

# MOTOR SPORT

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SIXPENCE MONTHLY



[Motor Sport Photograph.

The Jack and Jill Trial. The Hon. A. D. Chetwynd makes a neat climb of Oakshott Hill driving his V8 Ford.

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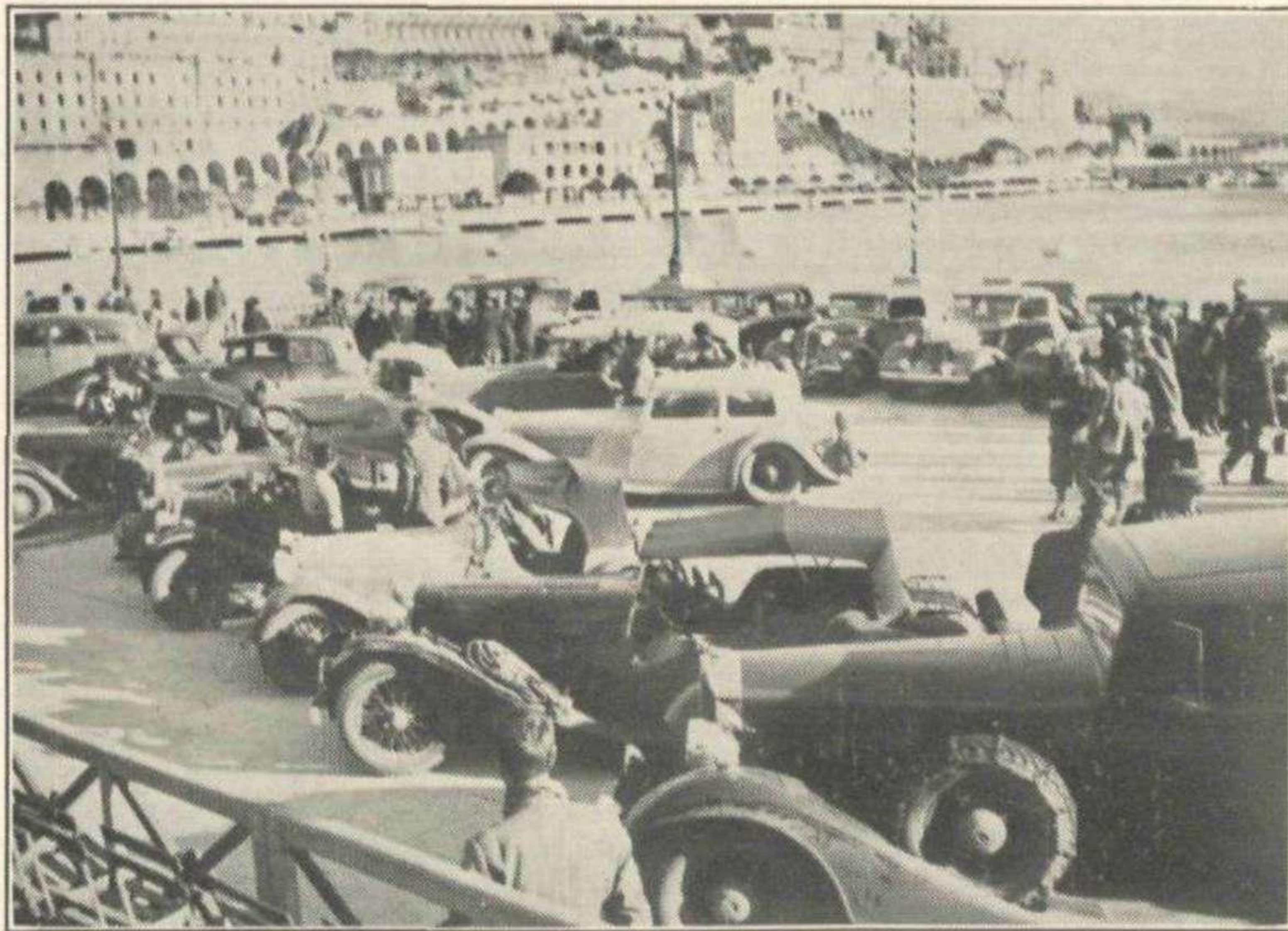


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# MOTOR SPORT PHOTOGRAPHS

## THE MONTE CARLO RALLY, 1935.



*A general view of the cars parked after their all-night vigil on the Quai de Plaisance.*

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*F. J. Ribeiro Ferreira's Railton on the Quai de Plaisance.*

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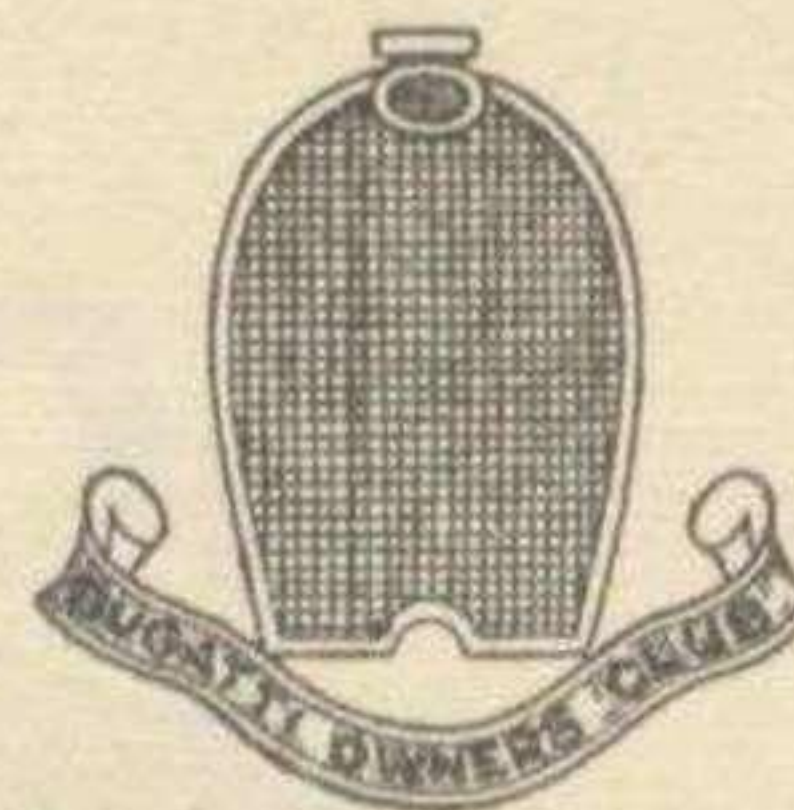
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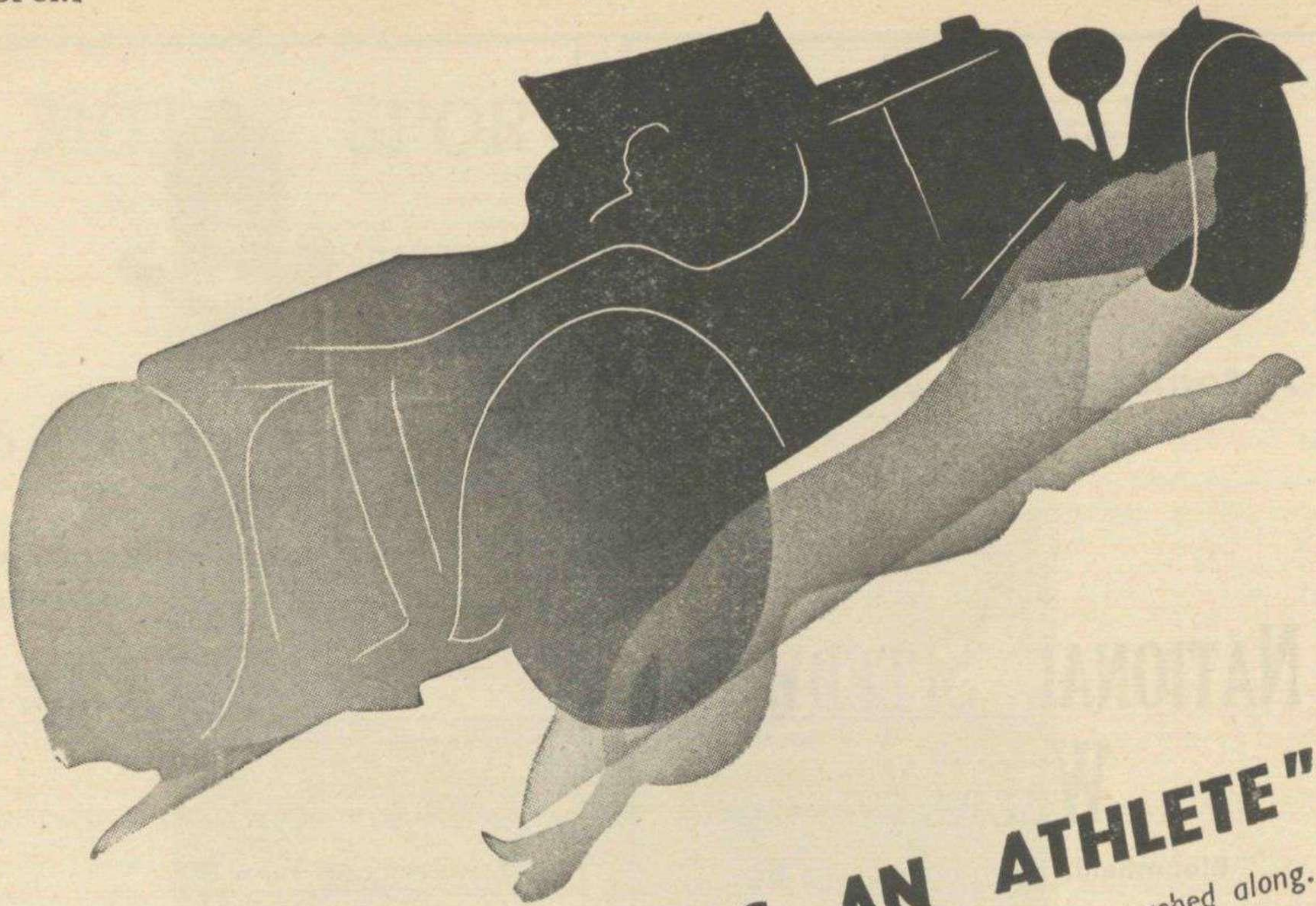
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## EDITORIAL VIEWS

THE fact that records have been broken at 200 m.p.h. on two roads in Europe gives an indication of the ultimate solution to the problem of finding suitable conditions for really high speed. The twin-engined Sunbeam was taken all the way to Daytona to travel at 203 m.p.h., while the Mercédès-Benz and the Auto Union have gone to Budapest and Lucca, respectively. But the road at Gyon and the Italian *Autostrada* were not designed for records, and are merely fine examples of motor roads built by Governments alive to the necessity for assisting the motor industries of their countries.

Germany, too, has a motor-minded Government, and her planned road system includes the provision of a long straight stretch suitable for the highest speeds.

At present Sir Malcolm Campbell is forced to incur the colossal expense of shipping "Blue Bird" and its attendants to Daytona Beach, which, by all accounts, is gradually deteriorating and may easily become unsuitable for speeds in excess of 200 m.p.h.

\* \* \* \* \*

The unavoidable delay in the "Blue Bird" record attempt has not been received kindly by sections of the public in this country and in the States. The truth is that the public, as a whole, are only interested in two things, outstanding success or dismal failure, and once their appetite has been whetted they cannot bear to wait even for such uncontrollable influences as the weather and tides. They can only cheer or jeer, and are deaf to the most logical reasons and scientific explanations.

The alternative, of course, would be to avoid all preliminary publicity, and to hurl the new record at them like a bolt from the blue. Unfortunately, the very nature of such a record attempt makes this course impossible.

Meanwhile, intelligent observers await better news from Daytona, with kindly sympathy for Sir Malcolm in his difficult task of overcoming the forces of Nature. His only consolation is the certainty that "Blue Bird" is equal to the work before her.

\* \* \* \* \*

We should like to draw the attention of our readers to the article, "The Racing Car of the Future," which appears in this issue of MOTOR SPORT. The major difficulty in deciding a new formula seems to be that regulations very often have both a good and a bad effect. Take the question of standard versus special fuels, for example. If we allow special fuels, the racing teams immediately search for the most potent "dope" their research departments can produce, totally different from anything ever used by normal stock cars. Such "dope" is usually very expensive, and would give only the poorest results in a present day touring engine.

Now see what happens if "dope" is forbidden. Research work is then unnecessary, and no fresh developments in fuel production are recorded. But here comes the snag: without the lessons of racing the stock cars of to-day would not have anything like so good a performance as they have. Their speed and acceleration comes from a high compression ratio, which has been made possible by the commercialisation of fuels with a benzol or tetra-ethyl content—at one time only used by racing cars.

A similar contradiction is found when the super-charger is discussed. The only way out is to balance up carefully the two aspects of each subject, and to decide which of them is the more important. It must be remembered, above all, that the most expensive and advanced racing theories of to-day may easily become commercialised in a few years.

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## JACK AND JILL WENT UP A HILL!

SUCCESSFUL FOUR-CORNERED EVENT WON BY THE CAMBRIDGE VETERANS, WITH CAMBRIDGE RESIDENTS SECOND, THE "JILLS" THIRD, AND OXFORD A POOR LAST.

THE Jack and Jill Trial was different from the usual run of trials, not only in name—although that in itself was a refreshing change from the customary "Cups," "Trophies" and point-to-point titles. The fact that three clubs were engaged in rivalry gave an added interest to the proceedings, while separate class awards satisfied the individualists. Then a little-used stretch of country was used, namely the Hindhead district, and finally competition tyres were banned.

The result of all this was one of the most enjoyable trials of the season, well attended, smoothly organised, and containing a nice combination of easy and difficult hills, so that newcomers were not discouraged and experts were not bored.

The starting point was at Milford, just at the end of the magnificent and time-saving Guildford By-Pass. The usual conglomeration of widely different vehicles collected here on the windy morning of February 16th. As befitted the organising Club, the C.U.A.C. furnished 39 out of the 72 entries. Just to make things a little more interesting these were divided into 21 residents and 18 veterans. The W.A.S.A. mustered 20 determined women-drivers, while the wretched O.U.M.D.C. could only scrape together a dozen representatives of that seat of learning.

The trial opened with a mild ascent called Blind Lane, a turning to the left off the Haslemere road. It was very muddy, and ran between high banks, and

Begley Farm led up to the main Hindhead road, and was an easy gradient for all but the oldest cars, and E. G. Brettell (Austin 7) looked as though he

making a queer fluffy sound, but functioned satisfactorily. The rest of the competitors made good climbs.

A dozen miles farther on the com-



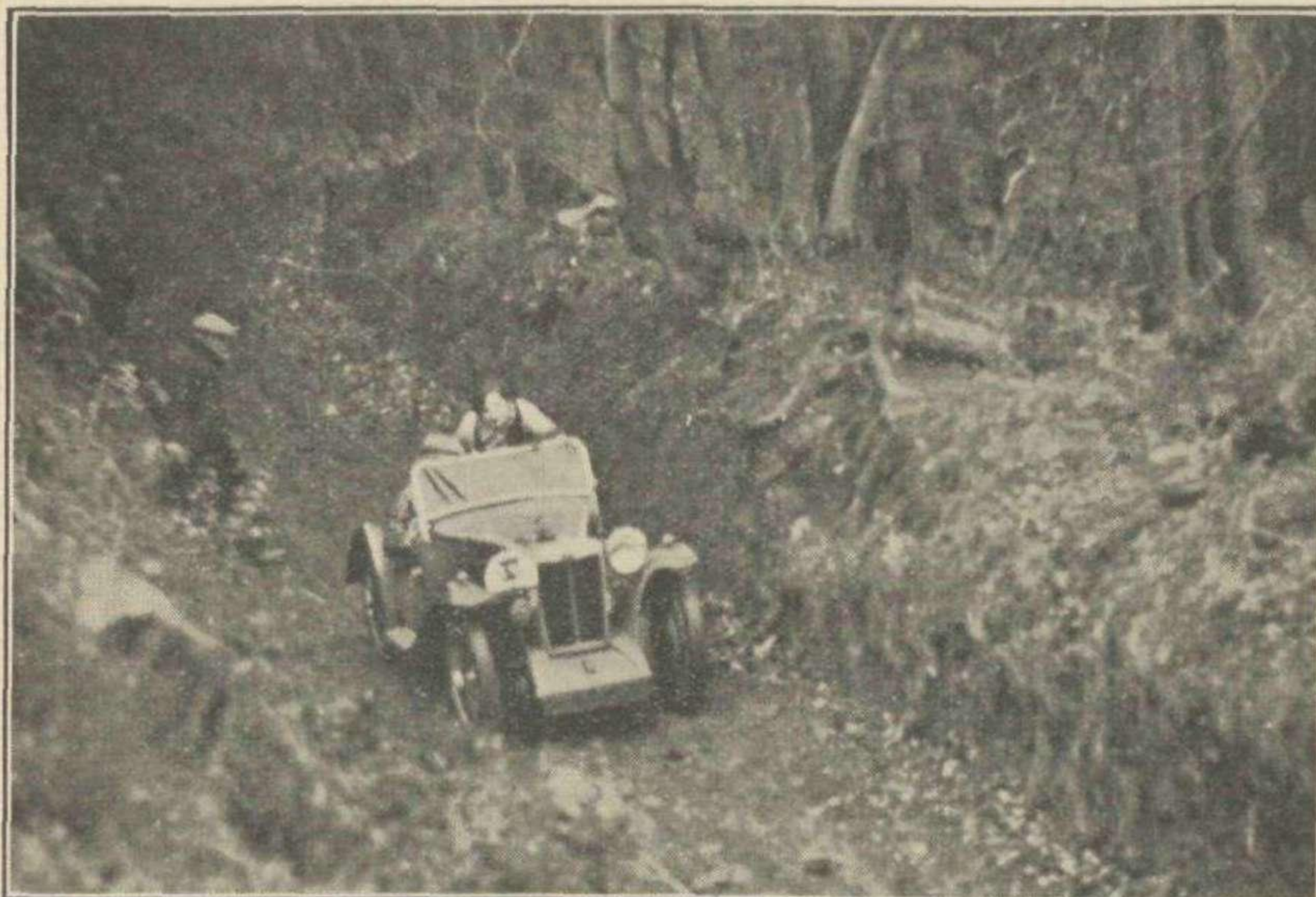
Blind Lane caused little trouble. Here is R. de Y. Bateson on an elderly A.C. awaiting the starting signal.

would come to a standstill. By careful driving he succeeded, however, and this hill was uneventful. A minor disturbance

petitors came to Abster's Hollow, the most difficult ascent of the trial. So long is this interesting hill that it was divided into two sections, but the competitors kept going as though it was a single climb. It is an unusual hill starting with a slippery bit, continuing up a slight gradient which gradually steepens as the lane dives into a cutting where there is a big bump. This leads up to a right-angle corner on a steep pitch, when the surface changes to sand and gravel, finishing with another sharp corner, this time to the left, right at the top. Without the assistance of competition tyres driving skill was at a premium.

Only about a quarter of the entry got up unaided. Of these Kenneth Evans made what was probably the star climb of the day, handling his M.G. Magnette with real skill. M. W. B. May was good on the old Alvis, as were A. R. Phipps (Aston), R. M. L. Lemon (Singer coupé), R. M. Frewen (Wolseley Hornet), and Miss Barbara Daniell (Wolseley Hornet). Others who were not so successful, but equally gallant, were Miss Doreen Evans (M.G. Magnette), R. B. Collie (Salmson of ancient vintage), and Mrs. Montague Johnstone (Fiat Balilla Sports). O. O. Coryton had two girl passengers seated on the hood of his M.G. Magna, and a momentary détour into a mass of gorse bushes nearly unseated them. Bouncing passengers were the order of the day, for this procedure was allowed by the regulations.

The Quell and Blackhorse Hollow actually ascend the same ridge as Abster's



Bouncing passengers was the general rule on Alester's Hollow. P. R. Monkhouse (P type Midget) found this method of attack useful in making a clean climb.

beyond deep ruts and a steep bit right at the top did not present much difficulty. An Airstream Singer, driven by J. O. Rennie, failed to get up, while Miss Pamela Lacon (Singer Le Mans) only just managed it.

occurred at the foot of the hill when Miss Peggy Blathway's M.G. Midget belched forth smoke and flames, but the conflagration luckily extinguished itself. Ivo Peters' mount, an Avon Standard coupé with outside exhaust pipes, was



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#### 1934 ALPINE TRIAL.

Six Frazer-Nashes started—six finished. The ONLY make of car which has competed in the Alpine Trial for the three successive years—1932, 1933 and 1934, without losing a single mark.

A non-supercharged 1½-litre Frazer-Nash was the ONLY car of the total English and foreign entry of 132 cars (with the exception of two foreign supercharged racing cars) to finish in the exceptionally severe 1933 Alpine Trial without the loss of a single mark, and to climb the Pordoi, Stelvio and Grand Galibier passes at the required average speeds.

Of the 52 English cars road-tested by "The Autocar" in 1934, the Frazer-Nash had the BEST acceleration from 0 to 60 m.p.h. (14 seconds). From 10 to 30 m.p.h. and 0 to 50 m.p.h. the times achieved by the Frazer-Nash of 3½ seconds and 10 seconds respectively, were equalled only by a 4½-litre car. The Frazer-Nash achieved the highest speed up the Test Hill of ALL English cars. In 1931, 1932 and 1933 also, the Frazer-Nash had the best acceleration figures of all English cars tested by "The Autocar."

Numerous successes in Brooklands races, consistent winners of their class at Shelsley Walsh, in speed trials and other sporting events.

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**1934 ALPINE TRIAL.** Team Prize. Five started—Five finished. No marks lost.

#### HARZ 3-DAY MOUNTAIN TRIAL.

All Frazer-Nash-B.M.W's. entered gained awards—a third of the total entry failed to complete the course.

**GERMAN WINTER TRIAL.** January 29 to February 3. Winner of the 1,500 c.c. class. Regarded in Germany as the most severe test of standard production cars, this trial (including special road-holding and acceleration tests, etc.), is held in the Alps under the most rigorous conditions, such as are unknown in this country—snow, ice and extreme cold. Previous to the trial and tests cars have to remain in the open during the night for a minimum period of 15 hours. This year abnormally severe gales and snow to a depth of 9 feet in places made the trial even more arduous.

**GERMAN 2,000 KILOMETRES TRIAL. BEST TEAM PERFORMANCE.** The Frazer-Nash-B.M.W. team averaged 53 m.p.h. as against the required average of 45 m.p.h., arriving 4 hours 39 minutes ahead of its scheduled time. 18 of the 21 Frazer-Nash-B.M.W. entries gained Premier Awards. Prices from £298-0-0 (Saloon Model).

and, of the greatest importance to the buyer, these successes were all gained on standard cars EXACTLY AS SOLD TO THE PUBLIC.

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JACK AND JILL WENT UP A HILL!—continued.

Hollow, but they were not nearly so difficult. The former was timed, and the latter observed, and such cars as Kenneth Evans' well-tuned Magnette roared up at great speed.

After the inevitable delay on Abster's Hollow, the lunch stop was an afternoon affair for many people. The "Royal Anchor" Hotel served relays of meals for hours on end. Duly refreshed, the competitors set off once more, and immediately found difficulty with their route finding, owing to the under-handed action of an unknown individual who removed all the direction cards in the vicinity.

Through Scotland Hill the competitors were timed, arriving at the foot of Oakshott Hill near by. This was quite difficult for the larger cars, but the little fellows found it well within their scope. The cars were started just before the right-hand corner, and were thus deprived of the opportunity to rush the hill. The surface was that nasty variety of large stones protruding through slippery mud, and wheelspin was easily engendered by too much throttle.

P. N. Whitehead found that the first speed of his "self-changing" supercharged Alta had burnt out, so he took a run at the hill and went up fast in second gear. A. R. Porter had an exceedingly well-trained crew of "bouncers," whose co-ordinated movement all but got the car up the hill. C. Winslow-Taylor was another who had to give up all thought of a standing start. He brought up his old Frazer-Nash in a cloud of mud and

Walker (3-litre Lagonda) suffered the handicap of a large car, and had to be pushed. R. B. Collie was again first-class with his aged Salmson, whose solid axle assisted considerably.

A timed section was held on Shotters Hill, in which Kenneth Evans made

A. R. Porter (Bentley), C. W. Gough (M.G. Midget) and D. B. Tubbs (supercharged M.G. Midget). The fastest climbs appeared to be those of A. R. Phipps (Aston-Martin), who kept his car absolutely straight without any apparent effort, and W. D. Phillips (Railton



Combatting wheelspin on Oakshott Hill. The car is Mrs. Lind Walker's 3-litre Lagonda.

fastest time with his "N" type M.G. Magnette. There remained only Whit-

Terraplane).

The finish of this enjoyable trial was the "Royal Huts Hotel," Hindhead, where tales of adventures and amusing incidents were recounted for several hours.

RESULTS.

- 1.—Cambridge Veterans, 968 points (6 clear scores).
- 2.—Cambridge Residents, 929 points (no clear scores).
- 3.—W.A.S.A. 919 points (1 clear score).
- 4.—Oxford 909 points (2 clear scores).

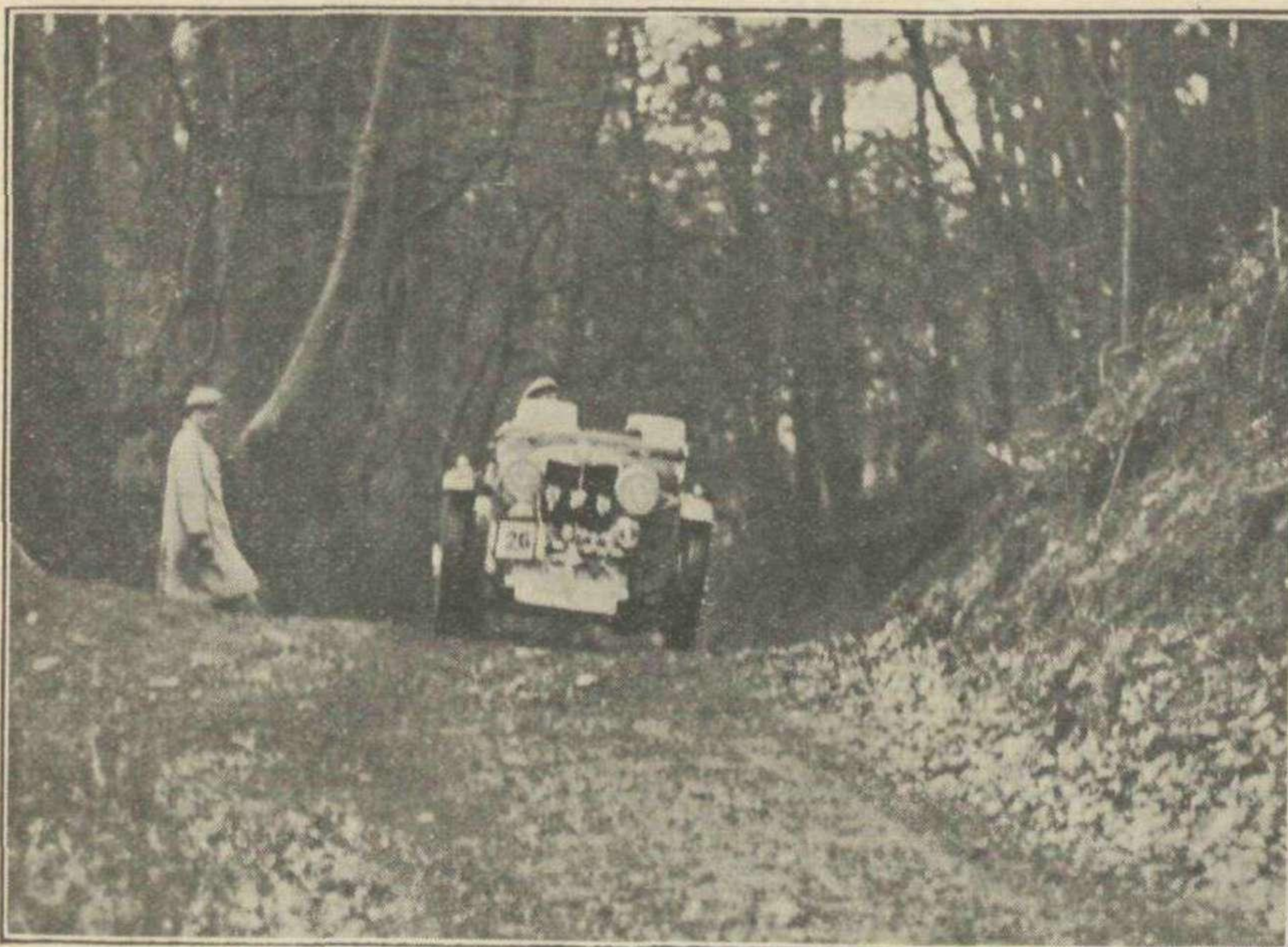
Class Winners:—1,100 c.c. O. O. Coryton (M.G. Magna, Cambridge). 2,000 c. c. K. D. Evans (M.G. Magnette, Oxford). Unlimited, Hon. A. D. Chetwynd (Ford V8, Oxford).

The Following comprised the winning team of ten:—

Name	Car	Marks
D. G. Hopkins (Frazer Nash)	...	100
R. G. Percival (Ford)	...	100
A. C. Fairtlough (A.C. Ace)	...	100
O. O. Coryton (M. G. Magna)	...	100
P. R. Monkhouse (M. G. Midget)	...	100
M. W. B. May (Alvis)	...	100
R. de Y. Bateson (A.C. Ace)	...	95
D. H. Murray (Frazer Nash)	...	93
C. R. Watson (Talbot)	...	90
O. H. J. Bertram (M.G. Magna)	...	90

COMPLETE CLASSIFICATION.

Name	Car	Marks
1 K. D. Evans...	M.G. 1287...	O 100
2 Hon. A. D. Chetwynd	Ford 3362...	O 100
3 D. G. Hopkins	Frazer Nash 1496	V 100
4 R. G. Percival	Ford 3362...	V 100
5 A. C. Fairtlough	A.C.1991 ...	V 100
6 Miss Daniell...	Wolseley 1287	W100
7 O. O. Coryton	M.G. Magna 1087	V 100
8 P. R. Monkhouse	M.G. 847 ...	V 100
9 M.W.B. May...	Alvis 1645	V 100
10 R. Ross Taylor	Frazer Nash 1496	R 99
11 Miss Worseley	Alvis 1496...	W 99
12 R. P. Stewart	Frazer Nash 1496	R 95
13 A. R. Phipps	Aston Martin 1496	O 95
14 Mrs. Needham	Frazer Nash 1496	W 95
15 R. C. Holland	M.G. 847 ...	R 95
16 I. F. Connell	Singer 972...	R 95



K. D. Evans (N type Magnette) breasts the steepest part of Blackhouse Hollow. He made best performance of the day.

stones. Miss Doreen Evans (M.G. Magnette) almost came to rest with spinning wheels, but kept going after all. E. G. Brettell, with a very old Austin Seven, gave a model display, touring gently up the hill without wheelspin. Mrs. Lind

more Bottom to surmount before the finish, and this ascent was easy for most people with plenty of power. It was very muddy in the middle, with deep ruts, and failures were recorded by E. G. Brettell (Austin), J. C. Smith (Austin 10),



JACK AND JILL WENT UP A HILL!—continued.

**COMPLETE CLASSIFICATION—contd.**

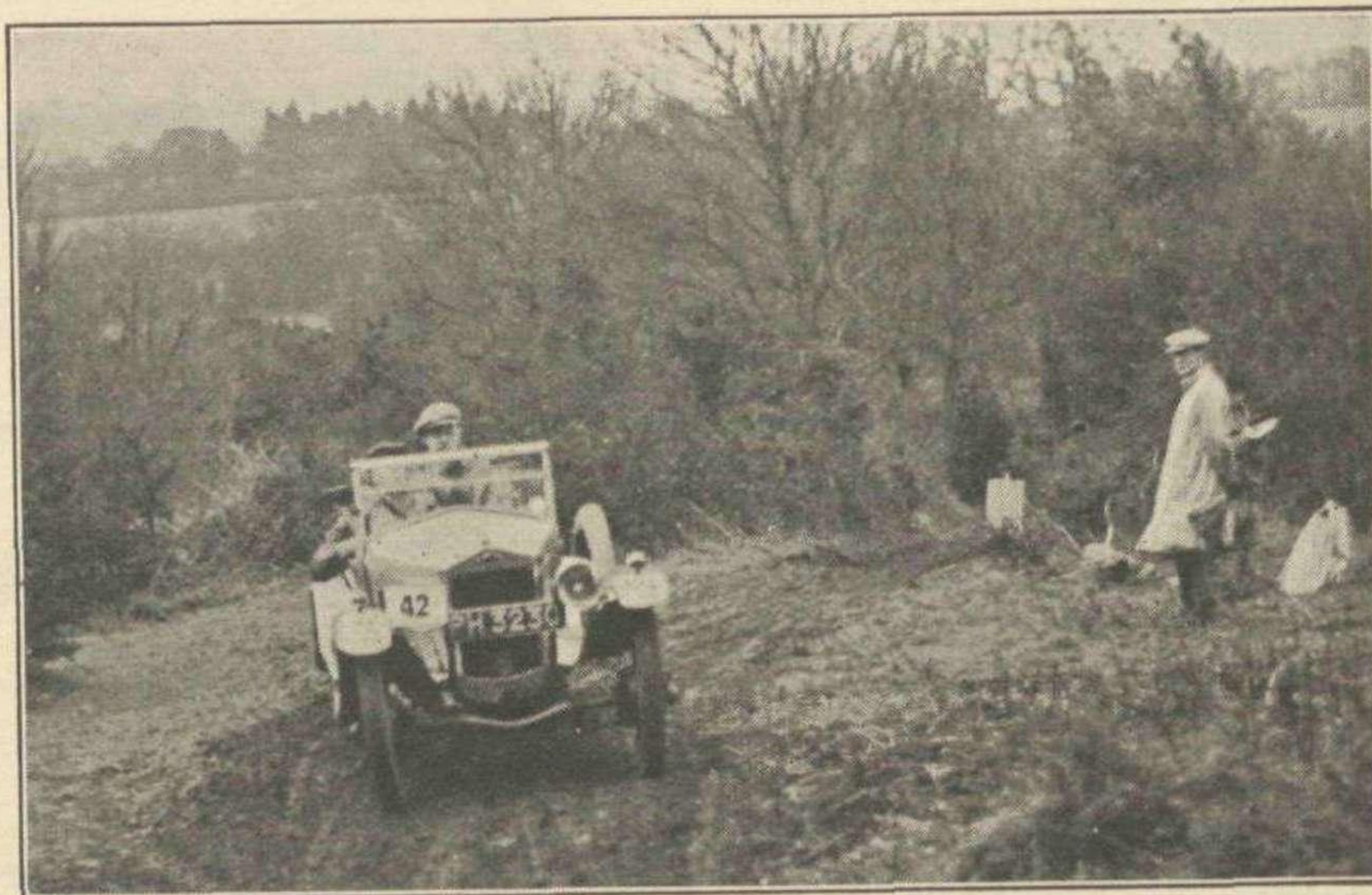
Name.	Car.	Marks.
17 Miss Taylor	... M.G. 847 ...	W 95
18 R. de Y. Bateson	... A.C. 1991 ...	R 95
19 K.M. Petter	... W.A.G.N. 1310 ...	R 94
20 W. M. Peel	... Frazer Nash 1496	O 94

**FERODO REPLIES.**

In a recent speech the Minister of Transport, Mr. L. Hore-Belisha, M.P., said: "I shall try to discover a way of ensuring that the brakes and tyres of every car on the road are in proper condition."

Their latest production is a really informative booklet, entitled "If You Could See Inside Your Brakes," which is full of facts which every motorist should know.

This booklet, which can be obtained post free from Messrs. Ferodo, Ltd., Chapel-en-le-Frith, Stockport, gives hints on the care of brakes, notes on the personal factor in driving; it tells you how to test the efficiency of four-wheel brakes, and how quickly you should pull up at varying speeds.



*There was slimy going between the two sections of Absteys Hollow, and C. Winslow Taylor found his small-tyred Frazer Nash hard to hold.*

**AN ASTON-MARTIN BRAKE TEST**

READERS may recollect the Aston-Martin road test which appeared in the January issue of MOTOR SPORT, in which we commented on the strange behaviour of the brakes. On a subsequent visit to the Feltham Works last month we learned that the linings on the car we had tested had been just on the point of wearing out, so we were

interested to test another car of the same type with these important organs in a better state of repair, though the owner informed us that they had not been adjusted for 5,000 miles.

Tested at 40 m.p.h. on dry tarmac, they brought the car to rest each time in 51 feet without deviation from the straight, a very different figure from the 75 feet we

found necessary when braking during the road test, though not surprising in view of the large diameter of the brake-drums. From 30 m.p.h. we pulled up in 28 feet, and as both these figures are about the best possible on normal surfaces, the owner of an Aston-Martin has nothing to fear when called upon to make an emergency stop.

**FORTHCOMING EVENTS**

**MOTORING FIXTURES FOR 1935.**

**MARCH.**

- 2nd. Junior Car Club. Brooklands Rally.
- 9th. Riley M.C. Reliability Trial.
- 9th. L.C.C. Reliability Trial.
- 10th. Vintage Sports Car Club. Reliability Trial.
- 16th. B.A.R.C. Open Meeting.
- 16th. N.W.L. M.C. Coventry Cup Trial.
- 16th. Southport M.R.C. Speed Meeting.
- 16th. Standard Car Owners' Club. Reliability Trial.
- 17th. Brighton and Hove M.C., Ltd. Spring Cup Trials.
- 23rd. Cambridge U.A.C. Speed Trial—Syston Park.
- 23rd. M.G. Car Club (Scottish). Reliability Trial.
- 23rd. United Hospitals and U.L.M.C. Reliability Trial.
- 24th. Hastings and D.M.C. Reliability Trial.
- 26th-30th. R.A.C. Rally. Eastbourne.
- 30th. Scottish Sporting C.C. Half-day Trial.
- 31st. Bugatti Owner's Club. Malvern Rally.
- 31st. Great West M.C. Spring Cup Trial.
- 31st-April 6th. 2nd Tour Automobile d'Italie "Coppa d'Oro del Littorio."

**APRIL.**

- 6th. Junior Car Club. Inter-Club Rally.
- 6th. Lancashire and Cheshire C.C. Sporting Trial.
- 6th. W.A.S.A. Restricted Trial.
- 6th-7th. Brighton and Hove M.C., Ltd. Reliability Trial.
- 7th. Cambridge U.A.C. Exmoor Trial.

**APRIL—continued.**

- 7th. Middlesex County A.C. Opening Run.
- 13th. Derby and D.M.C. Speed Meeting, Donington.
- 13th. Southport M.R.C. Speed Meeting.
- 13th. S.S. Car Club. Half-way Trial.
- 13th. Veteran Car Club. Rally and Hill Climb.
- 13th-14th. Singer Motor Club Rally.
- 13th-18th. 14th Criterium International de Tourisme Paris-Nice-France.
- 14th. Margate and District C.C. Restricted Trial.
- 14th. Italian 1,000 Miles Race.
- 15th-16th. Nice Speed Trials.
- 18th. La Turbie. Hill Climb.
- 19th-20th. M.C.C., Ltd. London-Land's End Trial.
- 20th-22nd. Scottish Sporting C.C. Two-day Trial.
- 22nd. Monaco. G.P.
- 22nd. B.A.R.C. Race Meeting.
- 22nd-27th. Ulster A.C. Rally.
- 24th-May 11th. International Rally to Morocco.
- 27th. Middlesex C.A.C. British Car Competition.
- 27th. Sutton Coldfield and N.B.A.C. Team Trial.
- 27th. Triumph M.C. "Cotswold 100."
- 27th. W.A.S.A. Welsh Trial.
- 28th. Bugatti Owners' Club. Monte-Honiton-Carlo Rally.
- 28th. 26th Circuit des Madonies "Targa Primavera Siciliana."



## NEWS FROM THE U.S.A.

### Miller Building Cars.

**H**ARRY MILLER, famous builder of race cars in the States, is busy constructing five machines in Detroit, Michigan, according to reports in a California motor magazine. These machines, the periodical states, will be raced in European events during the summer, and will probably be handled by picked American cracks. Ernie Weil, once associated with Miller on the West Coast, has joined the master builder in Detroit to aid in building the new machines. Details of these five jobs are lacking.

\* \* \*

### Petillo Wins at Ascot.

Kelly Petillo, Italian-American ace, raced his Miller Special to victory in the 250-lap race over the Ascot 5/8's mile track late in January. Mays, Petillo and Gordon furnished the huge crowd with an afternoon of thrills by fighting through many laps only a few yards apart, but Gordon was forced from the race with mechanical trouble, and Petillo was able to distance Mays in the latter stages of the race.

Carl Ryder was severely injured on 149th lap when his machine burst a tyre on a curve, smashed into the outside railings, and turned end over end before coming to rest, a twisted mass of steel. Ryder sustained a broken leg and numerous bruises and abrasions. He is reported improving at this writing.

Petillo also captured the main event of 100 laps the week before the 200-lap race, with Mays second, and Al Gordon third.

\* \* \*

### Midget Racing Booming.

The midget motor racing sport is still enjoying a tremendous rise in popularity in the States. The sport, however, is not menacing the large cars, contrary to reports.

In New York two large buildings are being used for indoor midget events, and these races are held twice weekly. Large crowds attend the events, and such famous stars as B. Balus, Sig Hughdahl, Bill Holmes, "Pop" Venth, and others, are

### A "CONVOY" TRIAL.

On March 9th the Light Car Club will hold a Convoy Trial, commonly known as "Follow-my-leader." Starting from the the Filling Station, Kingsdown, Kent, at 2.30 p.m. an official car will lead the way, the rest of the competitors following in numerical order. There will be several observed hills, one or more restarting tests, and a special test, downhill.

Entries, at 7s. 6d. per car, must be sent to the Secretary, Light Car Club, 22, Basinghall Street, London, E.C.2, by Tuesday, March 5th. The number of entries will be limited to twenty.

### ANXIOUS WAITING AT DAYTONA.

Sir Malcolm Campbell is still waiting, at the time of writing, for better conditions at Daytona Beach before making an attempt to raise his own figures for

By  
*Our American Correspondent*  
**T. MERIWETHER-SMITH**

participating. Other indoor tracks, notably at St. Louis, are attracting huge crowds. Indoor midget events are being held in Chicago, St. Louis, Milwaukee and New York.

The 1935 midget season in California will be opened on February 21st at the Gilmore Stadium in Los Angeles, considered the most beautiful midget layout in the nation, and the fastest. Fred Offenhauser, formerly chief mechanic with Harry Miller, has designed the most successful of the midget motors. It is known as the "mighty midget," and has a piston displacement of slightly over 90 cubic inches, and so is not a midget in size. The motor is similar to the Miller power plants. The tiny cars are capable of over 125 miles per hour.

\* \* \*

### Safety Helmets Compulsory.

English type crash helmets must be worn by all drivers after April 1st in all sanctioned events, according to a recent bulletin from the A.A.A.-contest board.

\* \* \*

### A.A.A. Creates Racing Classes.

Under a new regulation of the A.A.A. all drivers racing under their sponsorship in 1935 will be grouped into three classes. Class A drivers will be allowed to compete only in races of championship variety, or on tracks of the better class, such as Langhorne, Milwaukee, Atlanta, Ascot, etc. The Class B drivers are allowed on larger tracks, but only in competition with Class B men, and on the half-mile ovals. The Class C drivers are the midget drivers, who must have a year of midget experience before graduating to the Class B competition. Any Class B man can graduate to the Class A competition when his experience and skill has been deemed sufficient.

the world's Kilometre and Mile records.

The famous Beach is in a very bad state, reports Sir Malcolm, and any attempt at high speed under present conditions is absolutely out of the question. Not only is the surface bad, but two curves spoil the straightaway so necessary for a full-bore run at nearly 300 m.p.h. To cap everything, a plague of sand worms has appeared.

Villa and his team of mechanics have got "Blue Bird" in perfect shape. A trial run was made on arrival at Daytona, and clutch slip was experienced, but this has now been remedied. In view of the fact that the car was necessarily untested before reaching Daytona, the little work that has been found necessary is a remarkable tribute to the designer and builders of the car. Incidentally, a siren is sounded when a trial run is to be made, and everyone rushes

### Indianapolis Notes.

Doc Mackenzie, the famous Pennsylvania driver, will be seen at Indianapolis in a new front-wheel drive car, according to reports from the West Coast. This car will cost \$30,000 and is being constructed by Fred Offenhauser. It is backed by Gil Pirrung, the young St. Louis sportsman. Offenhauser is also building a one-man job for the Eastern dirt track campaign for the Pirrung stable.

Rex Mays, Pacific Coast champion, will drive a rear-drive Miller for Earl Haskell in the 500. It is the car in which Lester Spangler lost his life in 1933.

Bill Cummings will have a new front-drive Boyle Special for the 500 and the Boyle team will boast four fine machines for the race. Harry Hartz will enter his front-drive, but is reported ready to try for records up to 50 miles at Dry Lake Muroc before taking the machine to Indianapolis. Hartz may drive in the 500 himself, it is reported. It is rumoured the two oil-burning racers now seeking diesel records at Daytona Beach will be entered at Indianapolis by their sponsors, Dave Evans and Clessie Cummins.

\* \* \*

### Championship Races.

The 1935 A.A.A. Championship season looms as one of the best in the last five years. Events are planned at the following one-mile dirt tracks, each 100 miles: Langhorne, Milwaukee, Springfield, Detroit, Oakland, Syracuse, Rockingham, and one or two others. Mines Field will hold a 200-mile race in November, and there is still talk of a 600-mile road race at Chicago during the summer months.

In addition to the above listed events, Ralph Hankinson, veteran race promoter, has announced that he will run several Championship races during the year on the large dirt tracks. His first is the Langhorne event scheduled for April.

\* \* \*

A 500-mile race for unlimited stock cars may be held at Mines Field before the drivers leave for the East in April, according to reports from the West Coast.

down to the Beach for a glimpse of the car.

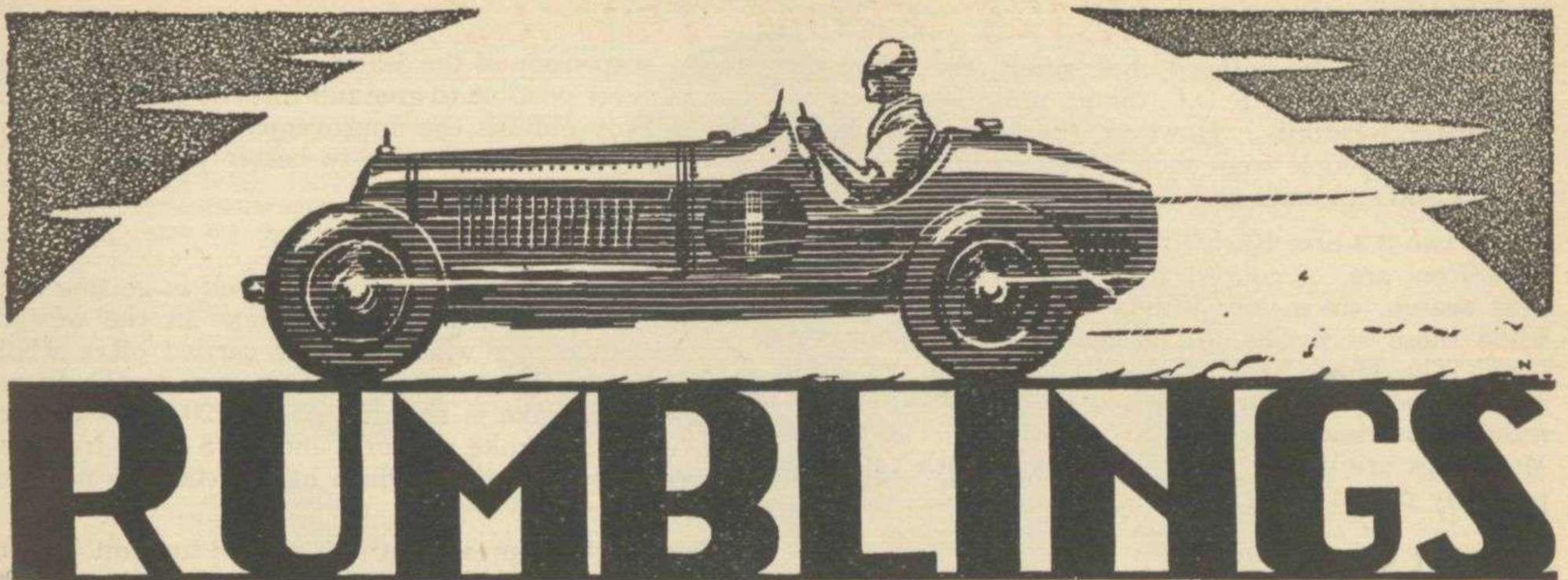
Meanwhile Sir Malcolm is passing away the difficult period of waiting in playing golf, occasionally joined by Kaye Don. Major A. T. C. Gardner, too, is at Daytona, and, of course, Lady Campbell and daughter Jean.

### NEW RECORD FOR HEAVY-OIL CARS.

Ever since G. E. T. Eyston broke the record for heavy-oil engine cars, it has been expected that a challenge would come from America. The last American record was just over 100 m.p.h., made by Cummings with a specially built car. On two occasions since then the record has been raised by Eyston, his highest speed being 120 m.p.h.

Now comes the news that Dave Evans has beaten this figure with a speed of 125.065 m.p.h. for one mile, flying start.





### The Club Bore Defeated.

ONE of the reasons why many people go on the Monte Carlo Rally is to get an experience of snowy conditions, and to tell their friends at home all about it, and it was a real disappointment to return to England and to have their best stories capped by being told: "Oh, but we had quite a lot here." However, drivers and crews made up for lost time at an informal dinner held last month at Gilson's Club, and much of the discussion focussed naturally on what sort of car might be expected to win next year's event.

Whalley, who was again fifth in this year's results, has already planned a super-car, which is to have a supercharged Ford V8 engine, fitted into one of the old short chassis. Not content with the present transmission he intends to have a self-changing gearbox, and a special two-speed back axle as produced in America, giving him eight forward speeds and two reverses! He has already made successful experiments with the Ford engine fitted with a Centric blower, and hopes to have the whole car together in time for the Shelsley meeting in May.

### The Triumph Triumph.

I happened to be sitting next to J. C. Ridley, whose success in the light car class was something of a consolation for Donald Healey's bad luck, and was interested to hear some of his experiences. In the first place, contrary to what one would expect, he found no advantage in a self-changing gearbox, as there was a tendency to stall the engine if one changed into reverse too early, and he gave this up in favour of an orthodox "clash-type," stripped of the reverse lock and anything which might impede a rapid change.

The supercharger was another last-minute brain-wave. The Triumph engine was particularly easy to adapt to the idea, and to connect it up, which he did outside the check at Lyons, he simply had to remove the carburetter, which is mounted on top of the engine, and to couple up the induction pipe from the blower. The latter was driven by an open chain from the front end of the crankshaft. It was lucky he did not leave the change-over till later, for he and his fellow-driver were both practically dropping off to sleep all the way from Avignon.

### Ex Africa . . .

The Morocco Rally promises to be a very different affair—a drive across France and Spain at ever-increasing speed, culminating in a high-speed trial and hill-climb near Casablanca. It sounds a good event for owners of 4½-litre Lagondas and other large fast cars; while Frazer-Nashes, Aston-Martins and blown M.G. Magnettes should stand an excellent chance in the 1½-litre class. It's a long way away, but the prize money is quite tempting.

Meanwhile, by the same post as those regulations, I received a letter from the same part of the world enclosing a cutting from a Moroccan paper giving details of the famous "Flying Flea." This is a single-seater aeroplane constructed by a Frenchman called Mignet, and which he claims can be built by any amateur in his back-yard, the total cost with engine not exceeding £70.

At this price all of us can afford to be air-minded, and in any case will probably incline that way in a few months, with the coming into force of the 30 m.p.h. speed limit. In the home counties, at least, life on the road will be rather depressing.

### The B.R.D.C. Dine.

After-dinner speaking is usually a thing to be borne



Returning from the Rally—a group of British cars on the quayside at Folkestone. From left to right, Davis's Railton, Lord de Clifford's Lagonda and Moore's A.C.



## RUMBLINGS—continued.

rather than to be enjoyed, but surely the addresses delivered after the B.R.D.C. dinner must be classed as long-distance records? However, the depression passed at last, and people were soon hard at work discussing next season's mounts and races.

The two 3.3-litre Bugattis owned by Lord Howe and Noel Rees are, of course, the most favoured cars for next season, since they will be serviced at Molsheim, while those of Eccles and Martin will be tuned over here. The Howe-Rees combination plan a very full season, and the drivers expect to be on the Continent most of the time from June to September. The Isle of Man races are at the end of May, and both cars will probably run over there.

## Assorted Speed.

Shuttleworth's Monoposto Alfa will, of course, be a car to be watched, while Whitney Straight is holding on to at least one of his Maseratis. Incidentally, the Duesenburg he drove at Brooklands last year would seem to have an excellent chance in the Empire Trophy, the rules of which are quite kind to large unsupercharged cars, putting them on an equality with 2.3 supercharged machines.

Besides the official team of E.R.A.s, which consists of Mays, Rose-Richards and Staniland, Fairfield has bought an 1,100 c.c. car, and Seaman a 1½-litre. There should be some effective opposition from the new single-seater M.G.s, and I hear that Hall and Everitt are getting single seater "Q" Midgets; while George Eyston may also be leading a team of them.

The Magic Magnette has found a new home, for it has been bought by the Belleview Garage, and will be raced in several races at Brooklands during the season. Kenneth Evans and Miss D. Evans will have single-seater Midgets, while Manby-Colegrave has teamed up with Dudley Froy and they will run the Magnette, the 5-litre Bugatti which Kaye Don drove, and the Q type two-seater Midget driven last season by Everitt.

## De Ram again.

Froy is one of the latest converts to the de Ram shock-absorbers, arguing that if they can keep the wheels of the conventionally sprung 3.3 Bugattis on the ground at 180 or so, they will have an equally beneficial effect

on the suspension of the 5-litre. With the car as it was, it was never possible to give full throttle on Brooklands, but if Froy obtains the improvement he hopes for, he thinks it should be possible to better John Cobb's lap record of 142 m.p.h.

## Salduro, the Ideal Track.

Meanwhile Cobb is occupying himself in getting data about Salduro, the dried-up salt-lake in the western United States, on which Jenkins carried off a whole series of long-distance records last year on the Pierce Arrow. The lake is situated about 120 miles west of the Great Salt Lake of Utah, and is 15 miles from the nearest railway station, which has the homely name of Wendover.

During the winter months a certain amount of rain falls in those parts, and the surface is not dry enough to regain its sun-baked crispness until May or June. A little raking has to be carried out to remove loose patches, and after that the would-be record-breaker is rewarded with a perfectly level track 13 miles in circumference, round which he can circulate to his heart's content. The State Highway Board mark with stakes and wire the inner margin of the circuit desired, no outside limit of course being needed, while the revised record-breaking rules allow of more than one tyre depot round the circuit.

## Sixty Tyres!

The chief difficulty about record-breaking, granted that the car is capable of the necessary speed, is not therefore the destructive nature of the track, but the difficulty of organising assistance in a spot 15 miles from the nearest settlement. When Cobb and Charlie Dodson, who will be driving with him, set sail from England in June they will take with them sixty or seventy tyres, some hundreds of gallons of fuel in 50 gallon drums, and half a dozen mechanics. The car will go overland to Utah by train, the final 15 miles being done on a lorry. I was surprised to learn that the Napier Railton only weighs just over two tons, and has a petrol consumption of 6 m.p.g.

Cobb and his colleague propose to tackle all records from 1 to 24 hours, and then on to 48 if they and the car are not worn out by that time. Jenkins' speeds are around 130 m.p.h., so if they are not raised again before Cobb gets there, the British car, with its all-out speed of 155 or so, should be capable of advancing them a good deal. Sustained high speed and the hot weather which may be expected at that time of year make an undertaking of this sort even on an almost straight track a task requiring considerable stamina. The Dunlop tyres, which are often an unknown factor, have been well tested on the abrasive surface of Monthéry and found satisfactory, so that is one anxiety less.

## Millimetres of Mercury.

Talking of Monthéry, I see by the latest Bulletin issued by that famous resort of "Recordmen" that a meteorological station has been established on the Autodrome to provide information and forecasts of the atmospheric pressure, wind direction, humidity, and other matters of this sort. These factors have a surprising effect on a car's performance, and I remember a



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*RUMBLINGS—continued.*

designer bewailing bitterly how misleading it was to compare all-out speeds put up on Brooklands unless these were recorded within a few minutes of one another. Apart from the question of wind, I have found myself that quite a number of cars seem to get "out of breath" and fail to reach their normal speeds on those scorching days one sometimes gets down there.

As far as atmospheric pressure is concerned, Tat, the well-known record-breaking venue in Hungary, is below sea level, and so is Murok, the salt lake track in California, and both should therefore have a slight supercharging effect; while Monthéry, which is laid out on top of a plateau, should have the opposite effect. However, I think the modern blower is more than a match for atmospheric pressures such as these.

**A Motor-racing Film.**

German racing cars have been constantly in the news of late, and as I write this I learn of Stuck's flying mile record set up in Italy, a challenge to which the Mercedes-Benz people are obviously going to reply. Meanwhile I learn from Mr. Seher, of Mercedes-Benz, that he has been producing, in conjunction with U.F.A., a sound-film of his firm's racing activities during 1934, with the title "Victory for Germany," and that it has just been released in Germany. I hope we get a chance of seeing it in England during the next few months, and it will be specially interesting to see whether the sound-engineers have managed to record successfully the wail from the "Merc" supercharger. In this case it will be indeed a "super-picture."

**Those Enclosed Racing Cars.**

Caracciola's fastest run at Gyon was made at an average speed of just 200 m.p.h., but one would expect the Auto-Union to be capable of a still better performance, in view of its long tapered tail, and no less so in view of the fact that it has a five-litre engine as against the four-litre of the Mercedes. I understand from a reliable source that the car has actually reached in tests the speed of 212 m.p.h., when the engine is turning over at the formidable speed of 9,000 r.p.m.

There are persistent rumours that the Auto-Unions are steam-cooled, which may account for the complaints about hot cockpits made by some of the drivers. I hate to think how Stuck felt inside his closed machine.

**Dearth of Drivers.**

Without Hans Stuck, who of course is an Austrian, Auto-Union would have been in an awkward predicament last year, for Leiningen, Sebastian and the other native drivers were not up to the form of the better Italian and French pilots. Now that Varzi has joined the team we shall see for the first time a super-driver on the latest type of racing machine, and in most cases I should think the combination should prove unbeatable.

**The Italian Reply.**

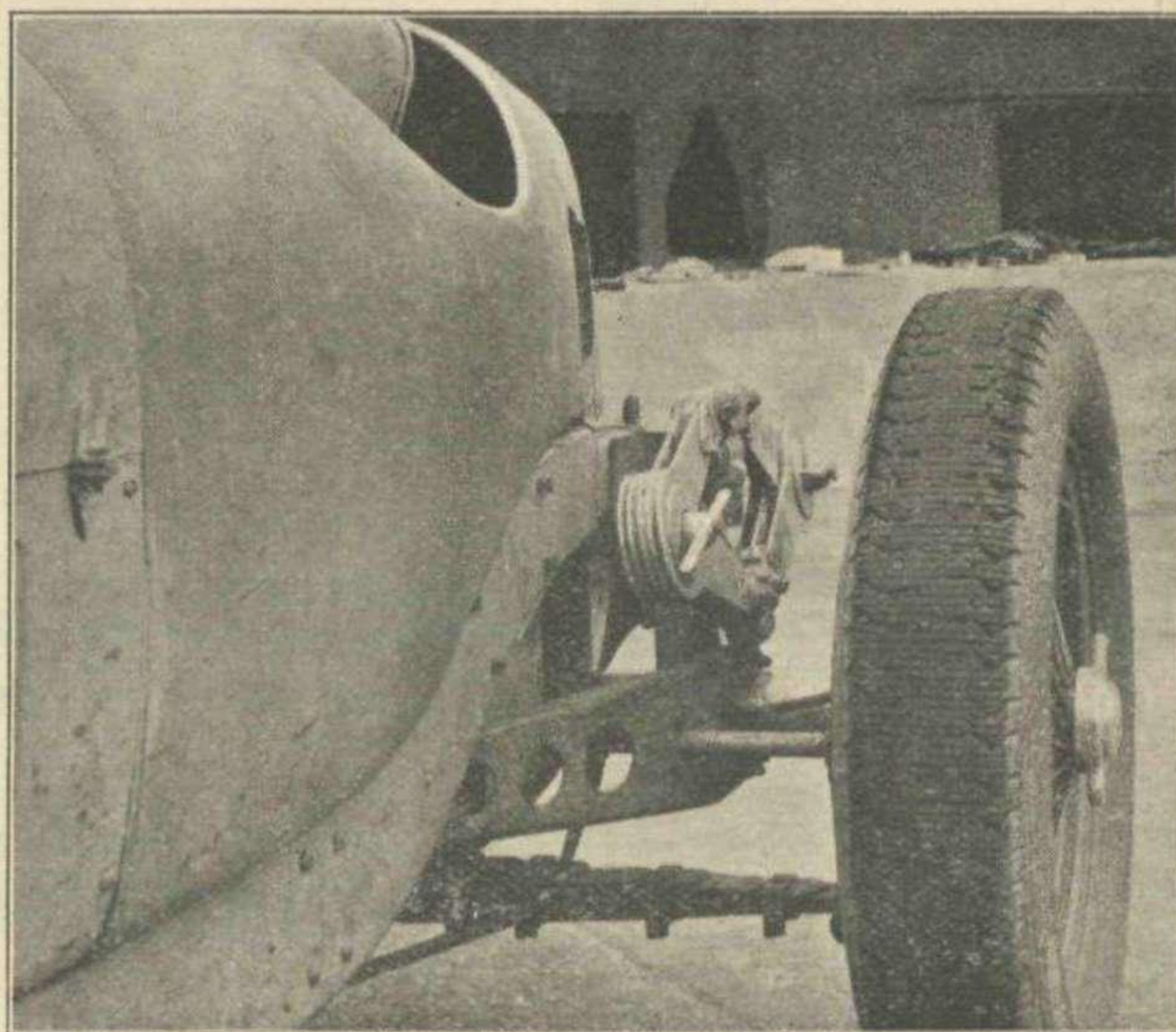
Nuvolari, I understand, has been more or less compelled to re-enter the Ferrari team in order to maintain the prestige of Italy. Unfortunately the new Alfa-Romeos, which will have pneumatic suspension and either a straight eight 4-litre or a V 12 4½-litre engine, will not be ready before May, so experiments are being carried out to modify the ordinary 3-litre Monopostos,

as raced last year, by fitting independent rear wheel suspension. As will be seen in the accompanying photograph, the system used is similar to that used on the Auto-Union P. Wagen, with a fixed differential casing, swinging half-axles, forward radius rods, and suspension by a leaf spring placed under the axle.

The new Maseratis will have another system of suspension, introduced by Dr. Porsche, the torsion rod system, so evidently his skill is appreciated outside his own country.

**Rather too Independent.**

While independent suspension is the ideal system for racing cars, on which full adhesion of the back wheels is one of the most important considerations, it is not without pitfalls when applied to touring cars. In the first place, when a car of this type goes over a hump-back



*The Porsche rear suspension fitted as an experiment to a Monoposto Alfa-Romeo.*

bridge at speed, the weight is thrown on to the front springs, and if these are soft and undamped the nose drops abruptly and the back passengers shoot straight into the air, with a good chance of braining themselves if the car is a closed one.

One of the advantages of the conventional system is that the springs act like radius rods, holding the front axle tolerably rigidly against the reaction of powerful front brakes, which sometimes prove embarrassing with a lightly damped system of links and helical springs. It is interesting to note that radius rods are used to take the brake reaction on the latest Packards, while several American designers have reverted to the conventional system after trying "knee-action," or whatever the phrase is, for a short time. However, in progressive countries like Germany swinging axles are more than a passing fashion, and it will undoubtedly prove possible to eradicate these faults.

**"Aldie" Demonstrates.**

Certainly they are not present on the B.M.W., that interesting small car of German design which the Frazer-Nash people are to produce. I had my first run in a



**RUMBLINGS—continued.**

right-hand drive one the other day, when Mr. H. J. Aldington, the genial managing director, again showed me how the cars defy centrifugal force on corners, without rolling and with soft springs. The 1½-litre will be followed in a short time by a 2-litre which utilises the same chassis, and this with a close-ratio gearbox should be a really stirring motor-car.

The Frazer-Nash concern are to have a showroom in the West End of London, at 32, Grosvenor Street, and amongst other interesting items to be seen there will be the B.M.W. record-breaking motor-cycle. Apart from motor-cycles, B.M.W. also manufacture aeroplane engines and complete machines, and when "Aldie" wants to visit the factory at Eisenach, near Munich, he just rings up and asks for a plane to be sent to England to fetch him!

**Nine Lives.**

Freddy Dixon always seems to be in the wars, but so far has had equally spectacular escapes, and I am glad to hear that he is recovering well after his aeroplane crash at Middlesbrough, though he will be confined to hospital for a month or two yet. No definite dates can be given, as Fred has a special knack of recovering more quickly than anyone would think possible.

Up to the time of the crash some useful work had been put into the Silver Bullet, and Dixon had hoped to get it ready to run at Salduro in June, making the trip at the same time as John Cobb. Amongst other things, he had

given up his original idea of multiple carburettors, as he found that 24 would not go under the bonnet, so forced induction had been decided on. Work will presumably be at a standstill until the great little man can get down to designing once again.

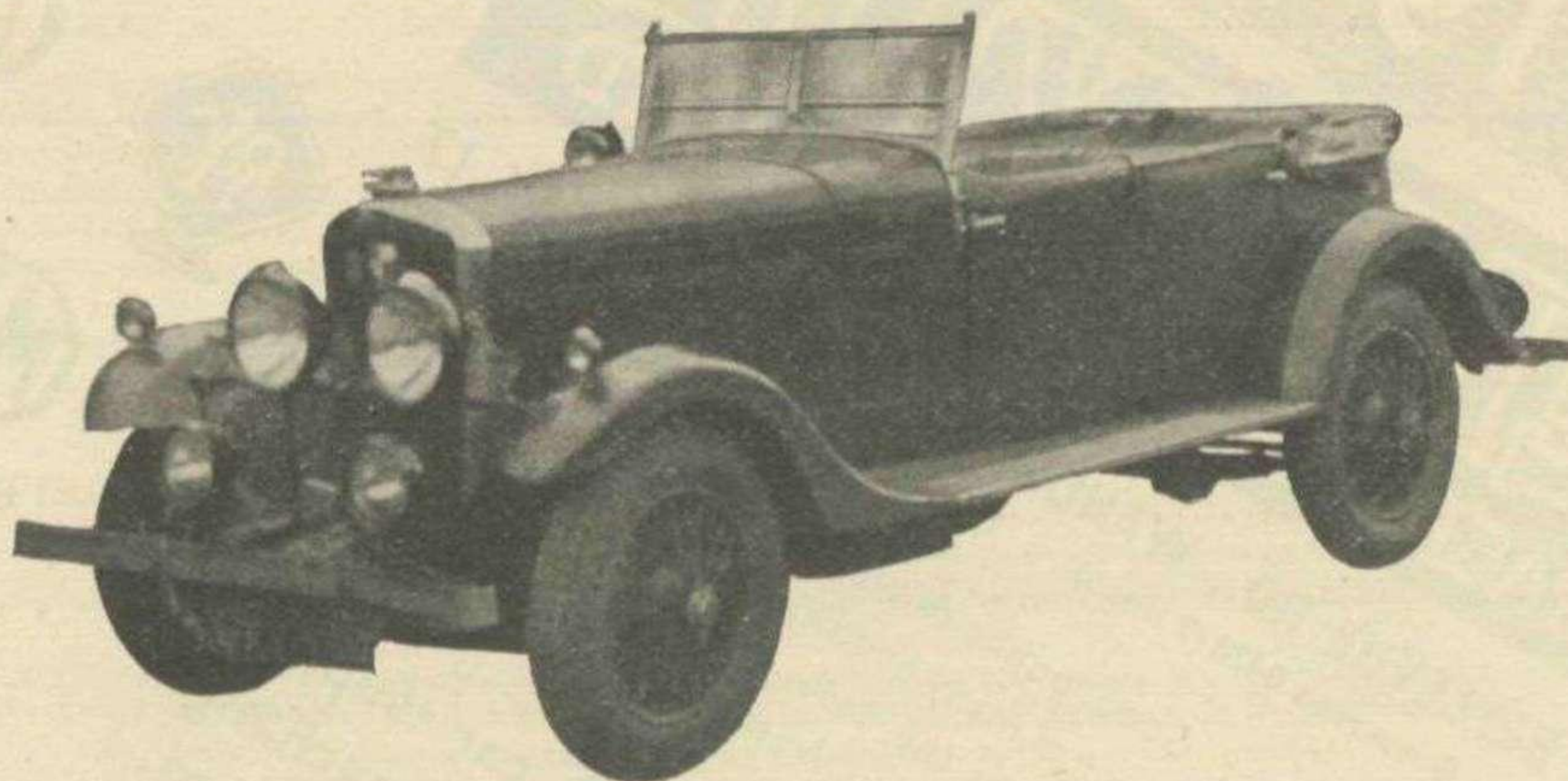
**Knobbles or Not.**

The success of the Jack and Jill Trial, in which competition tyres were banned, again brings up the question of whether this would not also be an advantage for some of our "Classic Events"? It is becoming increasingly difficult to find gradients capable of stopping the modern car, particularly within a reasonable distance of London; whereas, if they were not permitted, some of the more accessible and less damaging climbs of the Chilterns and the North and South Downs would again become fit obstacles for a stiff trial.

Such a proposal would, I am sure be followed by a terrific outcry by the owners of large cars, who claim that their type of vehicle cannot be expected to climb stiff gradients without such aid. Why small cars can get a grip with tyres of a similar tread to those employed on the big ones always seems something of a mystery, and the only thing I can think of is that the cross-section of the tyres on the big cars is insufficient to get the necessary adhesion. It would be interesting to test a large heavy car such as an old 4½-litre Bentley fitted with wide-section low-pressure Dunlops, such as are used on the E.R.A.s.

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# Club News

## THE M.G. CAR CLUB.

Mr. F. L. M. Harris writes to tell us that his new address is Hon. General Secretary of the Club is No. 12, Holborn, E.C. 1 (entrance in Furnival Street). His new telephone number is Holborn 6621/22.

## B.R.D.C.

The Club is honoured to announce that Lord Nuffield has once again generously donated £1,000 as prize money for the British Empire Trophy Race, which will be held on July 6th. A new circuit, measuring exactly 3 miles per lap, will be used at Brooklands, and the total distance of the race will be 240 miles.

The distribution of the prize money will be as follows:—

1st.	£250 and British Empire Trophy.
2nd.	£200 and Canada Trophy.
3rd.	£150 and Australia Trophy.
4th.	£100 and India Trophy.
5th.	£50 and South Africa Trophy.

The winner of each International Class will receive £50.

A handicap system will again be used, there being no fewer than nine different speed-categories. Here are the figures for the various classes.

### Unsupercharged.

Up to 1,100 c.c.	...	77.14	mp.h.
" " 1,500 c.c.	...	80.00	"
" " 2,000 c.c.	...	81.20	"
" " 3,000 c.c.	...	82.44	"
Over 3,000 c.c.	...	84.37	"

### Supercharged.

Up to 750 c.c.	...	77.14	m.p.h.
" " 1,100 c.c.	...	81.20	"
" " 1,500 c.c.	...	82.44	"
" " 2,000 c.c.	...	84.37	"
" " 2,500 c.c.	...	86.40	"
" " 3,000 c.c.	...	89.26	"
" " 3,500 c.c.	...	91.52	"
" " 5,000 c.c. & over	...	95.57	"

On paper the race looks as though it would be a good thing for the unsupercharged 4-litre Duesenberg. Praiseworthy features of the handicap are the provision for 2.5 and 3.5-litre cars. Bugattis and Alfa-Romeos of 2.3-litre capacity will have a much better chance, while the 3.5-litre class is presumably included for the benefit of the 3.3-litre Bugatti.

## MARGATE & DISTRICT C.C.

Twenty-five cars were entered for the Broadley Cup Trial, which took place on Sunday, February 3rd.

Starting from the village of Preston, the cars followed by-roads to Kingston, a mile beyond which they encountered their first difficulty in the colonial section, near Marley. Only two people were defeated by the prevailing conditions, and the rest got through in good style. Bladbean Hill had a dry surface, and consequently its 1 in 4 gradient was surmounted by everyone.

Then came another colonial section at Stelling Green. The cars were again well handled, and only 4 failures occurred. An easy observed hill brought the com-

petitors to the lunch stop at Hastingleigh, picnics being the order of the day.

The tit-bit of the trial was in unexpectedly good condition, and in spite of dire predictions of wholesale failure, the whole field got up well under their own power. The gradient of Pett Bottom Hill is severe in parts, and the surface was fairly slippery, so that altogether the drivers can congratulate themselves on a competent performance.

A driving test was held on Bradbourne Hill. The task before the competitors consisted of driving from a set distance up the hill, stopping with the wheels within a 6 ft. area and then accelerating over a distance of 15 yards, which had to be covered in less than 7 seconds. Driving skill was at a premium, and five competitors failed to stop within the 6 ft. area, while only six out of the total entry completed the next 15 yards in the allotted 7 seconds. All credit is due to T. Wing (Singer) who made the fastest time.

Elham Hill was the next to be tackled, and proved to have a severe gradient and a loose surface which were the undoing of 8 cars. The assistance given by the local villagers was greatly appreciated. The only remaining obstacle was a braking test down hill. The cars had to drive over 60 feet and then stop within a 20-foot area with a time limit of 6 seconds. Only 7 cars completed this test without loss of marks.

And so to tea at the "Rose and Crown" Hotel at Elham, when everyone voted the trial a great success. The Broadley Trophy was won by Mr. T. Wing, Jnr. (Singer) for a 100 per cent. performance and fastest time in the acceleration test.

The results of the Trial were as follow:

**1st Class Awards.**—T. Wing, Jnr. (Singer), R. Little (Singer).

**2nd Class Awards.**—Mrs. Broadley (Singer) 99 marks, Mrs. T. Wing (Singer) 98 marks, J. F. Montgomery (Singer) 95 marks, M. Olding (Vernon Derby) 90 marks.

**3rd Class Awards.**—G. Snowden (Singer) 88 marks, G. B. Barnard (Triumph) 88 marks, C. J. Hawkes (Invicta), H. Anderson (Vale Special) 80 marks.

The chairman of the Club is Mr. A. Broadley, and his address is 241, North-down Road, Cliftonville, Margate.

## JUNIOR CAR CLUB.

As usual, the J.C.C. will open the Brooklands season with their Rally. This year's event will be the fourth of the series, and will take place on Saturday, March 2nd, commencing at 2 o'clock.

The entries will be divided into three classes, up to 10 h.p., from 10 to 16 h.p., and over 16 h.p. The programme will consist of a number of tests, as follow:—Easy starting, Braking, Timed half-mile, Parking, Monte Carlo Rally test, Hill stop and restart, and Non-stop hill-climb.

There is plenty of scope in this programme for some amusing entertainment. In the braking test on the test hill, certain "parking" hand-brakes will probably be

incapable of holding the car; the timed speeds over the half-mile will definitely produce some shocks for proud owners of "fast" cars; the parking test looks absurdly easy, but is actually quite difficult; the Monte Carlo Rally test will be really interesting; while the hill-climbing-through-the-gears test will produce the most ear-splitting noises from some of the "clash" gearbox owners.

Turning to a different affair, the visit to the Power Station announcement brought in an overwhelming demand for tickets. The full quota was quickly reached, and it is very much regretted that no further reservations can be made for the visit on March 9th. It is hoped to arrange another visit later in the year.

The General Secretary of the J.C.C. is Mr. L. F. Dyer, Empire House, Brompton Road, London, S.W. 7.

## SUNBAC.

The January issue of the "Sunbac News" contains the club's trials fixture list for the 1935 season. Here it is:—

April 27th.—Inter-club Team Trial.

June 29th.—Vesey Trial.

September 11th.—Evening Trial.

September 29th.—Sutton Cup Trial.

November 9th.—Shell Cup Trial.

A significant article, "To You," draws attention to the oft-forgotten fact that trials competitors, while frequently complaining about the nature of trials, can seldom be persuaded to give any concrete suggestions as to the kind of trial they would really enjoy! Well, here is their chance; let us hope they take it.

The bed-time story "Hoist with His Own Petard; or the Biter Bit," will amuse lots of people, especially those who can guess the identity of the luckless driver involved.

## THE VINTAGE SPORTS CAR CLUB.

The following events have been arranged for the season 1935, and the dates have been provisionally approved by the R.A.C.

March 10th.—Surrey Trial.

May 5th.—Derbyshire Trial.

June 1st.—Speed Trials.

July 14th.—Social event.

August 31st.—Speed Event.

October 20th.—Reliability Trial.

November 16th.—Annual Dinner.

December 8th.—Reliability Trial.

Both the Speed Events and the Trial in December will be held under a Restricted Permit, and negotiations for the use of a hill and a flat Sprint Course are proceeding.

The Club is open to all owners of "Vintage Sports Cars" (over five years old) and prospective members can obtain full particulars from the Hon. Secretary, C. P. L. Nicholson, 7, Abercorn Mews, London, N.W. 8.



CLUB NEWS—continued.

### BRIGHTON AND HOVE M.C.

A substantial increase in the membership of the Club is reported. The actual membership is 410, which represents an advance of 33½ per cent. on last year's figure.

Earl Howe is the President of the Club, while the Mayors of Brighton and Hove, Sir Cooper Rawson, and Sir Algernon Guinness are all Vice-Presidents.

A comprehensive programme of social and sporting events has been arranged. The two most important trials will be the 12-Hour and the Brighton to Beer. Slightly different routes will be taken, and the Club scout has succeeded in finding some hills which have never been used in trials before. At least one trial will be run on standard tyres. The ever-popular Speed trials on the Madeira Drive will take place on September 14th.

Here is the full list of fixtures: February 23rd, Film Show and Supper; February 24th, Scavenge Hunt; March 3rd, Solo Sporting Trial; March 17th, Spring Cup Trial; April 6-7th, Twelve-Hour Trial; June 22-23rd, Beer Trial; July 28th, Drewett Trophy Trial; August 25th, Gymkhana; September 14th, Speed Trials; October 5th, Night Map Reading Trial; October 27th, Chandler Trophy Trial; November 29th Annual Dinner and Dance; January 7th, 1936, Annual General Meeting.

The Hon. Secretary is Mr. S. W. Chandler, 24, Market Street, Brighton.

### S.S. CAR CLUB.

The Trial and Concour d'Elégance at Buxton last month demonstrated once again the immense enthusiasm that always prevails at the club gatherings. The week-end started with a trial on Saturday afternoon, and weather conditions could not have been worse when the 17 competitors set out for Buxton. There were 11 non-starters.

The course was purposely not too severe, and a time check at Ashbourne was first encountered; no one was caught out in their calculations. Then came an acceleration test over a 200 ft. uphill stretch. Fastest time was made by W. G. V. Vaughan (S.S.1), in 7½ secs., closely followed by T. Leather in 8 secs. All the competitors but two qualified successfully here, the two unfortunates being Mrs. L. H. Cook and B. Iredale.

A stop and go test was held on Throwley Hill, in which everybody did what was required. One of the best performances here was that of D. I. Herbert, on an S.S.1.

But it was the time factor at the final check which caught most people and substantially decreased the list of premier awards. In all, seven competitors were too late in checking in at the finish, while two more lost their way and drifted off the course.

However, all these trials and tribulations were forgotten under the influence of the dinner and dance at the Palace Hotel. Nearly 100 members and guests were present, and rousing speeches were made by the President, Mr. W. Lyons, and by

vice-presidents, Mr. H. G. Henley and Major A. D. Carey.

The next morning an interesting concours d'élégance was held, and the judges had a difficult task in selecting the winners from a number of very beautiful motor cars.

#### S.S. TRIAL RESULTS.

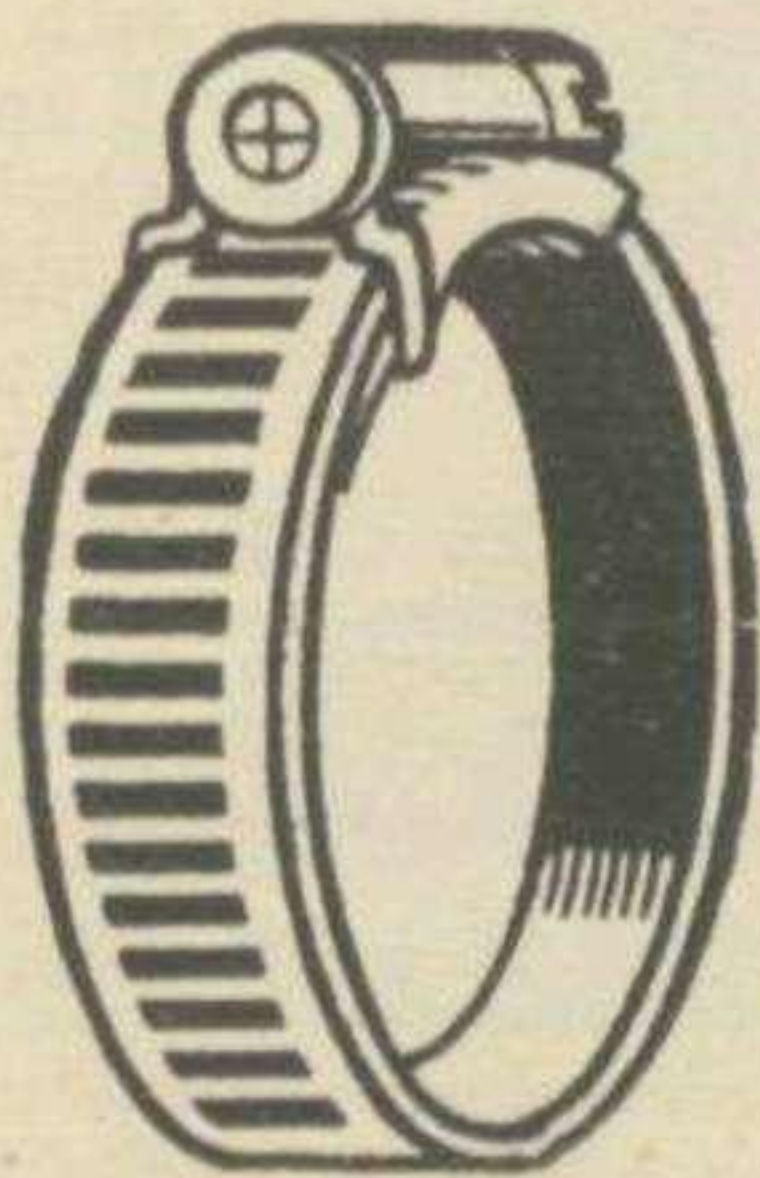
**Foreshill Trophy.**—W. Hetherington (S.S. 1). **Premier Awards.**—W. G. V. Vaughan (S.S. 1); D. I. Herbert (S.S. 11); T. Crumie (S.S. 1); Eaton Jones (S.S. 1). **Second Class Awards.**—A. W. Newbold (S.S. 1); A. Whittaker (S.S. 11); B. Iredale (S.S. 11); F. Holland (S.S. 11). **Ladies Award.**—Miss S. J. L. Baskin (S.S. 1). **No award.**—Beaumont Mould (S.S. 1); R. McCulloch (S.S. 1); Mrs. L. H. Cook (S.S. 1); J. M. Erskine (S.S. 1); T. Leather (S.S. 1); E. F. Huckvale (S.S. 11); Mrs. Una Lambert (S.S. 1).

#### S.S. CONCOUR d'ELEGANCE RESULTS.

**Ernest Hatfield Trophy.**—R. T. Smith. **Open Class Award.**—W. G. V. Vaughan. **Closed Class Award.**—Beaumont Mould.

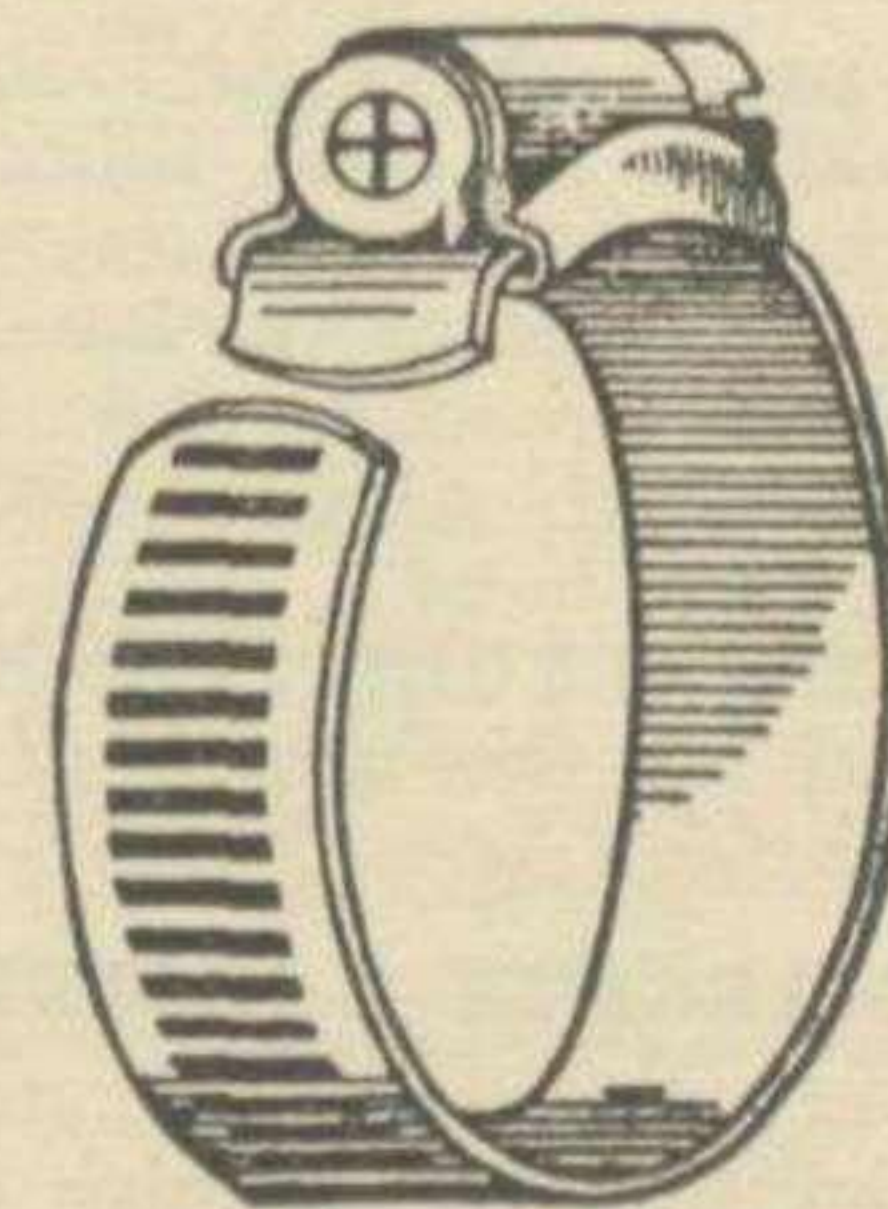
*The Editor invites Club Secretaries to send details of their fixtures, sporting and social, for publication in these columns. These items should be sent to reach this office not later than the 16th of the month.*

# JUBILEE WORM-DRIVE CLIPS



**THE BEST POSSIBLE TO GET**

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



**ALL IN ONE PIECE.  
EASY TO FIT.**

**NO PARTS TO LOSE.  
GUARANTEED NEVER TO LEAK.**

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

STOCKED BY ALL GARAGES  
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## THE 1½ LITRE SINGER

A SMALL SPORTS CAR WHICH COVERS THE GROUND IN CONVINCING FASHION.

WAS the first 1½-litre Singer produced with a view to successful participation in trials, or was it just that the standard car was built first and later made its name in this direction? We confess we have forgotten, but certain it is that both the Nine and the larger car have made excellent showings in the various competitions for which they have been entered, while the success of the marque at Le Mans in 1934 and in the Figure of Eight test at Monte Carlo this year shows that they retain their snappy performance over long periods of strenuous work.

Success in trials calls for a short, compact car, and the Singer scores in this respect, but it hardly seemed the ideal car for a day's fast motoring in the rain. However, those were the conditions on the day appointed for the test; so we were relieved to find that under the close-fitting hood there was an unexpected amount of room. A six-foot driver can see out of the screen without having to stoop, and with the efficient side-curtains in position the passengers still have plenty of room. The back of the hood is held in position by press studs and can therefore be opened for ventilation purposes.

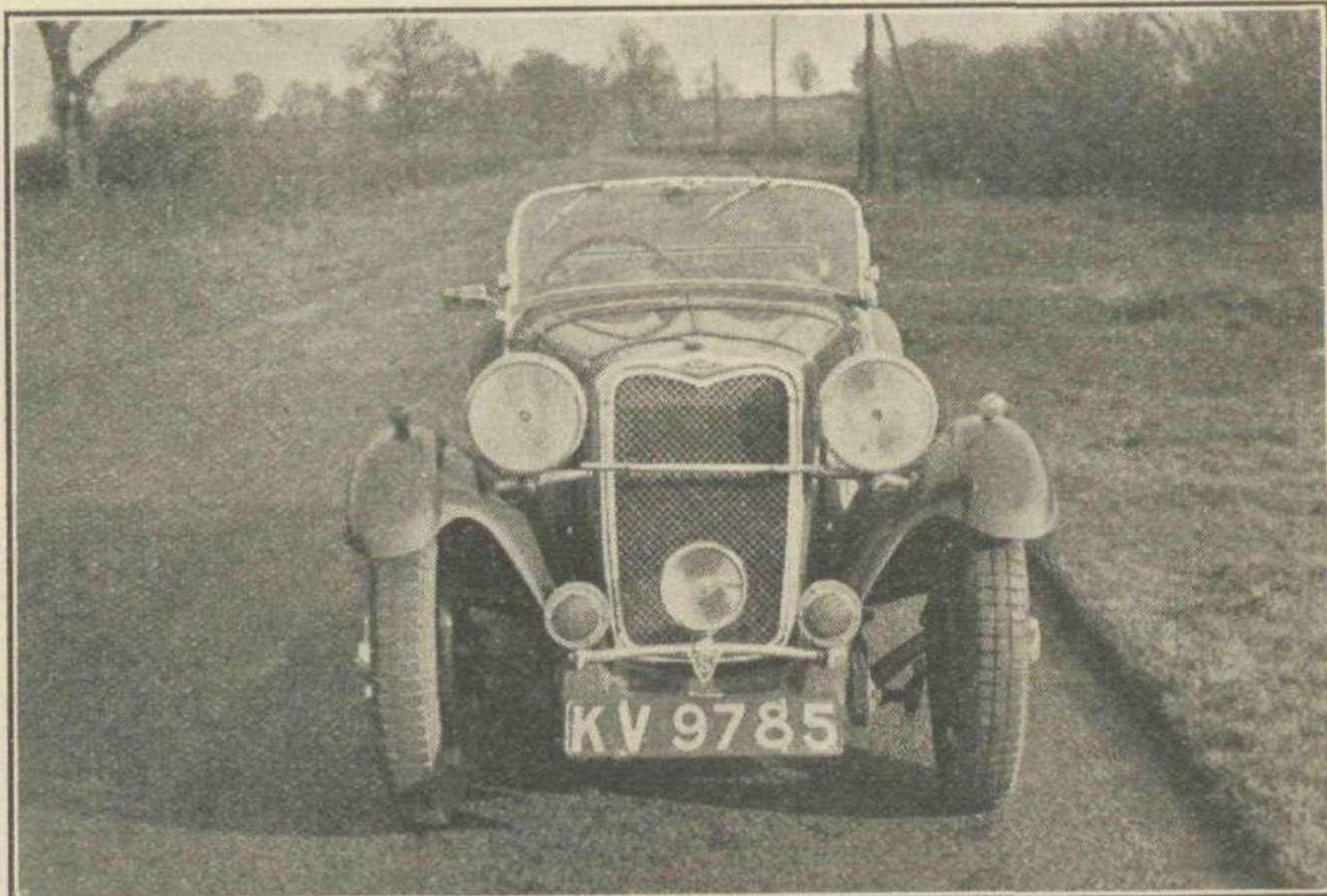
The front mudguards were unusually efficient, and one could drive with the side-curtains removed without having one's outside arm smothered in mud-spray.

One advantage of testing a car with the hood raised is that unpleasant noises from the exhaust and other parts are quickly revealed, but the Singer gave no trouble in this respect. The exhaust note is pleasantly subdued, the engine runs quietly, while the gears though not

the car's speed, which we had placed before we had consulted the speedometer, at 10 to 15 m.p.h. slower than it actually was.

naturally be considerably reduced.

With a car of this type, long journeys can be reeled off with a maximum of pleasure to the owner. We are not aware

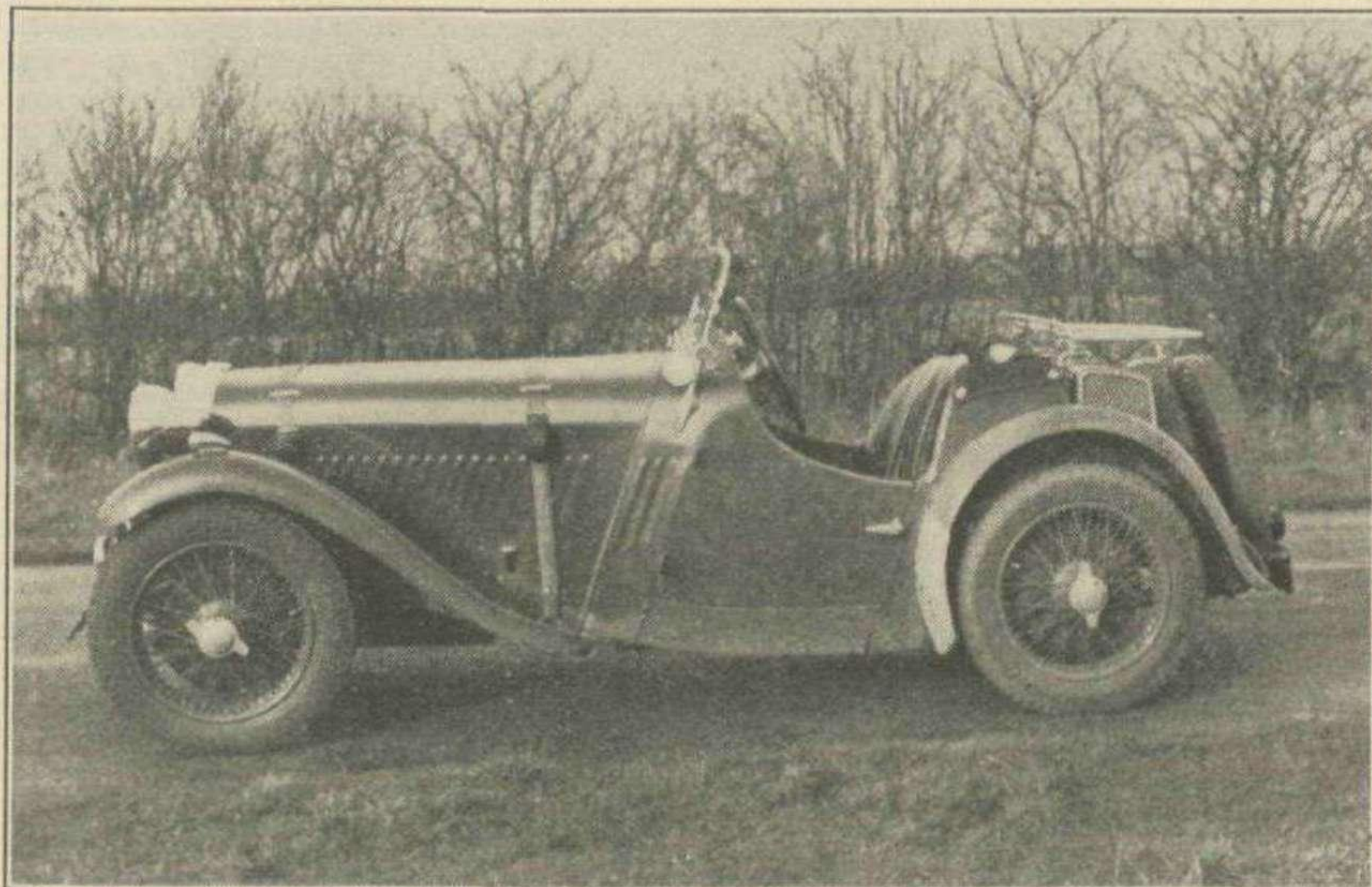


Large brakes, a radiator stone-guard, accessible shock-absorbers, and a low-mounted fog lamp are points worth noting in this picture.

Negotiating slippery tramlines or running at full throttle on main roads, the Singer is essentially a safe car. The steering takes the car exactly where the driver wants it and is light yet high geared and arranged to have a useful caster action. The hydraulic brakes were light

of the power developed by the 1½-litre engine, but it must be very considerable in proportion to the weight, for on the average main road the car will run on top gear for as long as the driver wishes. Third is an unusually close ratio and a drop down gives a speed of nearly 70 m.p.h., so there is no excuse for not putting up a good average.

Owing to the short wheelbase, bends and sharp corners are taken almost without thinking, and a rather winding main road we are accustomed to use when testing the handle of the normal sports car impeded the Singer not at all. A single setting of the shock-absorbers proved satisfactory for all conditions, there was no rolling on corners, and the



The Le Mans 1½-litre Singer has a sturdy and business-like appearance, not belied by its performance in competition.

silent are not on the other hand prominent. This quiet running is a real asset on a long journey, and when at last we were able to lower the hood we found that this trait quite upset our judgment of

but also progressive in action, and could be freely used even on a slippery surface. On damp tarmac we were able to pull up smoothly in 60 feet from 40 m.p.h., and on a dry surface this distance would

### Brief Specification.

Engine: Six cylinders. Bore 59 mm. Stroke 91 mm. Capacity 1,493 c.c. R.A.C. Rating 12.8 h.p. Single Overhead camshaft, chain driven. Three S.U. carburettors. Magneto ignition.

Gearbox: Four speeds and reverse. Constant-mesh second and third gears. Central change. Ratios: 4.44, 5.64, 9.08 and 17.7 to 1.

Brakes: Lockheed hydraulic.

Suspension: Half elliptic.

Dimensions: Wheelbase 7 ft. 8 ins. Track, 3 ft. 9 in.

Weight with sports two-seater body, 19 cwt.

Price £375.



*THE 1½-LITRE SINGER—continued.*

springs dealt adequately with all conditions from full speed to traffic crawling. Another good feature was the absence of pitch on corrugated surfaces.

Unfortunately we did not have the car long enough to try it over any of the well-known trial hills, but were well pleased with its behaviour on muddy lanes and similar rough going. Even on slippery clay we had no difficulty in keeping control, and the engine pulled strongly at low speed on second gear without provoking wheel-spin.

The maximum speed obtained on the level, 77 m.p.h., was three or four miles short of the maximum speed guaranteed by the makers, and this we attribute to the use of slightly unsuitable plugs, or possibly an accumulation of carbon, as the engine continued to run after a long period of driving with the ignition switched off, a rather obscure fault because it only happened occasionally. The engine runs smoothly up to 5,500 r.p.m., giving a speed of 70 m.p.h. on third and 45 on second. The gear change between top and third was very quick, so much so that we found difficulty at first in making a silent change at low speeds. Third to second was slower, while bottom is quite widely spaced and intended as an emergency ratio. The gear-change needed a fair amount of practise before one could guarantee perfect changes in all ratios, but this may have been due to the clutch being slightly out of adjustment. The gear lever is mounted on a remote-control bracket which brings it conveniently under the driver's left hand. The steering wheel and the pedals are conveniently placed, and there is plenty of room for one's feet. Both front wings are visible, and the driving position commends itself, though a more vertical seat back would be preferred by those who like to sit upright at the wheel. The hand-brake lever is sturdy and well placed, and has a racing ratchet which engages only when a button on the top of the lever is pressed.

The car is well equipped, and all fittings are of a practical nature which appeal equally strongly to the trials driver and the ordinary owner.

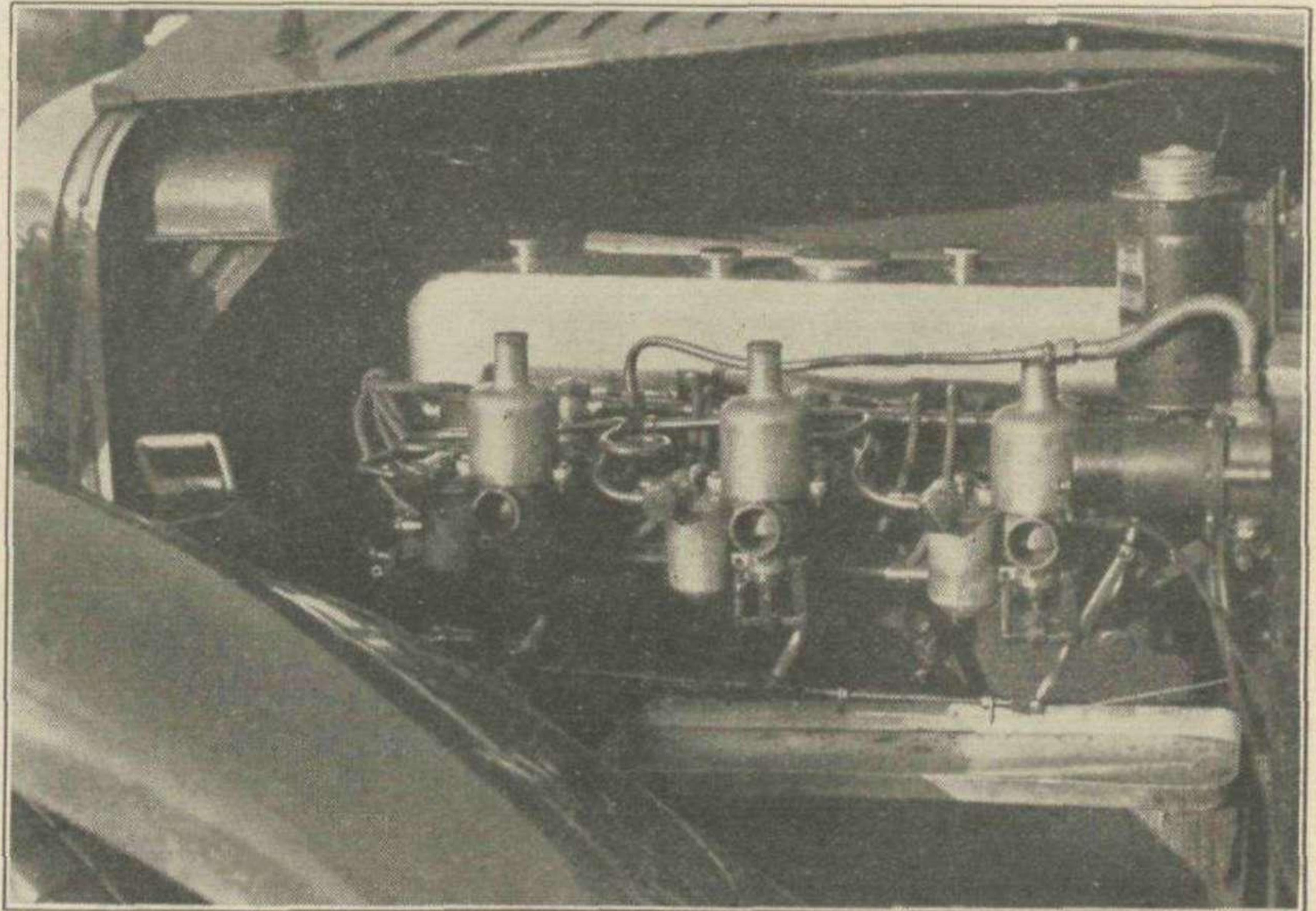
The dashboard equipment is comprehensive and includes large rev-counter and speedometer, water temperature and oil temperature gauges, as well as the usual oil pressure and charging indicators. The lamps, which allow a speed of some 70 m.p.h. to be kept up after dark, are controlled from the centre of the steering wheel, and a fog light is also fitted. Two spare wheels slung in firmly built carriers at the rear of the car commend themselves to those who want to use "comps," while other useful items are the quick filler caps and neat under-bonnet tool boxes.

The body is built on the same practical lines with clean sides and a smooth underneath not likely to be damaged when the car is taken over rough going. The car is, of course, intended to be only a two-seater, which makes it easy to allow

ample leg room for the two seats. Behind the seats is a space into which the hood irons hinge. The hood fabric also drops into it, and the tonneau cover, while a small suit case or parcels can also be accommodated there. A substantial luggage grid, suitable for more bulky packages, is fitted above the petrol tank.

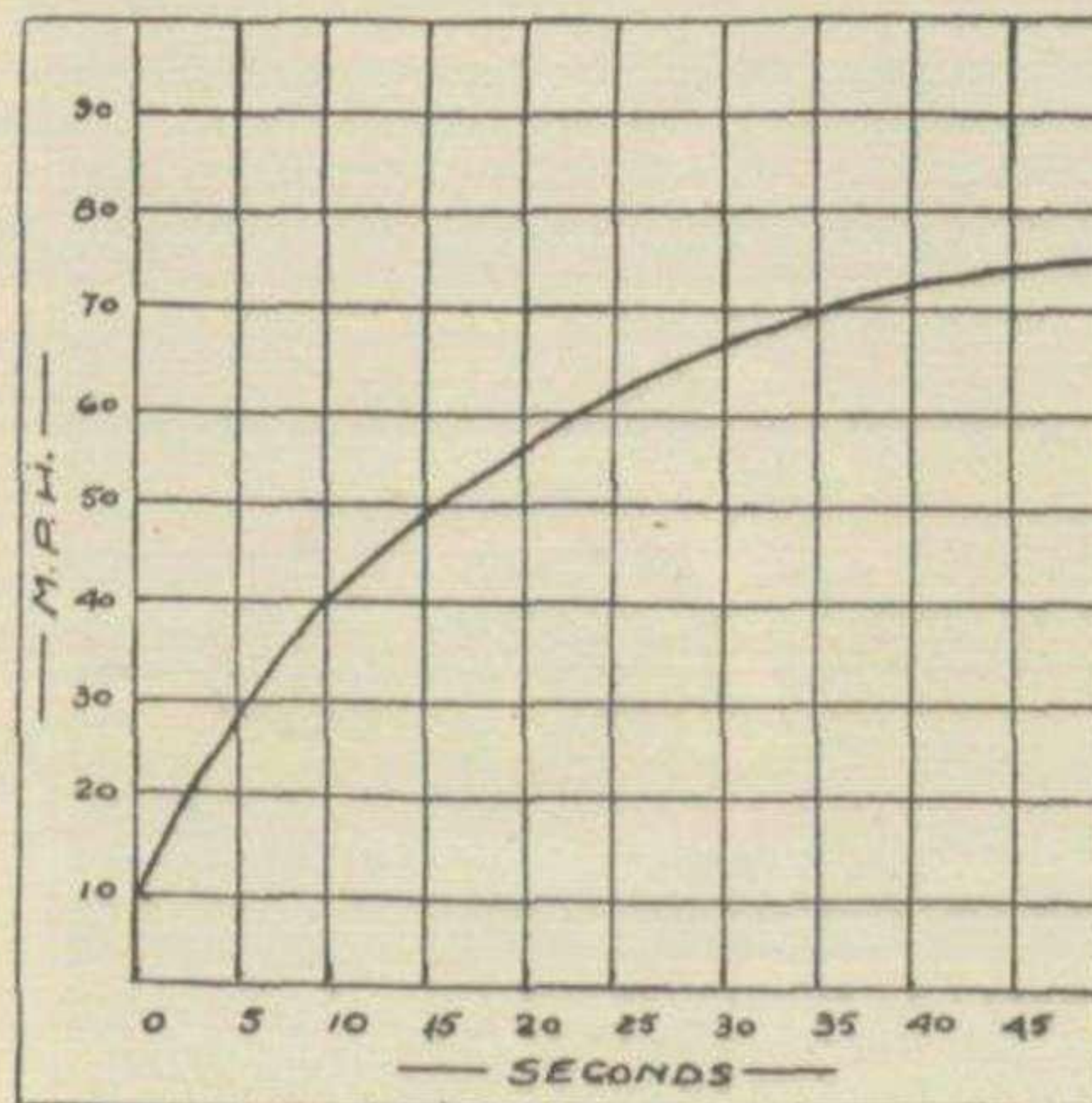
The six-cylinder engine follows current Singer design in having a single overhead camshaft chain driven from the front end, the cylinder head and block being each made of cast iron. 14 mm. plugs

S.U. carburettors are used, fed by an electric pump from the rear tank. This has a capacity of 15 gallons, part of which is a reserve supply made available by switching over a tap mounted on top, and which gives a cruising radius of over 300 miles. The fuel advised is Pratt's Ethyl, or similar high-octane spirit. The sump holds nearly two gallons of oil, which should be an assurance against trouble in the bearing department. The crank-shaft runs in four main white-metal bearings, and plain bearings are also used for the big-ends.



[Motor Sport Photograph  
The three carburettors, the electric petrol pump and the Lockheed reservoir are clearly shown in this picture.

are used, screwing into recesses in the side of the head. Ignition is by Scintilla magneto controlled by a Bowden lever mounted on the steering column. Three



The Acceleration Chart of the 1½-litre Singer.

The engine and gear-box are built up into one unit, and are rubber-mounted. A single plate clutch is used, and second and third gears have constant mesh-pinions. The rest of the transmission follows conventional lines, with an open propeller shaft with two universal joints and a bevel driven back-axle.

The chassis is upswept, front and rear, half elliptic springs are used all round, with friction type shock absorbers. The Lockheed hydraulic brakes operate in ribbed 13-inch drums, while the 7½-inch ground clearance in conjunction with the short wheel base should make the car capable of taking part in the most "Colonial" of trials without any part of it grounding.

By concentrating on a short two-seater car propelled by an efficient engine of moderate capacity, the Singer Company have succeeded in providing high performance and a safe and roadworthy vehicle without departing radically from well-established lines. It is a car that the sporting enthusiast and the fast tourist will want to try and buy.

**A VETERAN GOES TO REST.**

Many of our readers will remember seeing Sir Malcolm Campbell at the wheel of a 1905 10 h.p. 2-cylinder Rolls-Royce in the Veterans' Run to Brighton last year.

This remarkable old car, still silent and reliable, in spite of its 30 years of activity, has now found a home in the Science Museum, South Kensington, to which it

has been presented by the Directors of Rolls-Royce, Ltd. It was formerly owned by Sir John Prestige.





The open cars lined up for the Concours de Confort. The two-seater with the hood raised is Madame Schell's Delahaye which finished third in the General Classification.

# MONTE CARLO RALLY REFLECTIONS

By  
T. G. MOORE.

### The Road Section.

AS all the world knows, the weather conditions prevailing during the passage of competitors from all the European starting points en route for Monte Carlo this year constituted a really severe test, making the Rally what it should be, an intensive proving-ground for the cars and their personnel. Of the four stalwarts who started from Athens, Rupert Riley came to grief on the icy road when descending from the first of the many mountain passes between the capital city and the north of Greece, while an ancient Bean driven by some Army officers, and on which they had worked all the previous year overturned some distance further on. Wisdom on the Chrysler and Thorne on a V8 Ford both reached Sofia, encountering heavy snow-drifts on the way, but were prevented by weather conditions further on from checking in at Belgrade.

Heavy snow near Lwow, in Poland, again proved the downfall of the Bucharest starters, while conditions in Italy proved unexpectedly severe. Bad roads and thick fogs in the southern part of Italy compelled the competitors from Sicily to take the coast road, which is said to include 5,000 bends in the section from the south to Naples, while Rome was in the grips of a freak spell of cold weather, and even the famous fountains were frozen.

There was ten feet of snow on the Futa and Radicofani Passes, and three feet or more on the lower passes of the Appenines round Terni. Luckily the driver of one

of the cars had an improvised snow-plough and led by him the survivors of the 28 starters, amongst whom was Pelham-Burn on a Riley M.P.H., reached the east coast of Italy, and made their way up to Padua and the Jugo-Slavian frontier. The section between there and Ljubljana, which skirts the Dolomites, presented less difficulties than was expected, though there was much ice on the Brenner pass, and the most unpleasant incident of that part of the trip was a terrific gale, which drove dust and stones with such force that in one case it broke a car headlamp. Only 18 finishers reached Monte Carlo without penalty, with Pelham-Burn amongst them.

### Stavanger.

Being readily accessible by sea, and carrying with it the full complement of marks, Stavanger this year assumed a new importance, and three out of the first five cars, Lahaye on the winning Renault, Madame Schell on the Delahaye and Whalley on his Ford, chose it as their starting point. The roads between Stavanger and Oslo, though considerably improved are still narrow and winding, while the run down from Oslo to Helsingborg, where conditions might have been expected to be easier, was rendered treacherous by ice and snow. Whalley, who has competed in seven rallies, reported conditions worse than he had ever

encountered and he left the road three times in this latter section, while Norman Black was not seen again after Oslo. Cathcart-Jones, who was making his first acquaintance with the Rally and was driving a Lagonda Rapide remarked on reaching Monte Carlo that though he had had a no-trouble run he would rather fly half-a-dozen times over the England-Australia air route than make the single journey from the Norwegian starting point. When assisting another competitor out of the ditch, incidentally, an impatient foreign woman driver charged hard into the back of his car in her efforts to get past, luckily without inflicting serious damage to the Rapide.

### Supercharged Cars.

The conditions of the Umea route were dealt with in detail in last month's issue, but a technical point worth mentioning is the success under conditions of extreme cold of the five supercharged cars which started from the north of Sweden. Trevoux's Alfa-Romeo and Healey's Dolomite Triumph both had Roots-type superchargers mounted alongside the engine, likewise Carrière's Peugeot, so that the induction pipes would remain comparatively warm, but Symons' supercharged N type Magnette ran equally happily though the blower, a Roots-type Marshall blower was mounted between the front dumb-irons. The centrifugal blower on the Graham gave no trouble either and the car ran on any type of



J. C. Ridley (Triumph) winner of the Light Car category, receiving his prize.

### CONCOURS DE CONFORT. Grand Prix d'Honneur.

L. Pascoe (Talbot).

#### Closed Cars over 1,500 c.c.

1. L. Pascoe (Talbot).
2. S. H. Light (S.S.).
3. H. B. Browning (Graham).

#### Open Cars over 1,500 c.c.

1. Hon. Brian Lewis (S.S.).
2. Mme. L. Schell (Delahaye).
3. Sir Ronald Gunter (Mercedes-Benz).

#### Closed Cars under 1,500 c.c.

1. R. Husem (Fiat).
2. G. de Lavalette (Peugeot).

#### Open Cars under 1,500 c.c.

1. M. T. Minshall (Singer).
2. H. E. Symons (M.G.).
3. Mlle. S. des Forest (Triumph).

#### Special Prize.

P. Weber (Ford).



Miss Jackie Ashbury with her 1 1/2-litre Singer. She made the best performance of any competitor from John O'Groats.



MONTE CARLO RALLY REFLECTIONS—continued.

fuel, and at normal touring speeds with a slightly better fuel consumption than that of the unsupercharged models. Ridley's Triumph was fitted with a Centric blower chain-driven off the front end of the crank-shaft, but as this was only coupled up for use in the final test, one cannot draw any conclusions about its use for normal road-work.

Weather conditions in Scotland and England gave no cause for complaint, and the only incidents which enlivened the run down through France were the spirited duels between Stott on the 3½-litre Bentley and Pascoe on the 3½-litre Talbot.

**The Final Tests.**

The difficulties of the early parts of the more highly marked routes are manifest, while the imposition of a 31 m.p.h. average between Paris and Monte Carlo and the shifting of the penultimate control allows little time for break-down or mishap during the last part of the run. Nevertheless the majority of cars entered in the Rally have shown themselves capable of getting through without loss of marks, so the organisers have no



Lahaye's Renault with its winner's sash.

alternative but to impose final tests. The easy-starting test is one to which no objection can be raised, though this year there was much talk of tampering with the cars as they lay in the closed part over night. The type of custodian employed did not look impervious to a 100 franc note, while battery switches do not switch themselves off without human assistance.

The Figure of Eight test calls for manoeuvres rarely required of a fast tourer and the actual "wobble-wobble," would seem to favour the small cars, so all credit to Monsieur Lahaye, who took his well-prepared 5-litre Renault through the bends with a nice mixture of caution and dash. Ridley's performance on the Gloria Triumph was equally creditable, the addition of the supercharger to his small engine giving just that extra kick which enabled him to surpass the performance of the larger engined machines.

One of the most surprising runs, so smooth that one did not realise how fast it was, was that of Miss Astbury on a 1½-litre Singer. She was 5th in the Final test, .2 seconds better than Whalley on the V8 Ford, and if she had started from one of the higher marked Continental points instead of John o' Groats, this would have been her final position, Minshall who was 15th and Barnes who was 18th were the only other British drivers in the first 20.

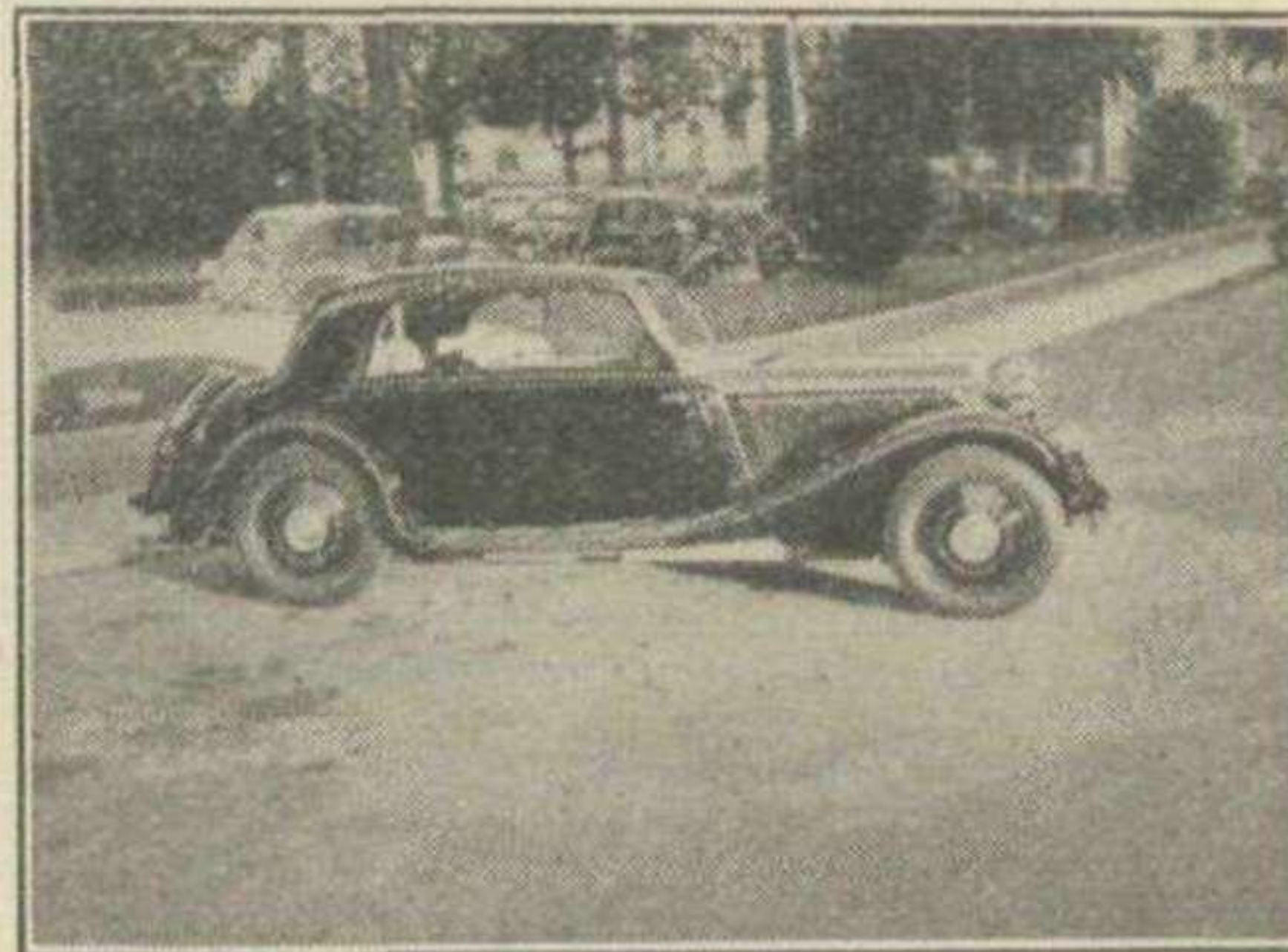
**The Concours de Confort.**

The Day of Rest worked miracles both to the drivers and their cars, and no one would have recognised in the crowd of cheerful men and women and (mostly) spotless cars, the weary collection of travellers who had entered the Principality three days before.

The Concours was held as usual on the terraces of the Casino, with the closed cars immediately outside and the open ones on the lower terrace. The saloon cars, with few exceptions, were uninteresting in outward appearance, being mostly of the American pressed-steel pattern, in which line is subordinated to utility. Most of the cars had electrically-heated screens or air blowers, and there was a fair display of snow shovels, chains

and knobby tyres. As regards the "comfort" aspect, apart from front seats which let down to form beds, most of the competitors were content to rely on such repose as could be gained lying on cushions and rugs in the back seat. Fog-lights, many of them of the hooded pattern, were of course found on most of the cars.

The only cars really equipped to contest the Comfort Competition were Pascoe's 3½-litre Talbot and Light's S.S., and in spite of little opposition both these cars well deserved their awards. The Talbot carried a four-light two-door open-air saloon body designed by Messrs. Pass and Joyce, and built by Young's of Bromley. Under the bonnet there was an engine heater, spare coil, spare battery, running tools, and under-bonnet lights, the front wings had compartments in them which were used for tool-boxes, while spare bulbs were carried in a foot rest in the front compartment. The seats were exceptionally comfortable and were provided with hollow padded head-rests in which thermos flasks were concealed. A screen heating appliance and a radio set completed the interior



L. Pascoe's 3½-litre Talbot, winner of the Grand Prix de Confort.

appointments, while four suitcases were carried in the back locker.

Light's S.S. was one of the standard 20 h.p. saloons, with streamlined tail, in which there was room for a good sized trunk. The interior and under-bonnet fittings of this car also reached a high standard.

British cars were in a strong majority in the open category, and the over-1½-litre class was won by the Hon. Brian Lewis with his grey four-seater S.S. Madame Schell was second with a Delahaye, fitted with a neat two-seater Figoni body with a real "spares service" behind the seats and running tools handy on the floor boards, while Sir Ronald Gunter's striking Mercedes-Benz, the actual Olympia Show model secured third in spite of no special Rally equipment.

Minshall's Singer was again the most "gadgetted" in the small car section, with more tools than one would have believed possible, a small vice and a Woolworth grinder, not to mention distributor dynamo and suchlike spares all arranged under the bonnet. Much ingenuity was displayed by various competitors in preserving their route cards, and Miss Astbury had a complete map of the route with distances and other particulars laid out flat in an enormous celluloid-covered frame.

**THE FINAL ORDER.**

Final position.	General Classification.	Starting point.
1	Ch. Lahaye (Renault) ...	Sta.
2	J. C. Ridley (Triumph) ...	Um.
3	Mme. L. Schell (Delahaye) ...	Sta.
4	R. Guyot (Renault) ...	Tal.
5	J. W. Whalley (Ford) ...	Sta.
6	V. Linders (Ford) ...	Um.
7	Bakker Schut (Ford) ...	Tal.
8	L. Rouxel (Peugeot) ...	Sta.
9	L. Westren Doll (Ford) ...	Tal.
10	R. Husem (Fiat) ...	Sta.
11	W. Hedensjo (Ford) ...	Umj
11	J. Nowak (Ford) ...	Tal.
11	E. Mary (Ford) ...	Um.
14	M. T. Minshall (Singer) ...	Um.
15	M. Sontag (Ford) ...	Pal.
16	H. Stoffel (Chrysler) ...	Sta.
17	F. S. Barnes (Singer) ...	Sta.
18	G. de Lavalette (Peugeot) ...	Sta.
19	Mme. M. J. Marinovitch (Ford) ...	Pal.
20	O. Lovienskind (Singer) ...	Sta.
21	Cte. P. de Hemptinne (Buick) ...	Tal.
22	C. Hansberger (Ford) ...	Sta.
23	R. Pelham Burn (Riley) ...	Pal.
24	Lord de Clifford (de Clifford Lagonda) ...	Um.
25	J. Hobbs (Riley) ...	Um.
25	A. M. Accarie (Renault) ...	Tal.
27	R. Carriere (Peugeot) ...	Um.
28	Carlsen (Chevrolet) ...	Sta.
29	J. Treider (Studebaker) ...	Sta.
30	Mrs. Gr. Molander (Chrysler) ...	Um.
<b>Positions of other British Competitors.</b>		
31	S. C. H. Davis (Railton) ...	Um.
34	O. Cathcart Jones (Lagonda) ...	Sta.
40	Miss M. Allan (A.C.) ...	Um.
42	H. B. Browning (Graham) ...	Um.
44	A. C. Scott (Bentley) ...	Um.
50	Miss J. Astbury (Singer) ...	J. o' G.
51	B. N. Wilmott (Rover) ...	Sta.
52	D. E. Harris (Singer) ...	J. o' G.
53	Mrs. M. J. Cotton (M.G.) ...	J. o' G.
54	Hon. Brian Lewis (S.S.) ...	J. o' G.
55	P. W. Makinson (Lagonda) ...	J. o' G.
56	E. A. Denny (Riley) ...	J. o' G.
57	W. P. Maidens-Dr. A. S. Wilson (Riley) ...	J. o' G.
59	L. Pascoe (Talbot) ...	J. o' G.
60	Mrs. E. M. Wisdom (Chrysler) ...	J. o' G.
61	N. R. Farmer (Alvis) ...	J. o' G.
62	R. J. Morton (Morris) ...	J. o' G.
64	G. Ed. Stott (Bentley) ...	J. o' G.
65	S. H. Light (S.S.) ...	J. o' G.
68	G. Taylor (Morris) ...	J. o' G.
69	T. G. Moore (A.C.) ...	Um.
69	R. Joyce (Ford) ...	J. o' G.
73	T. V. G. Selby (A.C.) ...	Sta.
74	W. Harney (Austin) ...	J. o' G.
77	E. Denzil Lee (M.G.) ...	J. o' G.
78	Miss M. Anderson (Riley) ...	J. o' G.
79	Miss M. D. Patten (Alvis) ...	J. o' G.
86	T. C. Griffiths (Riley) ...	Um.
95	H. E. Symons (M.G.) ...	Um.
96	Sir Ronald Gunter (Mercedes) ...	Har.
97	R. Grant Ferris (Bentley) ...	Str.

**Abbreviations.**

Stavanger ...	Sta.	Palermo ...	Pal.
Umea ...	Um.	John o' Groats ...	J. o' G.
Tallinn ...	Tal.	Valenca ...	Bal.





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## MONTE CARLO RALLY REFLECTIONS—continued.

The Concours concluded the competitions run in conjunction with the Rally, but competitors were compelled to wait until Sunday before being able to obtain their prizes or plaques. This enforced delay is irritating for those who enter the Rally because of its sporting character and not as an excuse for visiting the Côte d'Azur, but the picturesque Presentation ceremony in the Square before the Palace of Monaco affords some measure of compensation. Every one of the 103 cars which finished, including the Ford V8 bus from Amsterdam, packed into the Square, the famous brass band played the National Anthems of the higher-placed finishers, gaily-coloured flags hung everywhere, and the officers of the Monagasque Guard strolled about in their bright uniforms and helmets with multi-coloured plumes. This slightly theatrical air, at any rate, makes one feel as though one's efforts in reaching Monte Carlo had been appreciated, in contrast to the rather cold-blooded concluding ceremonies which follow Rallies in this country.

**The Future of the Rally.**

As a sporting event the 1935 Rally was if anything more interesting than its predecessors, but it would be idle to deny that there were not causes of com-

plaint. In the first place, the rules about working in the final control were completely ignored by certain Continental competitors, while no attempt was made in many cases to check the coachwork dimensions. Again cars were undoubtedly damaged and tampered with in the Closed Park, and one hopes that another year more trustworthy guardians can be secured, or that the cars be locked in a garage and handled only by the drivers in the presence of marshals.

Assuming that a car lost no marks in the inspection and the Starting Test, its place in the final order depended solely on its performance on the Figure of Eight, and competitors were entitled to expect their times would be recorded with the strictest accuracy. As far as could be judged from hand timing, this was far from being the case, while from the figures issued by the authorities, there seems more than a possibility that the times of different competitors on the same make of cars have been transposed. In view of these happenings, and to make sure that on another occasion there shall be no differentiation between nationalities, the only solution seems to be to have an international committee, as is the case in the Rally's summer equivalent, the Alpine Trial.

Much ink has been spilt about the unfairness of regulations which allow small high-powered cars such as the Alfa-Romeo and the Dolomite, and short large-engined vehicles like the Renault to compete against comfortable touring saloons, but anyone who cares to read them will find that the Competition is intended "for all classes of sports cars." On the other hand the changing of axle-ratios and steering gears, and the fitting of tiny wheels just for the final test negatives the value of the road section for singling out the cars suitable for everyday use, and one hopes it will be possible to find some way to ensure that all cars undertake the final test equipped exactly as they had been for the journey down to Monte Carlo. Monsieur de Ro, the Belgian delegate, and Colonel Lindsay Lloyd have suggested that controls should be arranged every 100 km., or even more closely, on the last 500 miles. This suggestion would put a premium on absolute reliability and make it difficult to pile up the time necessary to accomplish those "complete overhauls" outside the final check. Monsieur Noghes meanwhile is planning a third test to decide the final classification next year, and which is intended to place large and small wheelbase cars on an equal footing, so here's to the Perfect Rally of 1936!

**A CLUB CINDER TRACK**

**D**ESPITE all possible combinations and permutations, there are only a limited number of competitions which may be held on the public highways, and apart from this, the task of finding a piece of country unoccupied by another club is no mean one. The Harrow Car Club are fortunate in having the use of a T-shaped stretch of private road within half-a-mile of their headquarters, and which was used earlier on for speed trials. Unfortunately, owing to the presence of a gateway and two solid-looking trees near the end of the fairway, the R.A.C. have banned the track for this purpose, but it still comes in useful for the type of gymkhana event staged there at the beginning of last month.

The first event was a manoeuvring test arranged at the T-junction, and involving altogether five changes of direction. Some of the reversals were decidedly spectacular, especially those of F. J. Coyne, the treasurer of the club, whose three-year old and much tuned Morris Minor gave a good account of itself here and elsewhere. The surface was loose, so the more powerful sports type cars got little advantage over their touring brethren.

Then followed various driving tests, in which cars had to be backed and parked in narrow spaces between tapes. This favoured somewhat the small open cars, and momentary confusion occurred when A. W. Rackham, quite unaware that the bumpers of his Standard saloon were caught up in the tapes and posts, proceeded to back away with a large part of the obstacles in tow.

The final test consisted in threading in

and out of a row of bottles, and here Coyne lost some marks, resulting in a win for Buckle (M.G. Midget) who had made a consistent showing throughout. Burnford who was third on an ancient Triumph 8, also well deserved his place. It was altogether a cheerful informal gathering, in which the older cars had a chance of taking on more modern productions, and the subsequent meeting at the "Bells," on the Hatfield By-Pass, for tea and results,

brought things suitably to a close.

Here are the results:—

- 1st. D. K. Buckle (M.G. Midget).
- 2nd. F. J. Coyne (Morris Minor).
- 3rd. D. Burnford (Triumph "8").
- 4th. D. H. Cottingham (M.G. Midget).
- 5th. A. W. Rackham (Standard 9).
- 6th. W. Jackson (Salmson).
- 7th. C. L. Catford (Standard 9).
- 8th. Miss E. M. Summers (M.G. Midget).
- 9th. P. G. Fowler (Citroen).
- 10th. A. Clayton (Triumph 11).
- 11th. H. Peck (M.G. Magna).
- 12th. A. L. Phillips (Singer Le Mans).



*Crossing the line in a driving test on the Harrow Car Club track last month.*



# Letters from Readers

## Tazio Nuvolari.

Sir,—As a most interested reader of your magnificent paper since its inception I am sure I may be permitted to air, what is in my opinion, a serious grievance, and in doing so I may say my feelings are not nasty, etc.

The pages which I enjoy most each month are "Continental Notes and News," and it is over some of the notes in this section for the February number that I beg your indulgence.

Your correspondent writes, *re* Final Teams: "The only other Italian driver of *Class* besides Varzi is Fagioli." Now, candidly, is it possible your correspondent has never heard of one Tazio Nuvolari, who, in my humble opinion, and I think also in the opinions of quite a number of other followers of the "the sport of sports," is a freak G.P. driver, a pilot without par, his name a household one on the Continent, in fact, the most feared driver in the world. A man of the most sublime courage, judgment and racing technique. One whose name will live on like Dehane Segrave in motor racing history. Varzi, Chiron, Fagioli, Carratsch and Stuck are masters, but the one and only Tazio is something different. Who will ever forget a few driving lessons he gave in public at Belfast against the cream of British "Aces"? Even now, when he has not the best cars, no race is won until he has fallen out, or the chequered flag has fallen. How many drivers would have carried on last season under the handicaps he did.

A country and a sport are the richer for a man like Tazio; oh, that England had such a driver! Then we would not be such small fry on the Continent. I say again, this man is "the Ace of Aces," and his records prove it.

We must be fair, and the Britisher was always more than that, so that I hope some recognition of Tazio's art will appear in your pages to make up for this, I am sure, unintentioned slur. Large numbers of my friends who read your paper are in complete agreement with me.

I am, yours, etc.,

THOS. A. FLEMING.

Knocksedan,  
Shrewsbury Road,  
Ballsbridge, Dublin.

[Mr. Fleming's complaint is dealt with by our Continental Correspondent on another page of this issue.—ED.]

## Spectators at Brooklands.

Sir,—May I, an enthusiastic follower of the sport, express my great approval of your remarks concerning the handicaps system at Brooklands? To our Continental friends in the game this form of competition must savour very much of playing at racing, and to those of us who were fortunate enough to see the international meetings at Donington, handicap races at Brooklands will seem very poor stuff indeed.

Furthermore, those of us who cannot afford more than the public enclosure,

do not appear to be getting as square a deal as we might. Take for example the International Trophy Race of 1934. After a 65 mile journey we have to pay to leave our cars some distance from the scene of activities, and when we do get in the enclosure all we can see is the cars about a quarter of a mile away, or occasional glimpses of a driver's head through a dense crowd; and this costs us at least a pound.

After all, it is the public's money which supports the track and having paid to enter one should at least be able to see in comfort. Could we not have access to the railway straight and Byfleet sections of the track? And if we must be confined to the Members Hill area, why not raised earthen banking, after the fashion of that seen in other sport arenas?

In closing may I disclaim any connection with Donington, save as an enthusiastic spectator, and as such, wish both tracks a very successful season. I am, yours, etc.,

RICHARD GRANT.

The Friaries,  
Bedford.

## A Scratch Race.

Sir,—Now that you have broken the ice with an urgent plea for a Brooklands scratch race, may I ask you for a little space to put forward the following idea?

Make the next B.R.D.C. 500 miles race a scratch one!

Now, having recovered from the first shock, and looking at it from the basis of previous results, it must come to something like this soon.

Last year the difference in handicap speed between Cobb's Napier-Railton and the M.G. Midgets was only 10½ m.p.h., or, for that matter, between any car over 3 litres, and the 750 c.c. class.

The margin was at one time over 34 m.p.h.

It is also quite usual for no car to finish in about three classes; while a tabulated list of the first three throughout the series of 500 miles races is very interesting, bearing in mind their respective sizes.

	1st.	2nd.	3rd.
1929 ...	Bentley ... 107.32	Bentley ... 109.40	Sunbeam ... 102.48
1930 ...	Austin 7 ... 83.42	Bentley ... 112.12	Sunbeam ... 104.74
1931 ...	Bentley ... 118.39	Talbot ... 112.93	M.G. Midget ... 92.17
1932 ...	M.G. Midget ... 96.29	Riley 9 ... 99.61	Talbot ... 111.60
1933 ...	M.G. Magnette ... 106.53	M.G. Magna ... 92.24	Riley 9 ... 88.87
1934 ...	Riley 2-litre ... 104.80	Riley 1½-litre ... 101.65	M.G. Magnette ... 97.85

From the above table it will be seen that for the last three years only one car over 2 litres has been placed; with speeds of 1,100 c.c. cars risen to within 1 m.p.h. of the 1929 winner.

When Bentley was doing well, in '29, '30 and '31, there were Bentley teams, while now anything over 2 litres is almost always a lone effort, with no team tactics possible.

Lastly, if a small English car could win an open 500 miles race think of the huge

incentive to our manufacturers to set about preparation for the 1937 formula. I am, yours, etc.,

JOHN V. HEWES.  
Member B.A.R.C.

"Greengates,"  
Barnett Wood Lane,  
Ashted, Surrey.

## Sports Car or G.P. Racing?

Sir,—In January's letters from readers, one writer suggests to cut down the speed of the next G.P. race, ordinary fuels should be used, blowers should not be permitted and, standard cars should be used.

It is obvious that speeds will have to be reduced, and the suggestion to use standard fuels would be of great use, for not only would it make racing definitely cheaper for those concerned, but it would give the "Man in the Street" a good idea of the best petrols on the market. Why omit blowers, as these are just beginning to become standard fittings to sports cars, and the more the public know about them the better. But why, Oh Why use standard cars! To the spectator the thrill of motor racing would be gone, instead of attending race meetings he would walk to any main road and be able to see several good drivers handling cars at speeds he would see at race meetings.

The lure of motor racing is, and always will be the sight of multicoloured cars racing at their limit round a good track. Good being in the sense that there will be plenty of bends and wide straights.

Give the spectator the sight of two low built racing cars, screaming along, leaving a cloud of dust behind them, and fighting all the time for the lead, and he will be satisfied, nothing else will please him. I am, yours, etc.,

"SPECTATOR."

"Barnstone,"  
Derby Avenue,  
Skegness, Lincs.

WE welcome letters for publication in these columns. Letters intended for publication must be written on one side of the paper only and they may be signed with a nom-de-plume, but the name and address of the writer must be enclosed as a guarantee of good faith. No responsibility is taken for the views expressed by the writers. Letters intended for publication should be addressed to the Editor, Motor Sport (1929) Ltd., 39, Victoria Street, London, S.W. 1.



# SPORTS CARS AT THE GERMAN SHOW

WIDE RANGE OF OPEN MODELS SHOWN IN RESPONSE TO POPULAR DEMAND—  
AERODYNAMIC BODIES STILL IN FAVOUR.

WHEN the doors of the Merrehallen, on the Kaiserdamm und Funkturm, Berlin, were thrown open to the public on the 11th February, a big step forward was made in the recovery of the German automobile industry. Some idea of this progress can be gained by the fact that the Exhibition was three times bigger than its counterpart last year; it covered an area of 50,000 square metres; and contained 500 exhibits.

Two main tendencies are apparent in current German design. Both are traceable to public opinion and demand. First of all, cheaper and smarter cars are to be seen everywhere. The people have not a great deal of money, so cars must be cheap, but they also feel that prosperity is returning, so they like their cars to be bright, modern, and in keeping with their cheerful spirits.

In this respect the new Opel is undoubtedly the sensation of the Show. It has a 1.2 litre engine, and sells for 1,500 marks (roughly £120 at present rate of exchange). Production has not yet started, but it will be ready within the limit. By the rules of the Exhibition all cars ordered at the Merrehallen must be delivered before July.

The second outstanding tendency is the return to favour of the open car, particularly as a sports model. Two factors account for this. One is the fresh-air cult, which is stronger than ever in Germany and naturally turns people against closed cars, and the other is American and French competition. The smart roadsters from these two countries have been greatly favoured by those who seek sports motoring. Particularly has this been the case with women, who have been attracted by smart colour schemes and good acceleration. Assisted by heavy tariffs, practically every German manufacturer has taken up the challenge by producing an open sports model, with sports cabriolets for the fairer sex. At the same time engine size has been kept down, but the "sportserienwagen" shown at Berlin are capable of a performance equal to that of their rivals.

In a quick glance round the Show we were particularly impressed by the magnificent 12-cylinder Horch *mit kompressor*, the new 2.5-litre Mercedes-Benz, the super-streamlined Type 500 of the same make, the 36 h.p. Wanderer, the new 2-litre B.M.W., and the fast 1½-litre six, the improved 2-litre Adler Trumpf Senior, the 2.25-litre Hanomag, next to the N.S.U. and Zündapp, both showing as sports models.

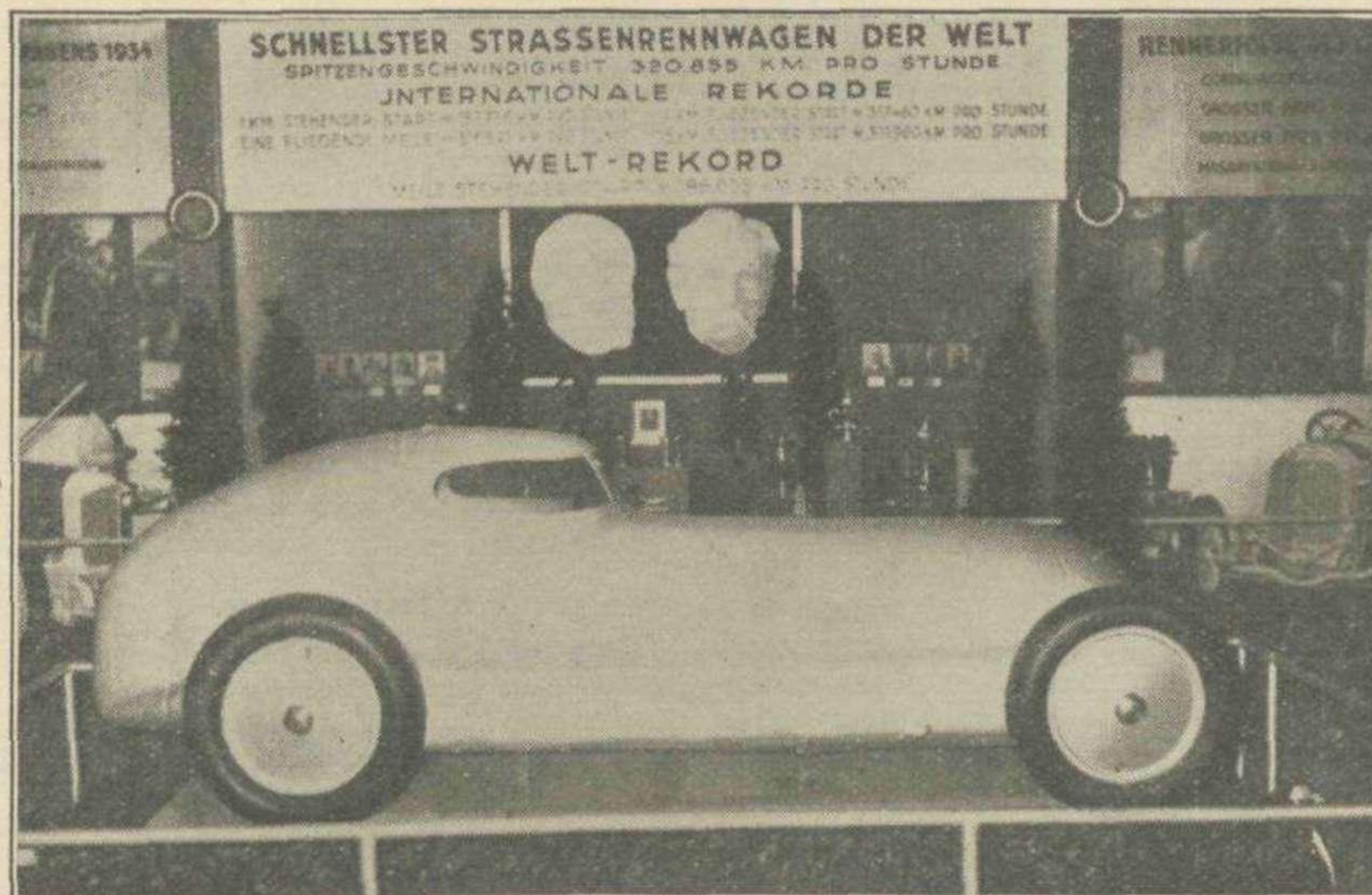
Germany can claim to be the home of the aerodynamic body, and yet one cannot say that this type of body has really caught on. The public is conservative in its taste, and not even the admitted advantage of added speed and greater comfort can quite overcome the hesitation caused by the unusual lines. It would be

safer to say that the aerodynamic body is holding its own—which means that it will one day become universal.

The angular German body is a thing of the past. Curves and bulges are now the vogue, and their wider range has appealed to the coachwork designers. Apart from the ultra-modern 5-litre "Merc," whose lines are a matter of great discussion, there are plenty of original coachwork ideas of undisputed

Mercédès-Benz; the Hansa and Praga with their "backbone" chassis and independent springing, all reveal a wealth of engineering skill.

From the technical point of view we found great interest in the little Imperia, exhibited in the motor-cycle section. This intriguing little vehicle has a chassis made of steel tubing, independent springing, and a two-stroke engine at the rear with three cylinders, air-cooled, and



Caracciola's record-breaking Mercedes-Benz "Rennlimousin" exhibited at the Berlin Motor Show. Five records were captured when the car ran at Gyon, but the Flying Mile was subsequently regained by Stuck (Auto-Union) at a speed of 199.11 m.p.h.

merit, and taken as a whole, this branch of car manufacture can be said to be making real headway in Germany.

Body space is growing—as it will have to in England before long. Four-seaters have become five-seaters, and five-seaters are now six-seaters. Engine sizes, too, show a slight increase, with higher compressions. Chassis design is very much the same. There are many small technical improvements, as to acceleration, back axles, steering gear, and careful assembly.

At the risk of appearing unpatriotic, one is bound to admit that taken as a whole, German automobiles display a greater amount of technical ingenuity than is evidenced by our own standard, as opposed to sports cars. Take suspension, for example. Practically every German car has independent springing, carried out in a scientific manner. One has only to ride in such a car as the B.M.W. to appreciate the huge advance over orthodox springing obtained by this practice. Such cars as the 3½-litre Maybach, with a power output of 140 h.p., a reinforced frame and independent springing; the little rear-engined

supercharged. The coupé body is of perfect aerodynamic lines, and the complete car weighs only 8 cwt. Since its little engine is 750 c.c. capacity, and revs. at 4,500 r.p.m., the performance on the road should be exceptional.

The only British firms exhibiting in Berlin are the Austin Company and M. A. McEvoy, Ltd. The latter control the production of Zoller superchargers. Foreign cars are not encouraged in Germany, for Herr Hitler realises that the motor industry is the key industry of Germany. He said so in his inaugural speech, and added: "We have to make this country motor-minded. For this we need good motor roads, and this is the object of our great road scheme."

The heavy import duties have resulted in a total absence of American cars, for the Ford is now manufactured in Cologne. Foreign countries were therefore represented by Austin, Austro-Daimler, Steyr, Citroen, Fiat, Ford, Praga, Renault and Tatra. German makes were Opel, Audi, Wanderer, D.K.W. Horch, Mercedes-Benz, Maybach, Adler, B.M.W., Hansa-Lloyd, Stoeber, Hanomag and N.S.U.

## VARZI IN THE MILLE MIGLIA.

In spite of having signed a contract with Auto-Union for Grand Prix racing,

Achille Varzi will probably take part in the Mille Miglia at the wheel of an Italian

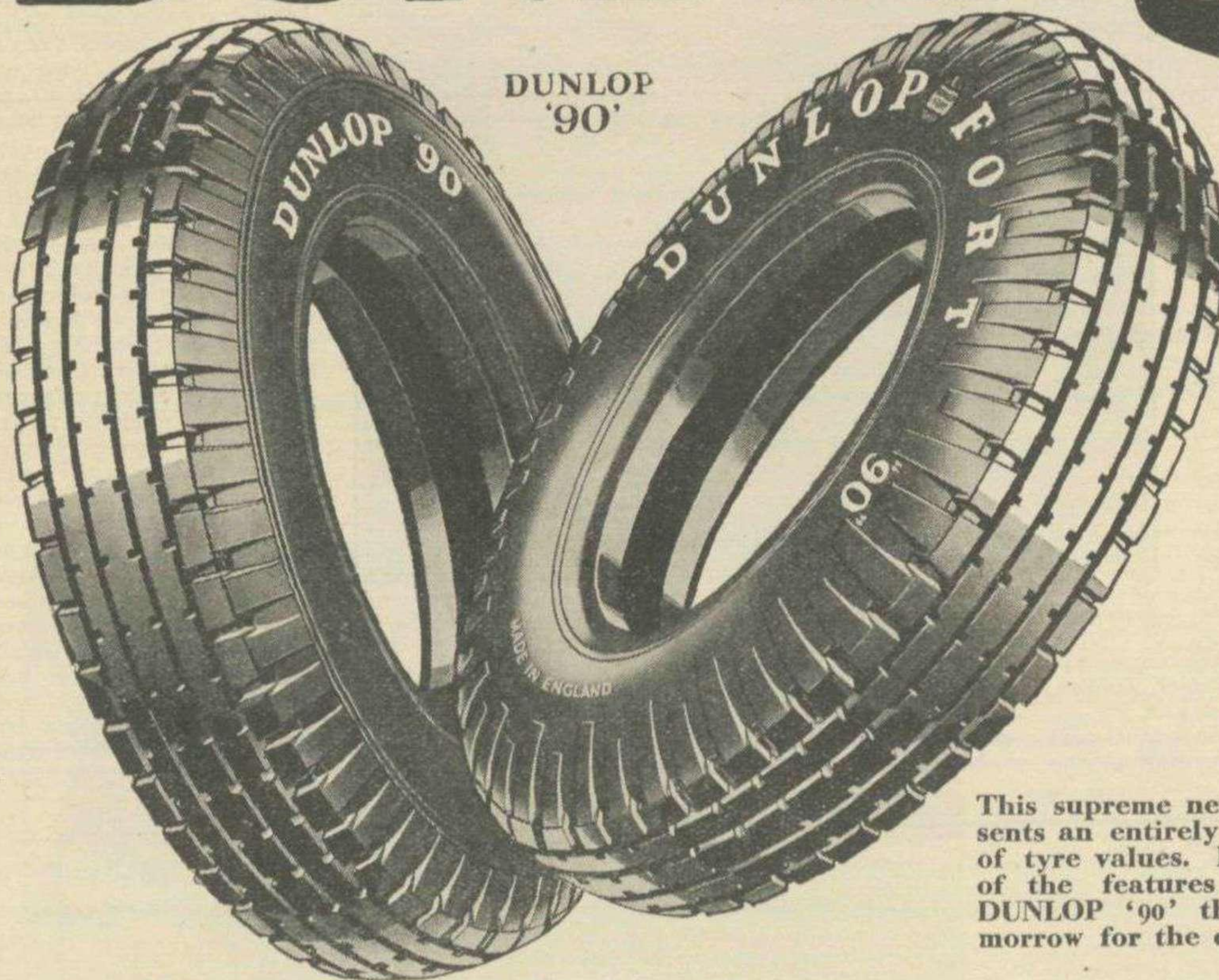
car. Perhaps we shall see a renewal of the Nuvolari-Varzi battle?



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DUNLOP  
Fort '90'

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**STEERING & BRAKING.** The Dunlop '90' makes steering easier and more responsive. It will react efficiently and evenly to brake application.

Fit the **DUNLOP Fort '90'** or **STANDARD '90'**



# MASERATI RACING CARS FOR 1935

INDEPENDENTLY-SPRUNG V 8 HEADS LIST OF NINE MODELS—FURMANIK'S RECORD BREAKING 1100 cc. CAR.

By COUNT G. LURANI CERNUSCHI.

**V**ERSATILITY has always been the watchword of the Maserati factory, as for instance those original conceptions, the 2.5-litre model of 1930, which gained such success on its entry to Italian Grand Prix Races, the tremendously fast 16-cylinder driven by Borzacchini at Cremona in 1929 when he achieved a speed of 152.9 on the road, down to the 1,100 c.c. four-cylinder model introduced in 1932.

Maserati always said he would build a car to suit the requirements of any client, but this policy has been modified nowadays to building a wide range of cars suitable for every racing purpose.

It will be therefore interesting to make a full review of the cars that Maserati will put in production in 1935. Of course all the actual models in the list are built only if ordered. Actually all models are in production, especially the new "mystery" Grand Prix cars and the little 1,100 c.c. and 1,500 c.c. 4-cylinder cars. Unfortunately the new Grand Prix car is still on the secret list, and only limited details can yet be revealed.

As is usual in racing car factories, the prices asked for each of these cars vary with the importance of the order and the racing value of each driver, but are comparatively moderate in view of the successes secured by them in face of the opposition of their larger Italian, German and French competitors.

With the exception of the new Grand Prix models, all engines are built to the

same general plan, with two overhead camshafts driven by gears from the front end, a Roots type blower driven from the

larger models, but from the 1,500 c.c. car downwards the single-plate [type is fitted. Four speed gear-boxes with central control is the general practise, but a 3-speed gear-box was used on the record-breaking 1,100 c.c. car. The transmission is of the orthodox open type, suspension is by half-elliptic springs and Hartford shock-absorbers, while Lockheed hydraulic brakes are standard, with mechanical Perrot brakes an optional variation. Duralumin Rudge Whitworth wheels are fitted on all cars, the fuel feed is by pressure with the tank at the rear, while all models have dry sump lubrication.

Only two chassis sizes are made, the large type with wheelbase 8 ft. 4½ in. and track 4 ft. 5 in., which houses the 3.3 and the 3-litre engines, and a smaller type with wheelbase 7 ft. 10 in. and track 3 ft. 11¼ in., which accommodates the seven smaller power units.

All the casting and foundry work is done at Milan at specialised factories. The chassis frames are assembled at the little Bologna factory. So is the engine and the other components. Engines are first tested on the bench, then on the road, and finally tuned on the car.

The new Grand Prix 4,400 c.c. car is particularly interesting. All four wheels have the Porsche torsion-rod suspension, with rods parallel to the chassis side-members. Each front wheel has its own drag-link, which operates from a double-worm steering-box. The engine is a twin block V engine 8-cylinder unit with twin o.h. camshafts



The surviving Maserati brothers outside the Bologna Works. They are from left to right, Bindo, Ettore, Ernesto and Prof. Mario.

front end of the crankshaft, drawing mixture from a Weber carburettor. Ignition is by Scintilla magneto on all models.

Multi-plate clutches are used on the

## THE 1935 "MASERATI" RACING CAR PRODUCTION.

Model.	No. of Cylinders.	Bore and Stroke.	Total Capacity.	Compression ratio.	B.H.P. at mxa. revs.	Max. revs. P/minute.	Weight of Chassis in cwt.
4,400 c.c. Grand Prix Single Seater ... ..	8	—	—	—	About 400 h.p.	—	—
3,300 c.c. Single Seater ...	6	84 × 100 m/m	3,325 c.c.	1.7	260 h.p.	5,000	14.53
3,000 c.c. Single Seater ...	8	69 × 100 m/m	2,998 c.c.	1.7	230 h.p.	5,500	14.34
2,400 c.c. Single Seater ...	4	84 × 108 m/m	2,390 c.c.	1.7	180 h.p.	5,300	12.57
2,000 c.c. Single Seater ...	4	80 × 99 m/m	1,998 c.c.	1.7	160 h.p.	5,500	12.37
1,500 c.c. Single Seater ...	4	69 × 100 m/m	1,490 c.c.	1.6	130 h.p.	5,500	10.6
1,500 c.c. Sports 2-Seater...	4	69 × 100 m/m	1,490 c.c.	1.6	115 h.p.	5,300	12.57
1,100 c.c. Record Breaking Single Seater ... ..	4	65 × 82 m/m	1,088 c.c.	1.9	140 h.p.	6,700	8.9
1,100 c.c. Single Seater ...	4	65 × 82 m/m	1,088 c.c.	1.7	100 h.p.	5,800	10.4
1,100 c.c. Sports 2-Seater...	4	65 × 82 m/m	1,088 c.c.	1.6	90 h.p.	5,600	12.37



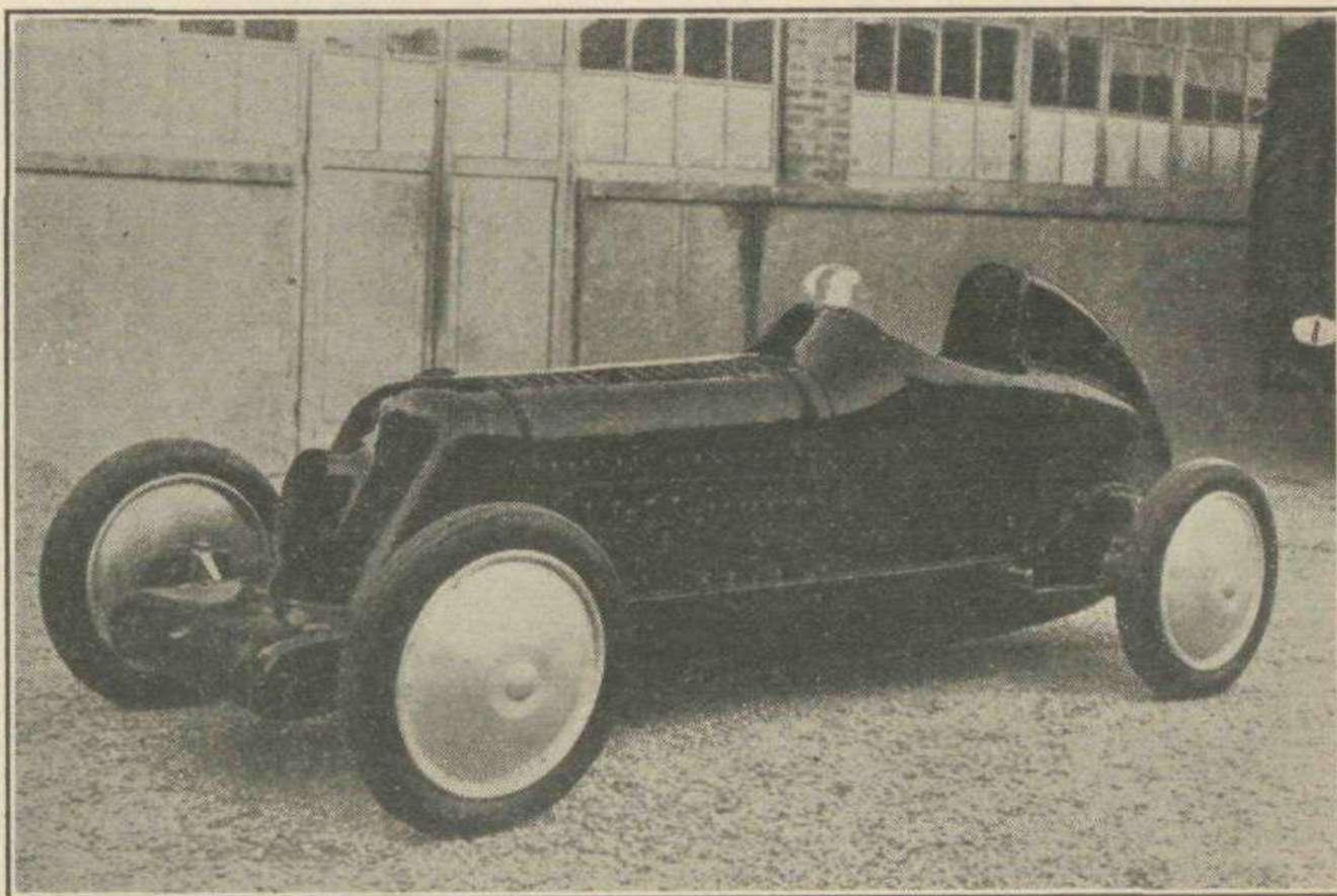
## MASERATI RACING CARS FOR 1935—continued.

and 2 valves per cylinder. There is of course a Roots type supercharger. For realising a very low driving position, the transmission is underslung and the gear-box is fixed at the rear just behind the rear axle. The chassis of this car is of a special steel alloy welded by an American system that allows of an extra light construction. Brakes (as on all cars), are of the Lockheed Hydraulic pattern built by Maserati. Of course, in this car—as on all cars of Maserati—Electron and Aluminium are generally used and allow ultra light and very strong construction. The body will be attractive in appearance, and streamlined very carefully.

The 8-cylinder and the 6-cylinder cars are on orthodox chassis as all other models of the factory. These chassis have been very much improved and are now very stiff and hold the road really well, and "sport" cars can also be developed from these chassis. Instead of central steering, a side steering and a 2-seater body with all necessary electric equipment, can be fitted. There is a chance that the great Varzi and Siena will drive one of these 2 seaters at the next Mille Miglia!

The 6-cylinder car is the same as the one that Nuvolari has driven so consistently at the end of 1934. The "8" is the same as Whitney Straight's 1934 racing team. The 2,400 c.c. is the car that was driven so consistently by Taruffi at the last Monte Carlo G.P.

All the big Maserati cars this year have cylinder heads and blocks cast in one. This allows the rather high compression ratio. The 1,500 c.c. and the 1,100 c.c.



*The Special Single-seater 1,100 c.c. Maserati driven by Ing. Furmanik at Florence, when he raised the flying kilometre record to the astonishing figure of 139.143 m.p.h. Note the peculiar cowling over the radiator.*

very closely the famous old Talbot Darracq, 1,500 c.c. cars.

The 1,100 c.c. car driven by Furmanik follows closely the design of the ordinary single-seater cars, while it is noticeable that the record speed of 136.4 m.p.h. was attained without recourse to super-streamlined coachwork. The principal difference lay in raising the compression

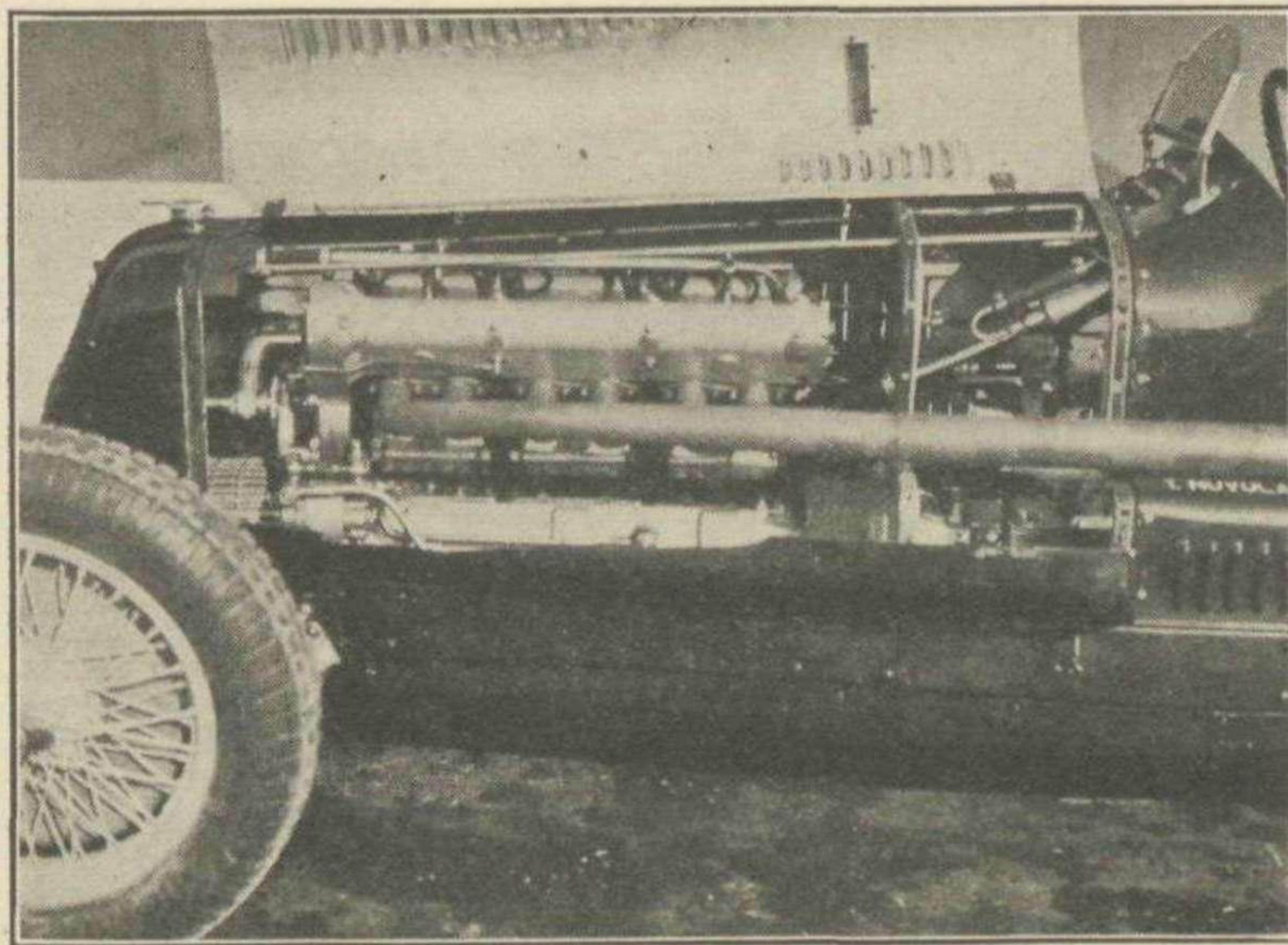
fitted, discs were fitted to the road wheels, and only a three speed gear-box was required for getting up speed on the level surface of the Florence-Pistoia Autostrada. A further increase of 5 m.p.h. may be anticipated with a more carefully streamlined body.

Maseratis will build about 20 new cars of the different models throughout the season, but will not be running an official team. The official defenders will be the "Scuderia Subalpina" drivers.

The Maserati drivers in 1935 will be: 4,400 Grand Prix cars, Zehender, Etancelin Gherzi, Siena, Della Chiesa (of the "Scuderia Subalpina"). This team will have also two 6-cylinder cars and one 1,500 c.c. and one 1,100 c.c., and also some "sport" cars). Ruesch, Soffietti, Rovere will have 2.6-litre cars. Farina, Tuffanelli, Castelbarco, Kessler, Lurani will handle 1,500 c.c. cars. These are the most prominent Maserati drivers, all of whom will handle new cars in the coming season. T. Nuvolari was expected to be the great lone hand on the Maserati in 1935. He had tested the new suspension, but now he has decided to join the Ferrari stable, and is a great loss to the Bologna factory.

The early history of the make is less well-known than it deserves to be, so it will be interesting to remember in a few words the story of the "Maserati" factory. The little concern started 20 years ago (the 20th anniversary has just been celebrated), but it was always in great difficulties. The real "head" of the Maserati factory was the late Alfieri Maserati. This famous man was a well-known racing mechanic and had a great experience at Isotta Fraschini and other factories.

Before the war he was already a racing mechanic and also a racing driver. He made his first entry into the motor



*The engine of the car on which Nuvolari finished fourth in last year's Italian Grand Prix. It is, of course, a six-cylinder with a capacity of 3,500 c.c.*

models have a detachable head, except the very special 1,100 c.c. record car that has also a fixed head. Cast iron is used in all the engines. All the 4-cylinder models have an engine that resembles

ratio and also the maximum safe revs, an alteration which boosted the horsepower to the formidable figure of 140 h.p. The chassis, of course, was considerably lightened, rear brakes only were



MASERATI RACING CARS FOR 1935—continued.

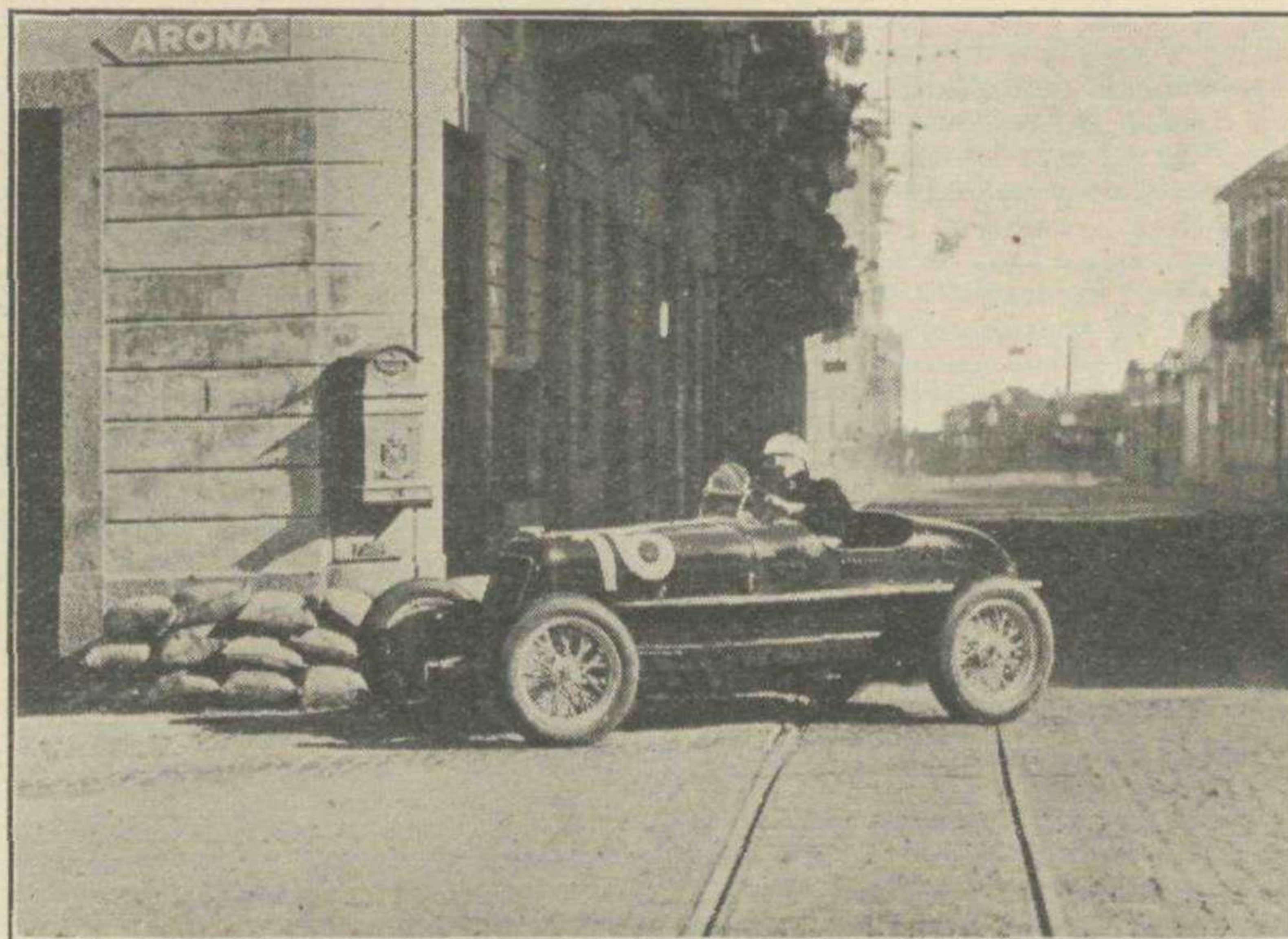
industry as a manufacturer of sparking plugs, and now in Italy this make is quite well known.

After the war Alfieri Maserati went back to his beloved "Racing car" enthusiasm. He was responsible for the construction of the Grand Prix racing Diatto cars of 1922, and finally in 1926 he started the construction of "Maserati" racing cars.

The little factory got larger, new machinery, some great victories, real good racing cars built by a real expert, made the "Maserati" name famous in Italy, then in Europe and in the whole world. Alfieri Maserati brought all his brothers to work in his little factory, and his little business was just starting to be a great thing when in 1932 in the first months of the year he died after a little operation that should have been only a slight thing.

The brothers continued the great enterprise and now the little works forms an efficient and self-contained unit. The Maserati brothers are four—Bindo, Ettore, Ernesto and Prof. Mario. The first three named are the leaders of the factory, Ernesto being the real head of the trio. The Maserati factory is like a "family" job. No great offices, but a little room covered with all sorts of photos of the great victories of their car. The Maserati brothers themselves work in the factory

The coming season will see more of Mrs. Stewart than her brief, but brilliant, outbursts at Montlhéry. She is preparing a new 1,500 c.c. racing car for road-racing,



Count Lurani driving his 1,500 c.c. Maserati, with which he won the 1½-litre class, in the Biella Round-the-Town Race.

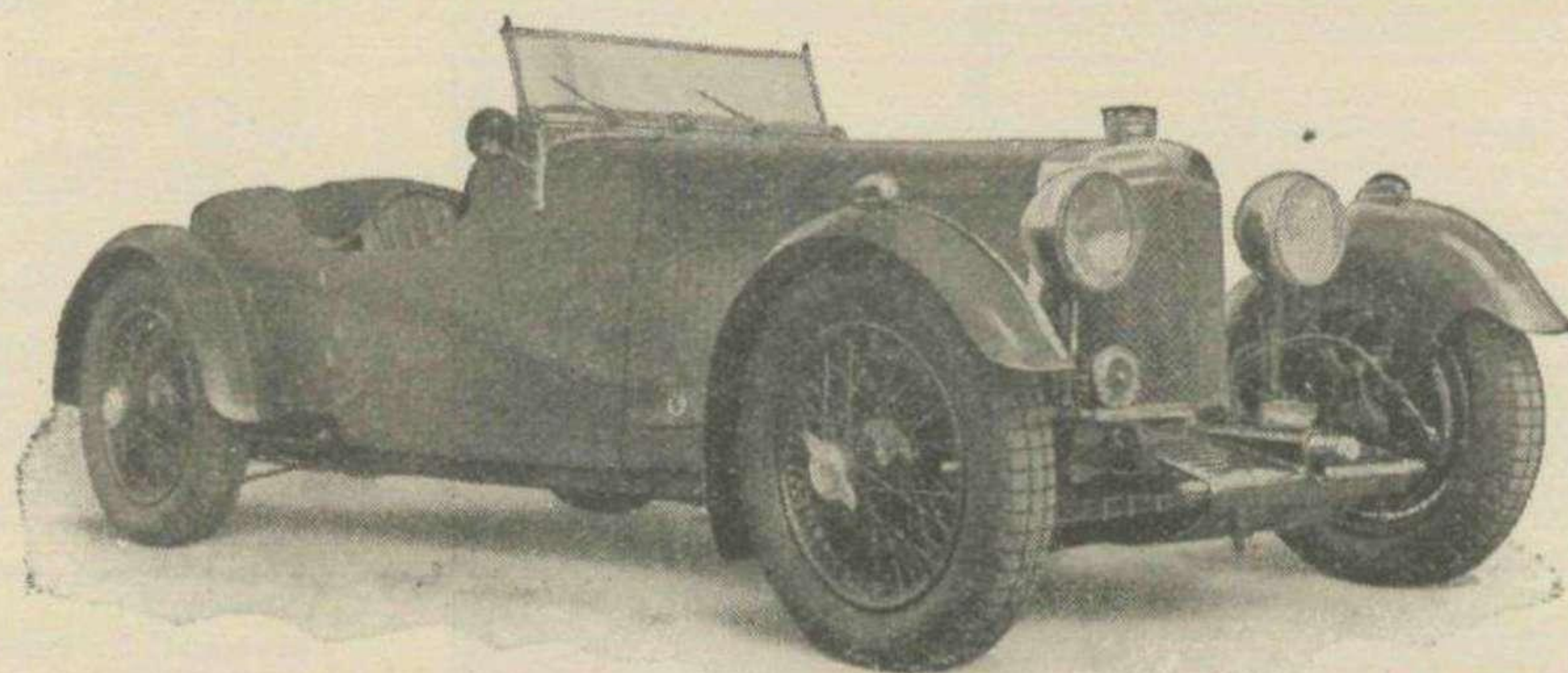
and you would always meet them in overalls among the 50 specialised

mechanics that are the whole staff of the little "Marque."

MRS. STEWART TO ROAD-RACE.

and intends to enter for such events as the Avusrennen, the Swiss Grand Prix, and the Picardie G.P.—in fact, any race which has a 1,500 c.c. class.

There is no sign of anyone challenging her magnificent Montlhéry lap record of 147 m.p.h.



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# Continental Notes and News

By

HAROLD NOCKOLDS.

## The Will of Mussolini.

SO Tazio Nuvolari has responded to the call of his country! The greatest driver of all time has officially signed up with the Scuderia Ferrari, and will lead the "National" team of Alfa-Romeos during the coming season. It certainly seemed a bit queer to find two Frenchmen in the first three of the Ferrari personnel, and Mussolini finally decided that an Italian "No. 1" must be found at all costs. Varzi had deserted to Auto-Union, while Fagioli was busy at Stuttgart, so Nuvolari was told to cancel all his plans as an independent and report for duty at Modena.

To me, Nuvolari's name is naturally coupled with Alfa-Romeo. It seems only right and proper that he should drive an Alfa, and I could never quite reconcile myself to the sight of him handling a Bugatti, or a Maserati. In the same way I always think of Louis Chiron at the wheel of a Bugatti, and Caracciola in a Mercedes-Benz. Habit, I suppose.

Talking of Nuvolari reminds me that I apparently owe him a humble apology. A correspondent, Mr. Fleming, has pointed out that last month I committed the heinous crime of saying "The only other Italian driver of class besides Varzi is Fagioli." Looked at like that it certainly was a *gaffe*. I had in mind that the Ferrari-Nuvolari negotiations were temporarily suspended, so perhaps I should have added a sentence to that effect. No, that won't do. Admit you made a mistake and have done with it! Sorry Tazio, I think you are every bit as good as Mr. Fleming says you are. [See Letters from Readers.—Ed.]

## At the Alfa-Romeo Factory.

The racing department of the vast Alfa-Romeo factory presents an amazingly busy aspect just now. The new 8-cylinder 4-litre cars with independent springing are rapidly nearing completion, and will probably make their debut at Monte Carlo in the Monaco G.P. The 12-cylinder 4½-litre jobs are not so advanced, because they are not due to appear until the French Grand Prix on June 23rd.

Meanwhile a brace of last year's 3-litre Monopostos have been prepared for the Pau Grand Prix on the 24th February, where they will be handled by Nuvolari and Dreyfus.

## A Ferrari-Fiat to Challenge Campbell?

I have always wondered why Italy has not sent out a contender for the World's Flying-Start Kilometre Record. In the air they have left every other nation standing, thanks to the efforts of Francesco Agello. His 440 m.p.h. will take a lot of beating.

Now rumour says that Sir Malcolm Campbell's trip to Daytona has aroused the Italian competitive instinct, and work is being carried out both at the Ferrari works and the Fiat factory with a view to producing the requisite monster. The

former are building a special chassis, while the Fiat share of the combination consists of preparing two V12 engines in tandem, giving a total horse-power of 3,100. A "paper" speed of 350 m.p.h. has been computed.

Count Trossi is to handle the completed car, but the difficult matter of location seems to be as yet undecided. Perhaps Mussolini will order a special road!

Although this rumour has been denied in Italy, I am reminded that there cannot be smoke without fire, or words to that effect. We shall see.

## The Ferrari Programme.

There is a certain magnitude about the Scuderia Ferrari operations which is decidedly impressive. The whole thing is so carefully worked out and competently managed that success must, one feels, inevitably come their way. There are no last-minute decisions to enter cars for a race, and the machines are nearly always in perfect mechanical condition.

Here is their full programme for 1935. Look up the dates of the events, and then figure out the organisation required. It will make your head ache!

Pau Grand Prix, Mille Miglia, La Turbie Hill-climb, Monaco Grand Prix, Circuit of Madonie, Tunis Grand Prix, Tripoli Grand Prix, Coppa Bergamo, Avus Grand Prix, Circuit of Turin, Bordino Grand Prix, Montreux Grand Prix, Penya Rhin Grand Prix, Eifel Grand Prix, Kesselburg Hill-Climb, French Grand Prix, Susa Montcenisio Hill Climb, Marne Grand Prix, Belgian Grand Prix, Circuit of Dieppe, German Grand Prix, Comminges Grand Prix, Coppa Ciano, Luxembourg Grand Prix, Coppa Acerbo, Nice Grand Prix, Swiss Grand Prix, Pontedecimo Giovi Hill-Climb, Stelvio Hill-Climb, Vichy Grand Prix, Italian Grand Prix, Mont Ventoux Hill-Climb, Circuit of Modena, Dutch Grand Prix, Spanish Grand Prix, Masaryk Grand Prix, Circuit of Naples, Acropolis Grand Prix.

I notice that the Kesselburg and Mont Ventoux Hill-climbs are to be attacked. These are Stuck's particular province, and it will be interesting to see whether he can defend his records from the Italian invasion.

## Record Le Mans Entry.

There seems every likelihood of the full quota of 60 entries being reached for the G.P. d'Endurance at Le Mans. At the closing date for the second period, no fewer than 56 cars had been entered, leaving four vacancies to be filled before February 28th.

In addition to the entries published in our February issue, the following have since been received:—

Alfa-Romeo, 1,750 c.c. (Guy); Aston-Martin, 1,500 c.c. (Percy Gardner); Unspecified (Argo); Unspecified (Royer); Unspecified (D. Porthault); Unspecified

(Pascal), Unspecified (Comet); M.H. Magnette (Maillard-Brune); Unspecified (Roy Eccles); Riley, 1,500 c.c. (Jean Trevoux); Bugatti, 4,900 c.c. (Treize-fonts); M.G. Magnette (E. Hetzberger); Austin, 750 c.c., three cars (Austin Company); Bugatti, 3,300 c.c. (de Souza-Dantas); Singer, 972 c.c. (G. Hendy); Unspecified (R. Sommer).

I have been asked by I. F. Connell to point out that his unspecified entry is a joint effort with Roy Percival.

An interesting addition to the list is the team of Austins. These will presumably be of the new type, and handled by Messrs. Driscoll, Stanley Woods and Dodson. Another English entry will be G. E. T. Eyston's team of lady drivers, who will handle M.G. Midgets. The ladies, by the way, will be Mrs. Wisdom and Mrs. Petre, and the Misses Doreen Evans, Eileen Ellison, Margaret Allen and Fay Tylour.

With 60 cars on the road at once the race should be a fine spectacle, even on the over-long Le Mans circuit. So far the expected team of Type 500 Mercedes-Benz have not materialised. A pity. The race will be truly international in character: 27 British drivers, 26 French, 1 Roumanian, 1 Dutch, and 1 Brazilian. It is amazing to find no Italians. As to cars, there are 2 Alfa-Romeos, 4 Aston-Martin's, 4 Austin's, 1 B.N.C., 4 Bugattis, 1 Derby, 1 Frazer Nash, 7 M.G.'s, 6 Riley's, 7 Singers, 1 Talbot, and 18 unspecified. There are 11 "works" entries, from Aston-Martin, Austin, Derby, Riley and Singer.

## Hans Stuck—Gadeteer!

A friend of mine recently had the opportunity of inspecting Hans Stuck's 12-cylinder Horch, his personal "Auto-Union," and says he has never seen a car with so many gadgets and accessories. The dash board was a bristling mass of switches and dials.

In addition to the usual gauges, Stuck has an altitude-meter, a gradient meter, and a beautiful ship's compass. Then we turned to the switches—24 of them in all! Several of them were used for tracing plug-trouble to the faulty cylinders, it being possible to cut out six of the twelve by a single switch. Frau Stuck swears that the car will be struck by lightning one day, but her husband merely smiles!

Built into the dash is a cigarette box which hands you a lighted cigarette. Stuck himself, by the way, is a non-smoker. Anti-thief devices, of course, amuse him, so he has a hidden petrol-switch which he casually presses on leaving the car. Twice it has been stolen, but the thieves have only taken it for a few hundred yards!

Stuck believes in comfort, and so does his wife. They have fitted the Horch with an amazing number of heaters, and the temperature is controlled by means of cunning draught-free ventilators. A little refinement which lots of us would like is a tank of hot water for washing one's hands after a roadside adjustment



CONTINENTAL NOTES AND NEWS—continued.

or tyre change. An unusual fitting is an alarm-clock, which also rings out as a single "ping" after every 100 kilometres.

But the gem of his gadgets is a black panel just below the number-plate at the rear of the car. This is one of those electric signs which spell out a given number of letters. If Stuck comes up with a bad driver he passes him and signals his disapproval in a brief but expressive manner! Compliments are within its scope, of course, and I can imagine plenty of situations when this device would be really useful!

**"Italian Experts."**

In Italy racing drivers have to possess an "experts" licence before they can compete in big events. This year several modifications have been made to the rules of qualification, an item which has received particular attention being the period during which performances are reckoned. This has resulted in certain drivers, who have not been active lately, being removed from the list, and licences have been issued to the following: Balestrero, Barbieri, Bignami, Bonetto, Brivio, Carravoli, Comotti, Conelli, Cortese, Fagioli, Farina, Ferrari, Furmanik, Gherzi, Magistri, Minoia, Nardilli, Nuvolari, Oneto, Pelligrini, Pintacuda, Rosa, Scarfiotti, Severi, Siena, Tadini, Taruffi, Trossi, Varzi, and Zehender.

**Paris-Nice Regulations.**

The famous Paris-Nice Trial, always a popular event among French motorists, will take place this year on April 13th to 15th. On the first day the competitors will travel from Paris to Marseilles. The 14th will be taken up with a 500 metres speed trial in Marseilles; and the competitors arrive at Nice on the 15th, during the morning. The cars will be put into a closed park during the luncheon interval, and the final tests will follow immediately. An interesting competition this year is for car-radios.

On the 18th April the hill-climb of La Turbie will be held, so that altogether this part of the Riviera will see plenty of motor sport during April.

**Starting Guarantee.**

In order to ensure a good field for the French Grand Prix on June 23rd, and to avoid the disappointment of last-minute scratching, the A.C.F. has stipulated that the sum of 10,000 francs per car must be deposited with each entry. This will be returned in the event of the car starting in the race, but scratching will involve forfeit of the guarantee.

No entries have been received so far, although the list was opened on February 1st. You will remember that entries can only be accepted from manufacturers or their nominees, with a maximum of four cars of each make. The prize money for the first four places is 100,000, 50,000, 20,000 and 10,000 francs respectively, and generous *primes* are being offered for the cars leading at various stages of the race.

This race, incidentally, has been earmarked for the first appearance of the 12-cylinder 4½-litre Alfa-Romeos, eager to avenge the defeat of the Monopostos last year.

**The Italian Calendar.**

Italy and France vie closely with each other as the home of motor-racing, and each has a well-packed fixture list. Italy is ahead in its system of national championships for cars and drivers, and it is significant that this year a driver can only score points when he is driving an Italian car. Thus Cecchini, who last year won a title with his M.G. Mulette, will no longer be eligible, and the same thing applies to Varzi and Fagioli.

Here are the various fixtures, in their different categories, with the prize-money in lire:—

Racing.				Lira
April	28.	Circuito Madonie	...	150,000
May	12.	G.P. di Tripoli...	...	170,000
"	19.	Coppa Citta' di Bergamo	...	45,000
"	26.	Circuito di Torino	...	80,000
June	2.	Circuito "Pietro Bordino"	...	100,000
"	9.	Reale Premio di Roma	...	150,000
"	16.	Circuito di Biella	...	50,000
"	23.	Circuito di Trieste	...	70,000
July	7.	Susa-Moncenisio	...	25,000
August	4.	Coppa Ciano	...	150,000
"	15.	Coppa Acerbo	...	120,000
"	25.	Pontedecimo-Giovi	...	15,000
Sept.	1.	Stelvio Hill-climb	...	30,000
"	8.	G.P. d'Italia	...	200,000
"	15.	Circuito di Modena	...	70,000
Oct.	13.	Coppa Principessa di Piemonte (Napoli)	...	100,000

Sports.				Lira
March	3.	Criterionum dell'Appennino Savonese	...	4,000
"	17-19.	Coppa Invernale delle Alpi	...	5,000
April	14.	Coppa delle Mille Miglia	...	170,000
May	19.	Corza Bolzano-Mendola	...	10,000
"	26.	Coppa Ascoli	...	20,000
June	9.	Lecco-Maggio Hill-climb	...	10,000
"	16.	Circuito di Biella	...	50,000
"	30.	Targa d'Oro del Vesuvio	...	23,000
July	7.	Susa-Moncenisio Race...	...	25,000
"	14.	Varese-Campo dei Fiori Hill-climb	...	12,000
"	21.	Circuito di Varese	...	20,000
"	28.	Coppa Michele Bianchi	...	60,000
August	11.	Targa Abruzzo 24 Hours	...	100,000
"	25.	Pontedecimo-Giovi Race	...	15,000
Sept.	1.	Stelvio Hill-climb	...	30,000
Oct.	6.	Criterionum di Roma	...	30,000

Touring.				Lira
Mar.	17-19.	Coppa Invernale delle Alpi	...	5,000
May	9.	Raduno di Tripoli	...	50,000

Taking the lira at the present rate of exchange there is a total of £37,400 for the chief events. Of this, the Italian Grand Prix claims £3,500.

**The Association of "Independents."**

Good work is being done by the Committee of the A.G.A.C.I., a society of French independent drivers.

At their third meeting they reported active steps taken to secure adequate recognition of the small independent driver by road race organisers, and they hope to have a concrete proposal to put before members before long. Insurance matters are also being closely examined.

The meeting was well attended, not only by racing drivers but also by several Monte Carlo Rally competitors and well-known personalities in the French world of motor sport. For my part, I wish the A.G.A.S.I. every success, for the lone-driver is undoubtedly a vital element in the welfare of motor racing, and for all but national Grand Prix races his presence is imperative. That being so, it is only fair that his services should be recognised, and his organisation assisted in every possible way.

**The Georges Boillot Club.**

Meetings are being continually held to discuss the various details of the Club's operations. In the main, it has been agreed with the Montlhéry authorities that a reduced charge should be made for Club members practising there. Cars will be provided by the Club, and expert advice as to driving technique will be available.

**Bol d'Or Qualification Race.**

Following the custom introduced last year, the A.M.C.F. and A.C.I.F. are holding a qualifying race for the Bol d'Or, on March 3rd. Cars will run for eight hours on the *circuit routier* of the Linas-Monthléry autodrome.

Some well-known drivers have entered, among them being A. Molinari (Balilla Fiat), Vial (Salmson), Debillé (Salmson), Lemaitre (E.H.P.), Foulter (unspecified), Venot (La Pintade), and a six-cylinder Amilcar to be driven by a driver as yet unnamed.

Last year this race was won by Maillard-Brune (M.G. Midget), who also tied for first place in the Bol d'Or proper.

**Auto-Union Secrets.**

My remarks last month about the engine size of the Auto-Union have brought in their train some enquiries for more details about these unorthodox cars. One fitting, an unusual fitment on a racing car, is a speedometer calibrated to 350 k.p.h. Another is a little door in the side of the car. It is fitted with a lock, and when the car comes in after a few practice laps Dr. Porsche produces the one and only key. The instrument swings out and reveals a device which records the maximum revs. reached during the run—and woe betide the driver who has exceeded Dr. Porsche's instructions!

Incidentally the Auto-Unions are fitted with a special bracket on the scuttle, which houses a stop watch. The driver only has to move one hand a few inches from the steering wheel in order to reach it. The English method, of course, is to sling the watch round your neck on a piece of string!

**Winter Sports.**

While Messrs. Watkinson, Turner, Briault, etc., have been winter-sporting at Grindelwald, Continental racing drivers have also been indulging in the thrills of ski-ing. Louis Brillard, however, had a serious accident at speed, and will be laid up for many months to come.

Rudolf Caracciola has been at St. Moritz. He took up his 5-litre Mercedes-Benz Coupé, and had with him as companions Hans Bernet and Luis Trenker, the film-actor and hero of "The Doomed Battalion." Appropriately enough, Moritz was there too, to wit, Caracciola's famous little dog. Stuck has had to forgo his usual long stay at Arosa, owing to his activities with the streamlined Auto-Union.



# P. W. WIDENGREN WINS THE NORWEGIAN G.P.

ALFA-ROMEO VICTORY IN FIRST RACE OF THE SEASON—BUGATTI TURNS OVER BUT DRIVER UNINJURED—  
GOOD SINGER PERFORMANCE.

THE first European motor-race of 1935 was the Grand Prix of Norway, held on the 10th of February. Last year's course at Lillehammer was considered too far from Oslo, so a new circuit was mapped out on the Bogstad Estate, only 10 kilometres from the capital. Lillehammer was 150 kilometres, and the difference in the size of the crowd certainly justified the choice of the K.N.A. The circuit was actually a lake, frozen over to a depth of some 16 inches, and the competitors had to cover a 5 kilometre lap twenty times.

The organisers were fully prepared for a big crowd, and everything went off smoothly and quietly; cars were parked in orderly fashion and the coach service functioned admirably. There was a good deal of disappointment that some of the well-known drivers from the South could not be persuaded to enter, for only Hans Ruesch, the Swiss independent, made the journey to Norway with his Maserati.

P. W. Widengren was firm favourite, for he has seldom been beaten in ice-racing, and was the winner of the race at

Lillehammer last year. Against him were ranged Ruesch, Bjornstad (Alfa-Romeo), Isberg and Sunstedt (Bugattis), and Karl Ebb (Mercedès-Benz). Running true to form, Widengren took the lead from the start, and was never headed throughout the entire race. He drove calmly and precisely, building up a substantial lead.

If Widengren looked a certain winner, the crowd were compensated in the matter of thrills by a terrific duel between their fellow Norwegian, Eugen Bjornstad (Alfa-Romeo 2.3 litres) and Karl Ebb, the Finlander (Mercedès-Benz 7 litres). At last Bjornstad's tyres developed trouble, and he was forced right back.

This left Ebb to take second place, with Ruesch third, a half-minute behind. Then came Isberg's Bugatti, followed by Bjornstad's Alfa-Romeo, and a hotted-up Ford driven by the Finlander Einar Alm. Isberg had been delayed with elusive mechanical trouble, while the remaining Bugatti, driven by the well-known Swedish competitor K. G. Sundstedt, got into a wild slide and overturned on the

fifth lap at the south corner. The driver was luckily unhurt.

After the racing cars had finished their battle, a sports car event took place. Again a runaway victory was recorded, this time by Arvid Johansen, on a Winfield Special. Johansen was freely tipped as the winner, and he did not disappoint the crowd, coming in 1 m. 12 secs. ahead of the next man. Second place was taken by a Singer, in the hands of a Norwegian named Rourad Bryde, who finally got the better of Gurar Thorsell, of Sweden, with a Chevrolet Special. A Ford and a Fiat brought up the rear.

## NORWEGIAN GRAND PRIX.

- Racing.** 100 kilometres.
1. P. W. Widengren (Alfa-Romeo), 50 m. 5.8 secs.
  2. K. Ebb (Mercedès-Benz), 53 m. 2 secs.
  3. H. Ruesch (Maserati), 54 m. 29 secs.
  4. J. E. Isberg (Bugatti), 55 m. 28 secs.
  5. E. Bjornstad (Alfa-Romeo), 56 m. 30 secs.
  6. E. Alm (Ford Special), 59 m. 14 secs.
- Sports.** 100 kilometres.
1. A. Johansen (Winfield Special), 1 h. 5 secs.
  2. R. Bryde (Singer), 1 h. 1 m. 17 secs.
  3. G. Thorsell (Chevrolet Special), 1 h. 4 m. 12 secs.
  4. O. Anderson (Ford), 1 h. 6 m. 19 secs.
  5. S. Helling (Fiat), 1 h. 6 m. 11 secs.

## Mille Miglia News.

The Mille Miglia continues to be the finest sports car race in the world. No finer test of men and machines has yet been devised, and its single lap of 1,000 miles puts it above all other races of this category.

Very little alteration is being made this year, either in the circuit or the regulations. The King of Italy has graciously presented a gold medal, which will be awarded to the winner of the general classification. An innovation is a class for standard unsupercharged sports cars, in which a Bentley, a Lagonda or a Railton would do very well.

It is to be sincerely hoped that a repre-

sentative British entry will be forthcoming this year. The race is well within the scope of any carefully prepared and competently handled sports car, and the number of classes should give plenty of encouragement to owners of all types and sizes. The prize money amounts to 170,000 lire, and there are cash prizes for the first five finishers in every class, for the first five unblown cars of 1,100 c.c. and 1,500 c.c., the first four-seater saloon, the winning team, and the first forty amateur drivers to finish.

## More Auto-Union Records.

It was originally intended to take the streamlined Auto-Union to Gyon for an

attack on the International Class C records for the mile and kilometre, held by Caracciola's Mercedès-Benz. On the way to Gyon, however, Hans Stuck had a miraculous escape when his own 12-cyl. Horch left the road and rolled down a steep embankment.

After some delay at Budapest, it was found that weather conditions at Gyon were too unreliable, so the whole team moved south to warmer climes. They went to Italy, on the autostrada built between Florence and Viareggio. A particularly fast stretch at Lucca was chosen, and the electrical timing apparatus was set up.

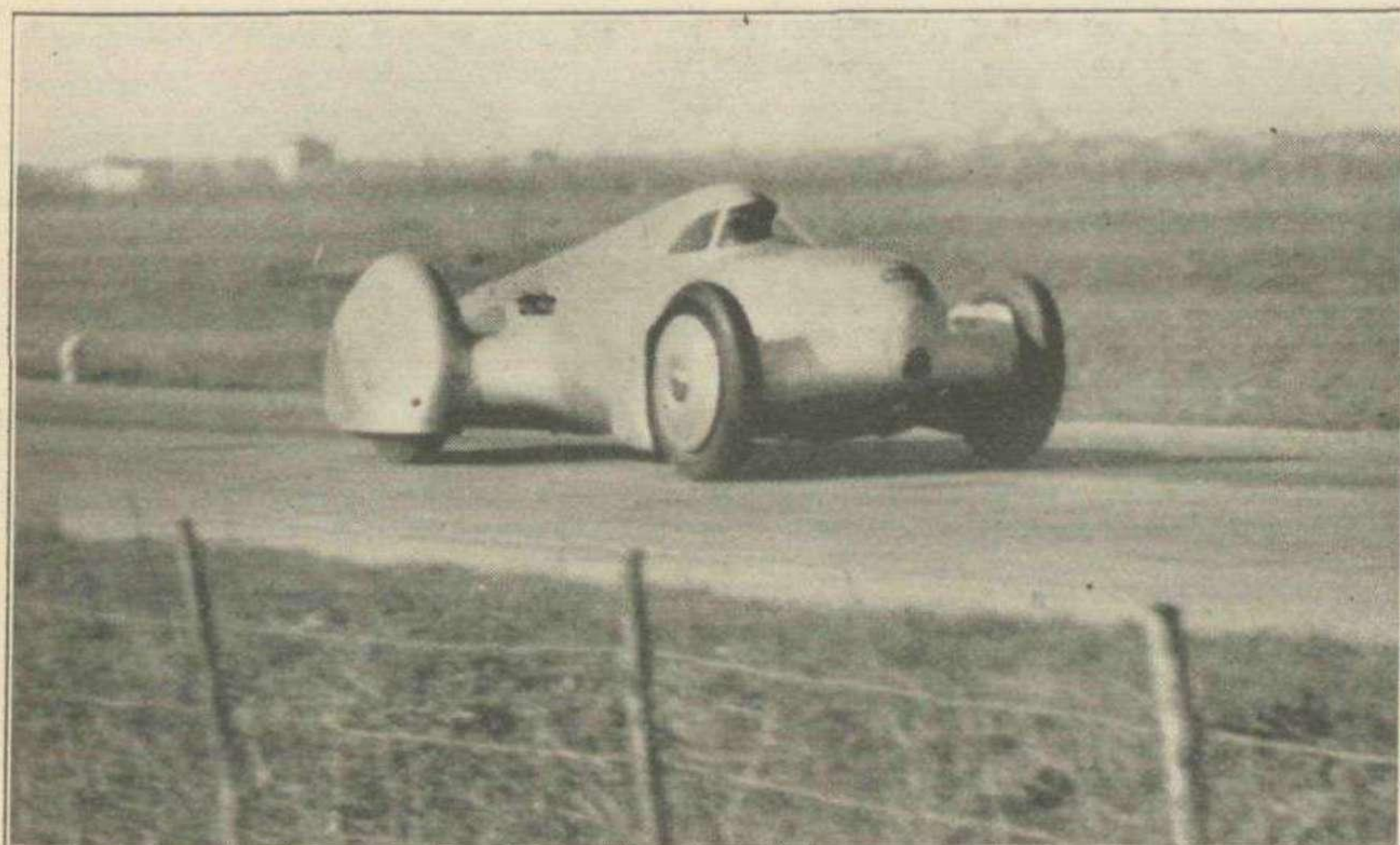
The mile was taken at 199.013 m.p.h., as against the 196.78 m.p.h. of the Mercedès-Benz. Three runs were made in all, with the following times: 18.29 secs., 18.1 secs., 18.08 secs., and the average of the two fastest worked out at 18.09 secs., or 199.013 m.p.h. The kilometre was also attempted, and a speed of 201.173 m.p.h. had been recorded when the timing apparatus developed a serious fault.

Details of the car given for verification purposes were that it had an engine of 16 cylinders and a cubic capacity of 4,953 c.c.

I understand that Stuck intends to try again for the kilometre record, and hopes to push it up over the 200 m.p.h. mark.

## New French Tracks.

Although there is no more news of the proposed track at Nancy, plans are now afoot for the construction of a road circuit at Lyons. The site chosen is the Bron aerodrome, and the 6½ mile course would encircle this in a roughly triangular shape. The scheme is said to have the support of two big Lyonnais motor clubs.



The all enclosed Auto Union at speed. The wheels are faired, the body is smoothed off wherever possible and the radiator is almost completely blanked off. The latter move increased the speed by 5 k.p.m.



# THE R.A.C. EASTBOURNE RALLY

## Entries Exceed Three Hundred

ENTRIES for the 4th Annual R.A.C. Rally closed Wednesday, 6th February, with a total of 308 compared with 400 last year. The apparent reason for the decrease is the almost complete absence of entries from manufacturers. In previous years the Rally has been divided into classes with premier awards in each class. This system was a direct encouragement for cars to be specially prepared, in order to obtain one of the premier awards, a practice which the R.A.C. felt was undesirable in an event of this character. Accordingly the regulations for this year's Rally were amended, and in place of premier awards in each class, entrants, by achieving certain standards, will qualify for gold, silver and bronze awards. The incentive to enter specially tuned cars has thus been removed, and it can probably be taken for granted that the large majority of the cars entered this year conform

closely to standard, and will be driven by private owners.

Although the decrease in the number of entries may be regretted, the R.A.C. is satisfied that the true spirit of the Rally has been preserved, and that an entry of three hundred enthusiasts, who will be competing for the pleasure of the game and not for a prize, is an almost certain guarantee of success.

The following is the number of entries from each Starting Control:—

Buxton	...	29
Edinburgh	...	22
Harrogate	...	19
Leamington	...	77
Liverpool	...	10
London	...	100
Torquay	...	33
Yarmouth	...	18

Every type of car is represented in the Rally from small seven horse-power sports

cars to the largest luxury saloon. An interesting feature of the entry also is the very large proportion of new cars that will be competing, over sixty per cent. being 1935 models.

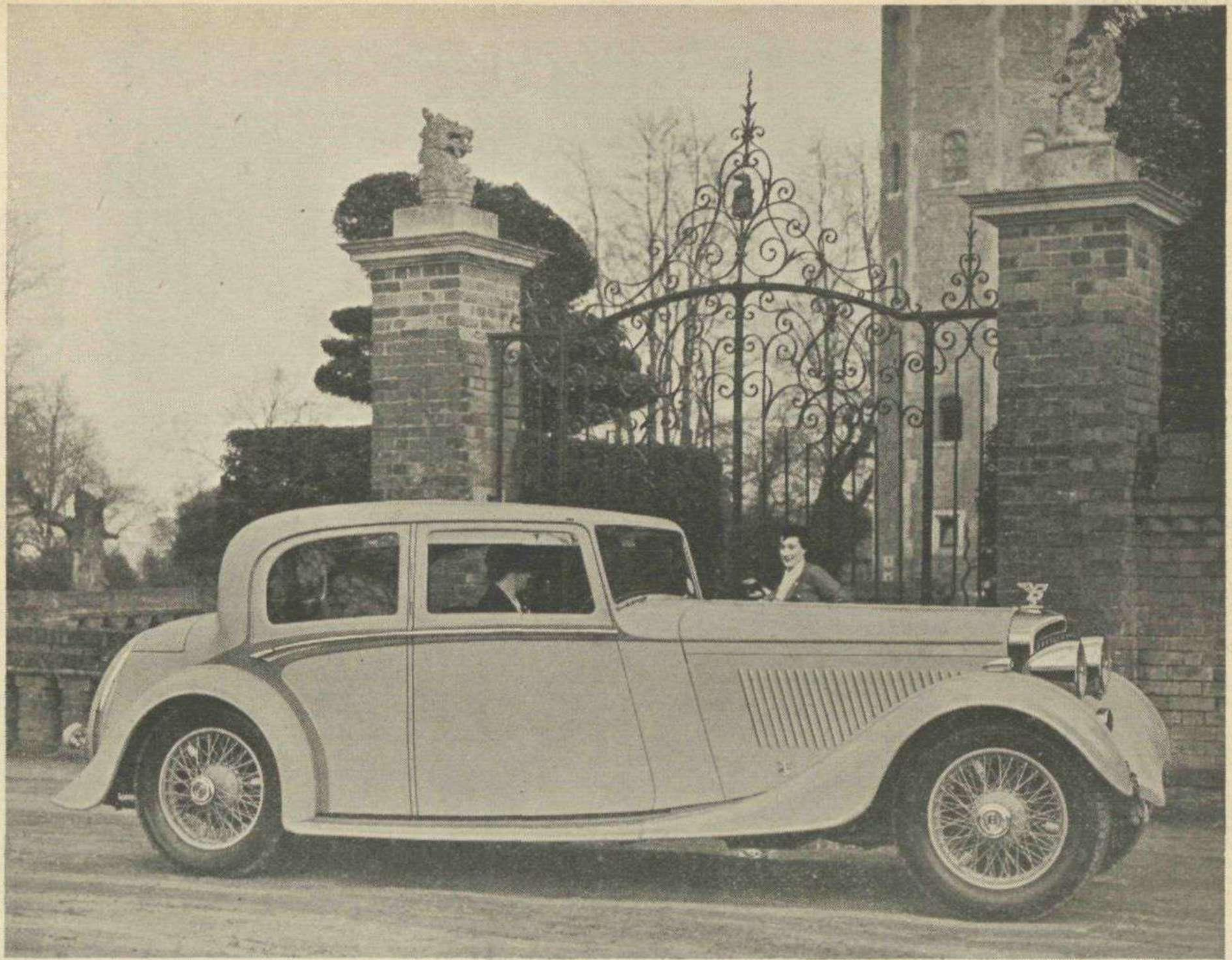
Ladies are very strongly represented, there being forty-four actual entrants in addition to a very large number who will be acting as spare drivers.

The Rally commences on Tuesday, 26th March, competitors being despatched from the Starting Controls at two-minute intervals. They are due to arrive at Eastbourne on the following Thursday, when the cars will be examined for condition. They will be parked in the open on Thursday night, and on Friday after an easy starting test from cold, will go through the Eliminating Tests, the nature of which will not be revealed until the previous evening. On Saturday, 30th March, the Coachwork Competition will be held.

### THE LIST OF ENTRIES.

Entrant.	Car.	Starting Point.	Entrant.	Car.	Starting Point.	Entrant.	Car.	Starting Point.
Abbot, J. ...	9 h.p. Riley	Buxton.	Dixon-Johnson, Miss E. H.	9 h.p. Singer	Harrogate.	Hallwood, J. A. ...	26 h.p. Chrysler	Harrogate.
Archer, J. M. ...	9 h.p. Riley	Edinburgh.	Driskell, J. A. ...	12 h.p. Standard	Harrogate.	Hill, Mrs. T. M. ...	7 h.p. Austin	Leamington.
Ashby, F. C. ...	30 h.p. Ford V8	Leamington.	Dutton, A. C. ...	16 h.p. Standard	London.	Hasluck, P. M. ...	18 h.p. Talbot	Leamington.
Ansell, A. E. ...	26 h.p. Chevrolet	Leamington.	Dingwall, Major C.F.	18 h.p. Austin	London.	Harley, A. ...	9 h.p. Singer	Leamington.
Appleton, P. ...	10 h.p. Lanchester	Liverpool.	Dobell, A. E. ...	30 h.p. Lagonda	London.	Hampton, C. W. P.	12 h.p. aLncia	Leamington.
Astbury, Miss J. ...	13 h.p. Singer	London.	Dryden, H. C. ...	8 h.p. Ford	London.	Hanson-Moore, R.	13 h.p. Citroen	Leamington.
Anthony, C. M. ...	12 h.p. Aston-Martin	London.	Dry, H. L. W. ...	14 h.p. Rover	London.	Hothersall, J., junr.	8 h.p. M.G.	Liverpool.
Abell, H. K. ...	14 h.p. Vauxhall	London.	Daniell, Mrs. G. ...	16 h.p. A.C. Ace	London.	Hulse, F. P. ...	12 h.p. Aston-Martin	Liverpool.
Agnew, J. P. ...	18 h.p. Talbot	London.	Davis, J. A. ...	8 h.p. M.G.	London.	Hollings, H. S. ...	12 h.p. Wolseley	Liverpool.
Allan, Miss M. ...	16 h.p. A.C.	Torquay.	Davis, S. C. H. ...	11 h.p. Triumph	London.	Hutchison, K. ...	30 h.p. Ford V.8	London.
Bembridge, C. L. ...	12 h.p. Riley	Buxton.	Dunham, C. G. H.	14 h.p. Rover	London.	Hollingsworth, L. J.	30 h.p. Ford V.8	London.
Blake, A. J. ...	10 h.p. Crossley	Buxton.	Dennis, L. A. ...	14 h.p. Riley	Torquay.	Hawkes, C. J. ...	12 h.p. Invicta	London.
Bradbury, Miss K. M.	9 h.p. Riley	Harrogate.	Dugdale, C. ...	16 h.p. O.M.	Yarmouth.	Hilbert, J. ...	13 h.p. Sunbeam	London.
Booth, E. B. ...	9 h.p. Singer	Harrogate.	Dodd, C. ...	12 h.p. Lagonda	Yarmouth.	Hill, H. ...	8 h.p. Talbot Darracq	London.
Burrage, C. C. W.	12 h.p. Standard	Leamington.	Ellison, Miss E. ...	12 h.p. Lagonda	Leamington.	Harrington, G. H.	12 h.p. M.G. Magnette	London.
Barnes, F. W. ...	10 h.p. Standard	Leamington.	East, A. V. ...	16 h.p. A.C. Ace	Leamington.	Hyner, O. A. ...	14 h.p. Rover	London.
Barnes, F. S. ...	13 h.p. Singer	Leamington.	Edmondson, Mrs. G.	8 h.p. Morris Minor	London.	Hess, A. C. ...	12 h.p. British	London.
Barnes, F. S. ...	9 h.p. Singer	Leamington.	Edwards, J. R. ...	9 h.p. Singer	London.	Salmson	...	London.
Barnes, F. S. ...	9 h.p. Singer	Leamington.	Eddleston, R. V. ...	17 h.p. Alvis	Liverpool.	Horder, H. N. ...	25 h.p. Bentley	London.
Berry, H. C. ...	17 h.p. Armstrong-Siddeley	Leamington.	Flather, D. G. ...	13 h.p. Lagonda	Buxton.	Hooper, A. H. G. ...	20 h.p. S.S.1	London.
Bailey, Miss O. M.	9 h.p. Singer	Leamington.	Flint, J. ...	16 h.p. Alfa-Romeo	Buxton.	Hughes, Miss J. Griffiths	10 h.p. Hillman	London.
Burden, O. H. ...	14 h.p. Rover	Leamington.	Frazer-Marshall, I.	20 h.p. Alvis	Edinburgh.	Hamper, R. A. ...	10 h.p. Triumph	Torquay.
Boughton, G. L. ...	11 h.p. Triumph	Leamington.	Ferguson, Miss E. A.	9 h.p. Riley	Edinburgh.	Hunt, W. H. ...	12 h.p. S.S.2	Torquay.
Burton, Miss I. M.	14 h.p. Vauxhall	Leamington.	Forrest, Mrs. N. ...	10 h.p. Austin	Edinburgh.	Hartwell, G. ...	17 h.p. Alvis	Torquay.
Brown, R. ...	15 h.p. Daimler	Leamington.	Fransella, A. J. ...	30 hp. Ford V.8	Harrogate.	Hill, Miss N. M. ...	14 h.p. Morris Major	Torquay.
Bower, Miss U.V.G.	12 h.p. Aston Martin	Leamington.	Foss, C. M. ...	12 h.p. Rover	Leamington.	Hughes, E. Griffiths	12 h.p. Frazer Nash	Torquay.
Banfield, E. H. ...	8 h.p. M.G. Midget	London.	Frame-Thompson, T.	12 h.p. Alfa-Romeo	Leamington.	Imhof, A. G. ...	12 h.p. Singer	London.
Barnett, W. H. ...	8 h.p. M.G. Midget	London.	Flewitt, J. A. ...	16 h.p. Austin	Leamington.	Jennings, Miss M.	14 h.p. Rover	Buxton.
Brune, L. Prideaux	12 h.p. Aston Martin	London.	Fry, R. O. ...	20 S.S.1	London.	James, Lt.-Cmdr. P. V. (R.N.)	14 h.p. Riley	Edinburgh.
Broadley, A. ...	9 h.p. Singer	London.	Friend, H., Junr. ...	8 h.p. M.G.	London.	Jervis-Read, J.V.B.	12 h.p. Aston-Martin	Leamington.
Broadley, Mrs. D. I.	9 h.p. Singer	London.	Follett, C. H. ...	20 h.p. Alvis	London.	Johnson, L. O. ...	16 h.p. Austin	Liverpool.
Bassett, H. C. ...	14 h.p. Vauxhall	London.	Fitzmaurice, Capt. D.	11 h.p. Airstream Singer	Torquay.	Jackson, R. L. ...	18 h.p. M.G.	London.
Bracey, N. ...	8 h.p. M.G.	London.	Gibbon, H. F. ...	12 h.p. Rover	Edinburgh.	Johnson, Mrs. P. ...	8 h.p. M.G.	London.
Bullock, F. A. ...	8 h.p. Ford	London.	Grant, C. D. ...	8 h.p. M.G. Midget	Edinburgh.	Jackson, C. O. ...	8 h.p. Austin	London.
Boyd-Harvey, J. J.	12 h.p. Aston Martin	Torquay.	Grantham, R. T. ...	11 h.p. Rover	Leamington.	Jones, S. J. ...	10 h.p. Morris	Torquay.
Broomhall, C. A. ...	11 h.p. Triumph	Torquay.	Gill, S. ...	20 h.p. S.S.1	Leamington.	Kingston-Whittaker, J. ...	—	Harrogate.
Batt, V. ...	21 h.p. Talbot	Torquay.	Griffiths, W. G. K.	12 h.p. M.G.	Leamington.	Kemsley, J. H. ...	9 h.p. Riley	Leamington.
Boulton, J. B. ...	9 h.p. Singer	Torquay.	Gibson, J. E. ...	9 h.p. Singer	Leamington.	King, B. ...	15 h.p. Citroen	Leamington.
Barclay, J. ...	26 h.p. Bentley	Torquay.	Gaspar, R. ...	10 h.p. Vale Special	London.	Kite, C. M. B. ...	12 h.p. Wolseley	Torquay.
Barclay, E. H. ...	12 h.p. Rover	Yarmouth.	Goonick, S. ...	37 h.p. Mercedes Benz	London.	Hornet	...	Torquay.
Bainton, A. G. ...	17 h.p. Marendaz Special	Yarmouth.	Gerard, F. R. ...	9 h.p. Riley	London.	King, G. W. ...	16 h.p. Rover	Yarmouth.
Crossley, G. H. ...	26 h.p. Bentley	Buxton.	Gregory, R. D. ...	38 h.p. Bentley	London.	Lowick, J. H. ...	9 h.p. Riley Imp	Buxton.
Cutler, L. W. ...	11 h.p. Triumph Gloria	Buxton.	Gordon-Crosby, F.	14 h.p. Rover	London.	Lambert, Miss M. M.	12 h.p. Rover	Buxton.
Colman, W. ...	17 h.p. Hudson Essex	Edinburgh.	Grimmond, A. G. ...	29 h.p. Railton	London.	Loughborough, Col. A. H.	14 h.p. Rover	Buxton.
Cranmore, Miss F.B.	8 h.p. Morris	Leamington.	Gordon, T. ...	13 h.p. Schneider	London.	Lambert, A. E. ...	30 h.p. Siddeley Special	Leamington.
Couper, W. M. ...	18 h.p. Talbot	London.	Hickman, Major Sir A.	20 h.p. S.S.1	Buxton.	Law, G. P. ...	9 h.p. Riley	Leamington.
Cole, Mrs. P. ...	9 h.p. Singer	London.	Howarth, J. A. G.	11 h.p. Triumph	Buxton.	Lamb, J. W. F. ...	8 h.p. M.G.	Leamington.
Cansick, J. M. ...	14 h.p. Morris Major	London.	Hancock, R. W. ...	8 h.p. M.G. Midget	Buxton.	Livingstone, Miss I. H.	9 h.p. Riley	Leamington.
Cooper, G. S. ...	14 h.p. Rover	London.	Hague, T. B. ...	12 h.p. Aston-Martin	Buxton.	Lewin, T. H. ...	13 h.p. Lagonda	Leamington.
Calver, L. K. ...	7 h.p. Austin	London.	Hall, C. A. ...	9 h.p. Singer	Buxton.	Lindsey, R. A. ...	9 h.p. Singer Le Mans	Leamington.
Curzon, Viscount ...	16 h.p. Alfa-Romeo	London.	Hastings, Miss B.V.	13 h.p. Singer	Edinburgh.	Lewis, Hon. Brian	20 h.p. S.S.1	Leamington.
Connell, I. F. ...	12 h.p. Vale Special	London.	Henshall, H. W. ...	12 h.p. Alvis	Edinburgh.	Lanes, W. T. ...	30 h.p. Lagonda	London.
Currie, J. A. ...	9 h.p. Singer	London.	Hunnam, R. D. ...	20 h.p. S.S.1	Edinburgh.			
Cleese, A. G. D. ...	20 h.p. S.S.1	Torquay.	Hewitt, E. N. R. ...	10 h.p. Triumph	Harrogate.			
Coppen, G. E. ...	20 h.p. Alvis	Torquay.	Harrison, J. ...	10 h.p. Ford de Luxe	Harrogate.			
Chetwynd, Hon. Mrs.	30 h.p. Ford V.8	Torquay.						
Douglas-Morris, Major D. E. M.	30 h.p. Ford V.8	Buxton.						





# *BENTLEY*

*The Silent Sports Car*





THE R.A.C. EASTBOURNE RALLY—continued.

Entrant.	Car.	Starting Point	Entrant.	Car.	Starting Point	Entrant.	Car.	Starting Point
Lawry, S. M. ...	11 h.p. Triumph	London.	Poultney, H. W. ...	8 h.p. M.G.	Leamington.	Stephenson, Miss V. J. M.	10 h.p. Crossley	Yarmouth.
Lamb, Mrs. L. ...	14 h.p. Vauxhall	London.	Penn, C. T. W. ...	9 h.p. Riley	Leamington.	Stockbridge, M. ...	13 h.p. Triumph Gloria	Yarmouth.
Loos, F. C. ...	20 h.p. S.S. 1	London.	Percival, R. G. ...	30 h.p. Ford V.8	Leamington.	Thomson, I. W. H.	29 h.p. Railton	Buxton.
Lysley, Mrs. K. R.	12 h.p. Riley	Torquay.	Park, W. M. ...	26 h.p. Rolls Royce	London.	Turner, G. C. S. ...	9 h.p. Riley	Edinburgh.
Lambert, Mrs. E. L.	9 h.p. Riley Kestrel	Torquay.	Parkinson, H. ...	12 h.p. M.G. Magnette	London.	Turner, H. S. ...	16 h.p. Bentley	Leamington.
Labouchere, Miss C.	13 h.p. Singer	Yarmouth.	Prince, N. A. ...	9 h.p. Singer le Mans	Torquay.	Turner, W. ...	12 h.p. Standard	Leamington.
Lambert, H. A. ...	10 h.p. Crossley	Yarmouth.	Porritt, J. ...	9 h.p. Riley	Torquay.	Tait, I. A. ...	12 h.p. M.G.	Leamington.
McEvoy, M. A. ...	16 h.p. Alvis	Buxton.	Rippon, Col. R. ...	25 h.p. Rolls-Royce	Harrogate.	Thornley, S. E. K.	14 h.p. Rover	Leamington.
Maidens, W. P. ...	11 h.p. Rover	Buxton.	Rippon, Col. R. ...	25 h.p. Bentley	Harrogate.	Torrome, J. ...	12 h.p. Standard	Leamington.
McCallum, T. W. ...	20 h.p. Alvis	Edinburgh.	Richards, Mrs. S.H.	10 h.p. Standard	Leamington.	Trickett, M. ...	10 h.p. Austin	Liverpool.
Manby-Colegrave, G. F. A.	12 h.p. Squire	Edinburgh.	Roper, Miss L. M.	12 h.p. Armstrong-Siddeley	Leamington.	Taylor, Miss K. ...	8 h.p. M.G.	London.
Moffett, J. ...	8 h.p. Morris	Edinburgh.	Richardson, C. A.	8 h.p. M.G.	Leamington.	Turner, C. J. ...	12 h.p. Wolseley	London.
Menzies, Miss H. ...	12 h.p. Rover	Edinburgh.	Ross, G. ...	16 h.p. Rover	London.	Taylor, Miss F. ...	16 h.p. Adler Triumph	London.
Monro, D. ...	20 h.p. Invicta	Harrogate.	Raphael, H. E. ...	26 h.p. Bentley	London.	Throssell, A. G. ...	15 h.p. Daimler	London.
Milne, Miss M. V. ...	9 h.p. Singer	Leamington.	Roberts, D. G. P.	9 h.p. Singer	London.	Terry, G. C. ...	16 h.p. S.S. 1	Yarmouth.
Marsh, A. R. ...	30 h.p. Invicta	Leamington.	Redgrove, G. J. ...	14 h.p. Rover	London.	Thatcher, F. A. ...	34 h.p. Chrysler Airflow	Yarmouth.
Mann, C. ...	30 h.p. Ford V.8	Leamington.	Richmond, Miss Joan	12 h.p. Triumph	London.	Vaughan, W. G. V.	20 h.p. S.S. 1	London.
Murrell, B. W. ...	12 h.p. Standard	Leamington.	Stott, Capt. G. E.	26 h.p. Bentley	Buxton.	Wood, E. R. ...	12 h.p. Wiley	Buxton.
Marsh, M. L. ...	14 h.p. Austin	Leamington.	Stott, A. J. ...	26 h.p. Bentley	Buxton.	Watkinson, W.E.C.	20 h.p. Alvis	Buxton.
Millem, H. D. ...	9 h.p. Standard	Leamington.	Smith, F. ...	10 h.p. Hillman	Buxton.	Wilby, K. G. ...	12 h.p. Aston Martin	Buxton.
Moran, T. E. ...	11 h.p. Singer	Leamington.	Smith, Dr. C. H. ...	16 h.p. Morris Oxford	Buxton.	Waleran, Rt. Hon. Lord	10 h.p. Ford de Luxe	Buxton.
Marendaz, D. M. K.	17 h.p. Marendaz Special	Leamington.	Sanderson, K. W. B.	20 h.p. Alvis	Edinburgh.	Watkinson, W. E. C.	12 h.p. M.G. Magnette	Buxton.
McKim, F. G. ...	13 h.p. Citroen	Leamington.	Stuart, R. ...	8 h.p. M.G.	Edinburgh.	Wilby, Miss M. ...	12 h.p. Frazer Nash	Edinburgh.
Mitchell, S. R. ...	17 h.p. Marendaz Special	Leamington.	Stead, G. C. ...	20 h.p. Armstrong-Siddeley	Harrogate.	Wilson, M. G. H. ...	20 h.p. S.S. 1	Edinburgh.
McEvoy, J. ...	10 h.p. Ford de Luxe	Liverpool.	Sieger, J. E. P. ...	20 h.p. Alvis Speed 20	Harrogate.	Wilkin, G. ...	11 h.p. Singer	Edinburgh.
Mellor, J. E. ...	9 h.p. Hillman	London.	Schwarz, P. A. ...	14 h.p. Vauxhall	Harrogate.	Watson, J. ...	12 h.p. Armstrong-Siddeley	Harrogate.
McEwen, W. ...	26 h.p. Studebaker	London.	Sleath, B. ...	20 h.p. S.S.1	Leamington.	Wise, P. C. ...	8 h.p. M.G. ...	Harrogate.
Michener, A. P. ...	9 h.p. Wolseley Hornet	London.	Sears, S. E. ...	26 h.p. Bentley	Leamington.	Woodcock, W. L.	10 h.p. Morris	Harrogate.
McLaren, A. ...	10 h.p. Austin	London.	Sanders, G. S. ...	12 h.p. M.G.	Leamington.	White, Major C. ...	15 h.p. Daimler	Leamington.
Marsden, J. N. ...	12 h.p. Rover	London.	Smith, A. W. F. ...	8 h.p. M.G. Midget	Leamington.	Wisdom, Mrs. T. ...	12 h.p. S.S. 2	Leamington.
Miles, K. G. V. ...	9 h.p. Riley	London.	Stone, F. R. ...	16 h.p. Triumph	Leamington.	White, C. Mervyn	12 h.p. Citroen	Leamington.
McKenzie, W. A. ...	16 h.p. Bentley	London.	Shakespeare, W. J.	10 h.p. Austin	Leamington.	Watson, Miss E. V.	26 h.p. Bentley	Liverpool.
Moss, C. W. ...	9 h.p. Singer	Torquay.	Shrimpton, A. E. ...	12 h.p. British Salmson	Leamington.	Wells, C. V. ...	9 h.p. Riley	London.
Marsh, K. G. ...	11 h.p. Triumph	Torquay.	Sears, J. L. ...	20 h.p. Alvis	Leamington.	Winkworth, F. W. H.	9 h.p. Riley	London.
Margerison, J. ...	24 h.p. Sunbeam	Torquay.	Scala, G. ...	11 h.p. Fiat	Leamington.	Wood, G. D. ...	29 h.p. Buick	London.
Mann, T. C. ...	30 h.p. Lagonda	Yarmouth.	Stothert, C. E. ...	11 h.p. Fiat	Liverpool.	White, G. G. ...	12 h.p. Aston Martin	London.
Neville, C. W. ...	28 h.p. Tatra	Torquay.	Smith, E. J. ...	9 h.p. Singer	London.	Whitford-Hawke, W. G.	20 h.p. Alvis	Torquay.
Noble, G. P. H. ...	37. Graham Paige	London.	Sutton, F. S. B. ...	12 h.p. Riley	London.	Watson, W. F. ...	26 h.p. Bentley	Torquay.
Norton, W. C. N. ...	12 h.p. British Salmson	London.	Streather, Miss B. J. M.	20 h.p. Alvis Speed 20	London.	Wallace, Lt.-Cdr. R. H. (R.N.)	9 h.p. Riley Lynx	Torquay.
Naylor, J. W. ...	8 h.p. M.G.	Harrogate.	Stokes, Flt.-Lt. J.W.	9 h.p. Singer	London.	Webber, W. J. ...	17 h.p. Humber	Torquay.
Newsome, S. H. ...	20 h.p. S.S. 1	Leamington.	Stanton, W. G. D.	12 h.p. Armstrong-Siddeley	London.	Watson, A. P. ...	30 h.p. Siddeley Special	Yarmouth.
Olive, G. W. ...	12 h.p. Standard	London.	Stockings, A. T. ...	8 h.p. Morris	London.	Watson, A. P. ...	12 h.p. Singer	Yarmouth.
Oldham, Lady Margaret	29 h.p. Hudson 8	London.	Sharp, E. H. W. ...	10 h.p. Aero Minx	London.	Whalley, J. W. ...	10 h.p. Ford de Luxe	Yarmouth.
Oxenford, A. H. ...	20 h.p. Standard	Leamington.	Silcock, D. G. ...	12 h.p. Lagonda	London.	Wilson, M. ...	8 h.p. Ford	Yarmouth.
Olive, G. W. ...	20 h.p. S.S. 1 Airline	Leamington.	Schwedler, Miss I.C.	14 h.p. Rover Speed Pilot	London.	Warbey, Miss M. C.	9 h.p. Riley	Yarmouth.
Oxley-Sidey, G. C. ...	10 h.p. Singer	Leamington.	Sutton, R. I. ...	12 h.p. Standard	London.	Walpole, Lord ...	10 h.p. Lagonda	Yarmouth.
Ouvry, J. D. ...	10 h.p. Lanchester	Torquay.	Stapleton, E. C. W.	12 h.p. Invicta	London.			
Pearce, A. S. ...	20 h.p. Standard	Buxton.	Shea-Simonds, G. P.	8 h.p. M.G. Midget	Torquay.			
Parry, V. L. ...	12 h.p. M.G. Magna	Leamington.	Struthers, I. D. ...	8 h.p. Fiat	Torquay.			

ULSTER A.C.

The "Sport and Varsity" Trial, run under the auspices of the Ulster Automobile Club, was held on Saturday, February 2nd. There was an entry of 36 cars, and the weather conditions turned out to be ideal. The first check was at the Kennels of the Co. Down Staghounds, and from there the trial led to Crossgar, Killinchy Cross Roads, and Ballywalter, finishing in Donaghadee.

At the various checks competitors had to perform sundry musical, poetical and

artistic feats, for which proficiency marks were awarded. The judging was done by the competitors themselves. The average speed throughout the trial was 20 m.p.h. The winner proved to be F. M. Kilpatrick (Riley 9), who gained 12½ marks; while second place went to A. R. Scott (Hillman Minx) with a score of 5½ marks. An enjoyable dance and cabaret wound up a most successful day.

The following list of fixtures has been compiled to date:—

April 22nd and 23rd.—Ulster Motor Rally.

June 22nd.—International Co. Down Trophy Race.

August 31st.—Craigantlet Hill Climb.

September 4th.—Coachwork Competition.

In addition to the above, the Spring and Autumn Trials, of a stiff nature, will be run on dates to be decided.

The Hon. Secretary of the Club is Capt. W. J. Thompson, 65, Chichester Street, Belfast, N. Ireland.

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40-50 h.p. CONTINENTAL  
ROLLS-ROYCE

TO many motorists Rolls-Royce and "The Continent" are closely linked phrases. To some, like the writer, the conception came first from the pages of Dornford Yates novels, where the sorely tried cars bore their enthusiastic and hard-driving owners from North to South at phenomenal averages, thereby filling the youthful mind with all the author's devotion for the famous marque. Apart from the Alpine Trial of 1912, in which the 40-50 model of that day, the famous Silver Ghost snatched the principal award from the hands of a rather astonished assembly of the Continent's best cars, Rolls-Royce cars have never participated officially in competition abroad. On the other hand all the experimental models undergo their final tests of six months or more, alternating between the steep and chilly passes of the Alps, and the scorching straight Routes Nationales of France; so the connection between "continent" and Rolls-Royce is a very real one. What more appropriate name, therefore for the short wheel-base sporting saloon on the Phantom II chassis?

The charm of a high-grade car lies in its individuality, and like the character of the average man or woman, is only fully appreciated after a fairly long acquaintance. When we first saw at Conduit Street the impressive car which had been lent to us for test, we experienced a momentary doubt as to whether we were capable of piloting it through the taxi-ridden traffic of the Metropolis to the calmer waters of the open road, yet in a few miles this impression of bigness had disappeared, and the car felt as easy to handle as any sixteen-horsepower sports car.

In the same way, being inveterate users of the gear-lever, on first reaching open country we gave the Rolls-Royce full throttle on every gear, certainly with most happy results, but unnecessarily, as we found afterwards. The tremendous

*Brief Specification.*

*Engine: 6 cylinders, 137.5 mm. bore, 106.5 mm. stroke, capacity 7,668 c.c. R.A.C. Rating 43.3 h.p. Push-rod operated overhead valves. One Rolls-Royce carburetter. Dual ignition; magneto and coil.*

*Gear-box: 4 speeds and reverse. Ratios, 3.4, 4.54, 6.8 and 11.9 to 1. Constant mesh second gear, synchro-mesh third and top.*

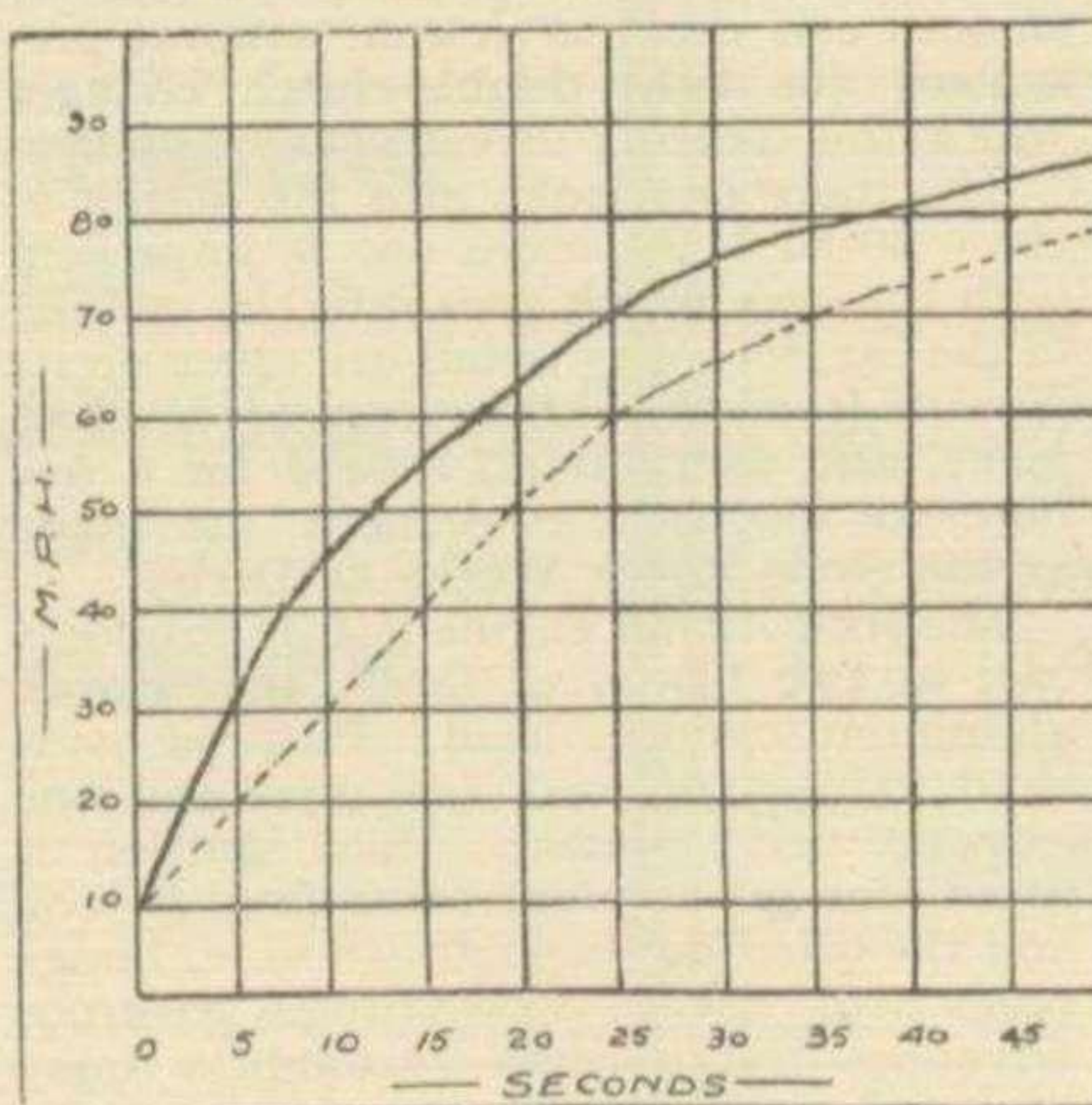
*Brakes: Cable operated, with Rolls-Royce mechanical servo.*

*Springs: Half elliptic.*

*Back Axle: Fully floating. Hypoid bevel gears.*

*Dimensions: Wheelbase 12ft. Track —Front axle 4ft. 10½in., rear axle 5ft. 0½in. Weight with five-seater Continental Saloon, 49 cwts.*

*Price £2,425.*



*The Acceleration Chart of the 40-50 h.p. Continental Rolls-Royce. The dotted line is top gear only.*

power developed at low engine speeds makes possible an exceptional top gear performance, and brings the car from ten miles an hour to eighty in under one minute, as the speed chart reveals.

Top gear is therefore used for most main-road running, with third a useful handmaid for getting quickly up to 60 m.p.h. The charm of a big engine is revealed in the way the car sails along at 60, 70 or 80 m.p.h., in quite uncanny silence, flattening hills in its stride, and simply asking to be driven as hard as safety permits, from one end of the journey to the other. At 80 m.p.h., it is worth noting the engine speed is only 2,950 r.p.m.

During our road test we covered over 600 miles, and the greater part of this was spent on the Great North Road. Apart from being one of the few roads in England on which one can try a powerful car like the Rolls, it is sufficiently diversified not to be tedious.

After sailing along at no small speed through the early fast stretches north of London, where the fine top-gear performance gave plenty of chance of leaning back and admiring the effortless progress of this modern Magic Carpet, we entered the much more sinuous sections in Bedfordshire and further North. With this change of country, a new car was revealed. On the way North we had been impressed by the firm yet supple springing, which gives the Continental the steadiness on corners of the best type of sports car, yet we were unprepared for the way in which this 2½ ton car of 12 feet wheelbase could be slung round corners. On cambered corners the inside wheels kept station a foot from the kerb, while when one was feeling frivolous the tail could be made to slide with the utmost nicety of control. Not all owners perhaps would want to do this, but it proved in no uncertain fashion how well the suspension and the weight distribution had been arranged.



## THE 40-50 H.P. CONTINENTAL ROLLS-ROYCE—continued.

A refinement has been fitted to the latest 40-50 Rolls-Royce cars in the form of a hand control for the shock absorbers, mounted on the steering column. We found this of value principally when encountering hump-back bridges at speed, but otherwise left the lever in the central position. It is specially useful, of course, to provide that little extra stiffness of springing which one appreciates on a car fully loaded with passengers and luggage.

Further North again, beyond Borough-bridge, came opportunities of trying the all-out speed, which was found to be in the neighbourhood of 92 m.p.h. This speed was attained with one of the two silencers cut out; with the two in operation the maximum speed is about 85 m.p.h. The figures shown on the graph were also obtained with both silencers in use, and were recorded at Brooklands.

The return from Yorkshire was made in 5 hours, giving an average speed of 45 m.p.h., without any particular effort.

A good deal of rain was encountered on the way south, without calling for any reduction of speed. Journeys under these conditions no doubt commonplace to owners of 40-50's, but for ourselves we could not help noticing how little fatigued we felt as compared with runs on smaller cars over much shorter distances.

Most of the journey was done at night, and in spite of being fitted with low-powered bulbs, the Lucas P. 100 lamps gave an excellent driving light. The dipping reflectors were controlled by a switch mounted on the floor in a position convenient to the driver's left foot.

The high performance of the Continental has been secured without sacrificing any of the traditional Rolls-Royce smoothness and good manners. One of our pleasantest memories was an afternoon's touring in Swaledale, gliding along at 35 or so, on a mere whiff of throttle, which yet sufficed to take us up all but the heavier gradients. The seating position is high enough to allow one really to appreciate the scenery, while the controls are so light that even on uneven and narrow moorland roads the driver is in no way embarrassed by the size of the car. The steering lock is excellent, and the car can be turned with two or three sweeps across the average main road. In towns the car moves along at 10 m.p.h. or less on top with ignition retarded, while the easily engaged third gear is particularly valuable when one wishes to overtake rapidly.

Having given some idea of the car's performance, it remains to mention some of the special points which help to place the Rolls-Royce in a class of its own. First of all the steering. Steering, of course, is one of the most important things on a large fast car, and on the Rolls its lightness and accuracy are things to marvel at, and yet this is contrived with a high ratio and a caster action which centralises the large steering wheel after corners have been negotiated. The gentlest of holds on the large steering wheel kept the car on its course at speed, and corners are taken almost without effort.

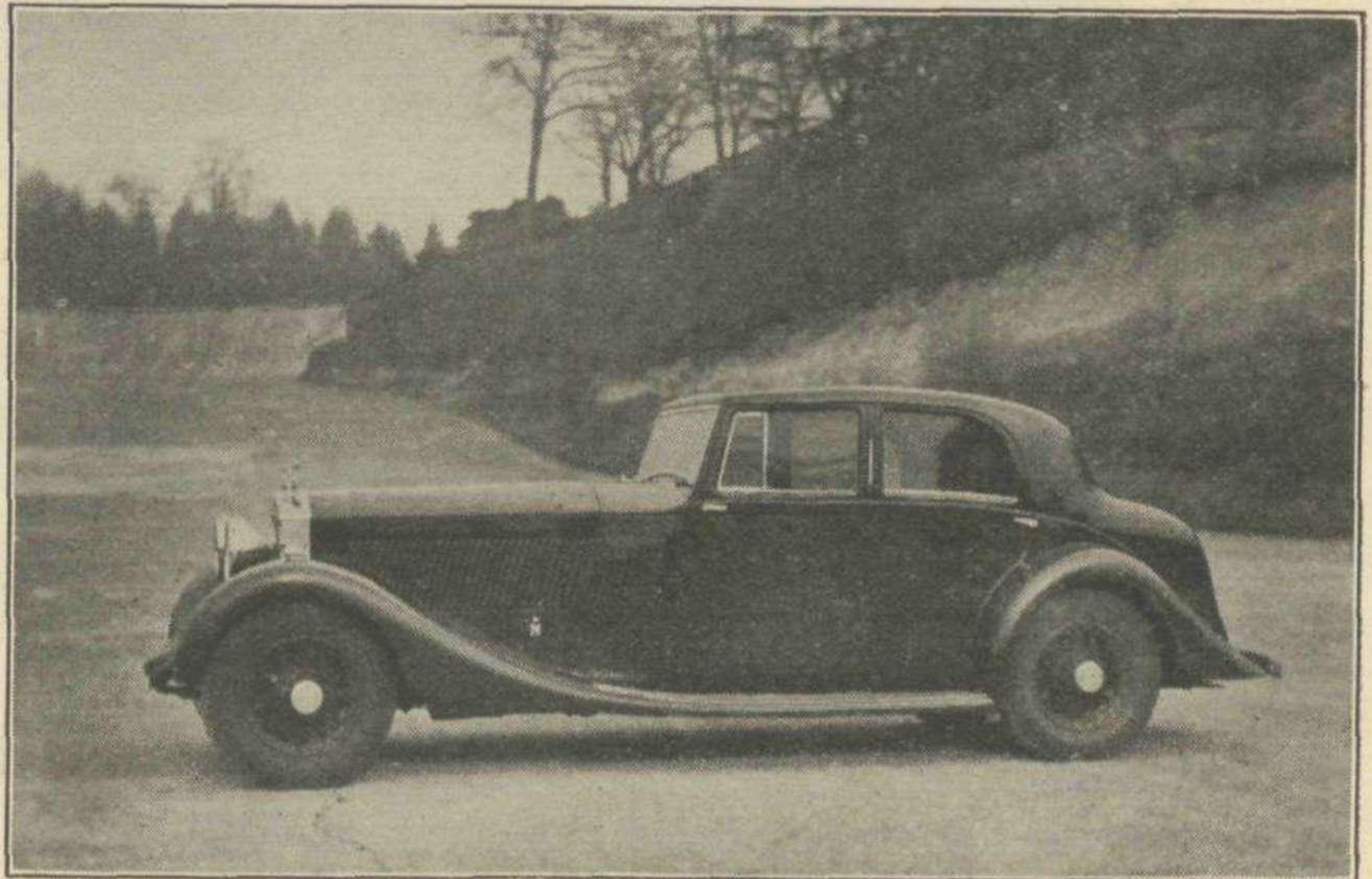
The braking effort is assisted by a mechanical servo-motor, and a gentle pressure is all that is required. From

40 m.p.h. the car can be brought to rest in 60 ft., an excellent performance on a car weighing over two tons. At the higher end of the scale they are just as remarkable, as was shown when a Morris Cowley pulled out into the Great North Road when we were doing 90 m.p.h.

As will be understood, gear-changing is not often required on the 40-50, but in spite of this the gear-box has been brought to the same pitch of perfection as the rest of the chassis. Third and top gears are fitted with synchro-mesh mechanism, and third is so silent that on several occasions we ran for two or three miles without being aware that we were not in top. A speed of over seventy miles an hour can be reached on third, though some slight roughness is noticed towards the maximum, but owing to the fine top gear torque, sixty is quite sufficient for normal main-road work. Second is a silent-running ratio, and the car is usually

The carburettor is virtually three instruments in one. For starting from cold the first of these is brought into play, and extra oil is supplied to the cylinder walls as the engine is being brought to a running temperature. A small auxiliary carburettor is used for slow-running, while the main one has a single jet, the orifice of which is varied by a tapered needle, in turn controlled by engine suction. The petrol is conveyed from the 28 gallon rear tank by an Autovac vacuum tank, but in order to prevent the supply failing when the car is run for long periods on full throttle, as might happen when relying on the depression in the induction pipe, the vacuum is maintained by an engine-driven pump. The petrol consumption on a 220-mile run worked out at 9 m.p.g.

The crank-shaft is dynamically balanced and carried in seven main bearings, and these and the big ends are plain. Oil is



The elegant lines of the Continental Touring Saloon are seen to advantage in this picture.

started on this gear. Top to third is a rapid change, with second spaced slightly more widely. The synchro-mesh mechanism for third and top is remarkably smooth and rapid in action, without presenting the light double-clutch changes which the sporting driver usually prefers.

The more one looks into the design of the "40-50" the more one is impressed with the care which goes into the making of the car, for every detail has taken on its present form only after years of development, and every item, except for a few items of electrical equipment, are made at the Rolls-Royce Works at Derby.

The six-cylinder engine has its cylinders cast in two blocks of three, and has an aluminium cylinder-head. Pushrod overhead valves are used, one inlet and one exhaust per cylinder. Dual ignition is fitted, one set of plugs being fired by coil and the other by magneto, 18 m.m. Lodge plugs being used. A centrifugal governor advances the ignition through a relay operated by the engine oil pressure, the hand lever on the control column serving merely to limit the amount of advance available.

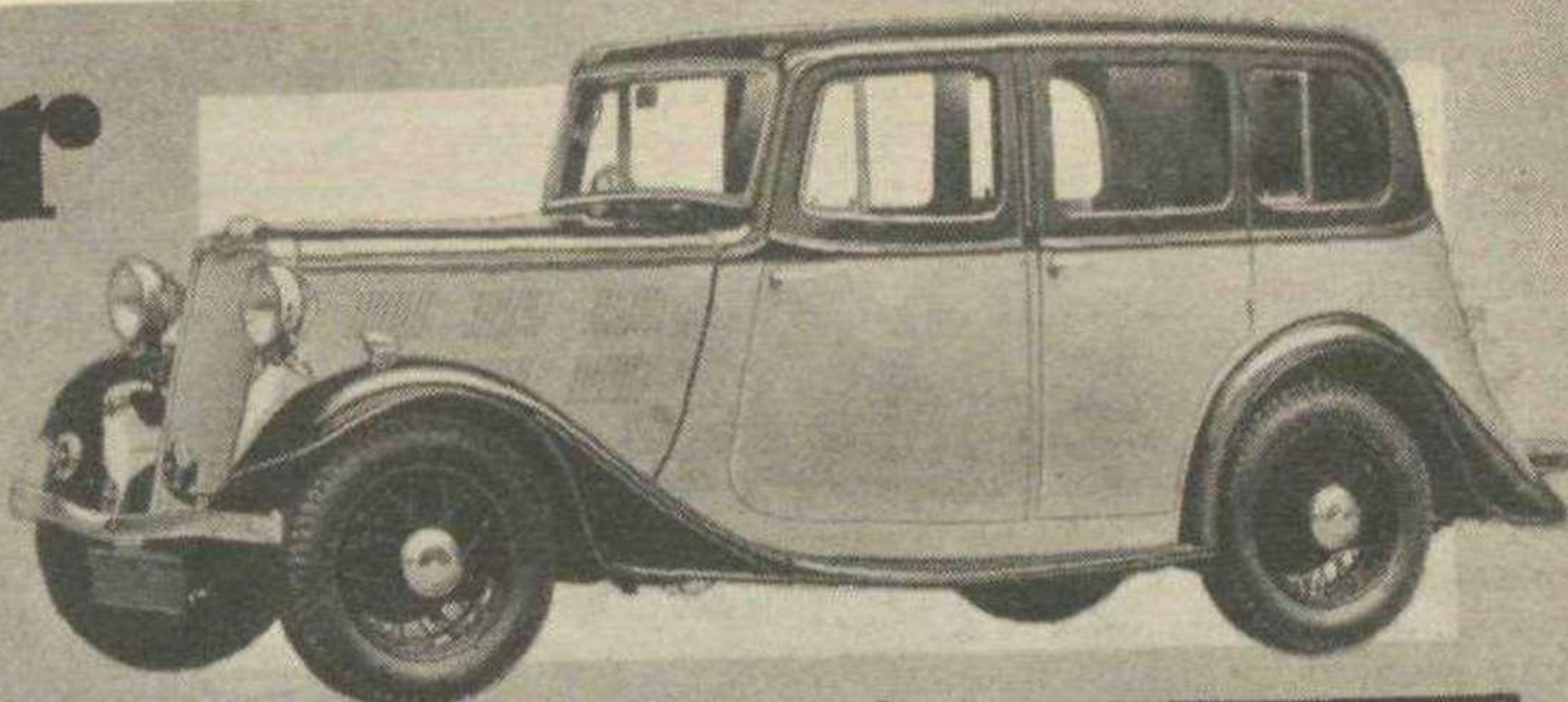
forced to all points, a reduced pressure being used for such parts as the overhead valve gear. An "edge-type" pressure oil filter is standardised, and the plates are partly rotated by a ratchet mechanism each time the clutch pedal is depressed.

A single-plate clutch is used and the gear-box is mounted in unit with the engine. The complete unit is carried on the main frame on a pivoted mounting torsionally, insulated by rubber, and friction dampers regulate the slight movement permitted.

The synchro-mesh gear-box has already been described, but no less interesting is the brake servo-mechanism, mounted at the side. When the brake pedal is depressed it applies the rear brakes, and also forces a disc clutch into contact with a rotating disc. As the disc clutch is dragged round, the pull it exerts is divided between the front and rear brakes and since the rear brakes already are receiving the direct pressure of the foot, there is no possibility of the front brakes locking. The braking effect between the two wheels on either side of the car is balanced by



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## THE 40-50 H.P. CONTINENTAL ROLLS-ROYCE—continued.

means of "equalisers" which are miniature differential gears, and the effort of the hand-brake, which operates independent shoes in the rear drums, is also equalised in this way.

An open propeller shaft is used, and the two all-metal universal joints are fitted with needle roller bearings. A hypoid-bevel drive is used in the back-axle, which materially lowers the propeller shaft line and therefore the floor level in the rear compartment. The rear axle is fully floating, with the axle tubes bolted to the differential casing.

The chassis is of the orthodox type, swept up at front and rear and strengthened with a number of tubular and channel cross-members. Axle movement is controlled by special Rolls-Royce hydraulic shock absorbers and as has been said a fine adjustment of these is provided on the steering column.

A centralised lubrication system mounted on the dash supplies oil to all moving points on the chassis, including the road springs.

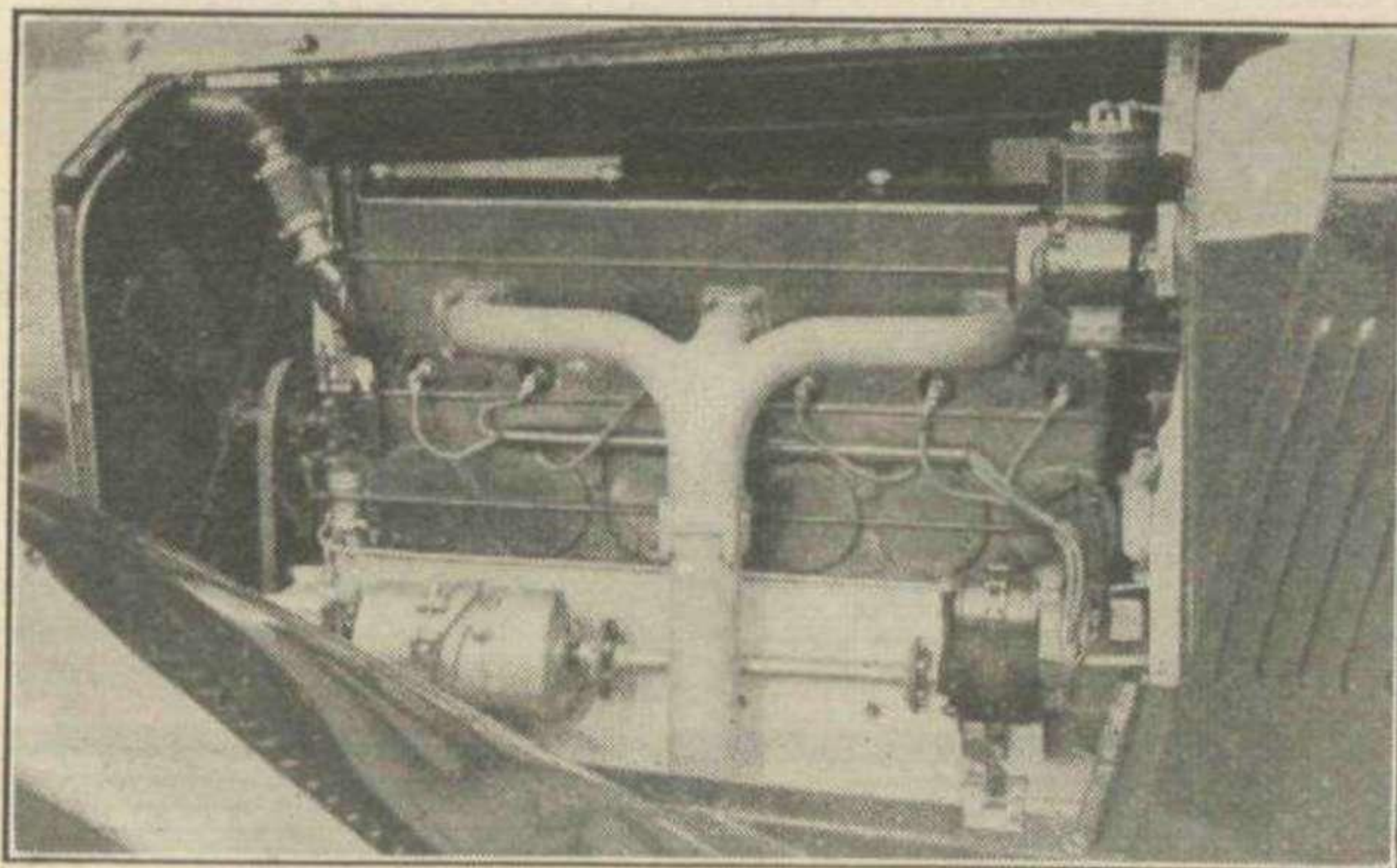
The Continental four-door saloon, by Barker, was a fine example of English coachcraft. The sweeping lines of the wings, which proved most efficient in wet weather, and the shallow roof, which yet contrived to accommodate a sliding roof, were a fitting accompaniment to the severe yet graceful bonnet, and this restrained feeling of good taste was supported by the colours, dark and light maroon, in which this handsome car was finished.

The seats were particularly comfortable, covered with soft hide and upholstered so as to be both yielding and free from side-sway. A central arm-rest is fitted to the back squab, so that two or three may be carried in equal comfort. There is ample leg-room, and since the rear seat is well in front of the rear axle, the riding is in no way inferior to that enjoyed by the occupants of the two front seats. The front windows were fitted with special ventilating flaps operated by the normal winders, and by this means the interior of the car can be kept airy and yet

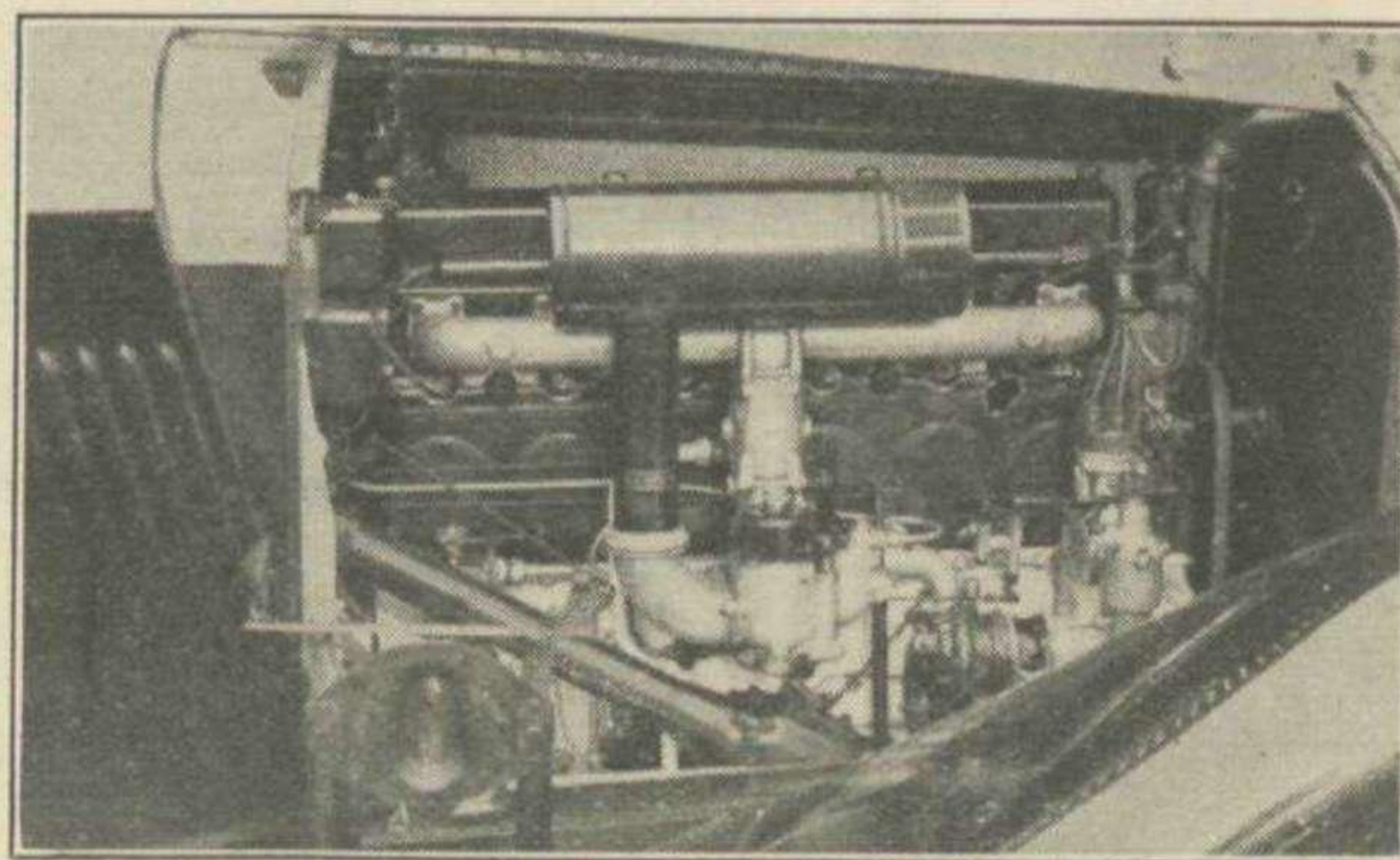
free from draughts.

The forward placing of the rear seats makes it possible to provide really generous luggage accommodation, and the large boot provides room for half a dozen suitcases, or even a small trunk, while in addition the rear panel can be let down to act as a luggage platform. The tools are carried partly along the sides of the luggage compartment, and partly in a hinged tray recessed to fit the individual parts.

Fashions in cars may veer this way and that, but there is still no disputing what is the Best Car in the World. Constant in their determination to hold on to what is proven good, Messrs. Rolls-Royce are now the only British firm still to offer a large-engined car, and this a vehicle which, with the materials employed in its construction, should give unfailing service for ten, twenty—who knows how many—years; while the classic proportions of the radiator and bonnet are happily reflected in the many fine bodies now being offered by British coachbuilders. Long may the combination flourish!



The beautifully finished 7-litre engine of the 40-50 Rolls-Royce seen from the near side.



A new type of carburettor is used on the latest cars. On the right will be seen the distributor, and above it, the coil.

### J. C. Ridley's triumph.

It was not generally known at the time that J. C. Ridley's Triumph "Gloria," which finished second in the general classification of the Monte Carlo Rally and won the Junior Class, was actually supercharged for the eliminating test at the end.

A last minute decision to "blow" the car, and thereby gain a big increase in acceleration, did not allow the fitting of the Centric supercharger to be of a permanent nature. Accordingly, a simple arrangement of temporary brackets and open chain drive from the crankshaft nose was used. This accounts for the supercharger not being installed during the long run from Umea.

Arrangements have now been made whereby new Triumph "Glorias" can in future be supplied with a Centric supercharger, properly designed to suit the car and with a totally enclosed drive. The additional cost has not yet been fixed.

### Better Steering.

In the past the great difficulty attached to the use of a stabilising device for the steering gear of a car has been the attendant loading or stiffening of the steering control. The benefits of such

a device are undisputed, but the accompanying disadvantage has prevented their wide-spread use.

There has recently been placed on the market, however, a device which overcomes this drawback, at the same time retaining all the good points of a steering damper. It is called the Titan Self Steering Stabiliser, and is made by the T.N.T. Patents, Ltd., Park Gardens, Alford, Billingshurst, Sussex.

The secret of the Titan Stabiliser is that, instead of using friction or hydraulic resistance as a means of checking excessive movement, the principle of inertia has been brought into play. A small circular housing is clamped to the front axle, and is connected to the track-rod by means of universal-jointed link-rod. Inside the housing is a rotating weight, damped in oil, and the resistance of the inertia of this weight absorbs and checks all steering shocks. It will be seen that no extra load is placed on the ordinary steering control, so that an actual saving in wear is obtained. A new car fitted with a Titan Stabiliser benefits by the longer life of its steering gear, while an old car similarly equipped can be made to steer accurately and easily.

As proof of their outstanding merit, it is worth recalling that a pair of Titan

Stabilisers were fitted to Sir Malcolm Campbell's "Blue Bird."

### A Motoring Film.

An instructive and enjoyable evening was spent by a large audience at the Baths Hall, Latimer Road, Wimbledon, on the occasion of the Morris film show, given by Messrs. Jarvis & Sons, Ltd., the well-known automobile firm.

Different phases of construction were shown in detail, and left a deep impression on the minds of the audience of the colossal organisation entailed in modern automobile construction. After this, the conception, manufacture and testing of the latest Morris model—the new "Eight"—were shown, and a splendid scenic film, "Land's End to John o' Groat's." The film show concluded with an amusing cartoon dealing with the nefarious activities and well-merited end of a motor crook.

The proceedings concluded with an address by Mr. G. E. T. Eyston, the famous racing motorist, and a Director of Messrs. Jarvis & Sons. In emphasising the modern trend of new car buying, he pointed out that his firm had already sold twice the number of Morris cars in the past five months as compared with the corresponding period last year.



# What Do You Know About Cars?

## REPORT ON PROBLEM No. 11.

The first correct solution opened on February 15th was that sent by: **Mr. W. Taylor, 12, Cairnfield Place, Aberdeen**, to whom we have sent our cheque for one guinea.

The car in the photograph was the Talbot Darracq, driven by the late Sir Henry Segrave in the J.C.C. 200 Miles Race, when artificial corners were used at Brooklands for the first time. The correct solutions polled 46 per cent. of the total entry. The next most frequently suggested make was Salmson, followed by Amilcar and Miller.

## PROBLEM No. 12.

The rules for Problem No. 12 are as follow:—

1. Cut out the coupon on the inside back cover, fill in your name and address and solution in block letters, and sent it to us in a sealed envelope, marked "Competition."

2. Any alterations or defacements on the coupon will automatically disqualify the entrant.

3. The Editor's decision is final.

4. Entries must reach this office, 39, Victoria Street, London, S.W. 1, not

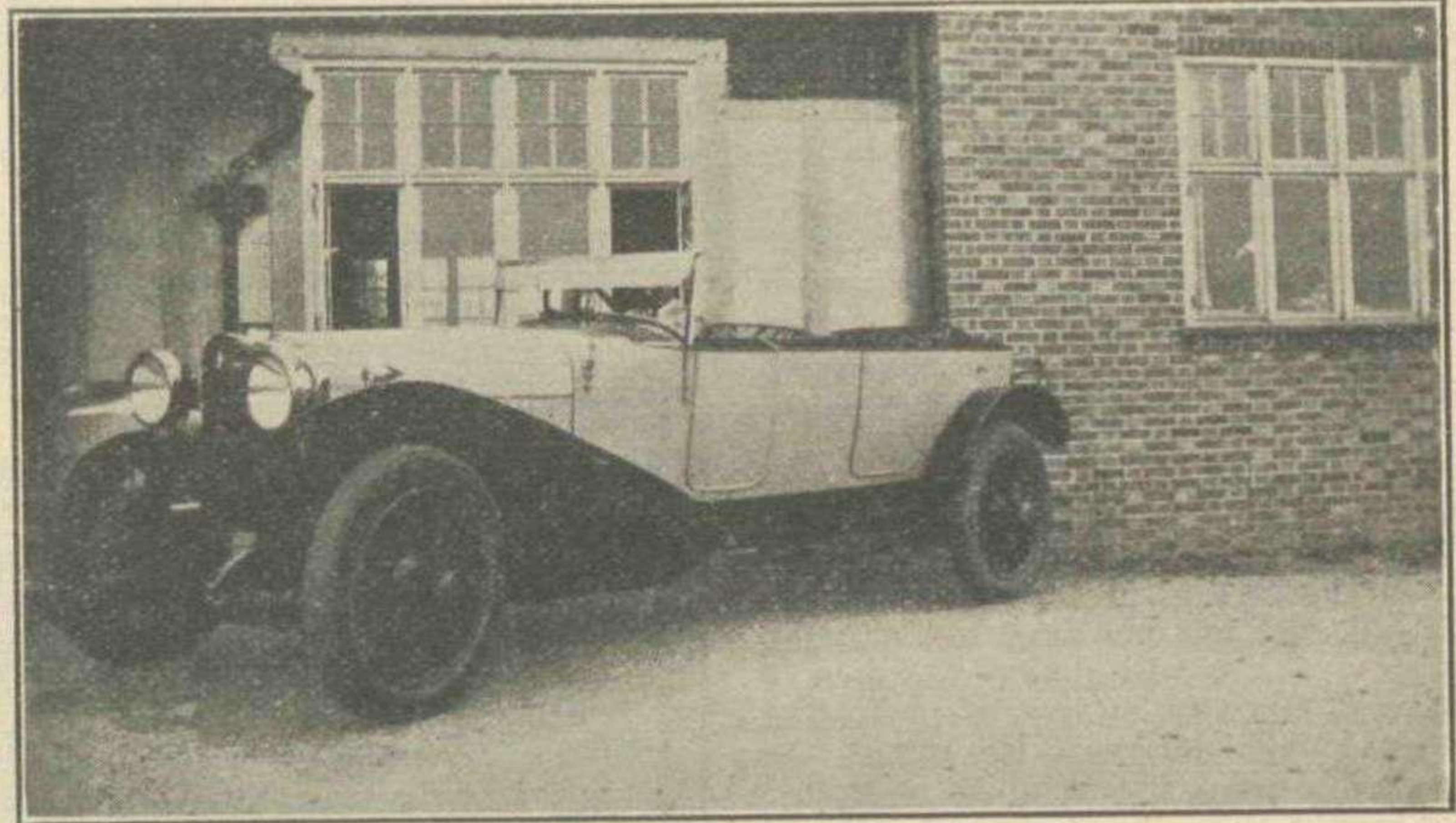
later than the first post, March 15th, and a prize of one guinea will be awarded to the sender of the first correct solution opened on that day.

5. More than one coupon may be included in one envelope.

6. No letter must be sent with the coupon.

7. The result will be published in our April issue.

8. Employees of MOTOR SPORT (1929), Ltd., are not eligible to compete.



*Problem No. 12.—What is the make of car in the above illustration?*

## Brooklands Again on the 16th!

No surer sign of Spring can be found than the first yellow sheet of Supplementary Regulations for the B.A.R.C. opening meeting at Brooklands.

The date this year is March 16th (weather and other circumstances permitting). A programme of "Mountain," Short and Long Handicaps, and Sprint Scratch races has been arranged, all designated by the prefix "New Haw."

Unfortunately, the weather can have a powerful influence on the repair-work now being carried out, particularly if a long frost should set in, so there is some uncertainty as to whether the full outer circuit will be ready in time. If all goes well, however, the complete programme will be held, including the sprints, but the latter may be dropped in the event of overwhelming entries for the long and short handicaps.

Quite rightly, the Executive Committee are reserving the right to refuse the entry of cars which, in their opinion, are too slow. One or two cars run at B.A.R.C. meetings last year were a good deal slower than many of the sports cars in the enclosures, and their presence does no good to the reputation of B.A.R.C. Meetings. Similarly, the entries of unknown drivers of fast cars will not be accepted.

Women drivers may enter for one each of the long and short handicaps, and the sprints, but are not eligible for the Mountain races. Racing starts at 2 p.m., and entries close at single fees on Monday, 4th March.

Incidentally, the Racing Committee of the B.A.R.C. for 1935 is composed of the following officers: Dr. J. D. Benjafield,

the Earl of Brecknock, M. G. W. Burton, Capt. Sir Malcolm Campbell, J. R. Cobb, Major C. G. Coe, The Earl of Cottenham, S. C. H. Davies, Sir Algernon Guinness, Bart., K. Lee Guinness, the Earl Howe, Col. F. Lindsay Lloyd, Lionel Martin, and the ex-officio members of the Committee.

## Modifications to the International Trophy Circuit.

Owing to the rather different scale of performances of the most up-to-date racing cars, it has been found necessary to modify the course used by the J.C.C. for their annual International Trophy Race. The usual "S" bend in the Finishing Straight will be retained unaltered, but there will now be four, instead of three, "channels" at the Fork

The four groups, in the order of "channels," are as follow: Group 1, 750 c.c. (S) and 1,100 c.c.; Group 2, 1,000 c.c. (S) and 2,000 c.c.; Group 3, 2,500 c.c. (S) and 4,000 c.c.; Group 4, 4,000 c.c. (S). Owing to the varying length of the laps to be covered by the different groups, no definite distance can be given for the race, but it will be 100 laps of approximately 2.6 miles.

In conformity with Continental practice, the starting positions will be decided by the fastest officially observed lap speeds. The start will take place just before the "channels."

Thanks to the generosity of Lord Nuffield, really worth while prize money is offered. For example the winner will receive £500 in cash and the S.M.M.T. Trophy. The awards to be given cover the finishers up to 8th place.

By virtue of its automatic handicap

system the International Trophy is the easiest to follow of all the long race at Brooklands. The leading car is the winning car, and the spectator is therefore relieved of the necessity of consulting handicap tables and complicated formulae.

## A Brooklands Test.

An interesting test was recently carried out at Brooklands to demonstrate the value of the Germ process of lubrication manufacture. It is the opinion of Germ Lubricants Ltd. that neglect shows up the best in an oil, and for the purposes of the test two 10 h.p. 4-cylinder Austins were taken and run to destruction, one being lubricated by a standard first grade oil, and the other by ordinary Germ Oil, as purchased by the public.

The cars were driven round the track until the total mileage was 500 miles, at an average speed of 30 m.p.h. Then the sumps were drained and refilled with the appropriate oil. After a further 50 miles at 40 m.p.h. the sumps were then drained completely, and the oil filter assembly removed. The mileometers were put back to zero and the cars were then towed to the hill end of the finishing straight.

Both cars were then driven at a speed of 30 m.p.h., being preceded and followed by observers. After covering 9.6 miles the car lubricated with first-grade oil came to a standstill with an internal breakage, but the other test car lubricated with Germ Oil, continued to run until 16 miles had been covered since all the oil had been drained, i.e., the Germ oil film resisted dislodgement for a distance of 6.4 miles further than that accomplished by a first-grade oil under identical conditions.



# THE RACING CAR OF THE FUTURE

A SUMMARY OF THE SUGGESTED MODIFICATIONS TO THE FORMULA FOR GRAND PRIX RACING CARS.

THE time draws near when the A.I.A.C.R. will have to decide the formula for Grand Prix racing cars during the years 1937, 1938 and 1939. All over Europe, and in America too, keen discussion is being carried on as to the lines on which the new formula should be based. Manufacturers, representatives of official clubs, racing drivers, and mere interested followers of the sport, they one and all voice their opinions and solutions of an extremely difficult problem.

In England, Mr. Cecil Kimber, head of the famous M.G. Car Company, has put forward the suggestion of 1½-litre engines and a weight limit of 600 kilogrammes. Certain it is that a reduction in speed of the present-day "projectiles" must be accomplished, unless special roads are to be used for racing. Mr. Kimber's scheme (and he is by no means alone in his view) would undoubtedly bring this about, but at the risk of antagonising the existing supporters of Grand Prix, all of whom have spent vast sums of money in perfecting their existing designs. It might be claimed, of course, that English manufacturers would come forward with cars if a 1½-litre engine limit were used; but the sad fact remains that, with the exception of the M.G., and occasionally the Austin, England has had no representatives in the many 750 c.c. and 1,100 c.c. road races abroad. At all costs we must not sacrifice the substance for the shadow.

The French Talbot factory has produced some famous racing cars in its time, and the suggestions of M. Lago, its chief, are therefore worthy of the deepest consideration. M. Lago suggests that engine size should be limited to about 2 litres, and that superchargers should be banned. He points out that although the supercharger has been in use on racing cars for 15 years, the number of touring cars so fitted is negligible. In his view the racing formula should tend to develop better standard cars. As for superchargers, America has given them up on racing cars for two years, and he asserts that this device will find its true *métier* in aviation. On the other hand, M. Lago apparently forgets that at least two American manufacturers have introduced supercharged models recently, using the lessons of racing.

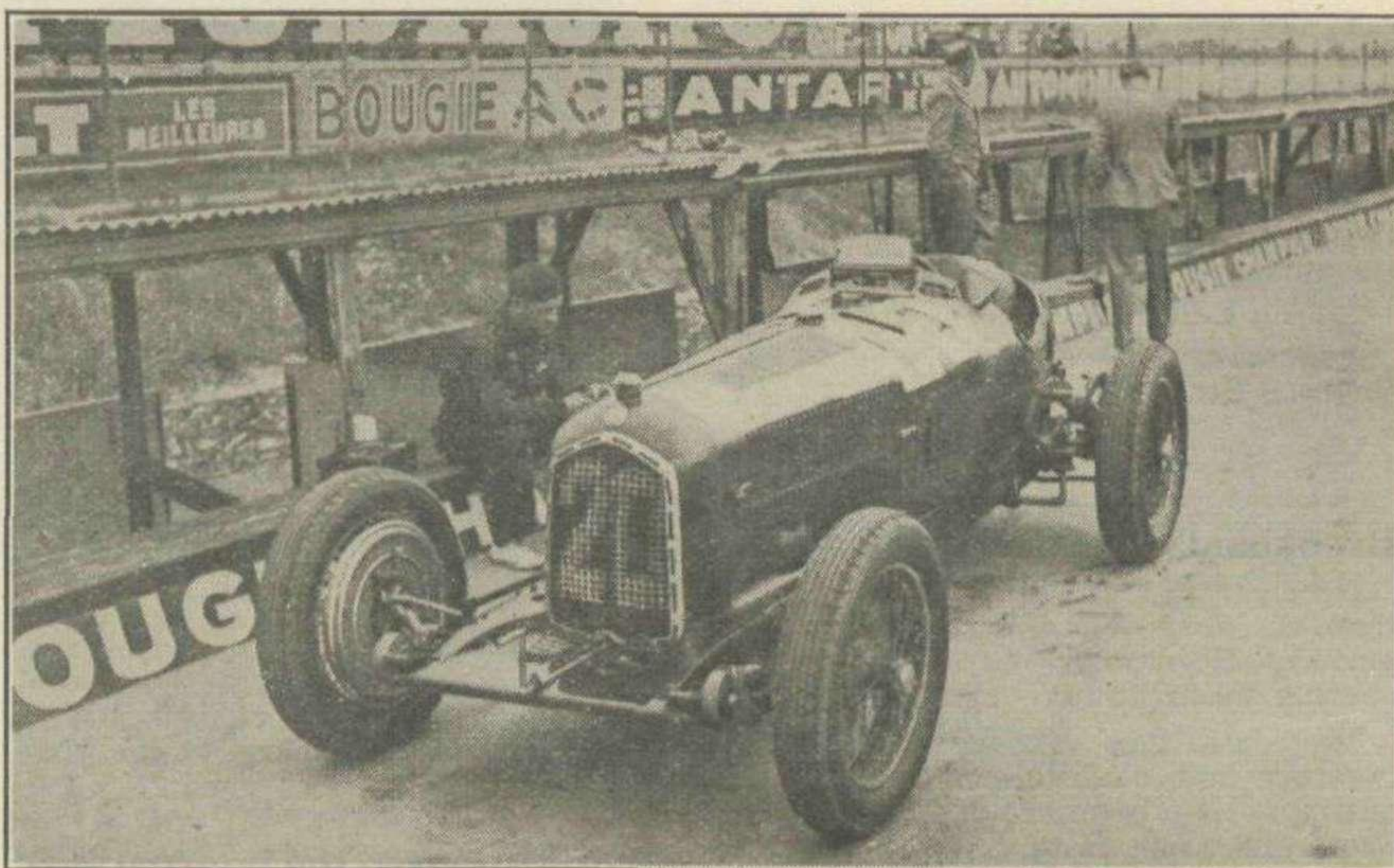
M. Lago does not believe in a weight limit. It is up to the manufacturer to make his cars as light as possible. Summing up the advantages of his formula, M. Lago says that the cars would be cheaper to construct, and therefore more numerous; being of the same size and unsupercharged, the public would feel that they bore some resemblance to their own machines; their speed would be less, and accidents therefore less frequent. As we have already pointed out, it is a matter of speculation whether the cheaper cost would encourage more manufacturers to build racing teams. For our part, we do not consider that the public care very much whether the cars they are watching are anywhere near standard productions or not; rather the opposite, for a 100 per cent. racing car has an appeal all of its own.

As for accidents, as far as our memory serves us, there were just as many disasters when racing cars were only capable of 130 m.p.h. as there are in these days of 200 m.p.h.

The formula put forward by the Automobile Club de France is, in effect, a modification of the existing formula. They suggest a retention of the present weight limit of 750 kilogrammes, but not including tyres. This 750 kilos. should include, however, sufficient petrol, oil and water to last the car a distance of 300 kilometres. The races should be of the same distance, 500 kilometres, with no refuelling allowed until 300 kilometres has been covered.

the A.C.F. formula would stand a chance of success, and he thinks it is far more likely that the Italian scheme of a 1,500 c.c. engine limit will be used by the International Sporting Commission.

M. Lory, the designer of the 1,500 c.c. Delage on which Benoist made his reputation, wholeheartedly supports the idea of a 300 kilometre petrol consumption limit. The problem of consumption, in his view, is one of the most important, and to neglect it is a serious failing. He is all in favour of a reduction in the weight limit, and thinks the A.C.F. might have even come down another 50 kilogrammes. He asserts that weight reduction is bound to reduce speed, and he would like to see



Built five years ago under unlimited formula rules, the Monoposto Alfa Romeo long reigned supreme in Grand Prix Racing.

It is difficult to state the definite results of such a formula. Its chief merit lies in its attempt to give the present competitors the benefit of their experience with their present cars, which would not have to be very seriously altered.

Our French contemporary *L'Auto* has recently published the opinions of various well-known French authorities on this suggested formula. M. Ettore Bugatti found his chief objection to the A.C.F. formula in its lack of sharp definition, which would inevitably result in complications. Referring to the weight limit, he is prepared to accept any limit suggested, for he says that new cars will have to be built in 1937 anyway.

Robert Benoist, the famous "ace," is all against the formula, and some of his objections are in complete agreement with our own criticisms. He complains that any suggestion of fuel limitation detracts from the fundamental principle of a speed Grand Prix race, and savours of touring car racing. Then it would be extremely difficult to check the weights of the fully-equipped and fuelled cars without placing them in a closed park afterwards. Such a course is fraught with difficulties. Altogether, Benoist does not think that

maximum speeds drop 50 k.p.h. Racing design, to M. Lory, consists in reaching the correct balance between speed, road-holding and braking, and in his view the former has outstripped the remaining points in present-day cars.

That weight-reduction will bring down speed is also the opinion of M. Berstarione, designer of Hotchkiss cars, who adds that the existing cars are much too fast, and pleads for a more logical approach to Grand Prix racing. He hastens to point out that he is not against speed, and even goes so far as to declare that this is the final test of a car. He thinks that speed has increased with too great a rapidity, and that road-holding and braking, although they have also advanced considerably, are still a long way behind.

M. Bertarione praises the 300 kilometre petrol consumption limit, for he points out that the modern supercharged G.P. racing car is deplorably at fault in this respect. The petrol limit will ultimately benefit touring car design. If the supercharger has to be discarded in order to keep within the limit, so much the better.

M. Emile Petit, designer of the Sefac car, would like to see the formula of the A.C.F. carried out not only in G.P. races,



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## THE RACING CAR OF THE FUTURE—continued.

but also in the smaller events. He considers that the 300 kilometre pit stop would then give rise to some practical results—provided that there was adequate control over competitors and that the rule was rigidly observed.

The next in the field with a suggested formula was the A.C. de Monaco, represented by M. Anthony Noghes. M. Noghes points out that the original intention of the current formula was to confine speed within certain limits by stipulating a maximum weight. The result has been intensive research by designers in the realms of power-to-weight ratio, and their discoveries have completely upset all previous ideas on the subject. Moreover, they have given this detail of design far more attention than they did when weight was unlimited and engine size the only restriction. He is afraid that the colossal increase in speeds is only obtained by growing engine size, and places an unfair burden of danger on the drivers who have to handle the cars.

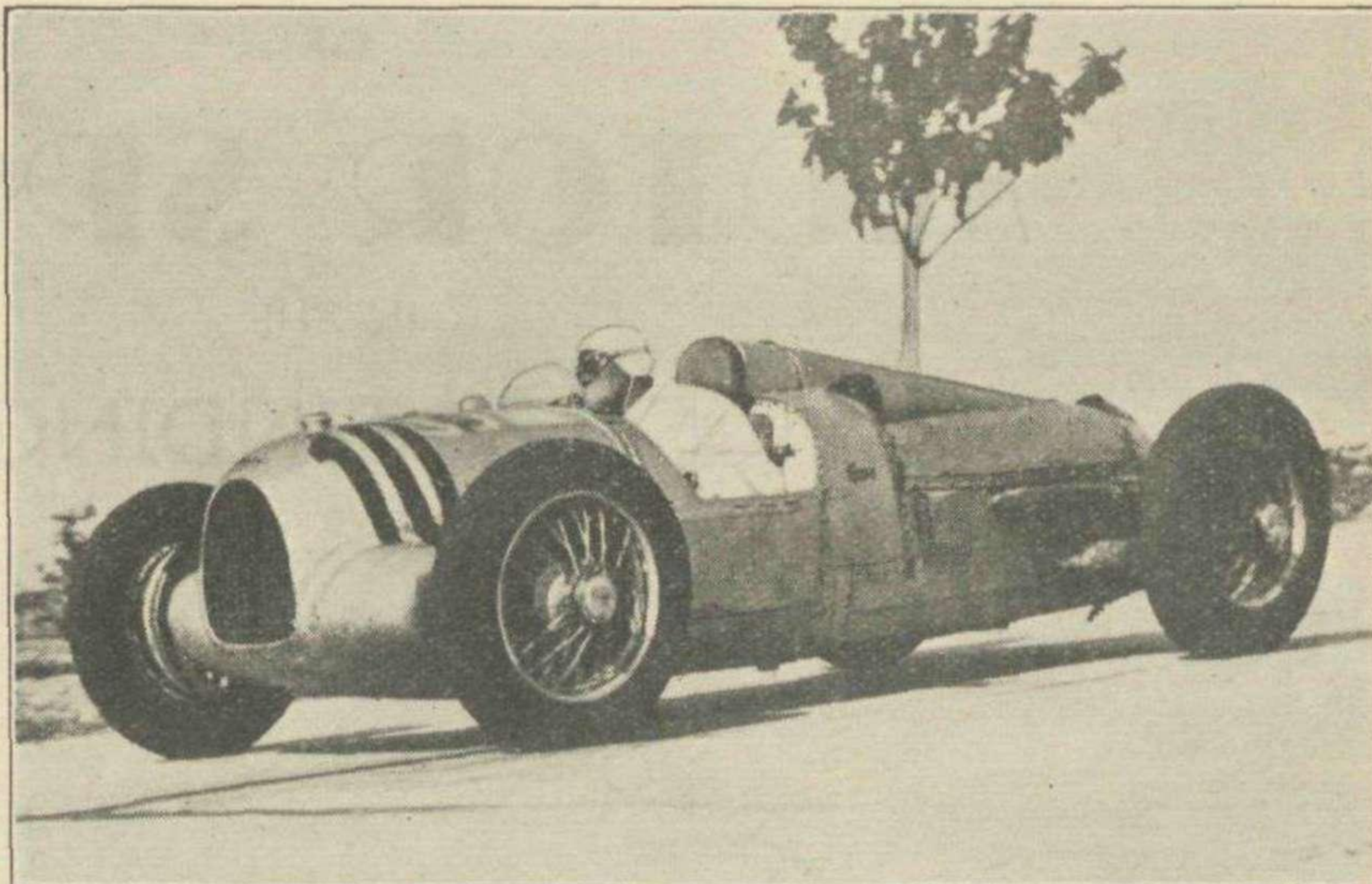
M. Noghes is particularly concerned lest the handling of G.P. cars should fall exclusively into the hands of a small high-skilled group, trained by years of successively increasing speeds, and therefore practically irreplaceable in the future.

The following opinions of M. Noghes strike us as being the most significant of any. He considers that designers should have *carte blanche* in the choice and usage of petrol, so as to encourage research work which will benefit all motorists. Superchargers are essential, he says, if high

complete freedom as to blowers, fuel and fuel consumption. In order not to inconvenience the drivers, M. Noghes adds that a margin of 50 kilogrammes should be

opinion to *L'Auto*, through its C.S.I. delegate, Mr. W. F. Bradley.

Mr. Bradley began by tracing the course of events at Indianapolis. Under the old



The ultimate development under the 750 K.G. formula? The Auto-Union has a five-litre 16-cylinder engine placed behind the driver, Torsion-rod springing the "body," consisting of aeroplane fabric over a light framework.

allowed for cars with fuel, etc., on board, so that there would be no need for them to drain the oil and fuel. Finally, M. Noghes

formula of cylinder capacity limit, with superchargers, the number of competing manufacturers gradually fell to two. After a time the public began to lose interest in the various "Specials" which were always the same cars, but with different names.

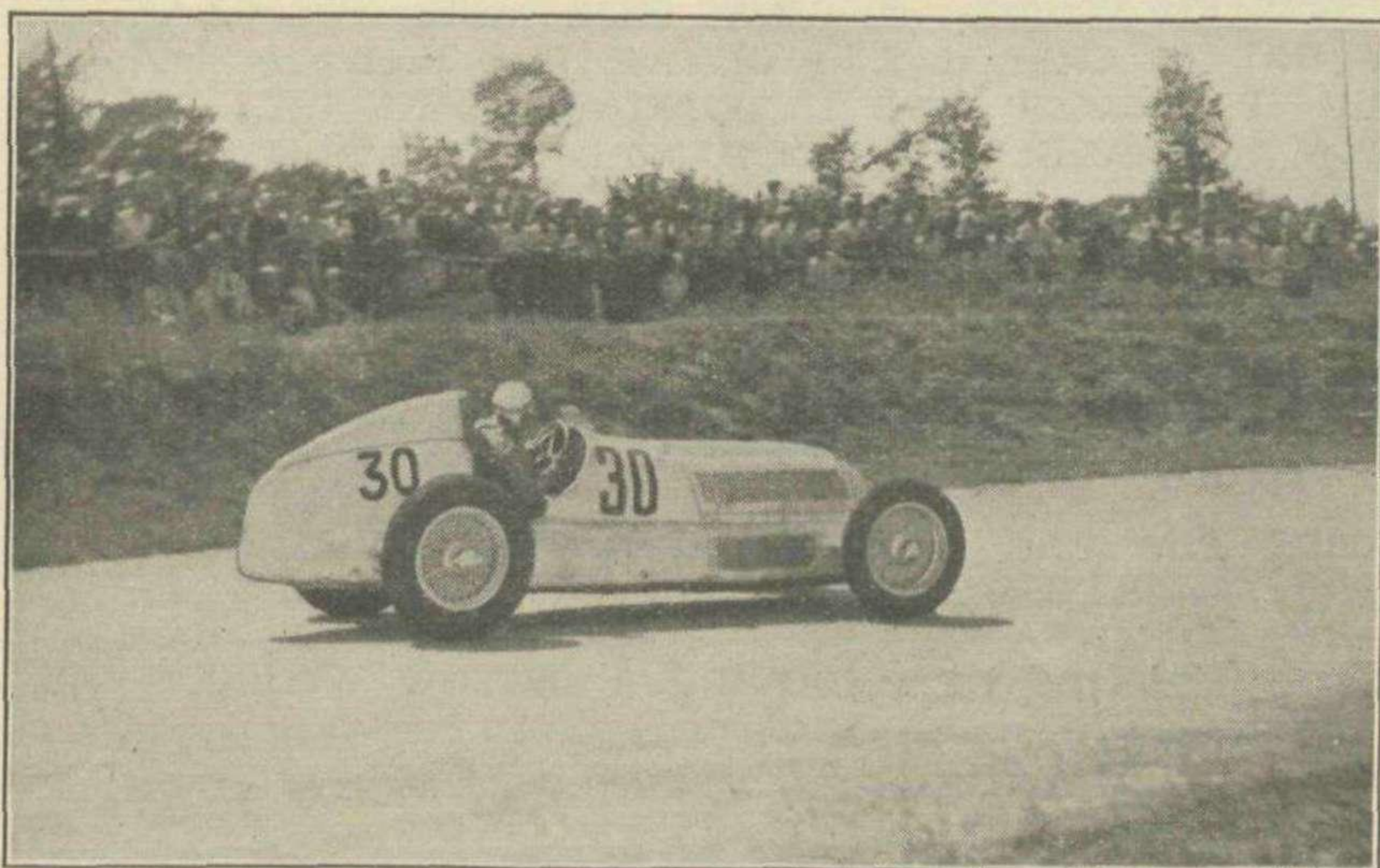
Rather than drift slowly to disaster, the Indianapolis authorities consulted the various manufacturers, with the result that the supercharger was banned and the capacity limit substituted by a limited petrol consumption. How successful this move has been may be judged by the fact that Indianapolis now receives 60 or 70 entries, although the actual field is restricted to 34. The present-day entries, although slightly slower than their "Special" rivals, have the benefit of a high degree of reliability, thanks to their stock-car descent.

Mr. Bradley asserts that the average speed has not fallen, contrary to popular belief, and the number of accidents is actually decreasing. The reason for this is found in the fact that drivers realise that their fuel supply is limited, and therefore pass their rivals on the straights in preference to the corners.

Technically the new formula has resulted in higher compressions, which have been made possible by the close co-operation of the fuel companies. This, in turn, has had the effect of improving the efficiency of stock-car engines in the States.

Mr. Bradley's condemnation of the supercharger appears to be conclusive. Since Fiat produced their team of supercharged cars in the 1923 French G.P. every Grand Prix racing car has been "blown." The practice became general in America about two years later. In the intervening

(Continued on next page.)



The Mercedes Benz retains orthodox racing car lines and obtains its striking performance through a high revving four-litre engine, careful pairing and independently sprung wheels.

revolutions are to be obtained, and the trend in this direction is no passing phase. Finally, it is vitally important that a *minimum* weight limit should be fixed, so as to avoid the dangerous cutting down of weight to superfine limits.

The formula suggested by the A.C. de Monaco, then, is as follows:—Engine size limited to 1,500 c.c.; minimum weight of 700 kilogrammes, with tyres, but not counting petrol, oil or water; and com-

criticises the distance suggested by the A.C.F. formula. He points out that 500 kilometres at Montlhéry and a similar distance at Monaco are very different matters, and the 300 kilometre re-fuelling stop therefore cannot possibly be applied rigidly.

Although the Contest Board of the American Automobile Association does not hold any races under the international formula, it has nevertheless offered an



## HIGH SPEEDS IN THE MOROCCAN INTERNATIONAL RALLY

After studying the regulations for the Moroccan International Rally, 1935, one can only form the opinion that the successful cars and drivers will have proved their worth in a really severe test.

Reliable speed has been made the deciding factor in the Rally, high average speed for several days on end. From all the European starting controls, Paris, London, Brussels, Berlin, Warsaw, Prague, and Rome, the set average speed is 31 m.p.h. throughout. This sounds quite mild, but once across the Straits of Gibraltar the real business of the Rally begins. Incidentally, there is also an itinerary from Sfax, in North Africa, and from here to Tangier the same average speed of 31 m.p.h. has to be maintained.

Before dealing with the African section, it is worth remarking that complete freedom is allowed as to choice of route between the controls *en route* to Gibraltar. The controls will have to be entered at the definite time stated on Road Cards, but no restriction is placed on the speed of competitors between the controls, so that it will be possible to snatch a few hours sleep outside the controls.

Late arrival at Gibraltar (from Europe) and Tangier (from Sfax) will be penalised by 20 points per minute or part of a minute. Early arrivals will be allowed passage through the control 30 minutes before the official opening time.

The next day the most difficult part of the Rally begins. The Moroccan section is divided into four "laps," with a different set average speed for each. They are as follow: Tangier-Meknes, 427 miles (43½ m.p.h.); Meknes-Marrakech, 348 miles (42½ m.p.h.); Marrakech-Agadir, 362 miles (34½ m.p.h.); Agadir-Casablanca, 354 miles (47 m.p.h.).

But that is by no means all. At Tangier the competitors will have to take part in a hill-climb at the "Mountain," without option. The classes will be under 1,500 c.c., 3,000 c.c., 5,000 c.c.,

and unlimited. Supercharged cars will be handicapped by an increase of 40 per cent. of their cubic capacity. Drivers only will be in the cars during the hill-climb, in case of accidents, and the passengers will be replaced by 60 kilo sandbags, one for each passenger.

The marking for the hill-climb is exacting, for only those cars making the best time in their class will escape penalisation. All the rest will lose half a point per second, or part of a second, between their time and that of the fastest man in the class.

During the stay at Tangier, and at the closed parks at the end of each lap, the cars will be out of reach of all repairs and adjustments, and sufficient petrol has to be taken on at Gibraltar to suffice for the hill-climb.

Even now the competing cars have not been tested to the full, and an acceleration and braking test will be held at Meknes. With engines running, the cars will be given the word "G!" and will accelerate for 500 metres, stopping on a line. They will then immediately reverse back for 50 metres, stopping on another line. Points will be scored in proportion to the time taken for the whole manoeuvre.

The penalty for being late at the end of each of the four sections in Morocco will be 5 points per minute, or part of a minute. On arrival at Casablanca the verification will immediately be carried out, and the various penalties are as follow: Hood not required size or impossible to raise, 10 points; absence of hood, 40 points; starter not working, 5 points; hooter not working, 5 points; lack of driving mirror, 10 points; inefficient silencer, 5 points; headlights not working, 5 points; dimming system not working, 5 points; lack of dimming system, 30 points; for each additional lamp not working, 5 points.

The organisers are of the opinion that a

definite finishing order should be reached, and therefore no ties will be allowed. All competitors whose marks coincide with others will have to take part in an eliminating test. This consists of performing the following manoeuvre twice: drive car to starting line from closed park, without ballast or passengers; stand beside car with engine stopped; on starting signal, enter the car, start engine with self-starter, and accelerate to line 100 metres away. Stop car, and reverse back to starting line. The mean speed of the two performances will count. In order to scale up the competitors on an even basis, the cars of 1,500-3,000 c.c. will add 2 seconds to their mean speed, those of 3,000 to 5,000 c.c. 4 seconds, and the unlimited cars 5 seconds.

Bearing in mind that there are two tests in which reversing plays an important part, wise competitors will fit a high reverse gear to their gearbox, while serious reversing and braking practice would not be amiss.

There will be three main categories, i.e., general classification, cars up to 1,500 c.c. and motor-coaches, with first prizes of 30,000, 8,000 and 5,000 francs respectively. The total prize money amounts to 93,000 francs.

The entry fee is 1,250 francs per car for European competitors, while those using Sfax as their starting control will only have to pay 1,000 francs. The fee includes the cost of transportation across the Straits of Gibraltar. Entries close on March 1st.

It would be really instructive if British manufacturers could see their way to entering for this first-class event. As a test of the car it is of greater value, in our opinion, than the Monte Carlo Rally, for the hill-climb, simple acceleration and braking test, and high average speed of the Moroccan section will surely reveal any weaknesses, and at the same time demand a car of high general performance.

### THE RACING CAR OF THE FUTURE—continued from preceding page.

period the supercharger has been perfected, until to-day it gives no trouble at all. And yet, it is practically non-existent as a stock-car fitment. He gives withering figures to prove his statement. In 1934 America produced 2,282,637 cars, of which not quite 500 were supercharged! In France the number of cars was 175,000, of which less than 300 were "blown." In England and Germany the proportion was rather less. Only in Italy does the supercharger become a noticeable feature of general design, for no less than 15 to 20 per cent. of her production cars are so equipped. He forms the conclusion that the supercharger is intended for aero engines.

Turning to his idea of a practicable formula, Mr. Bradley informed *L'Auto* that, in his opinion, a reduction in engine size to 1,500 c.c. or 2,000 c.c. would make racing less costly, and less dangerous. He thinks that a maximum weight limit

is useless, for it is in the interests of manufacturers to make their cars as light as possible. He is in favour of a free choice of petrol, for it is impossible to define a "standard" petrol. In America tetra-ethylised petrols are widespread in use; in England they have only been introduced comparatively recently; in France they are forbidden; in Italy they are only used for aviation. Petrols with a benzol content, however, are little used in America, but of common usage in England and Germany.

As we go to press we learn of the suggestions of the British Racing Drivers' Club, a body whose members are in very close touch with racing as carried out to-day. Their proposal is for a maximum capacity of two litres, while they suggest that the weight limit be increased to 800 k.g., so as to save the tremendous expense of lightweight construction throughout the car and the temptation

to cut down the strength of the various parts to a dangerous extent.

Another suggestion was to cut down the tank capacity to 125 litres, roughly 25 gallons, but in view of the difficulty of enforcing this rule we understand that the R.A.C., who are the body responsible for bringing the British proposals before the International body, will not put forward the point.

Enough has been said, and sufficient opinions expressed, to show the complications of the problem. The more widespread the discussion, however, and the more thrashed out the subject becomes, the greater is the chance of a really satisfactory formula being decided by the International Sporting Commission in the spring.

It is vitally important that no mistakes should be made.

H. N.



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