of the standard Salmson was soon apparent, and Hazlehurst finally finished first, beating all the 1,500 c.c. cars, and averaging 62.9 m.p.h. Martineau finished fourth in the general classification and third in the 1,100 c.c. class.



AN IMPRESSION OF GEORGE NEWMAN ON THE HOME BANKING AT BROOKLANDS.

Three Salmsons started in the Grand Prix de Boulogne of 1926, one driven by Bourdon being equipped with a Cozette supercharger, while the other two were driven by George Newman and George Duller. The latter's car went out during the race owing to failure of the lubrication, but Bourdon and Newman finished first and second, the former beating all the 1,500 c.c. cars with the exception of the winning Bugatti.

A SALMSON WINNING THE 1100 C.C. CLASS OF THE 1926 TARGA FLORIO.

The 200 Miles Race, which has always been a great scene of activity for Salmson, did not belie its character in 1926. No fewer than seven Salmsons were entered, the official team consisting of Goutte, Casse and de Marnier on supercharged cars, while George Newman drove a similar machine, and the other three drivers were Hazlehurst, Dunfee and Wood. Their great rivals were now the 6-cylinder Amilcars, but Casse early took the lead, with Goutte third. Early on de Marnier was forced to retire with a slipping clutch. He was followed by Dunfee with a defective steering gear, but much more important, Casse too retired with engine trouble. Goutte too had fallen far back with misfiring, and Wood went out with a seized bearing. Finally George Newman finished fourth, and Goutte seventh.

This year the Salmsons have distinctly made a good start with a first and second in the 1,100 c.c. Targa Florio, a second and third in the Grand Prix d'Endurance and victory in the Rudge-Whitworth Cup. Rumour, however, is predicting an entirely new straight-eight racer to appear in the near future, which should be a very dangerous competitor in the 1,100 c.c. class.

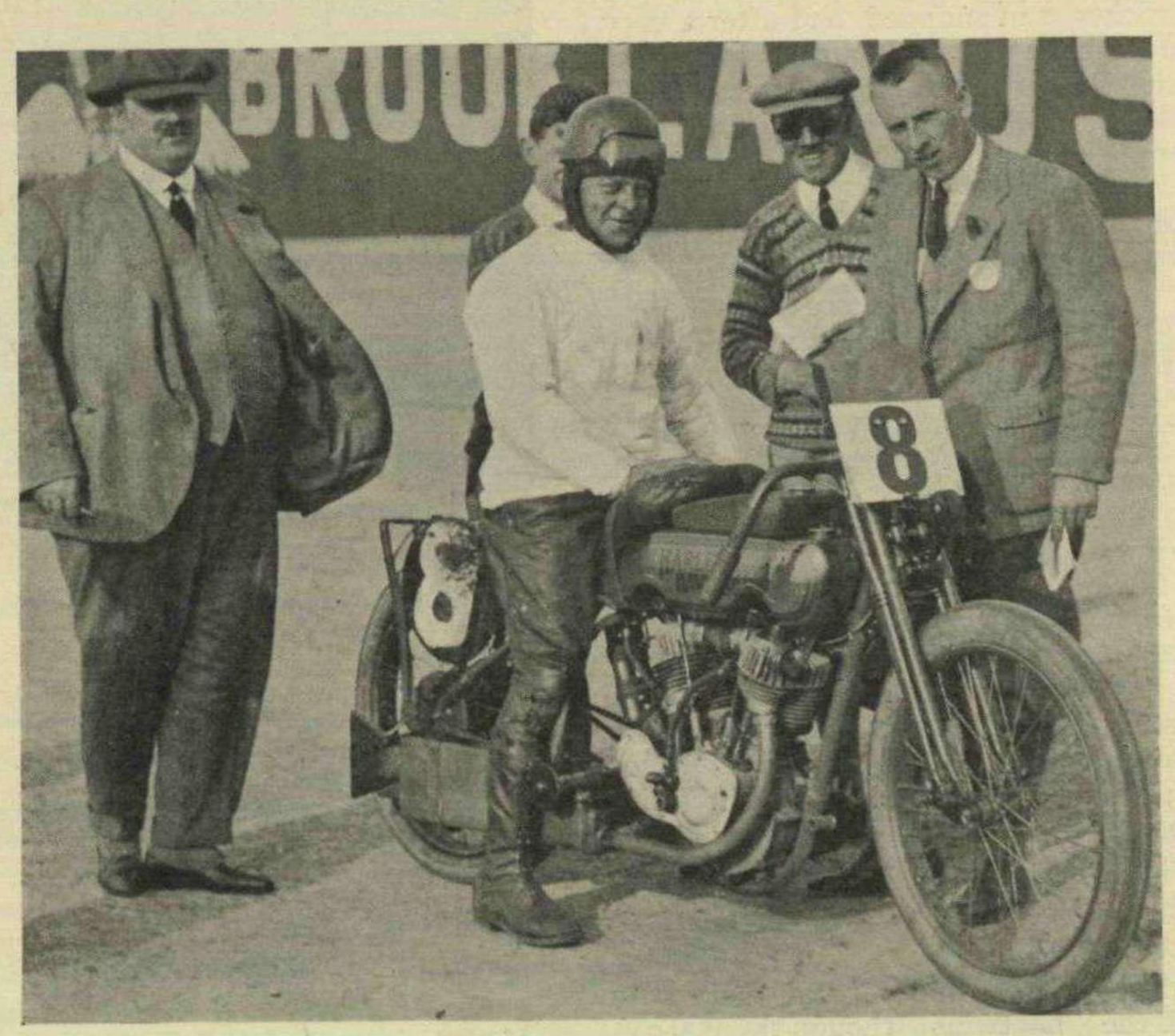
RACING NEWS—continued.

FOUR 200-MILE SOLO RACES.

DURING the morning, when the 250 c.c. and 350 c.c. races were run, severe rainfall rendered the conditions decidedly uncomfortable for man and machine, but, nevertheless, in these two classes the percentage of reliability was far higher than in the two larger classes, which were blessed with fine weather.

At 10 o'clock, the two smaller classes were dispatched on their 73 lap swim, Worters (Excelsior), Edmunds (O.K.), and Colgan (Zenith) immediately taking the lead and holding it for many laps. At one-quarter distance, however, Colgan was in 2nd place close behind Worters, while Edmunds had dropped back, allowing F. L. Hall, who did so well in the Lightweight T.T., to run third on his New Imperial. Colgan was the next unfortunate, running out of petrol on the far side of the track. After a long and weary push he re-started, but at half distance he was headed by Worters, Hall and Edmunds in the order named, of whom Worters had averaged 71.45 m.p.h. This order was maintained at three-quarter distance, and Colgan was trying hard to regain his lost position against great odds. Worters was now leading comfortably, and eventually ran home a winner at 71.18 m.p.h., being followed by Edmunds (O.K.), who had managed to pass Hall. The complete list of finishers was :—

		m.p.h.
1.	J. S. Worters (246 Excelsior-Jap)	71.81
2.	W. Edmunds (246 O.K.-Jap)	66.52
3.	F. L. Hall (246 New Imperial)	65.84
4.	W. A. Colgan (248 Zenith-Blackburne)	63.9
5.	P. M. Walters (246 Coventry Eagle-Jap)	62.89
6.	J. J. Hall (246 Royal Enfield-Jap)	57.06
7.	G. Grose (246 New Imperial)	54.32
8.	L. J. Archer (246 New Imperial)	52.37



FRANK LONGMAN ON THE "EVERGREEN" HARLEY DAVIDSON—ONLY FINISHER IN CLASS E.

THE 350 C.C. RACE.

This race was run concurrently with that for 250 c.c. machines, and naturally attracted more attention in view of the higher speeds attained. The entry list revealed a few surprises ; C. S. Staniland rode Worter's 350 c.c. Excelsior, and Emerson appeared on the new Marchant M.A.G., a formidable looking overhead camshaft affair with a large separate oil sump beneath the gearbox. At the outset the lead was not unexpectedly taken by W. L. Handley (Rex Acme), followed by Lacey (Grindley) and two Velocettes ridden by Hicks and Hamilton. Very shortly afterwards the rain stopped Handley and slowed Lacey, while Emerson retired with an engine damaged by "over-revving" when his gear jumped out. Various other incidents occurred until at

RACING NEWS—continued.

quarter distance Hamilton (Velocette) led, followed by Staniland and Lacey, the former's speed being 83.7 m.p.h. Lacey again slowed when the rain increased, but when it stopped he accelerated again and Handley also re-started. At half distance, however, the order was unaltered, in spite of Handley's and Lacey's strenuous endeavours. Hamilton's speed, however, was now 84.7 m.p.h. Then disaster overtook Hamilton, whose huge tank proved too much for the four bolts supporting it; he wasted much time repairing petrol pipes, so that Staniland and Lacey passed him, and in this order the trio completed the three-quarter distance, Staniland averaging 82.63 m.p.h. Hicks (Velocette) had broken a valve, and Handley also retired with water in the magneto. Ten laps from the end Lacey retired with oil pump trouble, so that Staniland finished first without serious opposition. As he crossed the line for the 73rd time an overhead rocker stud snapped, and after a very slow lap he pulled into the pits with a very long face. He had no idea that he had won—an extremely near shave. The unlucky Hamilton struggled into 2nd place, the complete order of finishers being :—

		m.p.h.
1.	C. S. Staniland (344 Excelsior-Jap)	83.42
2.	*A. P. Hamilton (348 Velocette)	71.68
3.	G. E. Himing (346 Zenith-Jap)	71.15
4.	C. S. Barrow (346 Royal Enfield-Jap).....	61.15

*Winner of private owner's award.

The 500 c.c. Race.

For once the 500 c.c. race was not such a fiasco as in recent years, high speed being maintained by several machines for considerable distances. R. N. Judd (Douglas) showed terrific acceleration, and actually led all the big twins at the end of lap one, and so far as the 500 c.c. class was concerned, he and Denly (Norton), running neck and neck, continued to lead for 27 laps. Among the retirements during the first twelve laps were Le Vack (New Hudson), who was running third, Bullus (New Hudson), magneto trouble, and Cobbold (Sunbeam). At quarter distance the order was :—

1 { R. N. Judd (Douglas).
  { A. Denly (Norton).
3 A. R. Quinn (Triumph).

The leader's speed was 92.65 m.p.h., and they were actually ahead of all the " big twins " though two 600 c.c. singles were leading this class.

At 27 laps Judd retired with a broken valve collar, thus letting Staniland (Norton) into the first three. Lacey, of whom much is expected in these events, suffered a broken valve spring one lap later than Judd's misfortune.

Half way positions were :—

1. A. Denly (Norton).
2. C. S. Staniland (Norton).
3. A. R. Quinn (Triumph).

Denly had averaged 91.76 m.p.h., but stopped for replenishment, allowing Staniland to lead temporarily; however, it was not long before Staniland fell a victim to the only trouble that seems to occur on Norton machines—a broken rocker standard. Braidwood

J. S. Wright (Brough), who won the 1000 c.c. race on " Cup Day."

(A.J.S.) retired hereabouts with a disintegrated piston, while Quinn also disappeared. Various slow and sure riders then began to appear on the scene as a result of these mishaps, the order at three-quarter distance being :—

1. A Denly (Norton).
2. R. Gibson (Sunbeam).
3. P. M. Walters (Sunbeam J.A.P.).

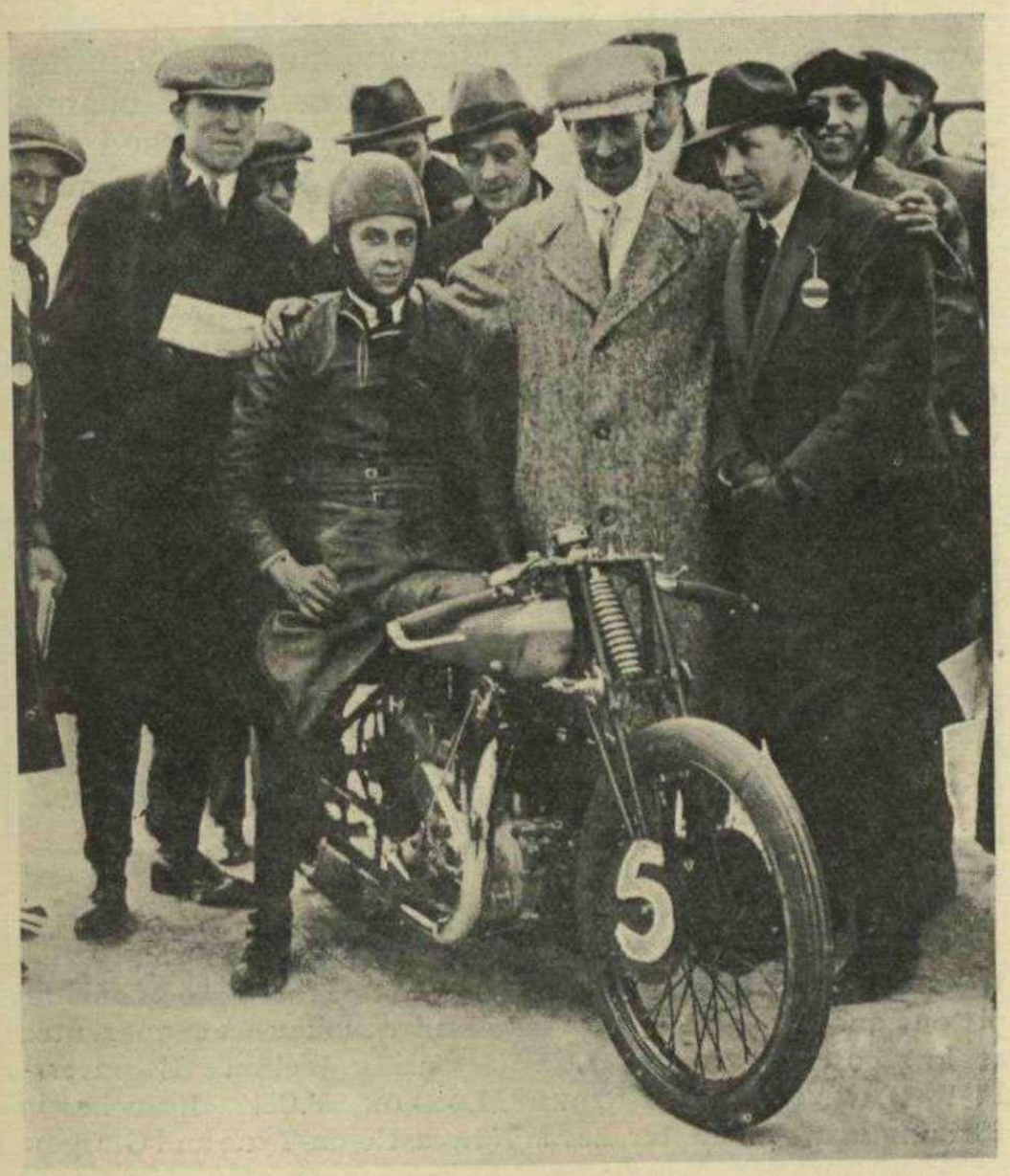
Leaders' speed 88.50 m.p.h.

Almost immediately after this Denly also broke a rocker standard, but after tying it up with wire he continued at reduced speed. The wire eventually gave out, and Denly pushed in to effect another repair. This time he restarted and continued to lap at about 50 m.p.h. until the finish, but in the meantime he had been passed by all the " tortoises," who finished in the following order :—

		m.p.h.
1.	R. Gibson (493 Sunbeam)	79.98
2.	P. M. Walters (498 Sunbeam-Jap)	77.94
3.	E. C. Fernihough (488 H.R.D.-Jap).....	73.52
4.	C. A. Lewis (490 Norton)	73.19
5.	R. R. Barber (495 Matchless)	73.00
6.	A. Denly (490 Norton)	71.63

Gibson's Sunbeam had one of the 1925 overhead cam-

RACING NEWS—continued.



C. W. G. LACEY, WHO ACCOMPLISHED 95 M.P.H. FOR 5 LAPS ON HIS 350 C.C. GRINDLAY ON CUP DAY.

shaft engines and was running on petrol-benzole mixture, while Fernihough's H.R.D. was fitted with the J.A.P. engine out of his record breaking Morgan.

THE 1,000 C.C. RACE.

Once again the British big twin disgraced itself by an exhibition of both minor and major unreliability, although the reputation of the country was well upheld by a couple of 600 c.c. singles running in this class. At the beginning J. S. Wright took the lead, followed by Horsman (599 Truimph) and Grogan (588 Norton), but the Brough Superior tank soon began to disintegrate so that at quarter distance the order was :—

1. V. Horsman (Triumph).
2. R. T. Grogan (Norton).
3. J. S. Wright (Brough Superior).

Horsman had averaged 93.79 m.p.h., but shortly afterwards he retired with a broken rocker, and Grogan took the lead. Then Wright was beaten by his tank and withdrew, thus letting Baldwin (Zenith) and Longman (Harley Davidson) into the picture. Half distance order :—

1. Grogan (Norton).
2. Longman (Harley Davidson).
3. Baldwin (Zenith).

Leader's speed 92.88 m.p.h.

Baldwin was in trouble with his petrol supply, and suffered therefrom throughout the race, while Ashby (Zenith), a previous winner, retired with a seized gearbox. Grogan was now leading by a lap, but in restarting after a fuel stop he skidded and collided with the pits, putting himself and his Norton hors de combat. By virtue of his retirement, third place was taken by G. W. Patchett, who was the only other runner. Longman led at three-quarter distance at 86.7 m.p.h., followed by Baldwin and Patchett, but both the latter eventually retired, leaving the evergeen Harley a solitary winner at 86.89 m.p.h.

SHELL MOTOR CYCLE TRIALS.

The Motor Cycle Endurance Test organised by Shell-Mex Ltd. has now been completed with the most satisfactory results. The ambitious character of this test will be realised when it is recalled that 12 standard machines were bought from stock and were ridden considerably over 2,000 miles, mostly in very bad weather, continuously for three weeks, thereby crowding into this period the same mileage normally done in 5 or 6 months. The itinerary covered all sorts and conditions of roads, including a large number of well known test hills. The machines were also ridden periodically at high speeds on Brooklands track, 150 miles per day being covered here on four days, and timed full throttle speed burst made on twelve occasions with each machine.

There were no mechanical failures whatsoever, and when the strenuous nature of the speed work at Brooklands and the hill-climbing is considered, it will be seen that all machines came through with flying colours.

The condition of the tyres testifies to the very severe work the motor cycles have undergone during the test. Although there was no tyre trouble, a number of new covers were fitted owing to the abnormal wear and tear set up by the gruelling nature of the test.

On Wednesday, July 20th, the machines were dismantled in the presence of the A.C.U. officials, whose full report will be published later. In the meantime it is permissible to state that the carbon deposit in all the engines was unusually low, and that the condition of the engines generally was extremely satisfactory. The character of the carbon deposit was soft and moist ; it was easily scraped off, and did not necessitate chipping off, as is the case with carbon deposit formed from compounded oils.

Each motor-cycle did a timed flying half mile on Brooklands track at the commencement of the trials, and all the speeds then were equal, or in excess, of those advised by the manufacturers. At the close of the trials this test was repeated, and all the speeds originally obtained were exceeded, in one instance by 18 miles per hour.

The Shell people are naturally proud of the successful conclusion of this ambitious undertaking, and claim that it constitutes complete proof that Shell Motor Cycle Oil will give 100% efficiency in any make of motor cycle under the most arduous service it can be called upon to perform.

HERE AND THERE.

Humber Prices.

We regret that owing to an error, the price of the 350 c.c. o.h.v. Humber was given as £60 in our July issue. Readers will appreciate the remarkable value offered when we say that the price is actually £51 10s. for this model.

Miss Cottle "at it again."

Miss Marjorie Cottle, the famous Raleigh rider, has put up yet another remarkable performance. To discover the petrol consumption of the 3.48 h.p. Raleigh she set out on a 120 mile test in the Liverpool district. Seven quarts of petrol were put into the tank, of which the filler cap was then sealed. On Miss Cottle's return 8.⅓ pints were found in the tank, which showed that she used 5.⅔ pints for the test, the exact distance of which proved to be 116.¾ miles. The consumption thus worked out at 165 miles per gallon—truly remarkable for a machine of 348 c.c. capacity.

Two-Strokes Getting Faster.

Will the two-stroke engine soon prove to be faster than the four-stroke? This is a question which many motor-cyclists are asking, and there are certainly indications that it may happen within a year or so. In the recent Belgian Grand Prix six two-strokes started, and still only five finished! This is yet another proof of the two-strokes reliability, but, in addition, the five riders gained, between them, one first, two seconds, and two thirds.

In Ireland, again, one of the most important of the annual races, the "Dungannon Hundred," has just been won by Capt. T. E. Oliver on a Scott two-stroke. Capt. Oliver averaged approximately 58 m.p.h.—a remarkably good speed in view of the winding nature of the course.

Birmingham to Madrid.

Details of Sr. Manuel Canto, the Spanish agent's run from Birmingham to Madrid on a Velocette and sidecar are now to hand. He left Birmingham at 5 a.m. and reached Dover at mid-day, then crossing the channel. Next day he left Boulogne at 7 a.m. and reached Paris at 11.30. Between Paris and Tours he encountered a terrific storm and had to go many miles out of his way to avoid fallen trees and telegraph poles.

The third day's trip was from Tours to San Sebastian, and the fourth, and last, from that town to Madrid, a distance of 325 miles, which was covered in 12 hours, despite Spanish roads!

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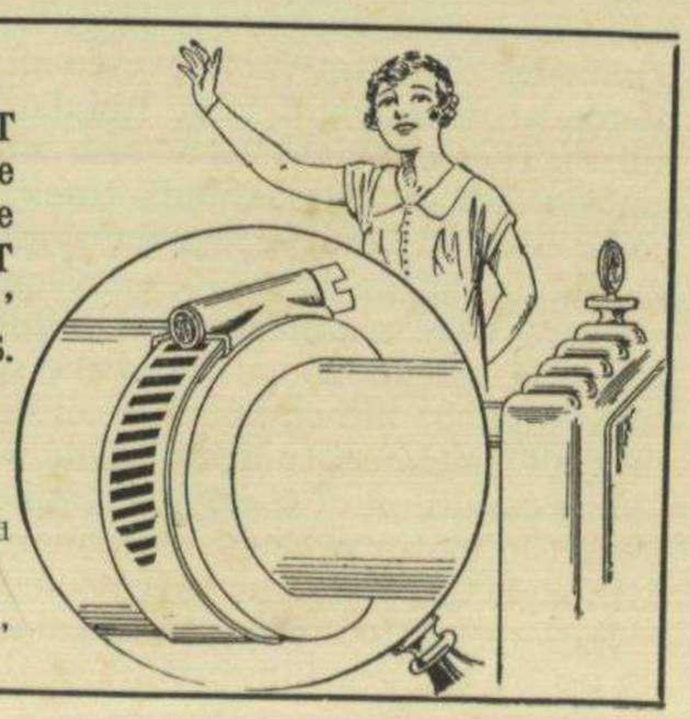

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2.—In 1924 RUSSIAN OIL PRODUCTS, LTD. (R.O.P.) was registered to sell Russian oils direct to consumers. Since the advent of R.O.P. prices of petrol have fallen as much as 4d. in one price cut. Car owners have saved MILLIONS OF POUNDS since R.O.P. put an end to the prices previously charged. The motto of the R.O.P. is

"A Good Petrol at a Fair Price."

3.—You are told there is a "BOYCOTT" on Russian Petrol. Let the Facts speak. The Board of Trade reports that the imports of Russian oils into Great Britain for the five months ending April 30th, 1926, have grown from 31,200,000 gallons to 62,300,000 gallons for the same period ending April 30th, 1927. In short, despite the campaign waged against Russian oils, its QUALITY AND PRICE are such that IMPORTS HAVE DOUBLED.

4.—Mr. D. C. CONRADI, the well-known sportsman, driving his 10-20 h.p. SALMSON car in the LONDON-EDINBURGH Run on June 3rd and 4th, covered the 416 miles on TEN AND A QUARTER GALLONS OF R.O.P. SPIRIT, averaging FORTY MILES PER GALLON.

"IT RENDERS AMAZING POWER," says Mr. Conradi.

5.—The British Government, according to the Prime Minister, "is wholly in favour of legitimate trade between Great Britain and Russia." Sir Edward Crowe, of the Department of Overseas Trade, wrote on June 8th, "That British firms could not possibly be regarded as acting unpatriotically" if they continue to do business with Russian organisations. The purchase of Russian oil is strictly legitimate.

RUSSIAN OIL PRODUCTS Is Responsible For The REDUCTION OF PRICES!

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