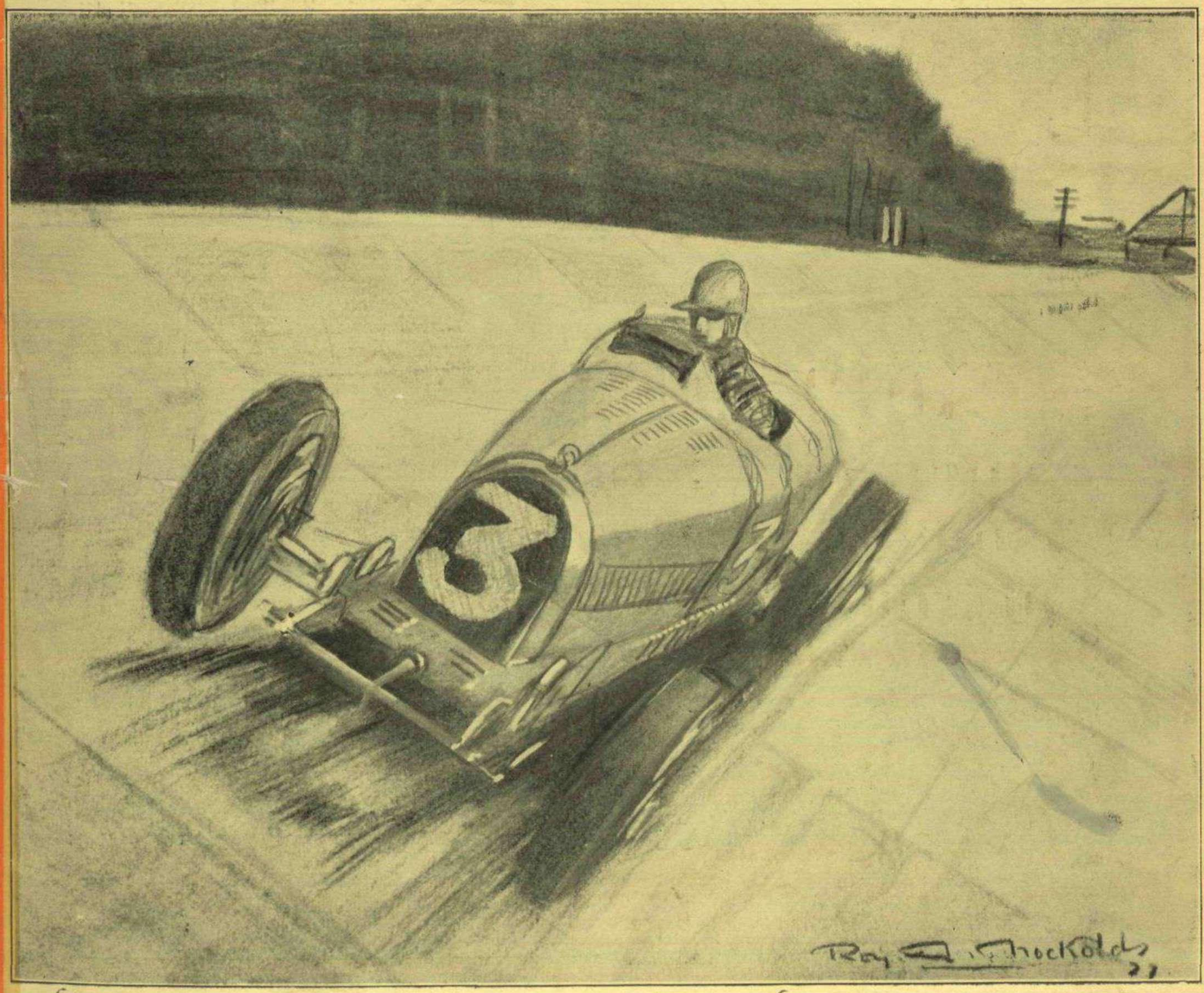
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MOTOR SPORT

Vol. 4 No. 6
December
1927

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The Brooklands
Gazette



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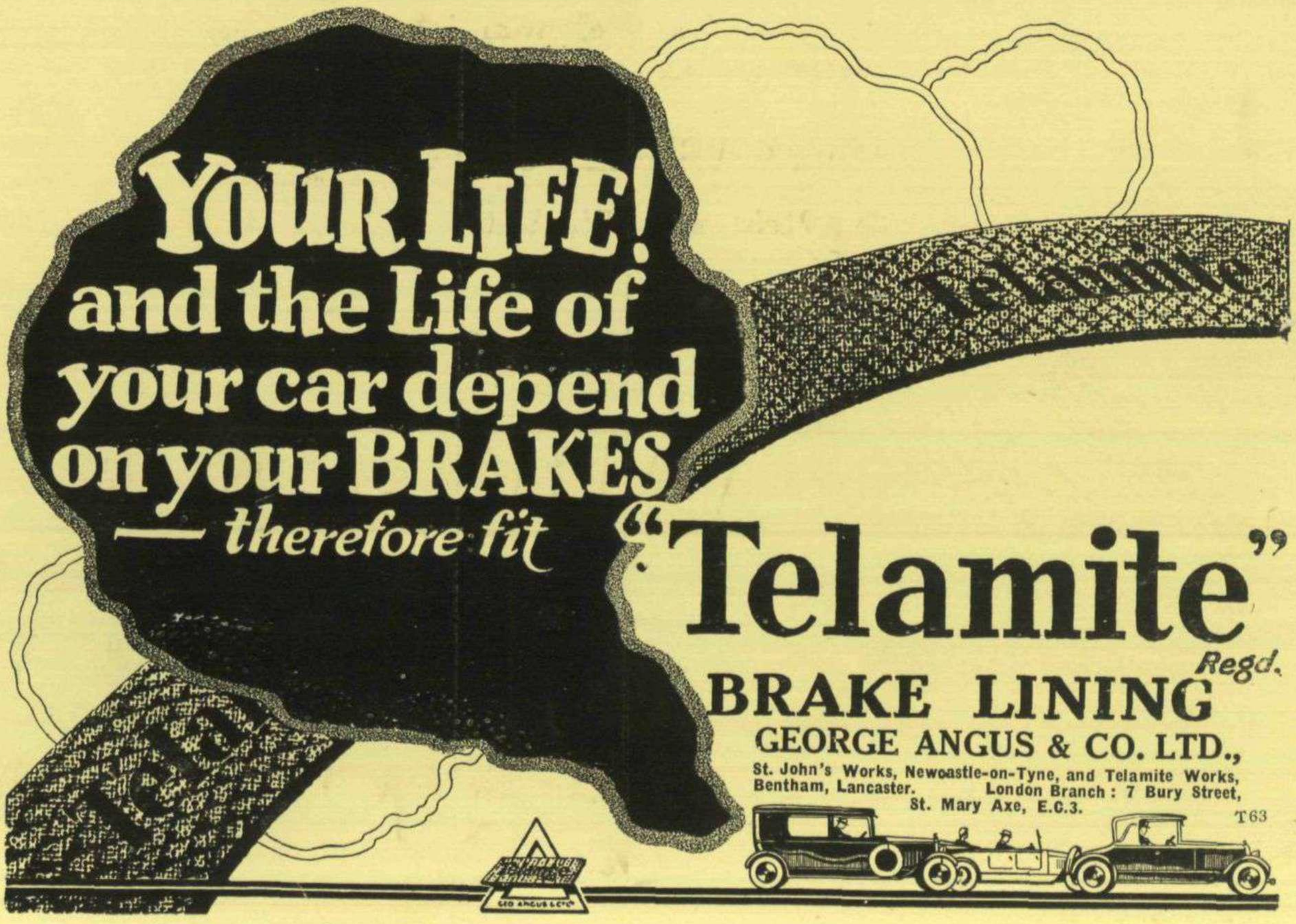
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No. 6. VOL. 4.

Edited by L. A. HUTCHINGS.

DECEMBER, 1927.

EDITORIAL.

BEFORE we plunge once again into our monthly disquisition on motoring topics, let us heartily wish our readers a Merry Christmas and a Happy and Prosperous New Year.

* * *

Talking of the New Year, there is a strong feeling in the air that 1928 will see a great revival of Motor Racing. In the first place, the removal of engine capacity restrictions, in the international races, should result in the return of several old racing firms, who could not afford to build the costly multi-cylinder 1,500 c.c. engines, required by recent conditions. It is to be hoped, too, that a few private owners of suitable racing cars will enter, now that greater freedom is allowed.

Secondly, it seems likely that more races will be held on genuine road circuits, which again should attract more entries than have those events held on artificial race tracks, where sheer speed is the winning factor. One point, however, should not be lost sight of, and that is that although there are no limits to engine capacity, there is a definite weight limit for competing cars. It is to be hoped that this will not cause dangerous "paring" of those vital parts of the cars, on which the driver's life depends. There is quite enough risk in motor racing without entering drivers on 1,000 h.p. bamboo frames!

Perhaps the most cheerful feature of this possible revival is the llkelihood of a road race within the British Isles. At present there seems to be a slight muddle as to what really will happen in this direction next year.

Apparently the position is as follows:—It was originally suggested that a Private Owner's race should be run in the Isle of Man; this the R.A.C. offered to control, and there the matter rests for the moment. Then someone suggested that the European (and British) Grand Prix should be run on the road (whereas it is booked for Brooklands), and suitable courses have been explored in Ulster. Lastly, there is talk of an Endurance Race, on the lines of the Rudge-Whitworth Cup, to be held in Ulster. Everyone seems to be at cross purposes, but it is certain that enthusiasm is not lacking, which, after all, is the important factor.

* * *

We would like to draw attention to our cover this month, which depicts Capt. Malcolm Campbell on his Bugatti.

This drawing is particularly interesting at the close of 1927, as Capt. Campbell has been the most consistently successful British racing driver of the past year.

A limited number of proofs of this drawing, framed in passe-partout, and signed by the artist, Mr. Roy A. Nockolas, are available, priced five shillings.

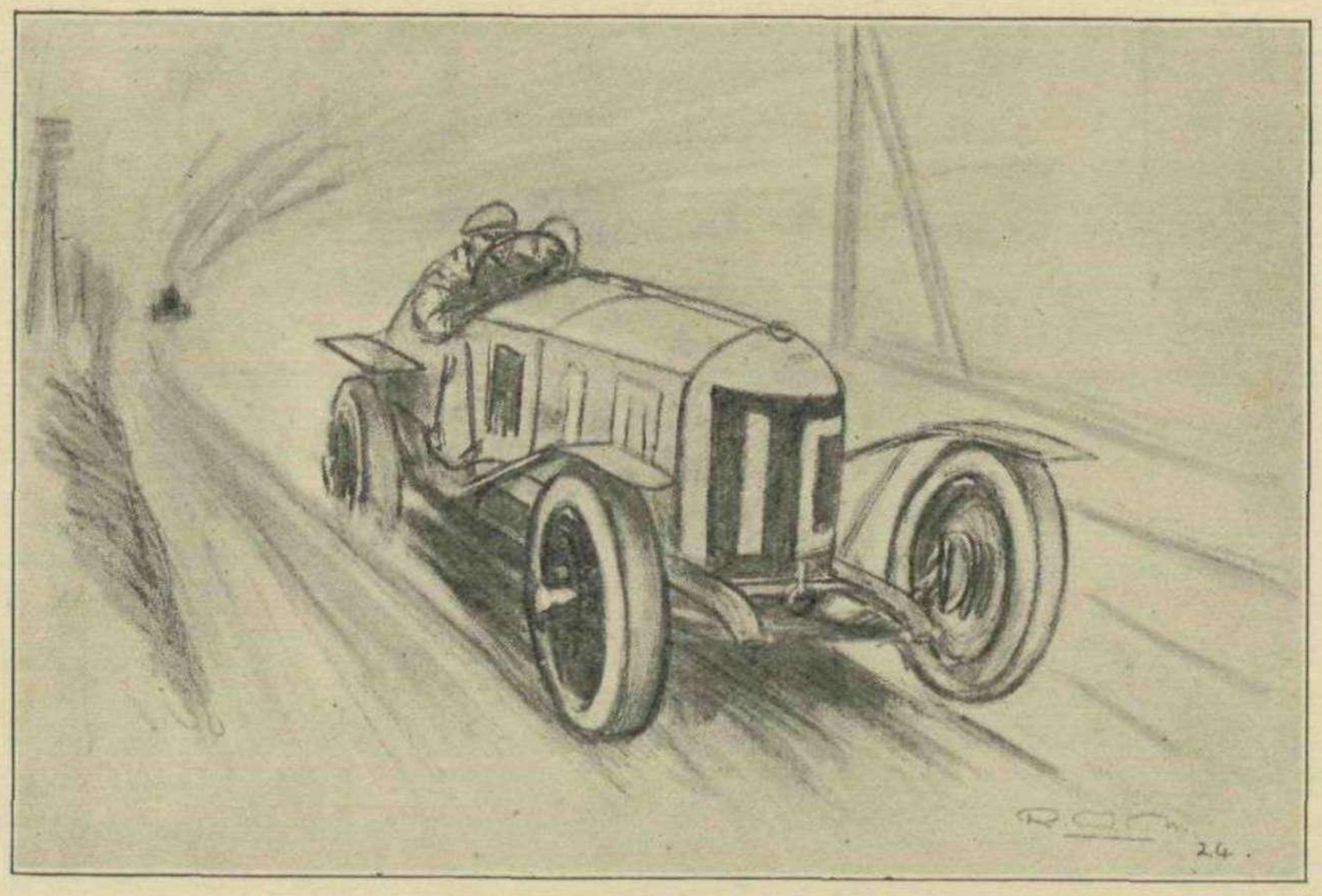
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GREAT RACING MARQUES.

10—DELAGE.

By E. K. H. KARSLAKE.



THE 1911 DELAGE "VOITURETTE" DRIVEN BY BABLOT.

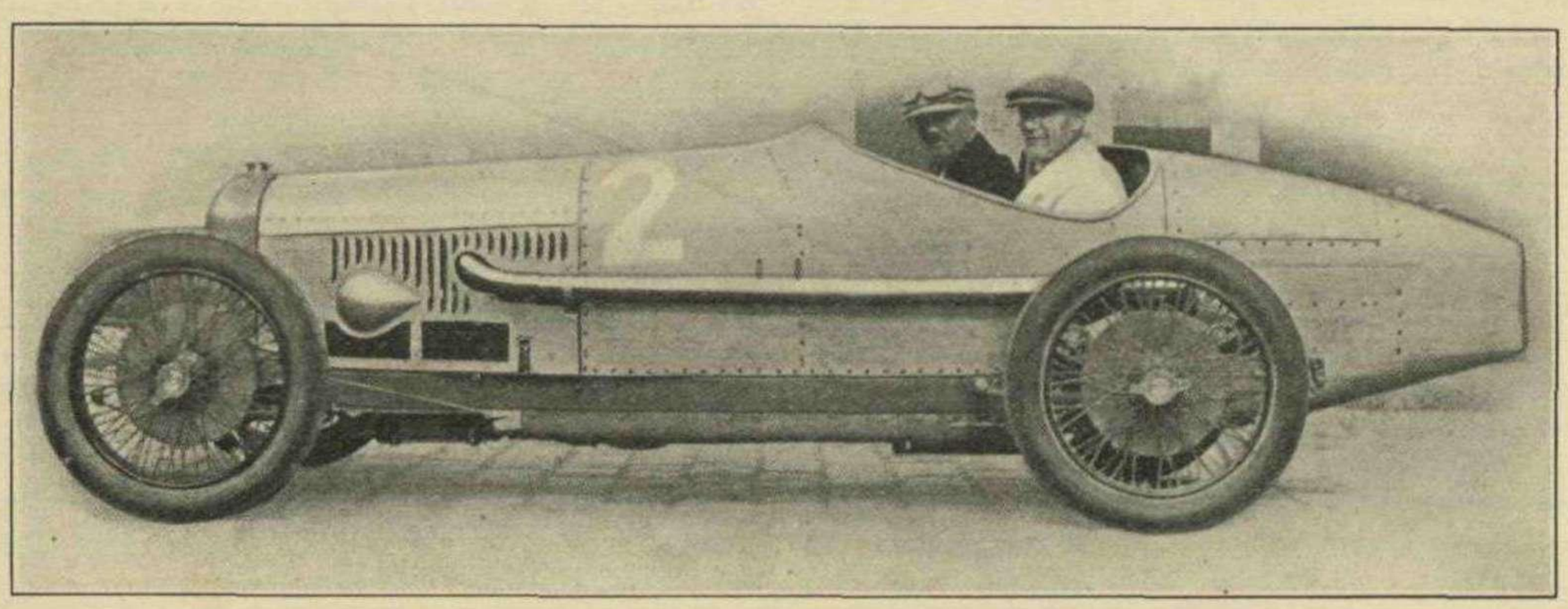
TWENTY-TWO years ago those who visited the park at Suresnes while the cars were practising for the Coupe de l'Auto Voiturette race, might have noticed a solitary young man, who would go every day and stand in the rain to watch the racers being tired out. This spectator was none other than M. Louis Delage, who in those days had little but his tremendous ambition to be a car manufacturer from which to start his triumphal career which by now has placed him among the most prominent French makers.

The next year the race was held at Rambouillet, and this time Delage was no longer a mere spectator, as two cars made by him figured on the entry list. Prodigies of economy had finally enabled him to get these cars built, and he had started on his career as a manufacturer. That year the Delages were not successful, but there were favourable comments in the French press on the performance of these cars of a new make, and two years later, Delage's efforts were crowned with success.

In 1908 the Grand Prix des Voiturettes was run at Dieppe on the day preceding the Grand Prix proper, and over the same course as the big race. The voiturette race was for cars of limited bore, the maximum allowed being 100 mms. for single cylinders, 78 mms. for twins and 62 mms. for 4-cylinder engines. Delage entered three cars, one with a single cylinder de Dion engine of 100 x 150 mms. bore and stroke (1178 c.c.), and the other two with 2-cylinder engines of 78 x 130 mms. bore and stroke (1240 c.c.). Both engines were supposed to develop about 18 h.p., and all the cars had cone clutches, 3-speed gear-boxes and propeller-shaft drive. In the race, however, the single cylinder, driven by Guyot, proved itself much faster than the 2-cylinder Delages which were handled by Thomas and Lucas. Guyot was soon engaged in a terrific duel with Naudin's Sizaire, in the course of which he covered a lap at 53.3 m.p.h., and finally finished first seven minutes ahead of the Sizaire, averaging 49.8 m.p.h. for 286.5 miles. The two twin cylinder Delages finished fifth and twelfth respectively, so that Delage had the satisfaction of seeing his team arrive complete.

For some time after this victory, Delage was fully occupied in consolidating his success, and it was not until 1911 that he returned to the Coupe des Voiturettes. By this time the rules had been considerably altered. The race was now for 4-cylinder cars only, of under 3 litres capacity, with a stroke-bore ratio not exceeding 2.1. Delage entered a team of 4 cars for this event, with bore and stroke of 80 x 149 mms., dimensions which were afterwards to become famous for "3-litres." Their valves were horizontal, and operated by rockers, and a distinctive Delage feature was the provision of five speeds with propellor shaft drive. The race was for 387 miles over a course near Boulogne, and the four Delages were driven by Ballot, Guyot, Thomas and Rigal. They soon showed themselves among the fastest cars on the course, and all the competition lay between Balot and Boillot on the Peugeot, the former finally winning at an average of 54.8 m.p.h. Rigal in the meantime had retired as a result of his transmission brake seizing, but Thomas and Guyot finished third and fourth, and thus secured another magnificent triumph for Delage.

GREAT RACING MARQUES—continued.



THE 1925 12-CYLINDER DELAGE WITH ALBERT DIVO AT THE WHEEL.

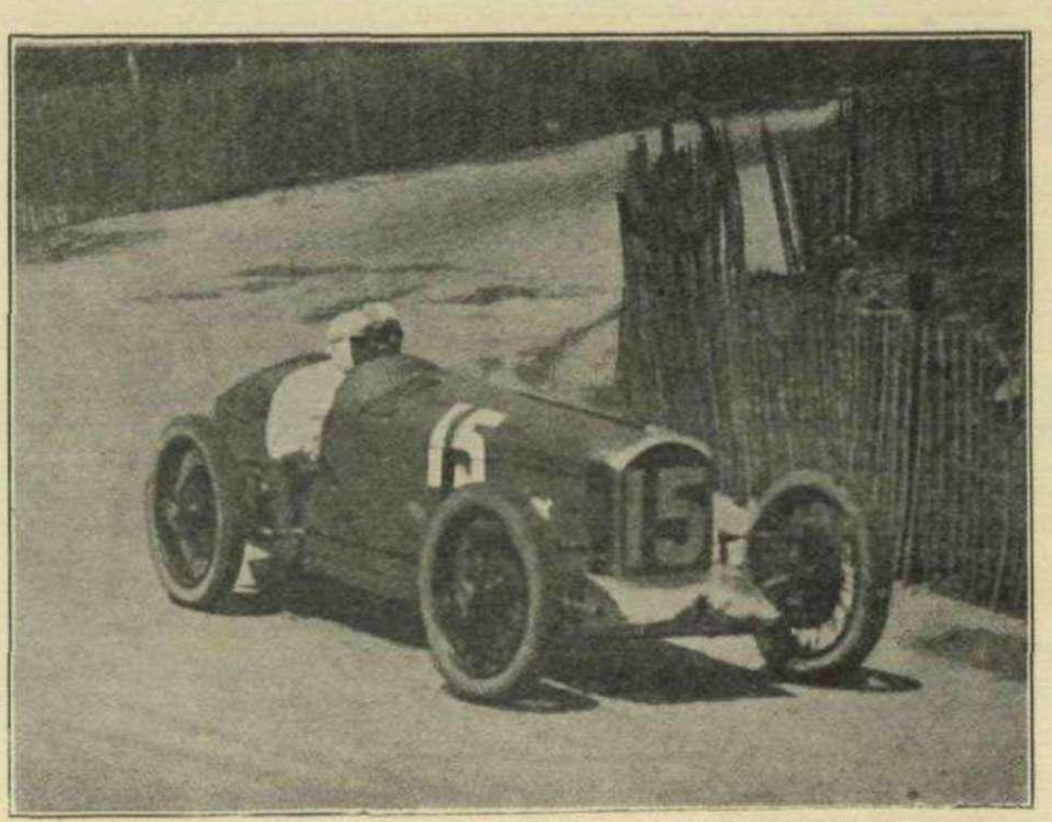
During 1912, Delage once more abstained from racing, and it was not until 1913 that he decided to re-enter the lists, this time in the French Grand Prix. That year the cars in the race were limited to a fuel consumption of approximately 14 m.p.g., but there were no limitations of engine size. Delage, therefore, decided to pin his faith to a comparatively large engine, and built a set of 4-cylinder machines for the race, with a bore and stroke of 105 x 180 mms. (6,234 c.c.) running up to 1,800 r.p.m., as against 3,000 r.p.m. attained by some of the engines in the race; and he retained his typical features of horizontal valves and a five speed gearbox. Two cars were entered for the race, with the old time Delage drivers Guyot and Ballot as drivers. They soon showed themselves among the fastest cars in the contest, and at the end of the tenth lap, Guyot on Delage II. had got the lead. He held it until the sixteenth, and then a tyre burst, far away from the pits. The mechanic leapt out before the car had stopped and the car passed over his leg. Guyot had to change the wheel by himself, then lift his injured companion into the car, and drive him round to the pits. This incident cost 18 minutes, and the race was lost to Delage. Guyot, however, managed to finish in fifth place, with Ballot on the other Delage fourth.

Though beaten in the French Grand Prix, the Delages had nevertheless proved themselves very fast, and in August they were able to take their revenge. The Grand Prix de France—as opposed to the Grand Prix de l'A.C.F.—was run that year at le Mans, and marked the return to racing of the great firm of Mercédès, which had been so much feared in earlier days. Three of the Grand Prix Delages started, while Duray joined Guyot and Ballot in the team. Ballot took the lead at the outset, and by the end of the fourth lap the three Delages were in the first three places. Four laps later, an exciting incident happened to Ballot. He stopped at his pit, and changed two wheels, and when he tried to get away again, the mechanic was unable to start the engine. A second man tried and failed; and then Léon Molon, who had been driving a Vinot which had broken down, seized the starting handle, put forth a mighty effort, and swung the engine into life. Ballot finished first with Guyot second, but two of the Mercédès managed to get past Duray, who finished fifth.

After this success, two of the Grand Prix Delages were shipped to America, and entered for the 1914 Indianapolis race, with Guyot and Thomas, who had handled one of the cars in the 1911 Voiturette race, as their drivers. The French cars dominated the Indianapolis 500 throughout, and in the end Thomas got home first at an average speed of 82.47 m.p.h., with Guyot on the other Delage third.

In 1914 the Grand Prix was for 4½-litre cars, with the result that Delage built an entirely new set of racers having as their novel features mechanically closed valves and front wheel brakes. The three cars were driven in the race by the same drivers as at le Mans in 1913, and proved themselves on a par with Peugeot, Mercédès and Sunbeam in the matter of speed. Duray proved himself the fastest by getting into third place on the first lap and staying there all the early part of the race. Finally however, he only finished eighth, while the other two cars did not complete the course.

The Delage which won the Indianapolis race in 1914. had been purchased by an American enthusiast just as



THE 12-CYLINDER DELAGE AT SPEED ON THE LYONS CIRCUIT.

GREAT RACING MARQUES—continued.

it was being put on the steamer to go back to France, and it was entered in the 1915 race. As, however, the limit of engine size for this race was now 300 cub. ins. (4.9 litres), the bore of the cylinders was decreased to 91 mms., making the capacity 4886 c.c. The car started in the hands of John de Palma, a brother of Ralph, and ran well for 147 laps, when the flywheel got loose on its shaft, and the car had to be withdrawn.

After the war was over, it was not until 1923 that Louis Delage decided to return to racing. Then, however, he decided to be really original, and to enter for the 2-litre French Grand Prix with a 12-cylinder engine, this being the smallest engine which had ever been built with this number of cylinders at that time. The Delage had a bore and stroke of 51.4 x 80 mms. (1992 c.c.), and developed 100 b.h.p. at about 5,000 r.p.m. As production began rather late only one car, driven by Réné Thomas, the old-time Delage driver, was entered. It soon showed itself to be among the leaders, but on the eighth lap a flying stone punctured the petrol tank, and it was put out of the race. Everyone received the impression, however, that more would be heard of the 2-litre Delage in the near future.

In the meantime Delage had produced another 12-cylinder racing car rather at the other end of the scale. The dimensions of this engine were 90 x 140 mms. (10,688 c.c.), with push-rod operated overhead valves. This car made its first public appearance at the Gaillon hill-climb of 1923, when in the hands of Réné Thomas it averaged 72.5 m.p.h. up the hill, thus making fastest time of the day. Incidentally the two next best times were also put up by the same driver on two sports 6-cylinder Delages at 65 m.p.h. and 62.8 m.p.h. In July, 1924, the big 12-cylinder was taken to Arpagon for an attack on the kilometre record, and succeeded in taking it at 143.24 m.p.h., only to lose it again to Eldridge and his big Fiat "Mephistophlees."

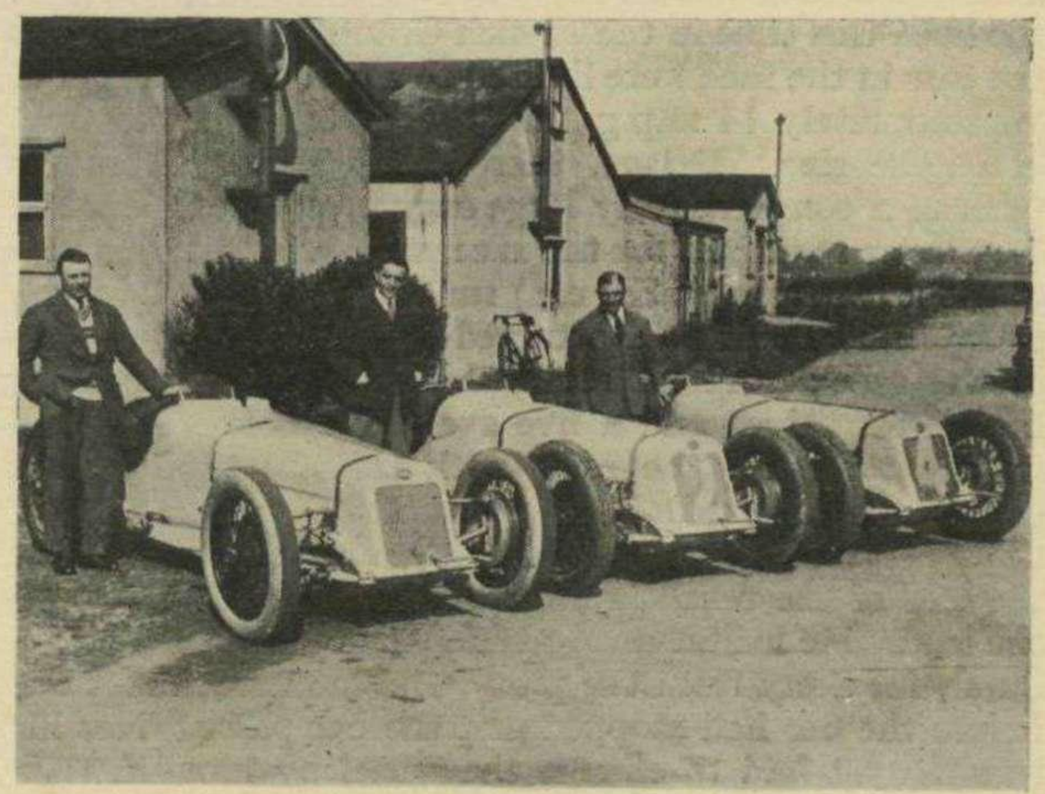
In spite of the fact that the single 12-cylinder Delage had proved itself very fast in the 1923 Grand Prix, its constructor decided to try comparative tests between it and two other engines, on e a four-cylinder and the other a supercharged eight-cylinder two-stroke built under Zoller patents. In the end, however, he came to the conclusion that an unsupercharged "twelve" would give the best results, and three cars of the same type which had been used in 1923 were therefore entered for the 1924 Grand Prix. These engines had dry-sump lubrication, a compression ratio of 7 to 1, and developed some 130 h.p., while transmission was by a 4-speed gearbox and an open propeller shaft.

The three cars were driven in the race at Lyons by Réné Thomas, Robert Benoist and Albert Divo, and while not so fast as the supercharged Italian and English cars, showed themselves nevertheless very dangerous by their regularity, and in the end Divo finished second, little over a minute after Campari on the winning Alfa-Romeo. Benoist was third and Thomas sixth, and thus the Delage team gained the honour of being the only one in the race to finish complete.

Four of the 2-litre cars were entered for the Grand Prix at San Sebastian later on in the year, and were driven by Thomas, Benoist, Divo and Morel. For this race Delage returned to his old principle of 5 speeds, and on the fourth lap Benoist got the lead. Both he and Thomas, however, were unable to finish the race, and Morel and Divo finished third and fourth.

The races of 1925 had taught that to compete successfully in limited capacity races, cars must be fitted with superchargers. For 1925, therefore, five new cars of the same type as before, but using forced induction, were built, and the 2-litre engine was now made to give nearly 200 h.p. on the bench, while superchargers were added to the four 1924 models, with correspondingly beneficial results.,

The first big race of the season was the Grand Prix d'Europe at Spa, and in this Thomas, Benoist and Torchy started on three of the 1924 racers, with Divo on the first of the 1925 models. A series of disasters, however, overtook the Delage team. Benoist was the first to retire with a leaky petrol tank, Torchy and Divo both went out after being unable to cure violent misfiring, while Thomas' car caught fire, and the driver having



THE ALL CONQUERING DELAGE TEAM PHOTOGRAPHED BEFORE THE R.A.C. 1927 GRAND PRIX.

burnt his hand in extinguishing it, had to retire from the race.

Their revenge, however, was not long delayed. For the 1925 French Grand Prix at Montlhèry, three of the new cars were entered, and were driven by Benoist, Divo and Wagner. Their chief rivals, as at Lyons were the Alfa-Romeos and for the first part of the race all the competition was between these two marques, until, on the twenty-first lap, Ascari on the leading Alfa-Romeo overturned and was killed, and his team-mates withdrew from the race. In the meantime Divo had retired with a broken supercharger, but Benoist promptly got the lead, and finished first, with Wagner second. Thus Louis Delage had won the French Grand Prix, an honour which had been attained by only two other French manufacturers.

After this success, four of the cars were entered for the Spanish Grand Prix at San Sebastian, and were driven by Thomas, Benoist, Divo and Torchy, and succeeded in gaining another great victory. Their win

GREAT RACING MARQUES—continued.



R. Benoist winning the European Grand Prix at Monza.

was marred however by the death of Torchy, who was killed by his car skidding into a tree, but Divo, Benoist and Thomas finished first, second and third and thus gained a grand slam for Delage.

Four 2-litre Delages were entered for the 1926 Targa Florio, and were driven by Thomas, Benoist, Divo and Count Masetti. On the first lap, however, the latter overturned at a corner and was killed ; and the rest of the Delage team withdrew from the race.

With 1926 came the introduction of the 1500 c.c. limit for the Grand Prix races, and Delage therefore built an entirely new set of racers with eight cylinders in line of 55.8 x 76 mms. bore and stroke, which attained 7,500 r.p.m. Transmission was by a 5-speed gearbox and an open propeller shaft. These cars were entered for the French Grand Prix, but were not ready in time, and they made their first public appearance in the European Grand Prix at San Sebastian. Three cars started with Benoist, Bourlier and Morel as their drivers, and soon showed that they had a considerably higher speed than their only rivals the Bugattis. The drivers, however, suffered terribly from the heat and fumes of the exhaust, and although they were relieved by Wagner and Senéchal, the three Delages lost so much time standing at the pits while their drivers were being treated in the hospital, that they could only finish second, fourth and sixth.

They were, however, amply revenged in the British Grand Prix, in which three cars were entered and were driven at various times by Benoist, Wagner, Senéchal and Dubonnet, and in which two of them finished first and third. Their exhaust systems, however, still gave considerable trouble to their drivers, and so for the 1927 season the exhaust pipes were moved over to the right hand side of the car.

The end of the present year is a fitting moment at which to sketch the racing history of Delage ; for during 1927 these cars have gained more honours than any one make has perhaps done in a year in the whole history of motor racing. The French Grand Prix saw three Delages start and finish in the first three places ; and this is the first time in the history of the race when one make has won a 100% victory, and the name of Delage is now added to those of Fiat, Mercédès and Peugeot as twice winner of this classic event. As well as this Delage has gained first and third places in the Spanish Grand Prix ; a single car starting without team-mates has won the European Grand Prix ; and a 100% win has also been recorded in the British Grand Prix, which so far has been won by no one but Delage. Out of the five championship races, Delage has won all four for which he entered, and the competition for the Championship has therefore not been keen. The history of 1927 is the history of the triumph of Delage.

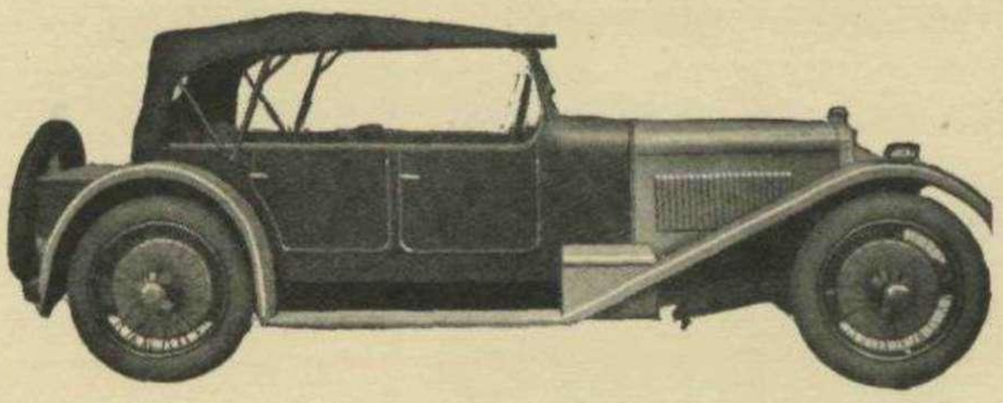
ROAD TRANSPORT LIGHTING BILL.

Public Safety Flouted.

The Automobile Association has written to all A.A. members who are Members of Parliament, drawing attention to the present situation in relation to the Road Transport Lighting Bill and urging their personal consideration of the public safety aspect.

It is pointed out that a fundamental principle of the Bill is two front lights for all double track vehicles, but that the whole Bill is being held up owing to the acceptance of an amendment which would permit all horse drawn vehicles engaged in agricultural operations to carry only one front light.

The Association stresses the fact *that the amendment was never discussed on its merits,* but accepted purely on the ground that it is usual to give concessions to agriculture, the result being that human life is to be endangered for the economy of one oil lamp.



THE REAPPEARANCE OF A FAMOUS BRITISH SPORTS CAR.

The New Aston-Martin.

ONE frequently hears it asserted that there is at least one class of sports car, which had its foundation in this country, and in which England has always led, namely the 1500 c.c. class machine; and it is equally certain that one of the cars which has done most to build up this reputation is the Aston-Martin.

For the past year or so, the production of these cars has been in abeyance, and it was therefore with pleasure that enthusiasts realised at this Olympia Show, that their makers had only decided to "se reculer pour mieux sauter," and that an entirely new Aston-Martin was now going to be offered to the sports car enthusiast.

We recently had the pleasure of being shown over the new factory at Feltham, Middlesex, where these cars are now made, by Mr. J. R. Benson, who is one of the designers of the new model. The new works are very much more commodious than the old Aston-Martin premises in Kensington, and make possible the production of the car on a sufficiently large scale to bring its price within the scope of a greater number of buyers than formerly, while each car still obtains that individual attention which is so essential for a machine designed for a discriminating class of motorist as opposed to those who simply regard a car as a convenient means of locomotion.

As the car has been shown at Olympia the main points of its specification are probably known to most of our readers, and we need, therefore, only point out some features which were shown us, and which may have escaped attention. The new model has a 4-cylinder engine of 69 x 99 mms. bore and stroke, giving a capacity of 1481 c.c. Unlike the old engine, which obtained its remarkable efficiency with the use of side valves, the new one has its valves overhead, operated by a single chain-driven overhead camshaft and rockers. The valves, of which there are two per cylinder, are inclined in relation to the axis of the cylinder, but have their stems parallel, and are mounted in the same latitudinal plane with regard to the engine. The idea of this somewhat unusual arrangement is to combine the advantages of overhead valves with those of the wedge-shaped Ricardo-type cylinder head, with its turbulance effects.

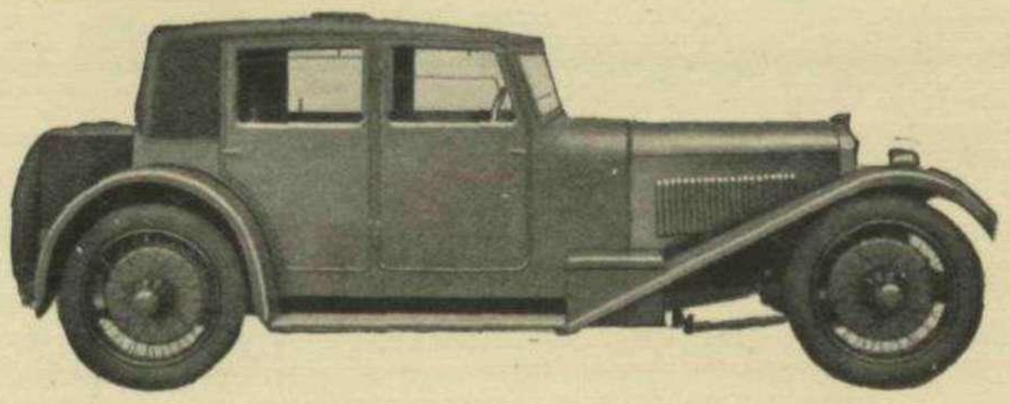
The cooling water is circulated by a pump, but actually it only impells water to the cylinder head, while that in the jacket round the cylinders circulates by thermo-syphon. By this means the block can be kept at a high temperature necessary for efficiency, while the head is kept cooler to avoid distortion, especially round the valves.

The four-speed gear-box is not built up with the engine as is usual nowadays, but is a separate unit. Comparative tests having been made with the two arrangements, it was found that the separate box could be made a much nicer machining job, hence this feature of the design. The propeller shaft is enclosed in a torque tube, and as a somewhat unusual point, a worm final drive is employed, which allows the major components of the chassis to be brought considerably lower than if a bevel were used.

The whole machine is in fact beautifully low, the frame being sharply unswept over both the front and back axles, broad in the middle and considerably inswept at the front to allow for a good steering lock.

The steering-gear of the car is another interesting feature. The box is mounted high up on the dashboard, so that the steering column is at an acute angle to the horizontal, and the steering wheel—which is of the spring-spoked type, is nearly vertical. From the box, the rotary movement is conveyed to a vertical shaft, which terminates at its lower end in another arm at right angles to it, which moves in a horizontal arc, instead of a vertical one, as is the case with an ordinary droparm, and which in turn is attached to the push and pull rod.

Having come to the conclusion that the standard Aston-Martin is low, one realises that this term is merely relative when one compares it to the sports model beside which it appears quite high. The sports has practically the same specification as the standard model, but its chassis passes underneath the back axle, and has its semi-elliptic springs mounted above it. The standard chassis has the familiar Aston-Martin radiator, but as the whole sports is so low, a V-radiator is employed for greater cooling area, which has allowed the filling of a radiator cap of delightfully enormous diameter. The chassis is filled as standard with a three-seater body which has been designed to conform with the rules of the le Mans 24-hour race and similar events, and represents a most attractive example of what may be termed the "touring-racer" of to-day.



THE EXTREMELY FASCINATING ASTON-MARTIN SALOON.

Tabulated Results of the Great Races of 1927.

Date	Event	Place	First	Second	Third	Distance in Miles	Winner's Time	Winner's Average in m.p.h.
Mar. 6	Grand Prix de Tripoli	Tripoli	Materassi (Bugatti)	Balestrero (Bugatti)	Maserati (Maserati)	262	3h. 10m. 30s.	82.5
Mar. 13	Grand Prix de L'Ouverture	Montlhèry	Benoist (Delage)	Lescot (Bugatti)	Eyston (Bugatti)	155	2h. 2m. 0⅕s.	76.3
Mar. 26 & 27	Brescia 1,000 Miles Race	Brescia-Rome -Brescia	Monoia and Morandi (O.M.)	T. Danieli and Balestrero (O.M.)	M. Danieli and Rosa (O.M.)	1,000	21h. 4m. 48⅘s.	48.27
April 24	Targa Florio	Sicily	Materassi (Bugatti)	Conelli (Bugatti)	A. Maserati (Maserati)	335.5	7h. 35m. 55s.	44.15
May 7	Six-Hour Race	Brooklands	Duller (Sunbeam)	Davis (Alvis)	H & C. Birkin (Bentley)	386	6 hours	64.3
May 30	Indianapolis 500	Indianapolis	Souders (Duesenberg)	De Vore (Miller)	Gullota (Miller)	500	5h. 7m. 33s.	97.45
June 4 & 5	Bol D'Or	Fontainebleu	Mme. Morris (B.N.C.)	Bouriat (E.H.P.)	——	1,006.27	24 hours	41.9
June 18 & 19	Grand Prix D'Endurance	Le Mans	Benjafield and Davis (Bentley)	De Victor and Hasley (Salmson)	Casse and Rousseau (Salmson)	1,472.6	24 hours	61.36
June 18 & 19	Rudge Whitworth Cup	Le Mans	Casse and Rousseau (Salmson)	Bouriat and Bussienne (E.H.P.)	Marandel & Le Cureil (S.A.R.A.)	1,244.1	24 hours	51.84
July 2	Coupe De La Commission Sportive	Montlhery	Boillot (Peugeot)	Doré (Corre La Licorne)	Goux (Bugatti)	246.4	3h. 53m. 20⅕s.	63.89
July 2	Free-for-All Race of the A.C.F.	Montlhery	Divo (Talbot)	Chiron (Bugatti)	Eyston (Bugatti)	77	1h. 2m. 20⅖s.	74.69
July 3	French Grand Prix	Montlhery	Benoist (Delage)	Bourlier (Delage)	Morel (Delage)	373	4h. 45m. 41⅕s.	77.24
July 9 & 10	Belgian Grand Prix	Spa	Caerels & Sené-Chal (Excelsior)	Linnes (Excelsior)	——	1,368	24 hours	57
July 17	German Grand Prix	Nurburg Ring	Merz (Mercédes)	Werner (Mercédes)	Walb (Mercédes)	318	4h. 59m. 35⅖s.	63.75
July 17	Florio Cup	St. Brieuc	Laly (Aries)	Wagner (Peugeot)	Rigal (Peugeot)	250	4h. 11m. 29s.	60
July 25	San Sebastian Grand Prix	San Sebastian	Materassi (Bugatti)	Dubonnet (Bugatti)	Conelli (Bugatti)	430	5h. 31m. 12s.	78
July 28	Spanish Touring Grand Prix	San Sebastian	Rost & Lehoux (Georges Irat)	Rigal & Serre (Peugeot)	Brisson & Bloch (Lorraine-Dietrich)	748.1	12 hours	62.3
July 31	Spanish Grand Prix	San Sebastian	Benoist (Delage)	Conelli (Bugatti)	Bourlier (Delage)	430	5h. 20m. 45s.	80.5
Aug. 13	J.C.C. Sports Car Race	Brooklands	Harvey (Alvis)	Green (Alvis)	Sutton (Lea-Francis)		4 hours	63.2
Aug. 14 & 15	Paris Grand Prix	Montlhery	Clement-Duller (Bentley)	Doré-Pousse (B.N.C.)	Gros-Bartelemy (Fasto)	1,247.7	24 hours	51.98
Sept. 4	European Grand Prix	Monza	Benoist (Delage)	Morandi (O.M.)	Kreis (Cooper-Marmon)	250	3h. 26m. 59⅘s.	90.04
Sept. 4	Grand Prix de Milan	Monza	Bordino (Fiat)	Campari (Alfa-Romeo)	Maggi (Bugatti)	31⅓ (Final)	0h. 19m. 42⅖s.	94.57
Sept. 10	Grand Prix des Voitures Legeres	Boulogne	Campbell (Bugatti)	Sabipa (Bugatti)	Eyston (Bugatti)	278.6	4h. 8m. 41⅕s.	67.2
Sept. 10	Grand Prix Des Voiturettes	Boulogne	Duray (Amilcar)	Casse (Salmson)	Goutte (Salmson)	278.6	4h. 24m. 39⅗s.	63.1
Sept. 11	Boillot Cup Race	Boulogne	Laly (Aries)	Newman (Salmson)	Brisson (Lorraine Dietrich)	70.3 (Final)	1h. 8m. 45s.	68.76
Oct. 1	British Grand Prix	Brooklands	Benoist (Delage)	Bourlier (Delage)	Divo (Delage)	325	3h. 49m. 14⅖s.	85.59
Oct. 15	200 Miles Race 1500 c.c.	Brooklands	Campbell (Bugatti)	Purdy (Thomas Special)	Dykes (Alvis)	200	2h. 38m. 13⅖s.	76.62
Oct. 15	200 Miles Race 1100 c.c.	Brooklands	Morel (Amilcar)	Balls (Amilcar)	Martin (Amilcar)	200	2h. 41m. 10s.	75.17
Oct. 15	200 Miles Race 750 c.c.	Brooklands	Chase (Austin)	Wilson (Austin)	Boyd-Carpenter (Austin)	200 (173)	3h. 9m. 56s.	58.17

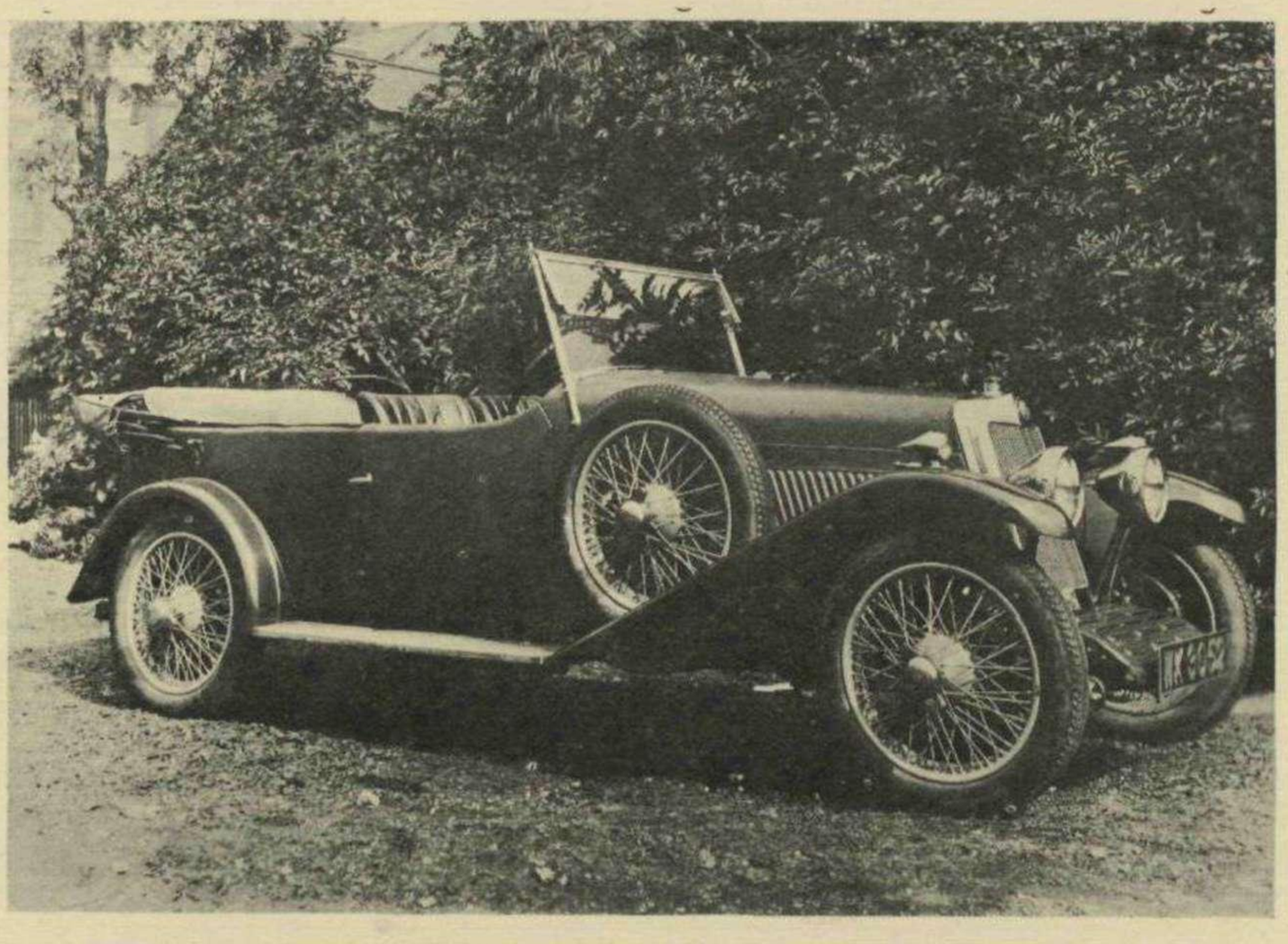
SPORTING CARS EVOLVED BY RACING.

By HAL.

A FAVOURITE argument used by the racing enthusiast, to justify his sport, is that " the racing car of to-day is the touring car of to-morrow " ; so threadbare has this phrase become that it is now almost a motoring proverb and is in danger of becoming a platitude.

Without setting myself up in opposition to the great minds who expound this theory, I would suggest that though true, it is a trifle incomplete, in that it deals only with the present and the future, whereas a really thorough " saw " should deal with the past as well.

My motoring proverb therefore would read " the racing car of yesterday is the sports car of to-day, and the sports car of to-day is the touring car of tomorrow."



THE " HYPER-SPORTS " SUPERCHARGED LEA-FRANCIS.

The truth of this cannot be confuted, for the difference between a genuine racer of recent date and a touring car of the same make is too great to be dismissed in one fell swoop ; if, however, a stepping stone is introduced, in the form of an up-to-date sports model, the change becomes less abrupt and all the more credible as an argument for the original theory. Bearing this theory in mind the study of a few of the more important sports models, developed on racing lines, will prove interesting, exemplifying as they do, the direction of thought along which the cleverest men in the industry are working. A comprehensive study of the question, however, is a far wider affair than would at first appear, for such matters as national temperament and legislation are involved, and the only satisfactory method is to deal with one country at a time.

Taking Great Britain first it must be remembered that we are a nation of shopkeepers—generally speaking, utility comes before beauty (both of form and performance), so that out of a large total of motorcars, a comparatively small percentage is of the " sporting " variety.

The 1927 Olympia Motor Show, however, disclosed a distinct tendency for a revival of interest in real " pleasure motoring," as opposed to the use of a motor for the better enjoyment of other pastimes. Of recent years the Great International Races have become rather highly specialised events, demanding little more than high speed reliability on fairly straightforward courses ; for numerous reasons the British industry has ceased to contest these events, such racing as it has supported being mainly races for standard cars, and long distance road affairs which allow or demand the use of models approximating to the standard production. In connection with these events three names at once leap into the mind, namely Alvis, Bentley and Sunbeam, each in its respective class has been deservedly successful and each has employed cars so nearly approaching the standard product in design and performance that the prospective owner knows exactly what to expect from one of these cars.

The Alvis is perhaps the most popular 1500 c.c. sports model in this country, its general layout has successfully withstood the test of time, and if not of ultra modern design it continues to justify its existence, while the firm's experimental activities show that when the time

SPORTING CARS EVOLVED BY RACING.—continued.

comes for revolutionary principles to be employed, Alvis will still be to the fore.

Bentley is another post war firm which has worked on sound up-to-date lines without producing anything startling.

Being a comparatively large car the Bentley has escaped the feverish turmoil of small car design with its multi-cylinders and blowers and fantastic engine revolutions. The builders have kept in their minds road work—nothing but road work, and by concentrating on one design have produced a car which can hold its own with any continental or other rival in the three or five litre class.

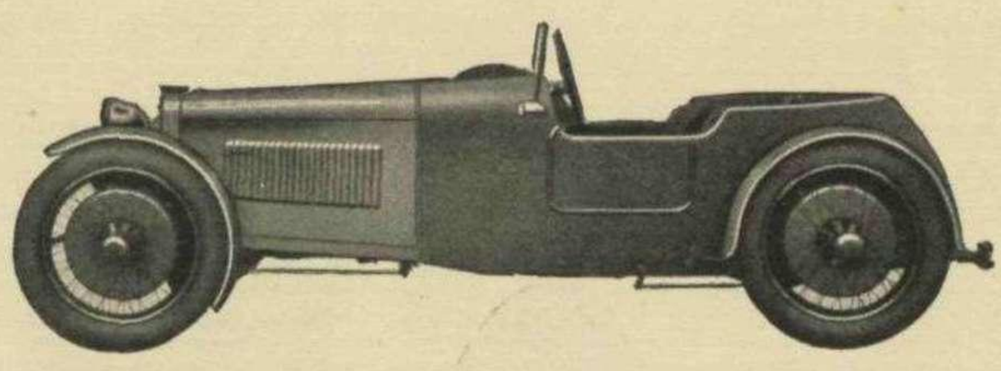
Sunbeam too have one model which owes its existence to racing purely—though the designer's racing experience appears in numerous features of the other models. The three litre engine is one with which the firm have been particularly successful, even in genuine Grand Prix events, while the production 3-litre (described fully in the last issue of *Motor Sport*) has shown that, given the opportunity, it could distinguish itself in open competition with the world's best cars.

The firm of Aston-Martin have always believed in racing and have set themselves up as the champions of " pleasure motoring." During the last few years their activities have been in abeyance, but those with long memories will recall that the initials A. M. were frequently in the limelight at one time.

Now that they have re-emerged from their retirement with even more attractive models (described elsewhere in this issue), Aston-Martins are determined to uphold British prestige in all standard car races—may they prosper !

Turning to those firms which have not quite such a wide experience of racing, but which are just beginning to realise its importance, we find the names of Lea Francis and Riley most prominent.

Lea Francis are pioneers in that they are the first to market a supercharged model in this country. This car made its debut in sensational fashion at Boulogne, in the hands of Kaye Don, when it proved that it will



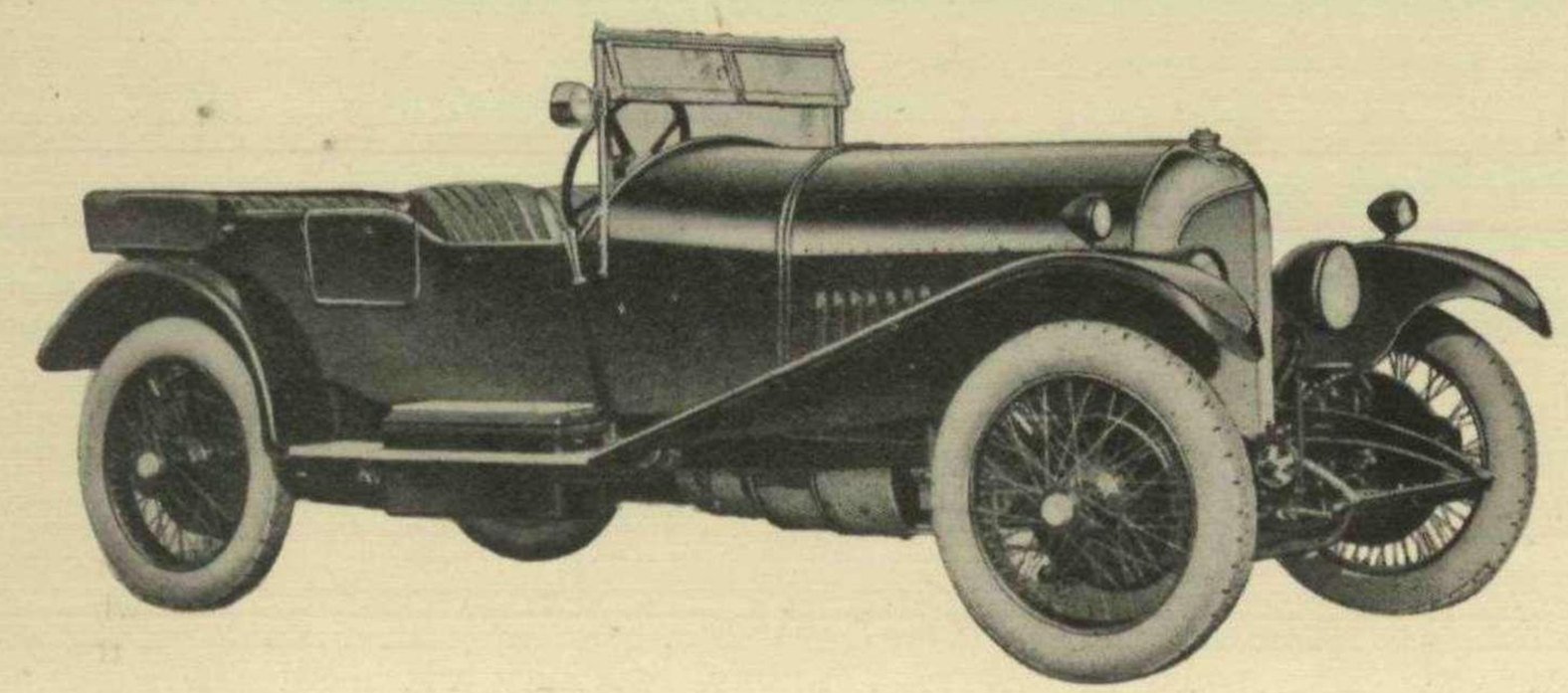
THE SPORTS ASTON MARTIN.

indeed be a force to be reckoned with in 1928. Apart from the supercharger, the influence of racing experience is betrayed by the low build of the whole chassis, the highly efficient engine design, and the powerful braking system ; the comparison between the hyper-sports model and the standard models is very interesting.

Riley are even " newer-comers " to the racing world and have tapped a potential market in the 1100 c.c. class which should have almost unlimited possibilities, in view of the successful French invasion in this class. The 1100 c.c. racing model and the slightly tamer sports models aroused great excitement at Olympia while even the saloon models are capable of a most exhilarating performance.

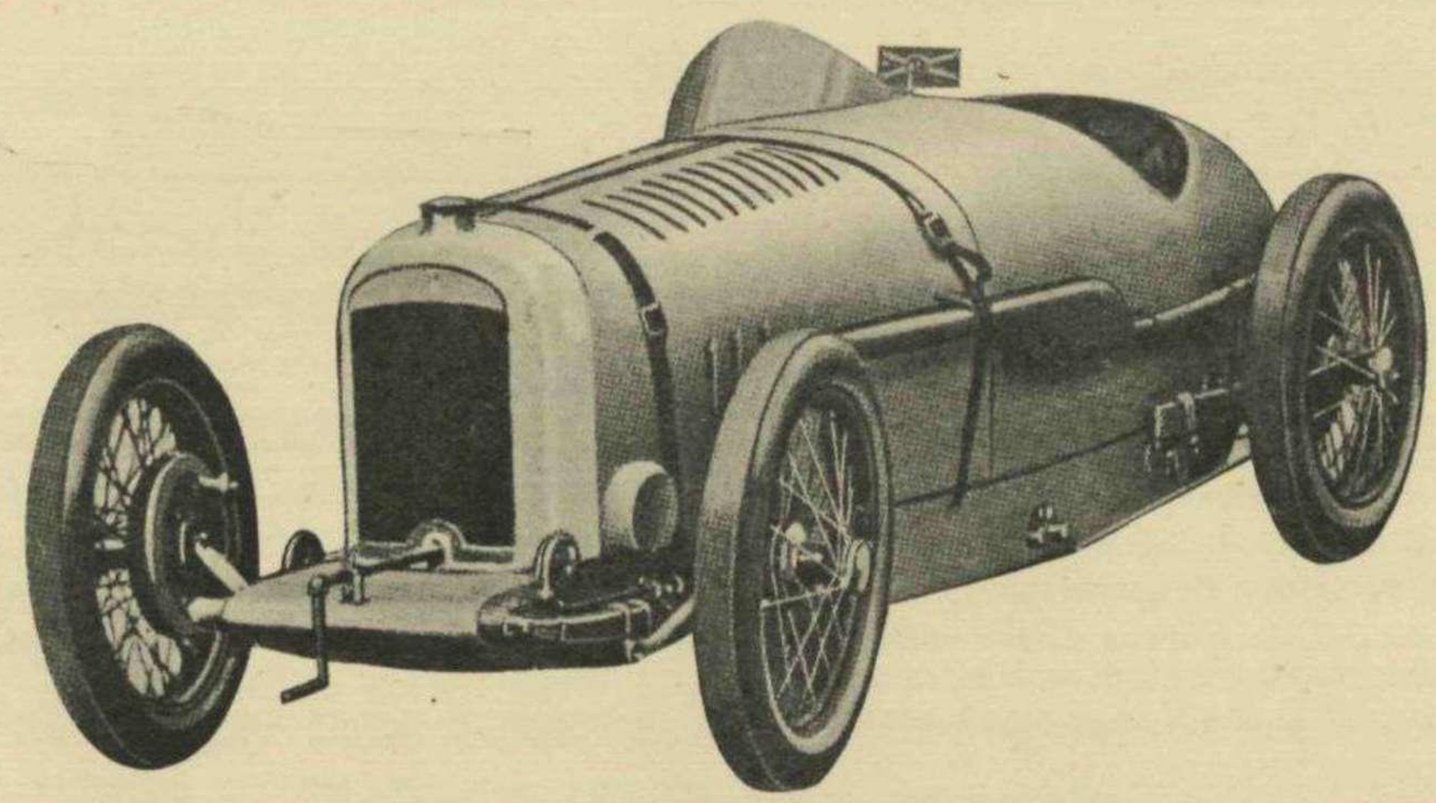
Incidently a *non*-supercharged racing model has lapped Brooklands at 99 m.p.h., while the chassis layout seems up to Grand Prix standard,—perhaps Britain is waking up at last !

Last but not least in our discussion is the firm of Frazer-Nash, which has always ploughed a lonely furrow, in spite of numerous vicissitudes and hardships. There have been times when the Frazer-Nash was the only really sporting light car made in this country and it has a remarkable list of successes to its credit in all types of event. Its light weight and efficient (though unconventional) transmission enable its comparatively normal engine to work wonders, and to give a road performance only equalled by the most expensive speed models.



THE 3-LITRE SPEED MODEL BENTLEY.

SPORTING CARS EVOLVED BY RACING—continued.



THE 6-CYLINDER SUPERCHARGED AMILCAR.

Racing experience is strongly evident in the latest " slug" model which will be obtainable in supercharged form, while nothing but fast road work can account for the superlative steering and stability of these cars.

Let us now turn to France—an excitable Latin race to whom speed is a god. We find that nearly all French cars, with the exception of the basest of utility vehicles, are what we should call sports models. At both ends of the price scale there are fairly sedate vehicles, but in the medium class, as exemplified by Panhard, Voisin, Delage, etc., sports models, saloon or otherwise, are predominant. The ordinary English type touring car is much rarer, while the continental idea of a " type sport " is something considerably more " sporting " than a British sports car. If the Frenchman is out for speed, mudguards, hoods and windscreens are dispensed with, in fact a real enthusiast may often be seen on a bare chassis equipped with a couple of wicker bucket seats. However, taking the medium size car first we find racing has not influenced standard engine design to any great extent ; chassis, transmission and braking systems have been brought to a high state of perfection by such racing as has been done, but the connection between the successful 1500 c.c. 8-cylinder Delage and the most sporting production Delage is very slender ; Panhard, Voisin and Renault have developed their engines by track work, while Peugeot, Aries and Lorraine-Dietrich have all reaped general benefit from road racing, so that their cars rank with some of the best British makes.

By far the most interesting movement in the French industry is to be found in the smaller classes, which border on the genuine racing types—for instance Salmson, Amilcar and Bugatti.

Salmson and Amilcar as the leaders of the 1100 c.c. class, are deservedly popular both in their native land and in this country, and much of their success is undoubtedly due to the healthy competition existing between them in all the big races.

Salmson market a model which is to all intents and purposes the same as their own racing cars ; it may be had with or without supercharger and is of the 4-cylinder type. It has long been known that the firm have been experimenting with an 8-cylinder design which will doubtless appear in due course when the earlier model becomes outclassed.

One glance at a Grand Sport Amilcar is sufficient to show how racing has influenced the chassis design. For sheer roadworthiness and safety at any speed of which the car is capable it would be hard to beat, while the new 6-cylinder supercharged model—almost identical with the invincible racing machines, combines these virtues with a four speed gearbox and an engine capable of over 100 m.p.h.

Bugatti is in a class quite by himself ; his cars are first and foremost racing cars, capable of a creditable performance in competition with the most highly specialised racers in the world. Such is their design, however, that they are not at all unsuited to fast touring conditions, and they are to be found fitted with all styles of bodywork as well as the regulation two seater. 1500 c.c., 2000 c.c., 2300 c.c. and 3000 c.c. models are marketed, all with the same design of 8-cylinder engine, except the 1500 c.c. model which may be had with a 4-cylinder engine at a quite competitive price. Superchargers can be fitted to any model and readers will probably remember a really " naughty " 2300 c.c. 4-seater so fitted at Olympia, capable of about 110 m.p.h.

Motoring conditions in Italy and Austria have tended to develope a distinct type of sports car, which probably does not owe very much to actual racing. Extremely hilly country, however, demands great engine power and superlative braking—both features which are found in such cars as the O.M., Lancia, Alfa Romeo in Italy and in the Austro Daimler and Steyr in Austria.

Fiat, O.M. and Alfa Romeo have raced and experimented fairly extensively since the war and no doubt improved their standard models thereby, though only the last two now market anything approaching a sporting car.

However, Italian cars enjoy an enviable reputation for road holding, reliability and speed, the secret of

SPORTING CARS EVOLVED BY RACING—continued.

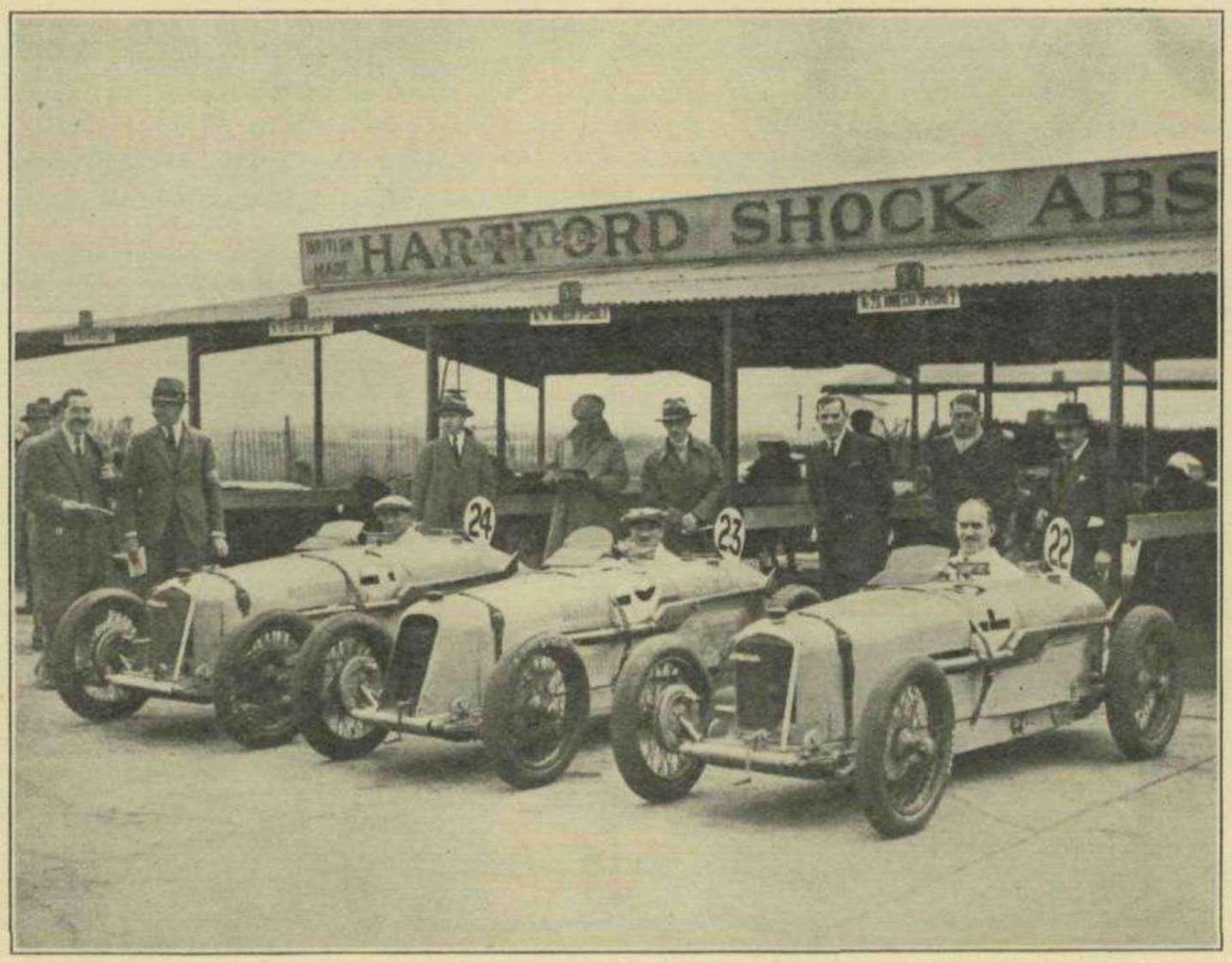
which features is only found out in the hard school of racing.

The position in Germany is somewhat difficult as the country is naturally passing through a rather disturbed period ; however the Mercédès (now Daimler-Mercédès-Benz) was always a name to conjure with in the racing world and to-day the firm produce one of the finest cars in the world. German thoroughness coupled with racing experience second to none have resulted in a car which is alike a tourer or a racer at will. True the engine is on the large side but even so is by no means inefficient and is capable of holding its own in " free for all events." The 1928 supercharged 36-200 h.p. model bears numerous testimonies to the influence of racing.

So far as sports cars are concerned, America reveals practically nothing ; there are several large cars capable of fairly high speeds but insufficient enthusiasm for racing has caused the latter to become an even more specialised affair than it is in Europe. One car stands out as showing signs of being designed with a view to racing conditions—namely, the Stutz. Again this is a fairly large engine, but the chassis is extremely attractive and bears the slogan " safety "—a feature which racing does much to develop. Incidently it is not surprising that in one of the few " stock car " races held in the U.S.A. Stutz swept the board and showed itself capable of a reliable performance at 90 m.p.h. over several hundreds of miles.

With regard to the general tendency of sports car design, the whole question of the future seems to depend on the supercharger. Recent International Racing rules has restricted engine size and resulted in multi cylinder designs with forced induction. Had these rules remained in force it is reasonable to suppose that these features would have been incorporated in standard sports cars and eventually in touring cars. Now the restriction of engine sizes has been removed, and the battle of the types will be waged afresh, both in International competition and in the open market. Both types have their advantages and adherents, who are convinced that their theories are right.

It must be remembered, however, that in every branch of industry and civilization the tendency is towards greater efficiency from any given unit, rather than towards a multiplication of the given unit ; it seems probable therefore that the small high efficiency engine will eventually triumph over its less efficient and larger rival, but this, only time will show. Further improvements in transmission, suspension and streamlining are but a few of the problems continually occurring in the automobile world and all will be answered in the course of time, but it is quite certain that any future developments will be definitely accelerated by racing experience.



THE AMILCAR TEAM WHICH PERFORMED SO CREDITABLY IN THE J.C.C. 200 MILE RACE, PHOTOGRAPHED BEFORE THE EVENT. L. TO R., C. MARTIN, A. MOREL AND VERNON BALLS.

FAMOUS FRENCH

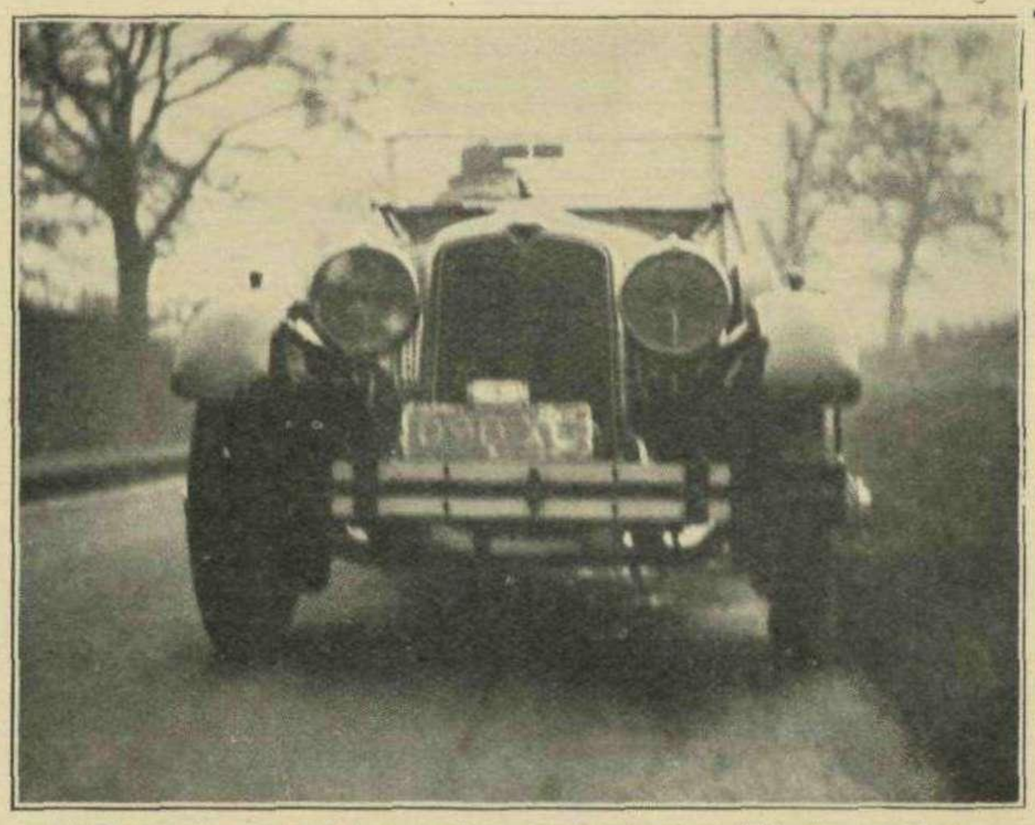


ROBERT BENOIST ON THE 1,500 C.C. DELAGE IN THE BRITISH GRAND PRIX. BOTH CAR AND DRIVER HAVE PROVED THEMSELVES CHAMPIONS OF THE WORLD FOR 1927.

RACING CARS



During 1927 Bugatti has proved second only to Delage throughout the world. These cars have many wins to their credit, including the Targa Florio (depicted above), incidently making the third consecutive Bugatti victory in this event.



THE IMPOSING FRONT VIEW OF THE NEW SAFETY STUTZ.

SPORTING CARS ON TEST:
THE SAFETY STUTZ.

By The Rook.

TO the average sporting motorist the mention of an American car conjures up visions of a large, cheap motorcar with a huge and very woolly motor, summed up in the words of a certain cynic as " a lot of iron for your money."

We must also admit that, though we had a considerable respect for the American car, for certain sorts of motoring, we had not previously even remotely connected with the U.S.A. the idea of a genuine fast motor, as sought after by the real enthusiast.

It was, therefore, without any great expectations that we set off for a day in a Stutz, kindly supplied for the purpose by Warwick Wright, Ltd., to see how its performance compared with its undoubtedly magnificent appearance.

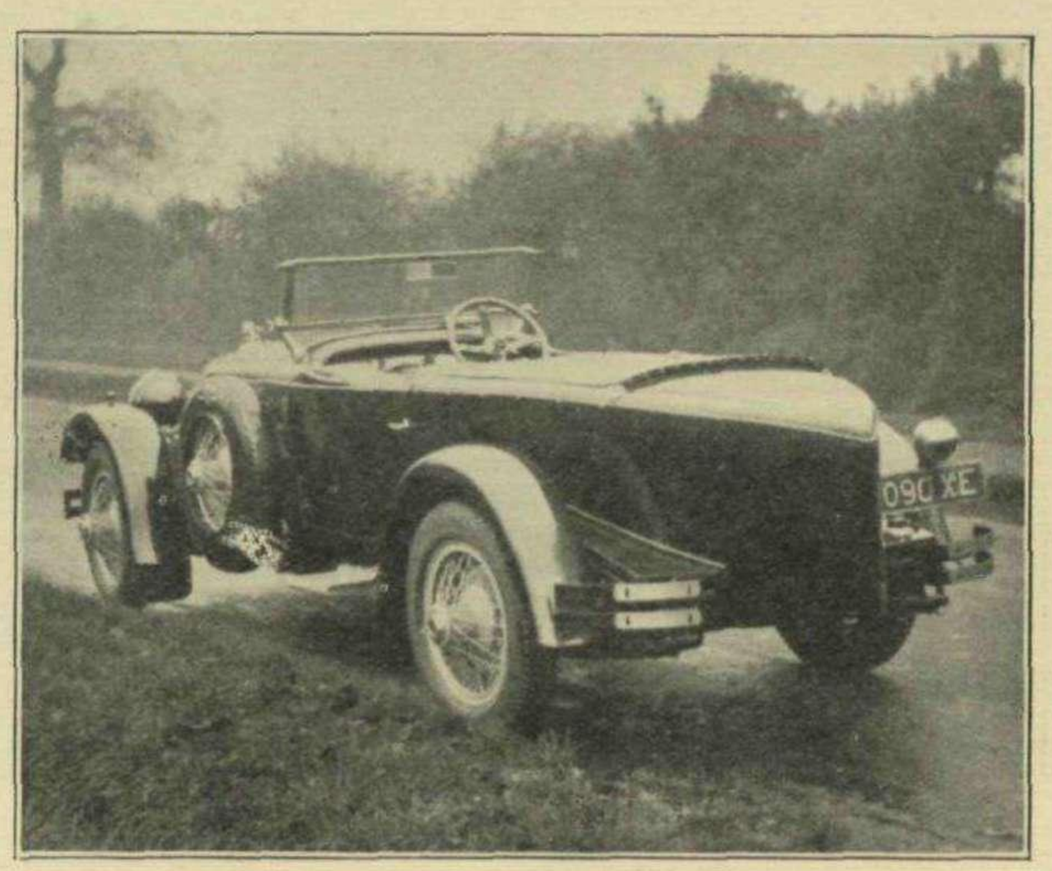
The first impression we gained was that never has any car been so aptly named as the Safety Stutz. Immediately on taking over the car we felt absolutely at home, so perfectly balanced is every feature of the control. Sponsors of the light car always hold that one of its greatest assets is the high average speed that can be made through traffic as a result of its small size and ease of control. However, after driving the Stutz, we very much doubt if any small car could put up an equal average through town, and, if it did, it would certainly not be with an equal degree of safety, both from accident and from the unwelcome attentions of the representatives of the Law.

Control is so positive and the steering so light that all opportunities can be instantly seized and a speed of 40 m.p.h. or so is attained so quickly and with such a complete absence of fuss, that this sort of pace can be indulged in through traffic conditions which would make it really dangerous on most cars. The brakes are hydraulically operated, and they are definitely the best brakes that we have ever tried. We have used some which will apply full power with slightly less effort, and so give the impression of being more powerful, but these have usually suffered from the effect of being inclined to come on with a jerk and of requiring a certain delicacy of application to get smooth braking. In this case, however, the control was so graduated that without any care at all we could obtain just the stopping power required for the occasion.

When driving normally, a gentle pressure on the pedal produced instant and smooth response and braking was absolutely proportional to the pressure applied, up to a point when the passengers were deposited on the floor by the fierce deceleration, though even this did not produce a skid.

So far, although we were convinced enough that we were in a very delightful machine, we had not had any proof that it was a real 100% fast motor as opposed to a pleasant town carriage ; so we proceeded out of London by way of one of the arterial roads until we came to a section which was free of cross roads and other obstructions, where, in spite of the fact that the speedometer showed less than 600 miles and the car was, therefore, not run in, we depressed the loud pedal and kept it there. The response was immediate and from a pleasant cruising speed of 55-60 miles per hour the car jumped to 80 and then more gradually to 85-87, which speed it held on the level, and although on a slightly falling gradient this was improved upon, the figures above may be fairly taken to represent the normal maximum unaided by gravity or the winds that blow.

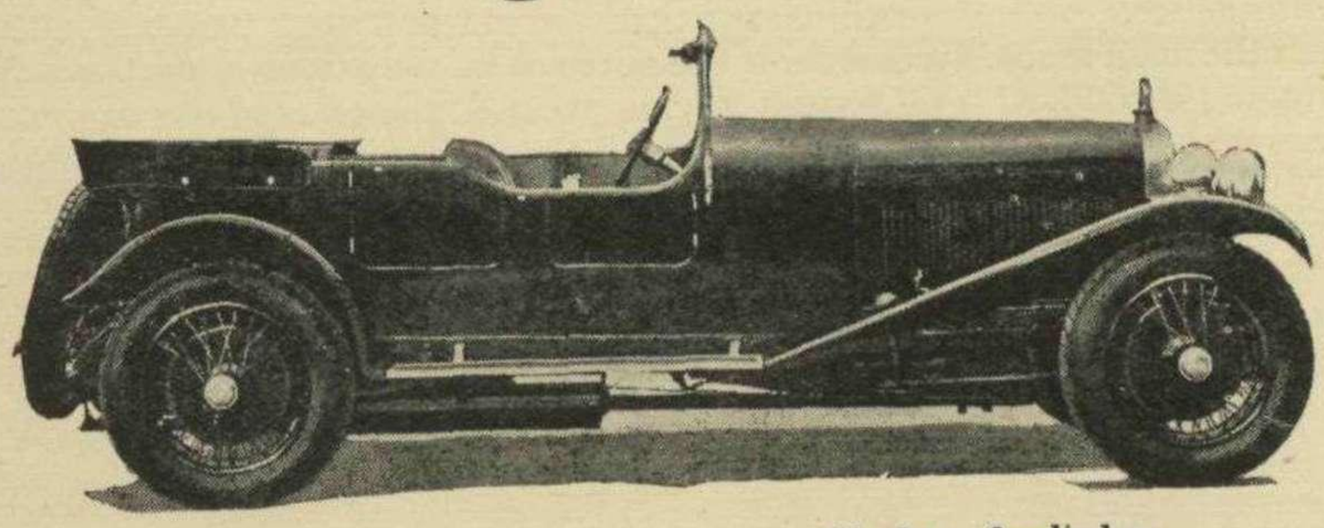
In view of the fact that the car was, as mentioned above, a new one and not even a demonstration car, the speed obtained was distinctly creditable. The carburettor setting was the standard fitted by the makers, and



THE GRACEFUL AND SPEEDY LINES OF THE SPORTS BODY.

SPORTS DELAGE MODELS

The Supreme Sports Car



21 h.p. 6-cylinder Sports with Vanden Plas 4-Seater Body,

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Winner of the World's Championship, 1927, the Delage is recognised as the premier car in the world of motor sport. Its speed, silence and flexibility are the result of an amazingly successful experience in road and track racing. In the 1928 Sports Models these qualities are allied with luxurious comfort and absolute safety.

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R.A.C. GRAND PRIX
1st, 2nd and 3rd.

GRAND PRIX OF FRANCE
1st, 2nd and 3rd.

GRAND PRIX OF SPAIN
1st and 3rd.

GRAND PRIX OF EUROPE
1st.
(Only one Delage entered).

See the complete Delage range at our showrooms. Wide variety of body styles. Trial run over any route you choose. The whole resources of our organisation are devoted to the needs of Delage owners. We are authorised Delage Agents, our works are staffed by Delage experts, and we maintain a complete after-sales service based on a thorough knowledge of the car.

SPORTS MODELS	14 h.p.	21 h.p.
Bare Chassis	£420	£590
Open Tourer, 4-seater standard body ...	£585	£750
Saloon, 4-seater standard body ...	£640	£810

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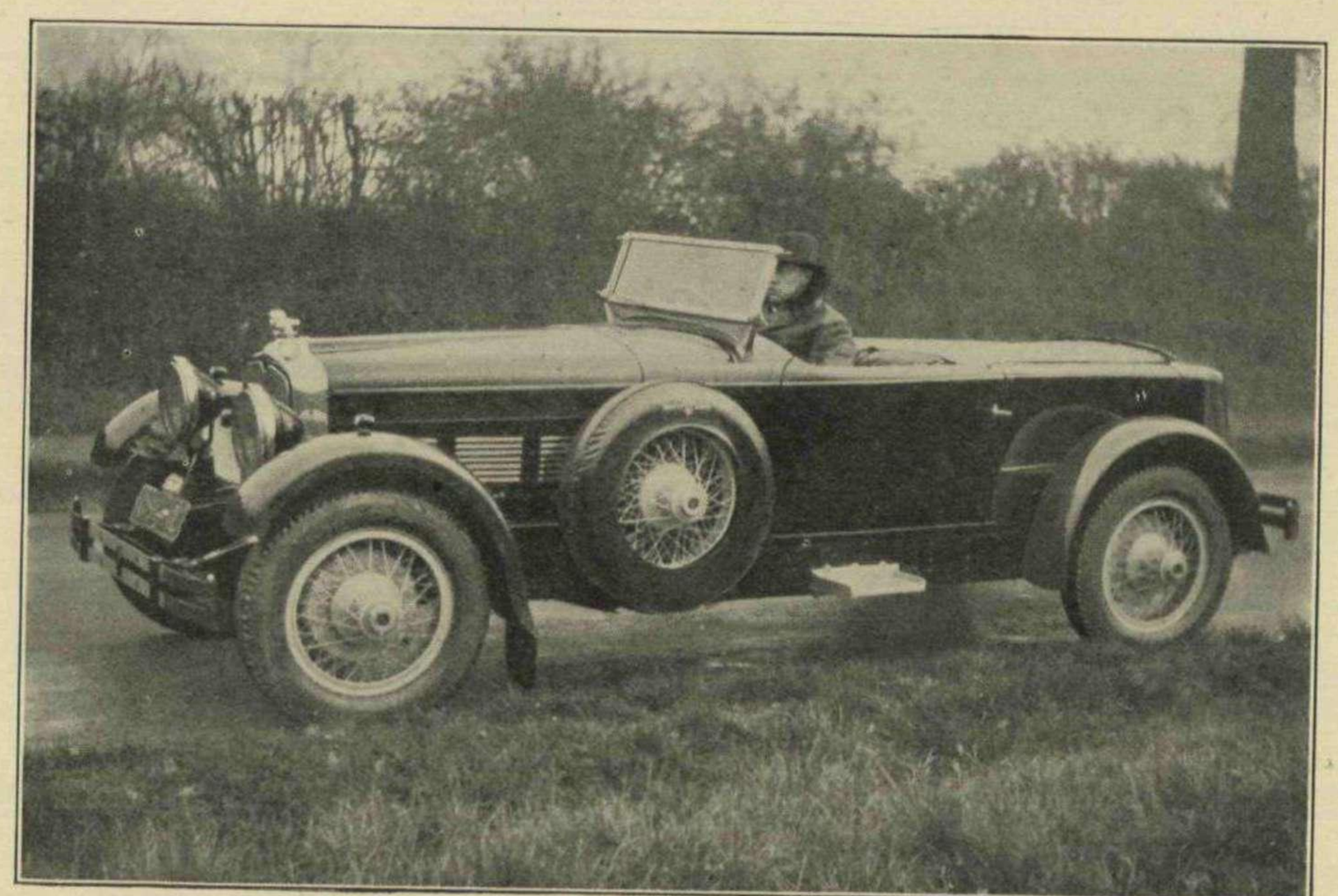
SPORTING CARS ON TEST—continued.

we are informed that for the benefit of those who consider that their motor is not functioning as it should, an altered setting employing slightly larger choke and jets can be fitted which gives a marked increase without materially affecting the petrol consumption. From this it will be seen that when fully run in and with the carburettor set for maximum power, he must indeed be in a hurry who is not satisfied with the performance.

After trying the maximum speed we left the main roads for a space and tried some narrow winding secondary roads to see if the impression of handiness we had gained in town would be confirmed. We were pleased, therefore, to find that the car handled every bit as well on twisty, greasy lanes as it had done all out on the straight. In view of the conditions of the road surface and the fact that we were taking liberties with the corners we should not have been the least bit surprised to find the tail sliding about a bit on bends, but we had no sign of a skid the whole day, and although at times we tried to see if one *could* be produced we were forced to the conclusion that short of being really dangerous, such a thing could not be done on any normally greasy surface.

We now come to the one feature of the car which kept reminding us that it was an American, and that is the gearbox. That is to say that it kept reminding us till we learnt to forget all about it and drive without it. Not that there is anything wrong with the gearbox, on the contrary it is well up to the standard of the rest of the car, but the point is that it appears to be an almost unnecessary fitting; top gear is all that is required on any normal journey. We already hear cries of "shame" from readers to whom half the joy of driving is "sorting out" the gears. The only answer to such as these is that we previously held exactly similar views, and although we are still convinced that many cars would not be worth driving if it were not for their gearboxes, we think the Stutz would still be a perfectly adequate motorcar if the gearbox were omitted altogether. When we started driving, we used the gears in the way in which we were used, and the only criticism we had was that second gear was inclined to be too low, as the maximum on this gear was some 50 m.p.h. After a short while it was suggested that we were making unnecessary and unprofitable use of the gears, so we stopped using them to see what would happen. We soon found that the performance was in no way impaired, since no nursing of the controls was required to get instant response from any speed, and the 5-litre straight eight motor gave effortless and silent acceleration which was quite the equal of most cars using all the gears they had.

The makers have evidently decided, and rightly so, that the gearbox is an anachronism except for emergency use, and have set out to produce a completely flexible engine. How nearly they have approached their ideal can only be realized by driving the car, the behaviour of the engine being only comparable to that of a series wound electric motor, so great is the power at low speeds and so high the maximum revolutions attainable.



THE STUTZ COMBINES ELEGANCE WITH A SUGGESTION OF POWER AND SPEED.

SPORTING CARS ON TEST.—continued.

During the course of our test we traversed every variety of road, and every possible condition of traffic, and in every circumstance the Stutz was absolutely at home, showing in more and more convincing manner the truth of the maker's slogan " Safety ", and we heartily recommend anyone who can afford round about £1,350 for a car, to go round to Warwick Wright, Ltd., and have a run in a Safety Stutz.

STUTZ FEATURES.

Vibrationless 8 cyl. in line Motor.

9 bearing crankshaft, main bearings 2½" diameter. Overhead camshaft.

Motor develops 110 brake h.p. at 3,600 revs. Bore 3¼" (82.5 m/m), stroke 4½" (114.3 m/m), cubic capacity 4885 c.c.

Brakes.

Leak-proof, hydrostatic actuation of specially compensated brakes with internal expanding segmented shoes.

Acceleration—
5 to 25 m.p.h. in 6.5 seconds.
10 to 50 m.p.h. in 18 seconds.
Deceleration—
at 60 m.p.h. stop in 171 ft. or 4 seconds.
at 30 m.p.h. stop in 43 ft. or 2 seconds.
at 20 m.p.h. stop in 19 ft. or 1.2 seconds.
Suspension (Half Elliptic). (Chrome-Vanadium Steel).
Front springs—38" long 2¼" wide.
Rear springs—62" long 2¼" wide.
Large Balloon tyres and Watson Stabilators.
Spring shackles and leaves automatically lubricated.

JAEGER PRODUCTS FOR 1928.

Ultra-Efficiency in Manufacturing Methods.

WE recently had the pleasure of making a rapid tour of inspection of the factory of Ed. Jaeger (London), Ltd., where the famous Jaeger speedometers are manufactured.

These instruments, and the revolution counters, clocks and other productions of a like nature, are well known to sports drivers and riders, and we thought a glance at the actual making of these instruments would be of interest.

We came away greatly impressed by the up-to-date methods and high efficiency displayed in all departments of the factory. From the store-room to the furnace-room the working of an exact " system " was obvious to the most casual eye.

It is obvious that in the making of instruments of such precision and accuracy as a speedometer requires, a great part of the work must be done by hand. But the Jaeger factory has probably created new standards in the accuracy of repetition machinery.

The assembly of the instruments is done by hand, but the stamping and cutting of frames and wheels is done by machinery which is among the finest in England. As an instance of the accuracy of these machines, certain parts are made by the thousand with a tolerance—variation either way—of two-hundredths of a millimetre! Indeed in some cases, *no tolerance at all* is permissible.

Every part in the whole range of Jaeger products is made under their roof, including the cable drives of the speedometers.

The Jaeger speedometer is claimed to be the steadiest available, employing as it does an escapement movement. Thus the interior of the speedometer closely resembles that of a high grade watch, and the escapement results in the hands receiving an impulse every three-quarters of a second.

A striking proof of the extreme accuracy obtained by the use of wonderful repetition machinery was given us when we inspected a bank of speedometers driven off a common drive. The instruments were newly completed, and the greatest variation of any speedometer was but one or two miles per hour!

We were convinced from what we saw that the accuracy of Jaeger products is beyond reproach, whether speedometer revolution counter, tachometer or clock. Every care is taken to eliminate error and the result is well known to thousands of sporting drivers and riders.

The address of the makers is Ed. Jaeger (London), Ltd., St. Leonards Road, Willesden Junction, N.W.10.

GREYHOUND RACING AT WEMBLEY.

Car Parking Arrangements.

At the request of the officials in charge, the R.A.C. is undertaking the whole of the car parking arrangements in connection with the new greyhound racing track at Wembley. A special car park equipped with " flood " lights has been constructed adjoining the track, capable of accommodating over 1,200 cars, the charge per car being 2/6 per night, and for motor cycles 1/-. The entrance to the Car Park is in Raglan Gardens, and access to the Track can be had direct from the Park. In anticipation of very large numbers of cars using the Park, the R.A.C. has made special arrangements for getting them away quickly when racing is over, and it is estimated that the whole park can be cleared in less than twenty minutes.

LEADING MOTOR CLUBS.

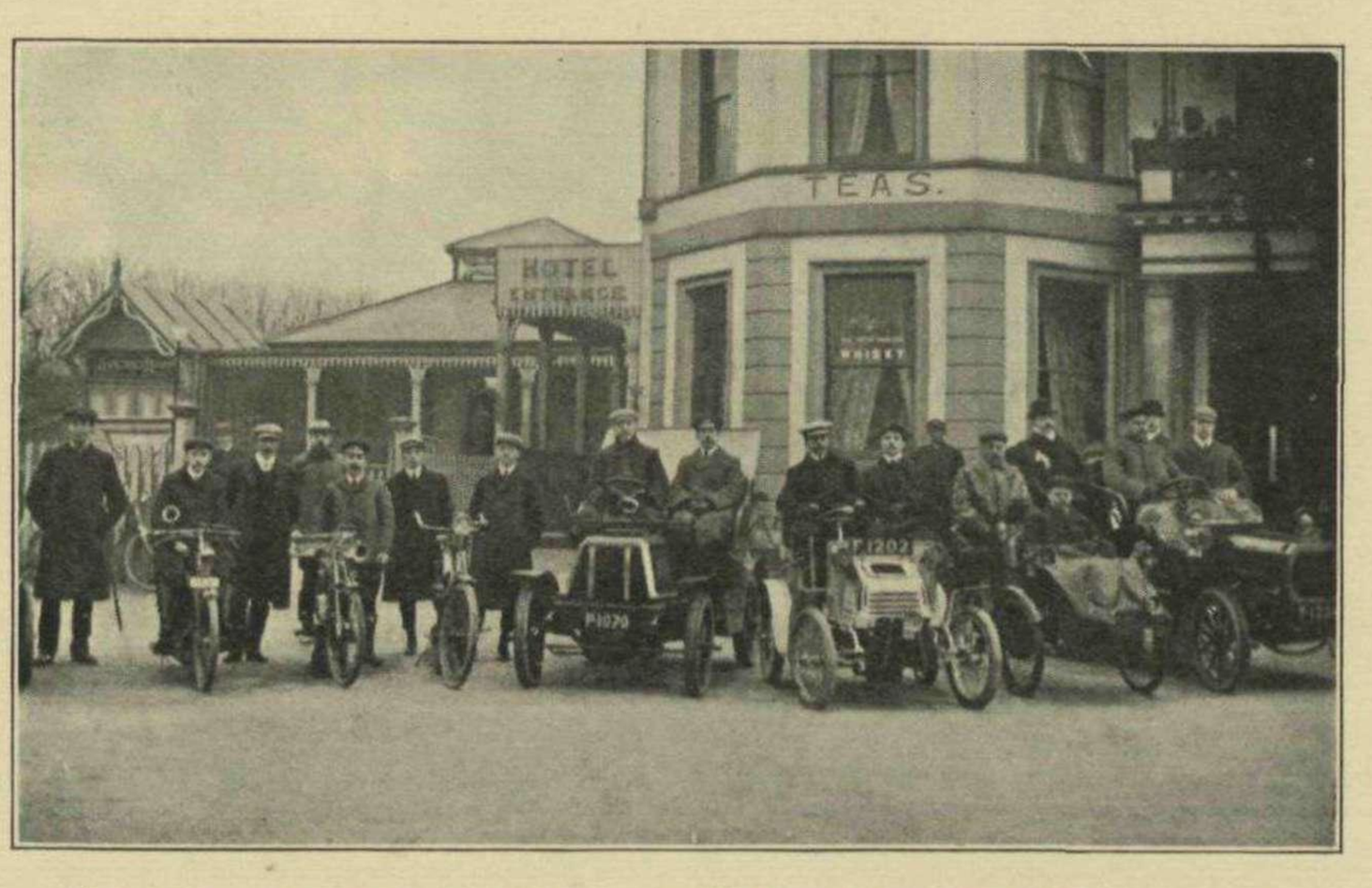
THE ESSEX MOTOR CLUB.

By THE ASSISTANT EDITOR.

AMONG the most famous present day motor clubs, popular with sporting motorists and well known throughout the motoring fraternity, is the Essex Motor Club.

This club, which is remarkable for its progressive policy and up-to-date ideas was one of the first motor clubs to be established in this country, and as such must be regarded as a great factor in the fostering of motoring, and particularly of motoring sport, since the early days of the pastime.

The Essex Club was founded in 1904, and was the first club in that county. The reason for its formation arose from a trip by motorcycle to Yarmouth by two members of the Beaumont Cycling Club—Messrs. Bass and Reynolds.



AN EARLY MEET OF THE ESSEX CLUB. "THE KING'S OAK," HIGH BEECH, 1905.

These two accomplished their journey with such freedom from trouble—except for a punctured tyre at Chelmsford on the return—that they discussed the possibility of a motor club for its social value on such runs. The result was the formation of the Essex Motor Club, which in the beginning was rather the motor contingent of the Beaumont Cycling Club. In the club's early days, the membership was composed almost entirely of motor cyclists.

The club early undertook the organisation of sporting events, and held what was possibly the first motor cycle race meeting, at Canning Town track. The club president, Mr. Du Cros, presented a handsome cup, which was won outright by Colver on a Matchless.

The next meeting, on the same track, was made notable by the appearance in England of the Anzani engine, and by an accident to René Thomas, which was considered at the time to have ended his driving career. How wrong this was, we all know.

The Essex Club was now becoming famous for its competent organising prowess, and staged the motor cycle meeting at the Franco-British Exhibition held at the White City in 1906.

Hill climbs were early a prominent feature of the club's activities, and the first climb was held at Lippitt's Hill, Essex. At this meeting, the present secretary, the popular Mr. E. J. Bass, succeeded in making fastest time of the day, at the excellent speed of fifty-five miles per hour.

In 1913 was held the first climb at Kop Hill, Princes Risborough, and an excellent entry was forthcoming. The hill was seen to be ideal for the purpose, and fourteen cars with sixty motor cycles entered for the first climb.

The same year saw this go-ahead club holding events at Brooklands, the first outside club to do so. Ever in the front rank of innovators, the Essex M.C. held the first speed trials on a sea-front, in 1914, at Westcliffe. This aroused a great deal of public interest, and here and there, some popular prejudice.

Another early activity of the club was the institution of a popular feature—the Standard Ride. This event was open the whole year. The competitor might enter at any time, and was required to cover a set course at twenty miles per hour schedule speed, having his route card signed at stated points to prove that he had covered the course. At the end of the year the records of all the

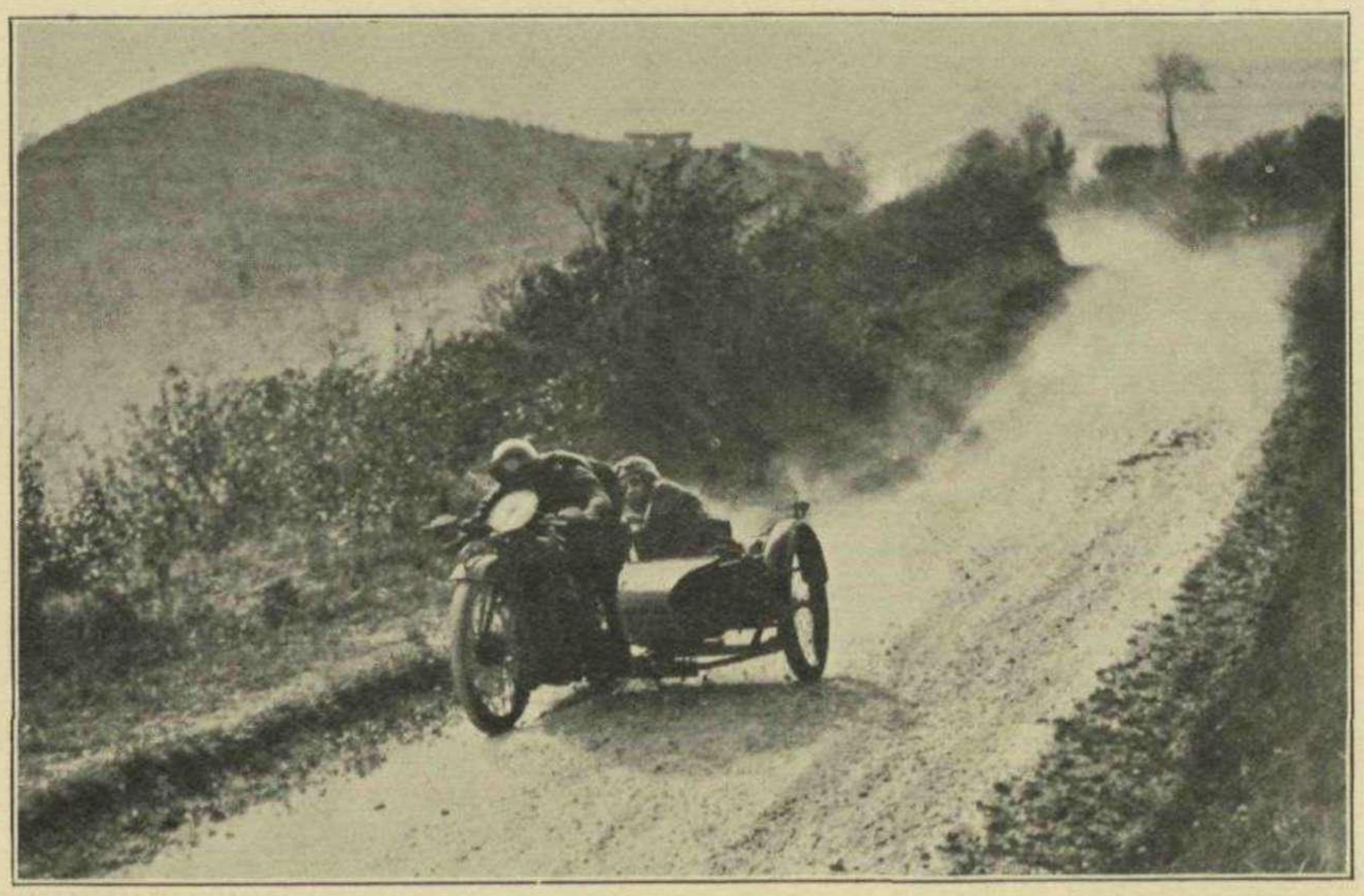
THE ESSEX M.C.—continued.

entrants having been scrutinised, an award was made for the best performance.

Another now defunct event was the Winter One-Day Trial, while better known were the London-York and back, and later, the London-Bala-London trials. These latter were both 24-hour trials, the last of quite appreciable severity.

These events ended some four or five years ago, owing to lack of enthusiasm for this form of sport.

Other activities in the early days were the holding of gymkhanas at "The King's Oak," High Beech, Essex.



THE MOST FAMOUS OF ESSEX M.C. EVENTS.
E. C. E. BARAGWANATH ON KOP HILL.

These events were among the first of their kind in England, and proved very popular with the general public.

The Beaumont Cycling Club had always made a feature of the Cripples Outing, and the Essex Club carried on this excellent and charitable event. The Cripples Outing has been an annual fixture ever since. The first outing consisted of one motor cycle and trailer, it now includes char-a-bancs and carries between four and five hundred children.

Popular club features were the holding of lantern lectures of events, and a lecture read after each Motor Show by the late D. Reachman.

Perhaps the greatest fame of the club rested in the holding of the Kop Hill climbs. These were all open events, and notable for their efficient organisation and the extent of their entries. Nearly every one who was anyone entered for these events, the habitués of Brooklands and the trade cracks being familiar figures on the Buckinghamshire hill.

So popular did these events become from the spectator's point of view that the chief difficulty of organisation became the control of the huge crowds which assembled on the hill-side.

It was, in the end, the crowd which put a stop to hill-climbs on public roads. It was at the memorable climb of April, 1925, when members of the enormous crowd, which numbered several thousands, brought disaster on the competitors by encroaching on the course. A competitor was unfortunate enough to injure a foolhardy spectator, and a motor cycle competitor crashed heavily, owing, it was said to a knot of spectators obstructing the course.

These unfortunate happenings sounded the deathknell of racing on public roads, a ban which has lain heavily and handicapped motor sport in this country ever since.

Two very important meetings were held by the club at Brooklands in 1922. The first, known as the Royal Meeting, was held in May 20th, and resulted in about £2,500 being handed over to charities. The Duke of York was present and entered two motor cycles, a Douglas and a Trump Anzani, and with the latter he scored a popular win.

The other was the Championship Meeting on September 30th. This was very successful, but owing to R.A.C. action, was discontinued.

Any proof required of the Club's popularity may be found in the list of members. Almost every famous rider or driver is or has been a member of the club. Of the pioneer members A. C. Reynolds, Charles Jarrott anp E. J. Bass, the present secretary, are still well known, while those of more recent fame are Major Segrave, Capt. Malcolm Campbell, Woolf Barnato, and Boissy

ESSEX M.C.—concluded.



THE SIX HOUR RACE HELD BY THE ESSEX M.C. AT BROOKLANDS THIS SUMMER.

of Peugeot fame. S. G. Cumming, the president to-day, has held that office for the last sixteen years, and Dr. A. M. Low has been associated with the club in the capacity of judge and technical adviser for many years.

The club goes from strength to strength, always on the look out for novel events and original ideas. Last year saw the interesting Six Hour Race which will be re-staged on May 12th next year. Other dates fixed for Brooklands in 1928 are July 24th and September 29th, when we may look forward to something worth seeing.

The Essex M.C. is in a very powerful state to-day, financial and social, and we may look forward to the club continuing in the position it has held for so long in the affections of the motoring community, ever jealous of the welfare of motor sport in this country.

To such clubs as the Essex M.C. the ordinary motorist owes much for their ceaseless war against motorphobia, and so deserve the enthusiastic support and goodwill of motorists of all ranks, who will join with us in wishing good luck and prosperity to the Essex Motor Club.

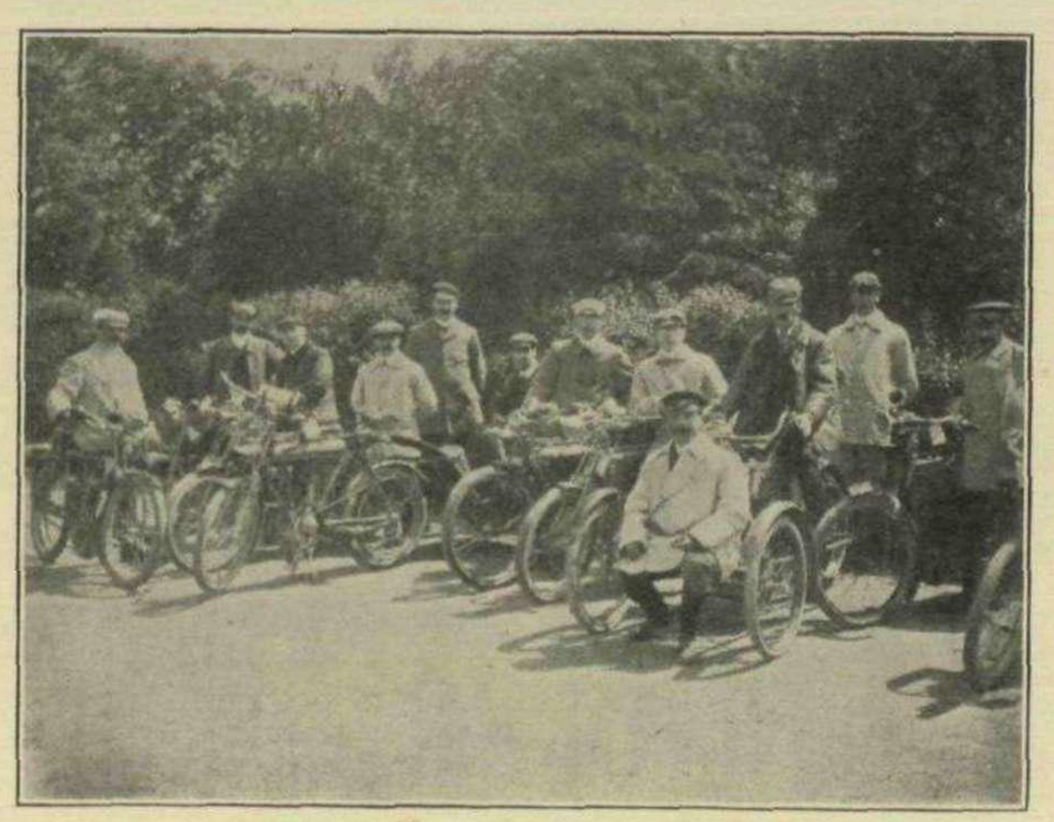
SCHNEIDER CARS IN 1928.

THE products of Th. Schneider Automobiles Ltd., were not on exhibition this year at Olympia, and thus many will have missed the range of cars for 1928.

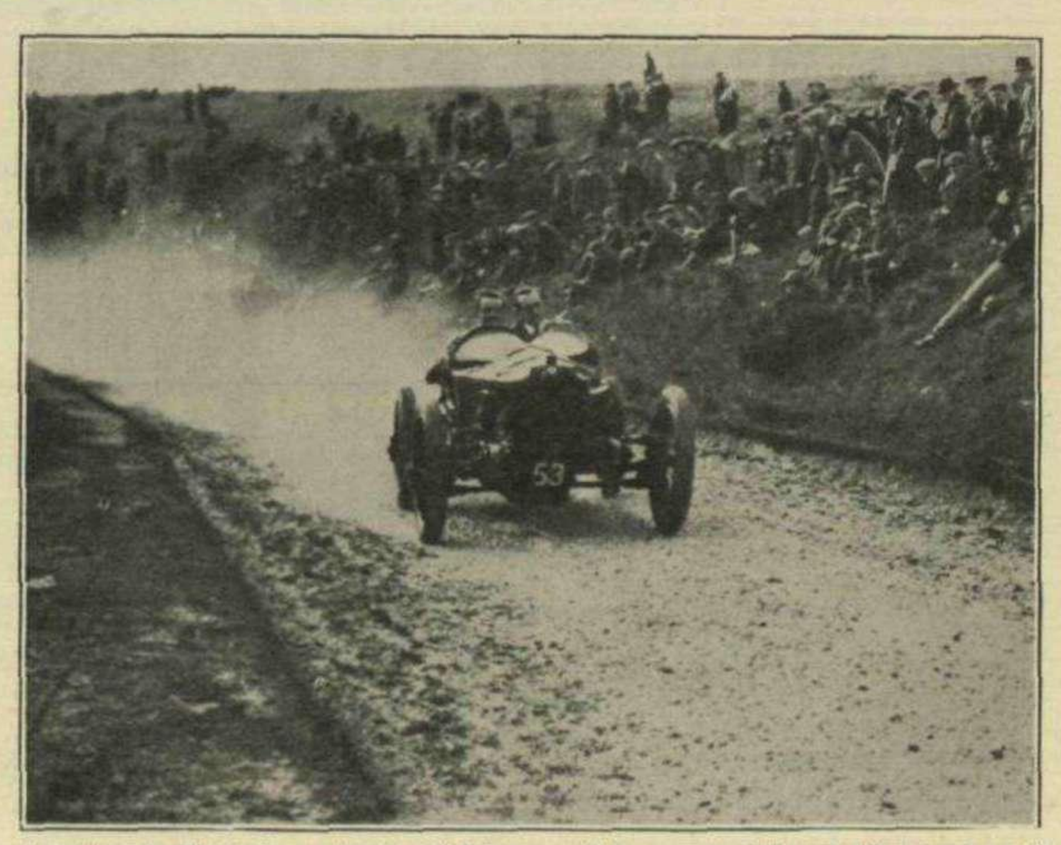
Very attractive to the sportsman is the 10.50 o.h.v. sports two-seater, which is produced with a most alluring body of pleasing lines. The price of this model is £395.

The programme for 1928 is as follows :—

10/30	Two and Four Seater	£325
10/45	Two and Four Seater	£355
13/40	Chassis	£350
13/40	Saloon	£520
13/55	Two and Four Seater	£520
13/55	Saloon	£575
13/55	Chassis	£395
10/50	Sports Two Seater	£395
13/55	Special Weymann Sports de luxe	£595



A GATHERING OF PIONEERS.
THE RUN TO BURNHAM, 1904.



ANOTHER ESSEX EVENT AT KOP. RAYMOND MAYS (VAUXHALL) AT SPEED.

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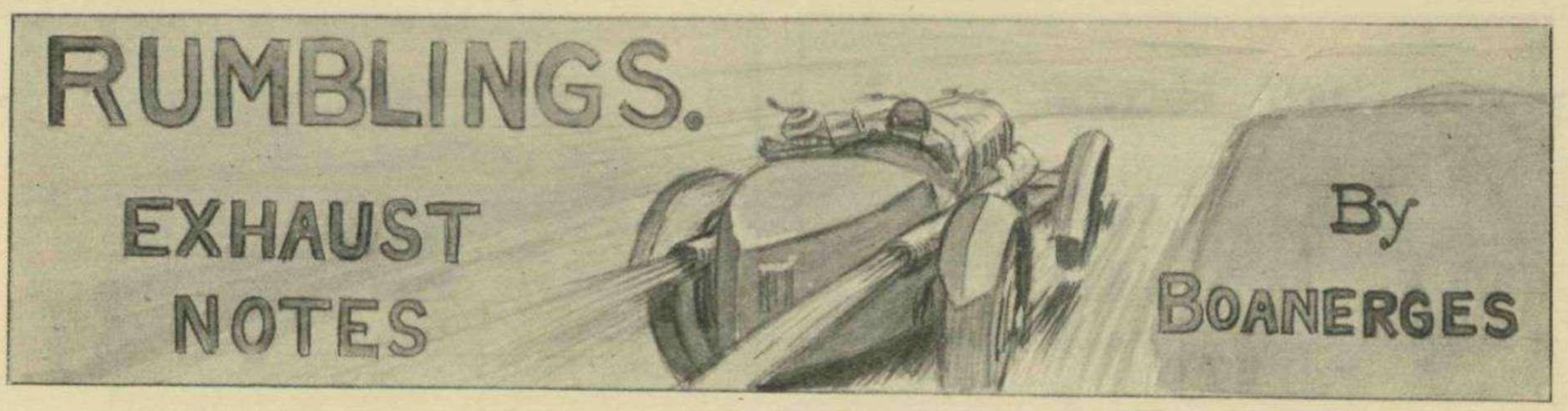
CHARLES JARROTT.

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ORDER YOUR COPY NOW.



A MERRY CHRISTMAS and A HAPPY NEW YEAR to all the readers of this journal in general, and of this page in particular. May the 1928 model be up to expectations, may you never have a skid, may you never have a smash, may you never be strewn by the wayside throughout the Glad New Year. May the myrmidons of the Law hold their hands, may you never be fined forty shillings and costs; in fact, may you enjoy a trouble-free motoring year. Bless you, my children.

* * *

I often hear it said that a racing motor-cycle, in racing trim—that is to say without wide ratios or lowered compression—is an impossible machine for ordinary road use.

The other day this was being hotly debated with me by a few habitual trials riders, who laughed me to scorn when I suggested that such a machine could be used in an ordinary way on the ordinary road, or even in a sporting trial.

I was speaking from imagination, so, to test my views, I acquired for the week-end a 500 c.c. two port o.h.v. machine which was used as a practice vehicle in the Senior T.T. this year. This machine was precisely as it left the Island. The box was close ratio, and the compression ratio was equal to that of the lowest gear, both being 8 to 1. There was no kick starter, and the ignition timing was the sort of thing that gives twenty miles an hour acceleration on the magneto alone.

I rode this motor from the country to *Motor Sport* offices and back, through London traffic about ten-thirty a.m. and at six p.m., both pretty busy periods. The machine proved absolutely ideal. The tremendous acceleration was equalled only by the tremendous braking power. The compactness of the machine enabled me to swing it in and out of the densest traffic with consummate ease, and never once did I stop the engine. True, I had to keep the revs. up, and there was no tick over. The piston made terrible clanking noises, and the exhaust was not quiet, but as far as actual running was concerned, it was an ideal traffic motor. A touch to the throttle and we surged past obstructing cars into the gap, the brakes stopping us dead at every block.

Later I took the machine round a trials course of more than ordinary severity. I remembered that the engine must be kept turning over, as there was no kick starter, and my progress over grassy colonial sections, covered with a layer of the slime that grass offers in winter, was at once noisy and acrobatic. The passage was *not* feet up, but neither did I stop the engine or fall off completely.

Leaf-covered and greasy chalk hills were levelled beneath my wheels, water splashes held no terrors, and I accomplished the thirty mile course in one hour, five minutes.

So, as far as I am concerned, the question is settled; a racing machine, intelligently handled, can be used in ordinary conditions, and for ordinary road work.

* * *

A great deal of talk and controversy is going on just now about motor-racing in 1928. This is all to the good, and indicates that the motoring world is aware of shortcomings in this respect. At the moment it seems to be taken for granted that a Grand Prix road race for cars will be held over a road circuit in Great Britain. That this will be far superior, as a race, than anything staged at Brooklands could ever be, no one will deny; but one man's gain is another man's loss, and if the race should be held in Ulster, as is the general hope, what Ireland will gain, England will lose. Thousands of spectators will not see the race, owing to the impossibility of getting away from business, and these are sure to raise howls of rage if the race is definitely settled with venue in Ulster. But so great will be the benefit to motor-racing in general, that the minor drawbacks attendant on holding the Grand Prix out of England must be disregarded.

Perhaps an impetus will thereby be given to the moribund Bill now dormant somewhere in Parliament. We may still hope that before we die we shall see a great international race run over highways in this country.

There also appear to be certain rumours current concerning a Private Owners Car T.T. Race, to be run over the famous Manx course sometime next year. Of which, more anon.

* * *

Many will join with me in sorrow at the death of a prominent sportsman, Mr. Fred Sutcliffe.

Mr. Sutcliffe was the popular Chairman of the Huddersfield Automobile Club, and recently, of the newly-formed Yorkshire Committee of the R.A.C. He was a member of the old General Committee, and, on the formation in 1923 of the General Council of the R.A.C., he became one of its foremost and most energetic members.

* * *

As we go to press, I hear the French Grand Prix has been cancelled, the probable substitute being an endurance race for standard products.

How far this decision will affect the holding of the four remaining World's Championships is as yet somewhat debatable, but it really seems as if the end of racing with special cars is at last in sight.

THE INTER-VARSITY RELIABILITY TRIAL.

By SUPERCARGO.

BEING personally the possessor of a comparatively unreliable car of distinctly certain age and a bottom gear of 7.1, I have always considered this vehicle as somewhat unsuitable for reliability trials; which reminds me of a man, who when asked why he never entered for this type of competition, proudly replied, " because I am not the type of motorist who owns reliable cars." The result of the situation in my own case, therefore, was that I gladly accepted an invitation to take part in the inter-varsity trial as passenger in an exceptionally reliable car with a gear ratio three times as low as bottom on my own motor.

The morning of Saturday, November 19th, however, did its best to make one regret this decision; it was exceptionally dark, the sky was roughly speaking black, and a steady drizzle was falling. However, complete with map, route card, and stop watch, we covered the distance to Dunstable in creditably scandalous time and arrived successfully at the Sugar Loaf Hotel. The scene in the yard there was sufficiently amusing, the place being full of vehicles of all types from a 6-cylinder Amilcar to decrepit looking two-strokes. The former, however, was rather naturally not competing, and was destined to the somewhat ignominious fate of having " check " written on it, as if it was a lorry in a lane. There was also a diminutive sports car of a well known type but which was distinguished by a fierce looking outside exhaust-pipe, and which a gentleman of authority on such matters said should do 55 m.p.h.; on attempting to verify this computation by enquiry of the owner, he was told that it would do 65 m.p.h., which reduced him to a state of incredulous and impotent fury.

However, eleven o'clock arrived finally before any violence was done, and the motor cycles were despatched; our turn came about a quarter of an hour later, and we set off on our 63 mile journey. Before we had gone very far we came upon one or two of the bikes, whose owners were already trying to discover an engine in the middle of a mudpie and see why it had stopped working.

The first three non-stop sections probably did not account for many failures for although very muddy, they were more or less flat. We negotiated them successfully and then took a couple of water splashes, which gave us no trouble, although at the second a motor cyclist just ahead of us took what must have been a most refreshing shower bath, and came to rest in a cloud of smoke and steam. It was the non-stop section at Agnell's Farm which proved our Waterloo. We were suddenly confronted with a very broad grass track running up hill and a marshal, who hastily advised us to keep to the middle as everyone had stuck in the mud who had gone to one side or the other. It was soon evident, however, that the middle was only supposed to be better because it was still unexplored and after a few yards we came to rest with the wheels spinning in spite of violent bouncing on the rumble by the passenger who began to find his duties becoming more arduous. After this he got out and commenced the still more arduous business of pushing which, however, produced slow progress. After a short time more cars arrived and the scene soon became extremely animated, the grass track being dotted with motor cars at every conceivable angle, both to the vertical and to the way they meant to go, propelled by perspiring and blaspheming crews.

Finally, however, with the aid of (a) the local inhabitant and (b) an artificial surface composed of (1) brushwood, (2) an old piece of galvanised iron, (3) unintentionally, the passenger's foot, we managed to reach the other end, and hurried off to the check at Berkhampstead leaving the crew of a streamlined sports car which was boiling merrily energetically trying to get water at a farm house. On the way we had to negotiate " Tunnel Slide," which proved quite easy and we were chiefly engaged in watching the violent " swash " action of a buckled front wheel on a 4-seater car ahead.

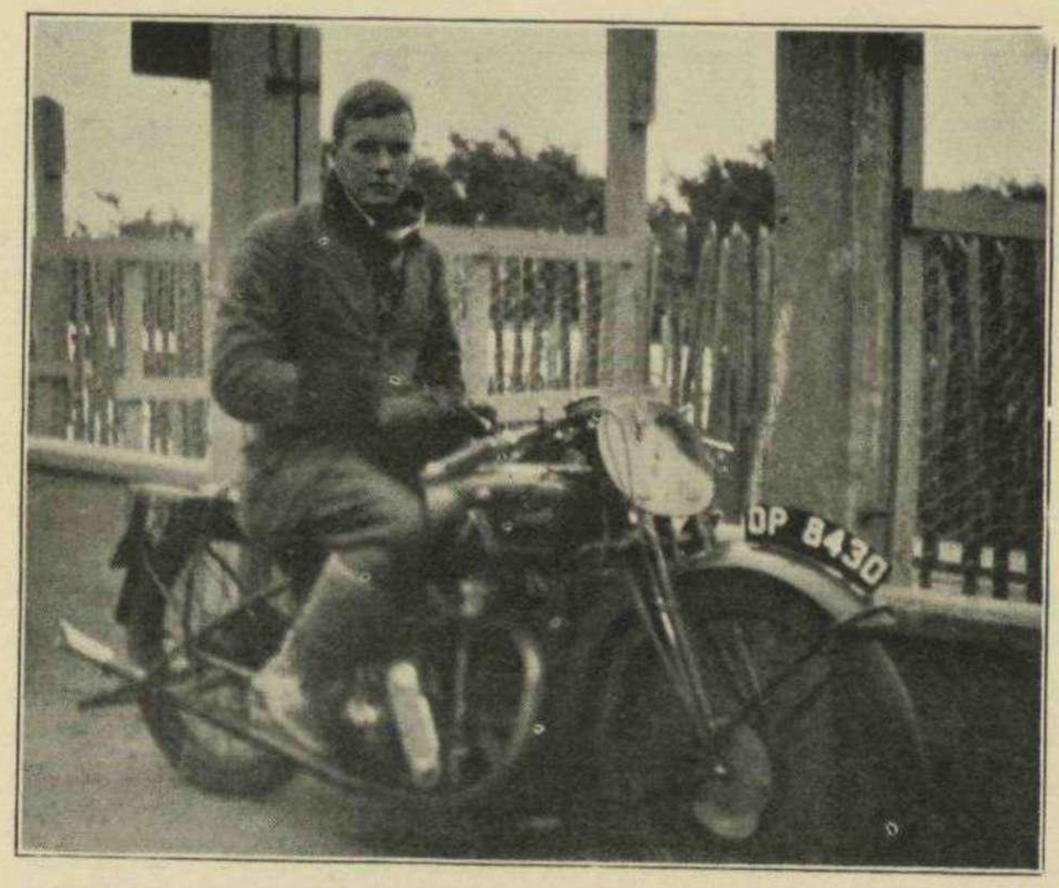
Further Mud-larking.

After leaving Berkhamstead, we climbed White Hill successfully and negotiated another observed section and so came to Rays Hill. I am told that this grass bank has only twice been climbed by a car and that was on a dry day and at the expense of a front axle. However even if this is not true our own attempt did not get us up very far, and having slid down again we stopped to watch an attempt by a Frazer Nash, which came along directly afterwards. This motor took a good run at the gradient, leapt the grass curb, got sideways on, got straight again, leapt at the hill, got about half way up and then was left scrabbling at it with violent wheelspin. It came down again with an unhappy looking track rod.

The first hill after the Tring Check was a shiny chalk track and proved quite unclimbable, while the last hill of all at Duncombe's farm, although we had climbed it successfully some days before, defeated most of the competitors, ourselves included; and so finally to Dunstable, where tea was distinctly welcome as we had eaten nothing but chocolate since an early breakfast.

We had been late at Berkhamstead and we had not climbed all the test hills; but hardly anyone else had done so either, and our motor was still intact, while others had suffered various misfortunes. One had bent a track rod, another a front wheel as already mentioned; another had seized both the ball races in the front hubs; yet another had broken a front axle; while, when we left Dunstable, the streamline sports car was being pushed up and down the street and refusing to do anything but make violent explosions in the exhaust-pipe. So it was quite a successful trial.

The results proved a victory for Cambridge with an average of 128 marks against 114 for Oxford; the latter, however, made the best performance among both cars and motor cycles with F. E. Buckland (Austin) and H. E. Baker (A.J.S.). Second best performances were made by Cambridge with P. H. Manners (A.C.) and M. C. Huie (P. & M.).



SPORTING MACHINES ON TEST.

The 348 c.c. O.H.C. VELOCETTE.

By THE EDITOR.

LAST month we had the pleasure of reviewing a machine built specially for road racing—but which had not actually performed in any race. This month however, we are lucky enough to be able to give readers our impressions of a machine which has proved its mettle in competition with the world's finest riders and mounts. The machine in question is the o.h.c. Velocette, on which H. J. Willis averaged 64 m.p.h. in this year's Junior T.T., a speed which enabled him to finish second, behind the redoubtable Freddie Dixon. The performance of such a machine in ordinary hands is always doubly interesting, firstly on account of the comparison between its behaviour and that of the standard production, and secondly because of the ever intriguing question of the suitability of a T.T. mount for everyday use.

Taking the second point first, as being the most important, it is always difficult to disabuse the ordinary motorcyclist from the belief that a T.T. motorcycle is of necessity harsh and intractable at touring speeds, drinks petrol, is uncomfortable and generally behaves in a thoroughly ungentlemanly fashion.

Whatever criticisms may be levelled at the organisers of the Tourist Trophy races, it is now obvious that several wise regulations recently introduced have resulted in a racing machine which cannot possibly be convicted of the above faults.

Foremost among these regulations is the compulsory use of standard fuels, which automatically prevents any freakish compression ratios and fantastic fuel consumption, while the 7th lap,—also recently introduced, demands even greater robustness of mechanical parts and renders comfort a *sine qua non*, if success is to be hoped for. The I.O.M. machine therefore will generally be found ideal for fast road work, and at the same time may be relied upon to behave itself with reasonable decorum in traffic and in the "peaceful" thoroughfares of "Suburbia."

The T.T. Velocette is an excellent example of what a thoroughbred roadster should be, having speed enough for the world's greatest road races, combined with several extremely desirable "*traits*" such as uncanny mechanical silence and great docility at low speeds.

Lest readers should conclude that these are the machine's only virtues let us hasten to state that others will be disclosed in the course of these notes, which we fear will degenerate into a series of eulogies, but in the meantime let us return to point one, raised at the head of this article.

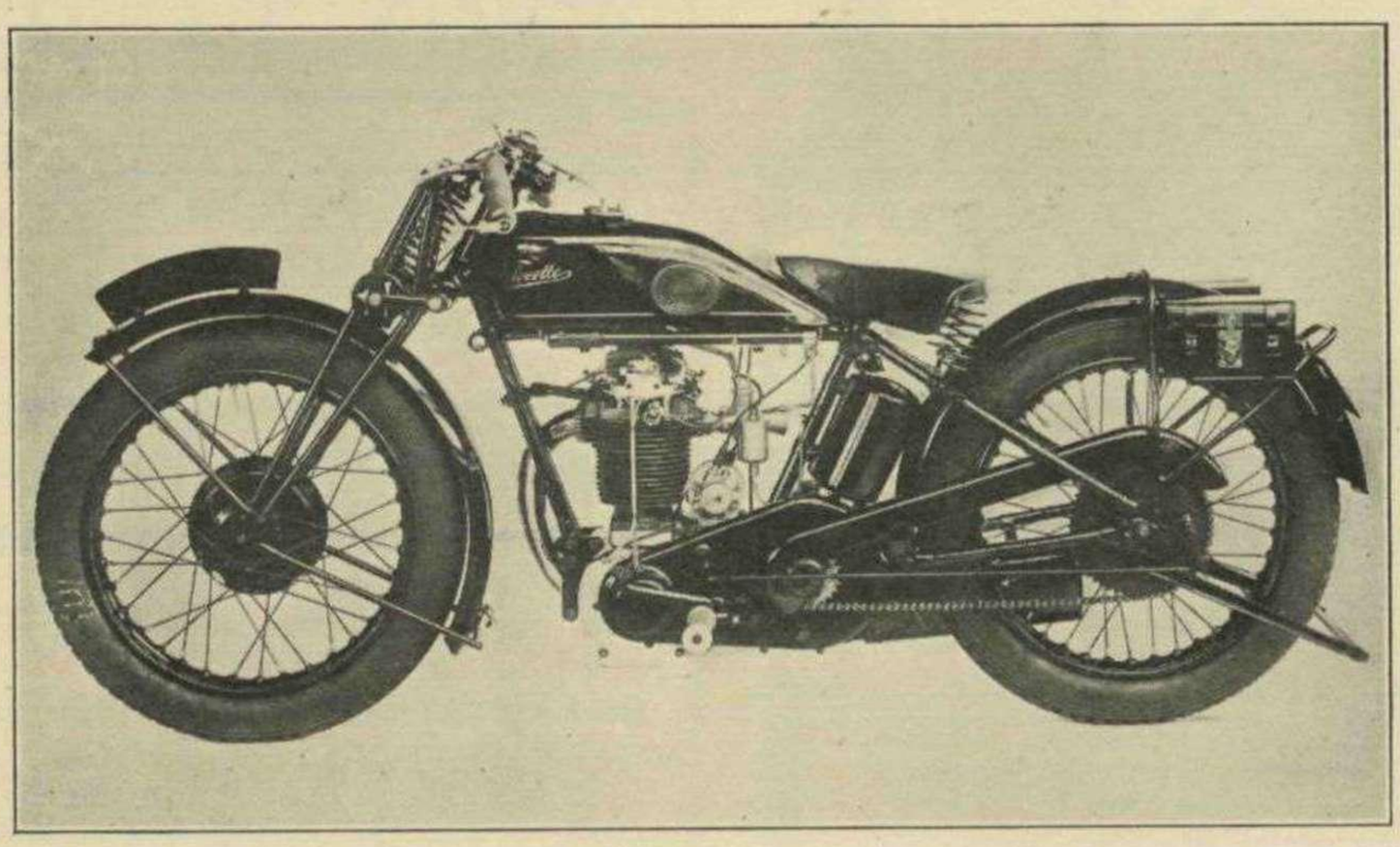
It is common knowledge that the K.S.S. Velocette is definitely guaranteed to do 80 m.p.h. We ourselves found that the special T.T. model was capable of approximately 85 m.p.h. on the level, but certainly not more, so that owners of the K.S.S. model have the satisfaction of knowing that the makers have put almost "all they know" into the standard production. Apart from a few very minor detail differences the T.T. machine is identical with the 1928 K.S.S. model—the most obvious differences being the footrest mounting and the absence of a kickstarter, features which do not detract from the utility of the machine in any way.

On the Manx Circuit.

In the course of our test of the Velocette we covered a good many miles in the Isle of Man, on roads which the machine was designed to cover at maximum velocity. Now the Tourist Trophy course is not exactly smooth, even at fast touring speeds, and each year as more and more power is extracted from engines, it becomes increasingly obvious that the steering and road holding of many machines leaves much to be desired. It is an education in itself to watch back wheels on even such a stretch as the straight through the start, while the behaviour of some machines on Bray Hill causes strong men to shudder. One more point should be emphasised before finally referring to the steering of the Velocette and that is that the writer had broken a collar bone exactly a fortnight before riding on the Manx roads and his arm could not be raised above handlebar level. Naturally this weakness would have seriously jeopardised control on bumpy roads if any undue effort were required; the superlative steering of the Velocette at once becomes apparent when it is stated that at no point on the T.T. course was it necessary to ease the throttle owing to bumps.

If the tortuous nature of the road demanded alteration of the throttle opening (as it frequently does), this was naturally done, but if the road were sufficiently straight to allow full speed, a slight extra pressure of the knees on the "George Dance" knee grips was quite sufficient to retain perfectly normal control. The fore part of the machine progressed in a perfectly straight line under all conditions without dither or wobble, and even back wheel bounce—that designer's bugbear—was

SPORTING MACHINES ON TEST—continued.



NEAR SIDE VIEW OF THE STANDARD K.S. MODEL VELOCETTE.

noticeably absent except on the really atrocious bumps. Even on the worst sections the back wheel only jumped slightly in a vertical plane and exhibited no tendency to wag.

To sum up the steering and road holding, we can give no finer testimony than to say that it was possible to descend Bray Hill " flat out " and to add that we discovered later that several layers were missing from the steering damper and although we thought we had adjusted it, its aid to the steering was purely moral !

Speed on the Gears.

We have already mentioned that the maximum speed on top gear was beteeen 80 m.p.h. and 85 m.p.h., and we estimated that the speeds on first and second gears were 45 m.p.h. and 65 m.p.h. respectively. On the climb from Ramsey to the Bungalow speeds between 50 m.p.h. and 60 m.p.h. were possible on second gear, according to the variations of the gradient while the acceleration on bottom gear after corners, was very satisfactory. At one point only, namely the Gooseneck, the machine appeared somewhat overgeared and laboured slightly when accelerating ; possibly this was due to our somewhat slow and inadequate method of negotiating this corner, which for the sake of the uninitiated we will describe as a right hand bend, becoming sharper as it goes on and arranged on a sharp up gradient !

Cornering is at all times more a question of the man than the machine, some heroes or lunatics (according to one's attitude to such matters), can bank the most unstable vehicles at impossible angles, while others are incapable of allowing a machine to depart from the vertical.

The Velocette is a machine which induces even the most timid rider to indulge in quite respectable cornering, such is the feeling of ease and controlability inspired.

The footrests were placed well out of the way of the road, and incidently in a very comfortable position, so that the bicycle could be leaned over with confidence on any reasonable surface, while only the most treacherous grease caused any skid.

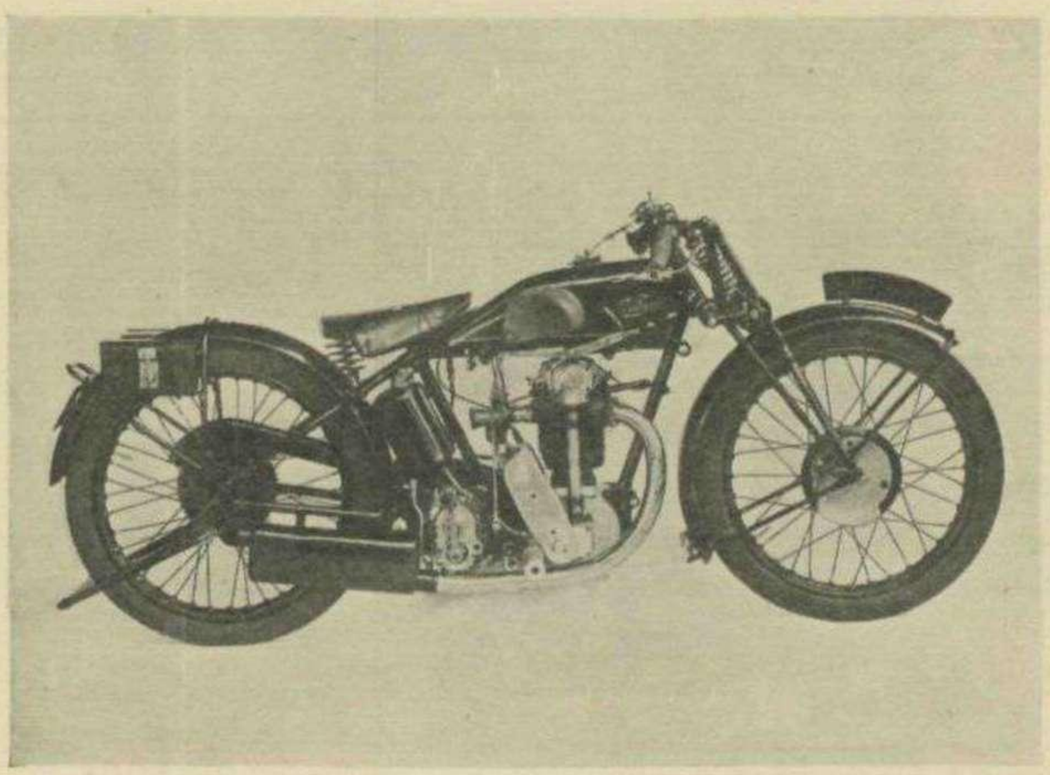
The rear brake was applied by a conveniently situated left toe pedal, its operation did not necessitate removal of the foot from the rest, while the stopping power was good, provided sufficient pressure was applied. The front brake was better in comparison, and was operated by a very long inverted lever on the right bar ; the anchor plate was fitted with the special flange for draining water away from the shoes and drum, a useful feature on all Velocettes. The gears were changed by a conventional spring lever in a very compact quadrant on the tank—the movement from one stop to the next being delightfully short, but what contributed still more to easy changing was the extreme lightness of the clutch control. This small item makes an enormous difference to driving comfort, the clutch on the Velocette could be withdrawn with one finger and it could be re-engaged smoothly, progressively and yet positively in spite of a rather high bottom gear. As a pure experiment we once performed a standing start on top gear, when by careful manipulation of clutch and throttle it was possible to execute a perfectly smooth " get away " without snatch or pinking—such is the flexibility of the engine and the sweetness of the clutch.

Advanced Design.

In the foregoing notes we have endeavoured to expound the virtues of the Velocette as a machine to ride ; students of design, however, will find much to interest them, as the machine embodies some extremely clever features which contribute in no small measure to its excellent performance.

The instantaneous success of the o.h.c. Velocette in the

SPORTING MACHINES ON TEST—continued.



THE K.S.S. VELOCETTE, 1928 MODEL.

T.T. races, at Brooklands and in the hands of private owners throughout the world is too well known to need repetition here, and is not surprising when it is remembered that the Velocette designer is acknowledged to be one of the cleverest men in the industry, while the firm's long experience in the manufacture of the very successful two stroke, ensures accuracy of workmanship in the later model.

The prices of the o.h.c. model vary from £58 for the popular model to £75 for the K.S.S. with an 80 m.p.h. guarantee, while the makers are Messrs. Veloce, Ltd., Hall Green Works, Birmingham.

R.O.P.

In view of the recent outburst in the daily press, together with the publication of "statistics," it is interesting to learn that the sales of R.O.P. Motor Spirit are *not* on the decrease.

On the contrary, the sales of Motor Spirit by this firm up to the year ending September 30th, 1927, were actually 52% in advance of the sales in the corresponding period last year; and the sales of kerosine were 72% higher in the corresponding period.

The import figures this year are misleading, as such an enormous amount of oil was brought in during the last three months of 1926, owing to the opening of new storage installations, that imports have been limited this year.

R.O.P. depots are being rapidly established throughout the country, and the distribution of this excellent spirit will be greatly increased in 1928.

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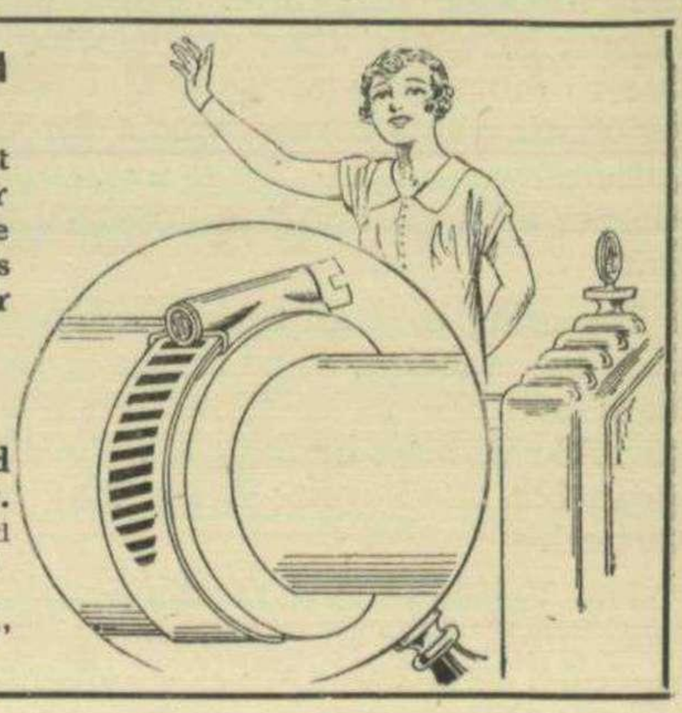
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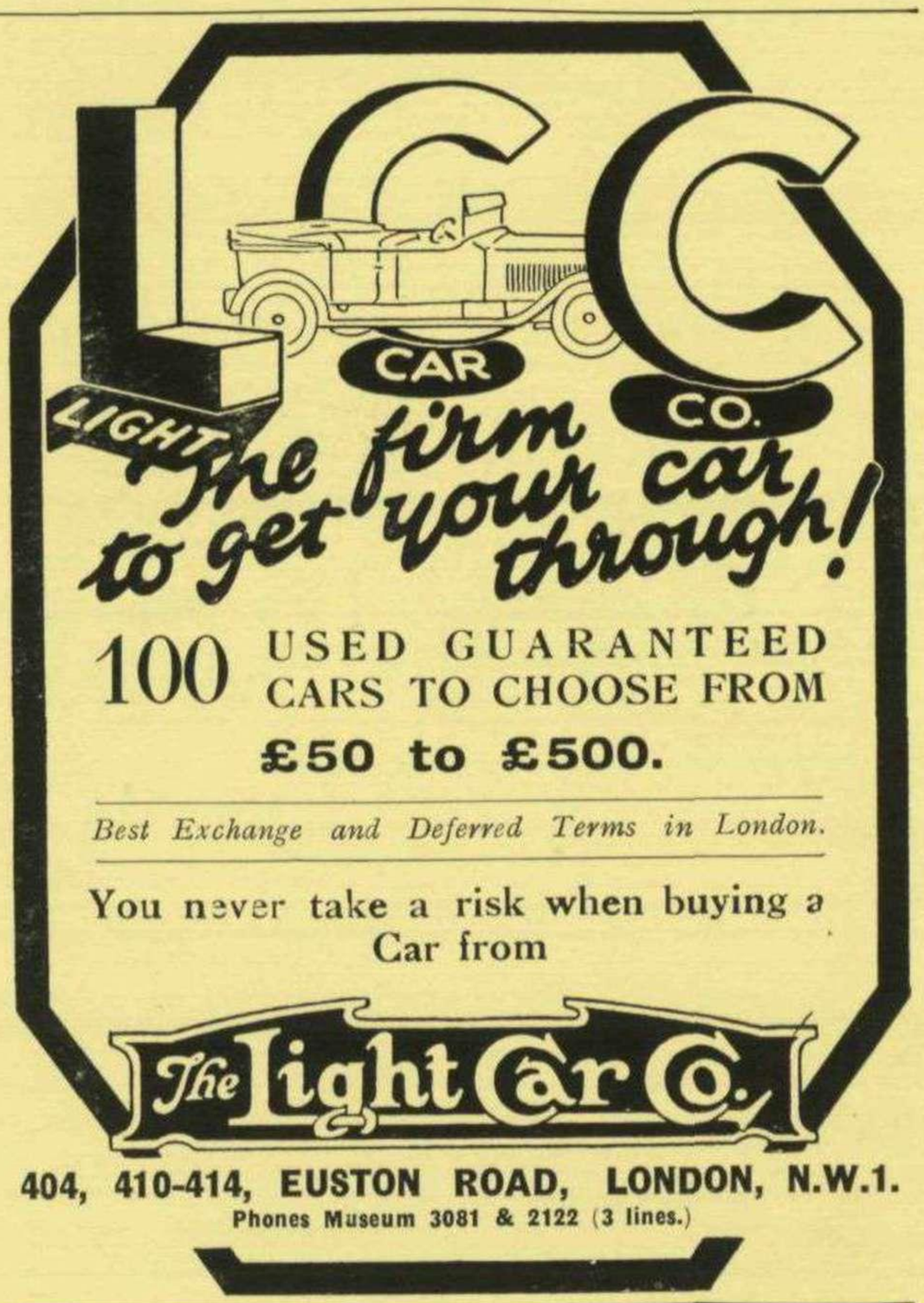
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In 1927

THE PETROLEUM TIMES. October 15, 1927.

The following table shows the world's production for 1925, 1926 and 1927, the figures for the first two years being furnished by the United States Bureau of Mines, while the 1927 figures are the author's estimates.

WORLD'S PETROLEUM PRODUCTION.
(In thousands of barrels.)

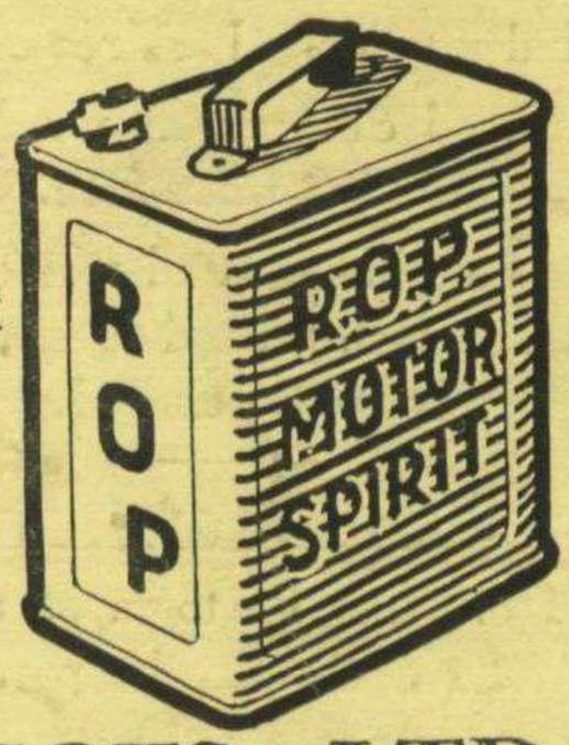
Country.	1925.	1926.	1927.
United States ..	763,743	770,874	890,000
Russia	52,448	62,941	70,000
Mexico	115,515	90,421	63,000
Venezuela	19,687	37,381	60,000
Persia	35,038		
Roumania ..			

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