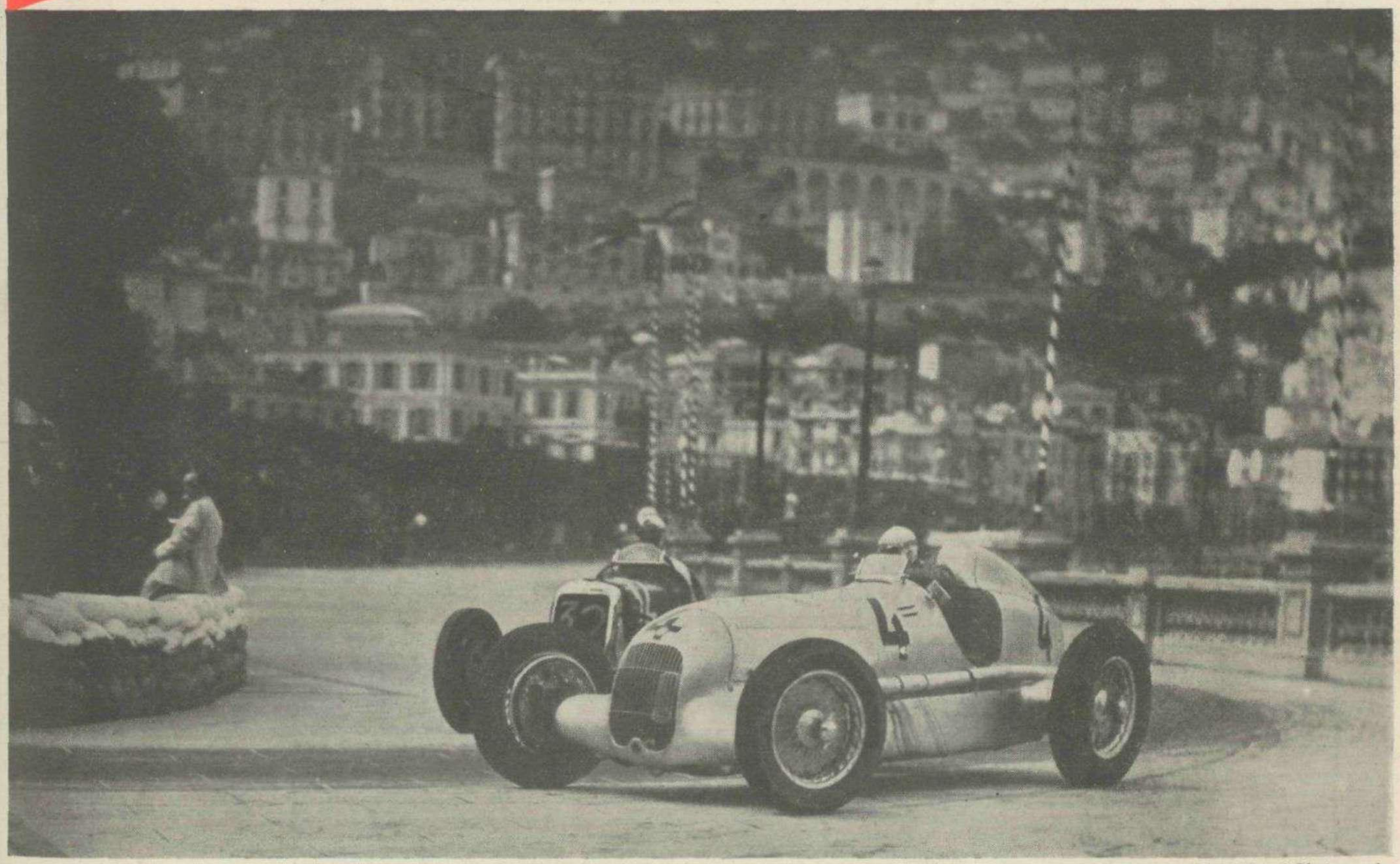
Vol. XIII. No. 4 **Berlin Motor Show, Pau G. P. and all the current events.** *March, 1937*

MOTOR SPORT

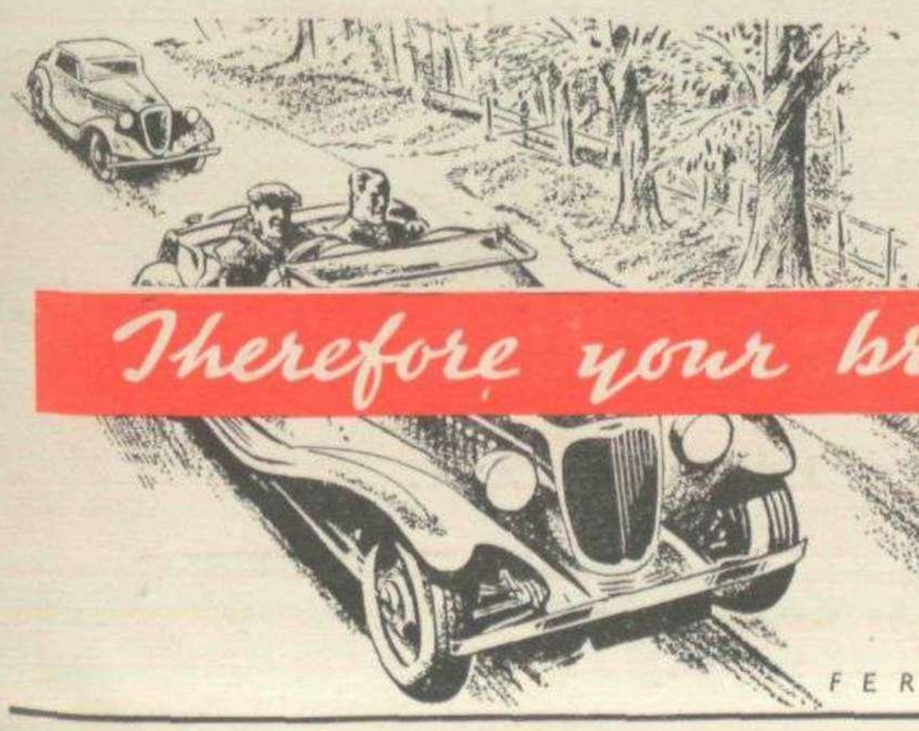
LAND - AIR - WATER

SIXPENCE MONTHLY



[Motor Sport Photograph

The Monaco G. P. *The race with the most thrills of the year. Here is Fagioli with his Mercedes-Benz passing Soffietti on the Maserati at Monte Carlo in 1935.*



FOR **SPEED** WITH **SAFETY**

YOU MUST HAVE EFFECTIVE CONTROL

Therefore your brakes must be Ferodo-lined

specify **FERODO**

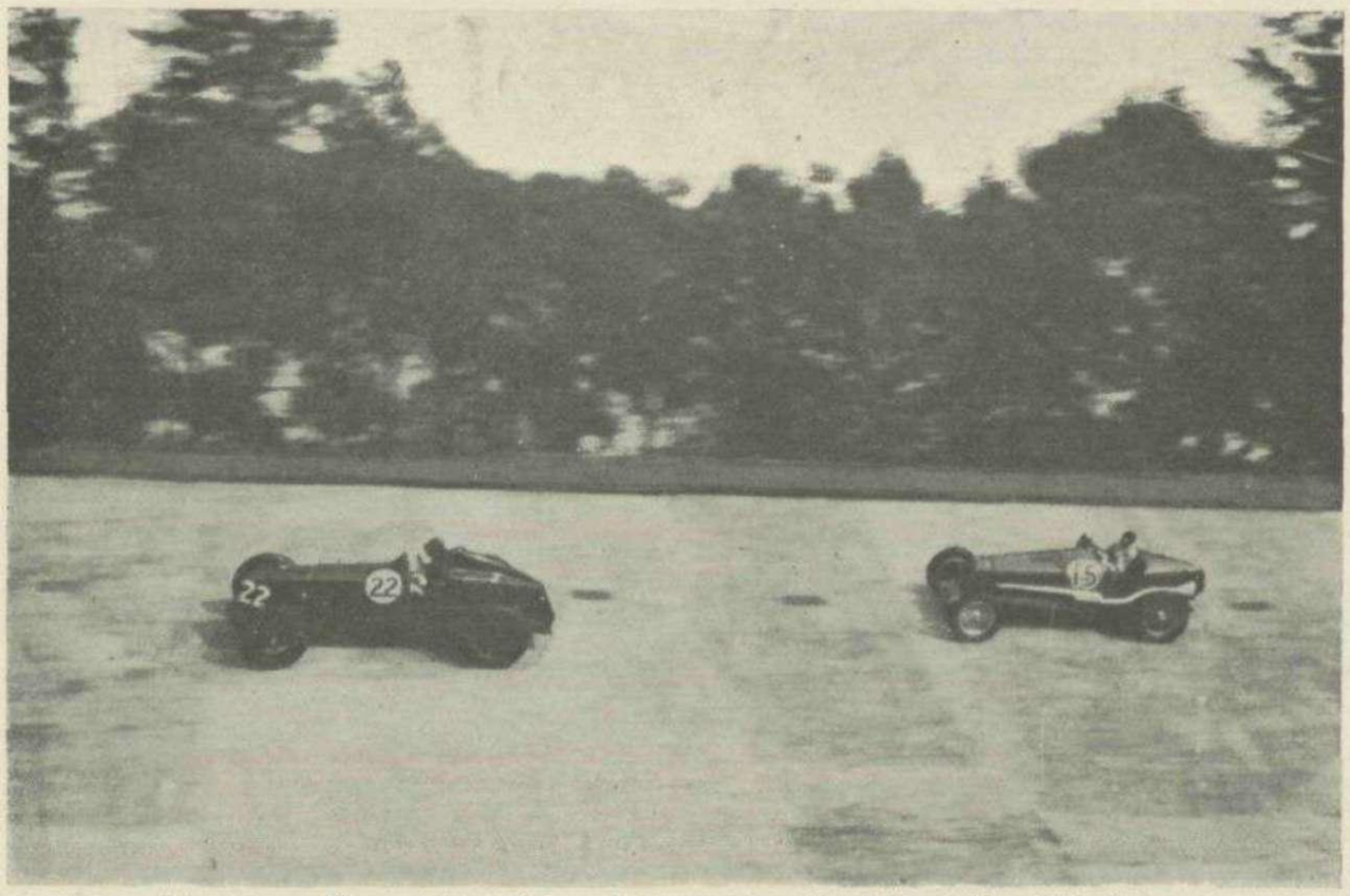
BRAKE LININGS

FERODO LIMITED · CHAPEL-EN-LE-FRITH

REGD. TRADE MARK FERODO BRAKE LININGS

MOTOR SPORT PHOTOGRAPHS

THE 500-MILE RACE, 1936



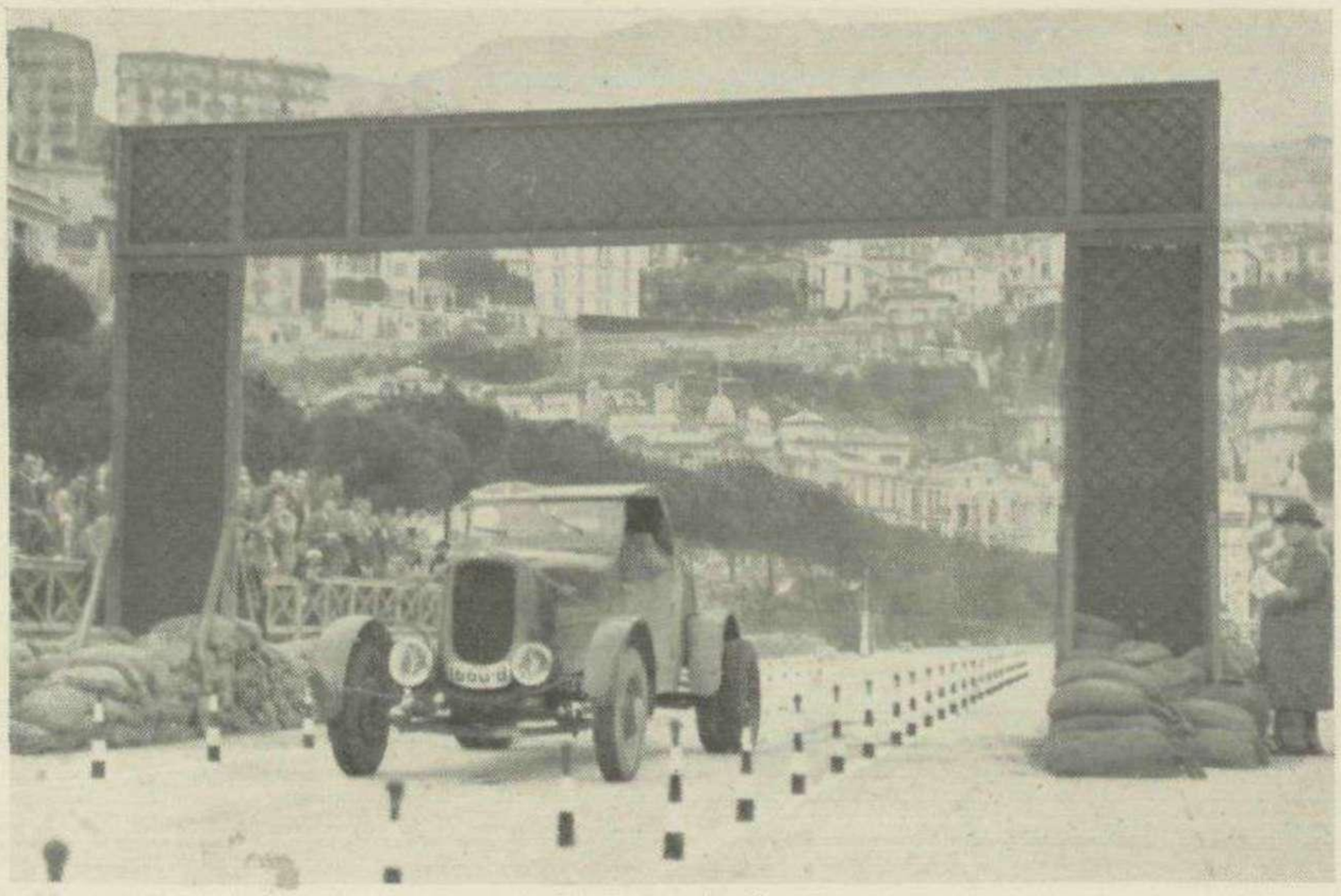
The Pacey-Hassan Special and A. P. Hamilton's 2.3-litre Alfa-Romeo.

Prints are available of all Photographs Published, also many others taken at the various meetings at home and abroad. Write to us for the photograph you require.

8″ × 6″ - - **2/- each** 10″ × 8″ - - **3/- each**

CASH WITH ORDER

THE MONTE CARLO RALLY, 1937



J. C. Cristea's Ford.

MOTOR SPORT 21, CITY ROAD, LONDON E.C.1.

VOL. XIII. No. 4 MARCH, 1937 PRICE SIXPENCE

SUBSCRIPTION RATE 7/6 PER ANN. POST PAID

MOTOR SPORT

INCORPORATING THE BROOKLANDS GAZETTE

21, CITY ROAD, LONDON, E.C.1

Telephone : NATional 3045

Advertising Office : 134 Fleet Street, LONDON, E.C.4

FIXING THE FIXTURES

Although the R.A.C. makes a practice of arranging dates at the beginning of each season, this does not entirely obviate the clashing of important fixtures. In spite of there being far too many races, there is little compensation for drivers, spectators, and organisers in the knowledge that, whereas two important events are scheduled for the same day, on another week-end when individuals are itching to "dice," watch or wave flags, as the case may be, there is yet no big event to attend.

Elsewhere we deal with the clash between the J.C.C. and the Irish Motor Racing Club over the August Bank-Holiday fixtures. This matter is further complicated by reason of the B.A.R.C. also having a very definite claim on this important date, so that it appears that even if the I.M.R.C. defeats the J.C.C. it will still be powerless to prevent the B.A.R.C. putting on a race —for instance over the new road course—that will attract exactly the same sort of cars that would run at Limerick. Indeed, the Limerick race has been run on this date very much at the mercy of the B.A.R.C.'s attitude.

Another clash has occurred over the dates of the R.A.C. Isle of Man Car Race and the first Shelsley Walsh Hill-Climb. Both are extremely important events, the existence of which was known long before the 1937 Fixture List had even to be considered, and the subsequent clash seems to be due to apathetic handling of the situation, perhaps by both parties. Referring to the J.C.C. v I.M.R.C. clash, a writer in "Speed" points out that the former club has not yet indicated what type of cars will be eligible for this year's International Trophy Race, which in his opinion renders the Irish opposition a little premature. Even if the J.C.C. race were a sports-car contest, however, the Limerick Race would be likely to suffer to some extent from reduced entries, and we feel that the Irish opposition would only be completely unjustified if no alternative dates were available—which is not the case.

That the B.A.R.C., docked of the J.C.C. fixture, might stage an even more opposing fixture, in lieu of its traditional short races, does not affect the argument.

The R.A.C. works in admirable fashion in the sphere of safety-first in motor sport. Is it too much to ask that those who arrange the annual fixture list will attempt to come into line with their colleagues in other departments? Apart from drivers and spectators, all the persons who hope to benefit by allowing a race to be held in their particular district deserve consideration and fair play.

For this very reason the purely selfish outlook of race-goers in this country, that the Weybridge and Worcestershire fixtures should receive prior consideration, cannot be tolerated.

Once again one is forced to ask whether there are not far too many important races in the British calendar Fewer events would result in less flurry, more prize money, better entries, and a publicity value increasing in direct relation to the reduction in fixtures.

While on the subject, we also suggest that the R.A.C. takes steps to ensure that only responsible people organise and officiate at trials and similar contests and formulate the results of such events. Unlike sports in which balls are sliced at or stuffed rabbits chased, motoring events have a strong influence on the fortunes of commercial enterprises, and casually prepared results can be a cause of serious trouble, apart from the bad sportsmanship displayed.

W. BODDY.

CONTENTS

Pau Grand Prix, The	114
Letters from Readers	117
250 Miles in a Day	119
J. C. C. Brooklands Rally	120
My 1½-Litre Mercédès-Benz	122
Club News	126
On Achieving High Performance	130
Veteran Types	133
Berlin Motor Show	134
Sprint Events and Safety	137
Rumblings	139
Activities at the Bellevue Garage	143
Brooklands Reminiscences	144
A Visit to the Monaco Garage	147
A Tour of the Continent	148
Motor Racing in the United States	149

THE PAU GRAND PRIX

PREVIOUS WINNERS

1935. Nuvolari (Alfa-Romeo) at 52.5 m.p.h. for 138 miles.
Fastest Lap : Nuvolari in 1m. 52s. Speed 55.75 m.p.h.
1936. Etancelin (Maserati) at 51.2 m.p.h. for 173 miles,
Fastest Lap : Wimille (Bugatti) in 1m. 55s. Speed 54.2 m.p.h,

February 21st. Another season is on its way, and once again after our winter recess we have been able to witness that most thrilling of all sights, the massed start of a motor race.

The first Grand Prix of the season somehow I feel should be a race for genuine Grand Prix cars on a traditional road circuit, but the round the town race for sports-cars at Pau, the Queen of the Pyrenees, seems a true forerunner for a large percentage of the big races this year.

The race was won as everyone forecast by Jean-Pierre Wimille with his 3.3-litre sports Bugatti—the car being as far as one could see an ordinary G.P. car "sans compresseur" and with the smallest wings ever seen, plus headlamps and battery to complete the sports equipment.

Raymond Sommer (Talbot) was second, just getting the better of a great scrap with Rene Dreyfus (Delahaye), which was the one real bright spot of the race.

The circuit had received very careful attention at the hands of the Automobile Club de Basco-Bearnais ; the road was in excellent condition with a skid-proof surface, and the only corner (that at the entry to the small straight) which caused trouble last year had been completely renovated. In fact the organisation throughout was very good ; everything actually being in order several days before the day of the race ; the only thing the organisers left out of their calculations being the weather, which was once again bad. And I shouldn't be at all surprised to see the race next year being held much later on in the season, say in May or June.

The first day of "training" was fixed for Friday, when the roads were closed for an hour and a half.

The first actual arrival at Pau was that great veteran Albert Divo, who was due to make his first acquaintance with the Pau circuit ; then came the "Ecurie Bleu" drivers, Rene Dreyfus and Laury Schell, a great couple who have joined together for this year's racing, and started well in the Monte Carlo Rally.

Robert Brunet, Albert Perrot, and Raph were all fit and well having come straight on from the winter sports, which now seems to be the stock winter pastime of nearly all the crack drivers.

The first practice quickly affirmed everybody's opinion that Wimille would be the star turn.

Although not in the best of health, the French ace did a lap in 1 min. 55 secs., which equalled the fastest lap in last year's race, which he himself had set up in a genuine G.P. car.

Sommer (Talbot) did a lap in 1min. 58 secs., which was second best, while the best Delahaye time was put up by Dreyfus in 2 mins. dead, this time being equalled by "Bira," whose perfect driving was a delight to see ; in fact his driving was, next to Wimille's lap time, the chief topic of conversation.

Only Maillard-Brune and Jannin failed to put in an appearance ; the others doing a few or many laps as they felt inclined, Chabaud putting in thirty laps before he called it a day. Rene Le Legue, the holder of the T.T. lap record and winner of this year's Monte Carlo Rally, did a few laps in Divo's Talbot, being spare driver to the Talbot team.

On Saturday, Wimille again did the best lap and cut his Friday time down to 1 min. 53 secs., a truly astounding performance for an unblown car on this circuit.

Nearly everyone improved on his best time for Friday ; Divo (Talbot), Dreyfus (Delahaye) and "Bira" (Delahaye) all got down to 1 min. 57 secs. ; once again "Bira's" driving was noted with particular admiration.

Maillard-Brune (Delahaye) did about twenty laps on this, his only day of practice, getting his time down from 2 min. 29 secs. to 2 min. 1 sec. Jannin, the young Algerian, was posted as a definite non-starter. So on the eve of the race everyone looked upon Wimille as an almost certain winner with Sommer, Divo, Dreyfus and "Bira" as the ones who might follow him home.

Race day broke a miserable, wet, overcast day, but even so, at an early hour crowds were beginning to take up vantage points around the course, and numbers of visitors were arriving from afar by train and car. So a financial success seemed assured, despite the wretched conditions. During the preliminaries prior to the start, Dreyfus took the well known French airman, Marcel Doret, who has a passion for motor-racing, for a quick lap of the course, much to Doret's delight ; while another personage the public were pleased to see at the start was the champion French cyclist, Antonin Magne.

About twenty minutes before the start the steady drizzle seemed to be stopping, and it looked as if it might clear up and be fine but this unfortunately turned out to be untrue ; the clouds returned and the course was wet throughout the race. The fourteen starters were lined up in seven rows as follows :—

1st row.—Wimille (Bugatti)—Dreyfus (Delahaye).
2nd row.—"Bira" (Delahaye)—Divo (Talbot).
3rd row.—Sommer (Talbot)—Perrot (Delahaye).
4th row.—Maillard-Brune (Delahaye)—Brunet (Delahaye).
5th row.—Schell (Delahaye)—Carriere (Delahaye).
6th row.—Chabaud (Delahaye)—Paul (Delahaye).
7th row.—Raph (Delahaye)—de Sauge (Bugatti).

All was set for the first race of the year, and at about 2 o'clock Charles Faroux once again raised the flag and sent the field away on their journey. Wimille with terrific acceleration shot right away into a commanding lead at the very start, which in itself is of immense value on the short twisty Pau circuit. And from start to finish he was never headed ; the Bugatti was clear out in front at the end of the first lap with Dreyfus second, "Bira" third, and Sommer, Divo and Brunet next in order. On the second lap Sommer moved ahead of "Bira" and on the next lap passed Dreyfus to second place, while Paul was the first person to make a call at the pits, but was away almost at once. Incidentally very few pit calls were made during the course.

On the fifth lap Brunet failed to come round, finally returning to the pits on foot, a connecting rod having gone ; and two laps later "Bira" coasted into his pit with exactly the same complaint. Bad luck, indeed ! ! Seven laps and already two out of fourteen starters had retired, was the whole race going to fizzle out with no finishers ?

Wimille steadily went ahead, the obvious superiority of his Bugatti becoming more and more apparent and although he seemed to be taking things very easily, by the twentieth lap (quarter distance) he was 1 min. 34 sec. ahead of Sommer who was still second with Divo now third, ahead of Dreyfus. In fact far more attention was being fixed on a great struggle which was being waged by Sommer, Divo, and Dreyfus on their very evenly matched cars, and the driving of these three was an absolute treat to watch for lap after lap. By the twenty-seventh Wimille had caught up with this scrap and by the twenty-ninth lap had passed all three, and so after a little more than a third of the race run, Wimille had lapped the entire field.

Before the start Wimille said his idea was to get right away at the start, and try to get a lap ahead of the entire field, and if he did this he would just follow the field at their own pace ; and here his plans had worked out exactly.

Now the only point of real interest was a dog fight which seemed to be developing between Dreyfus and Sommer for second place Actually at the thirty-second lap Divo was ahead of Dreyfus, but the latter suddenly started to speed up to no mean effect quickly passing the veteran Talbot driver, and then he set out to catch Sommer, who was still in second place.

So at half distance (forty laps) the order was :—

1. Wimille in 1h. 21m. 27s., at an average speed of 51 m.p.h.
2. Sommer in 1h. 24m. 10s.
3. Dreyfus in 1h. 24m. 17s.
4. Divo in 1h. 24m. 31s.
5. Raph.
6. Carriere.
7. Perrot.
8. Maillard-Brune.
9. Chabaud.
10. Schell.
11. Paul.
12. de Sauge.

Just after the leaders had covered half distance an incident occurred which might easily have ended in a bad accident. Dreyfus began to overtake the tail ender de Sauge just in front of the stands : de Sauge pulled into the side to let Dreyfus by, and immediately the Delahaye had passed de Sauge pulled back into the centre of the road right in front of Divo who was also on the point of passing de Sauge. It looked for a moment as if the two cars must collide, but somehow, with incredible skill, Divo managed to slide past the erring de Sauge. A lucky escape for all concerned, and a bad bit of driving on the part of de Sauge in his very slow Bugatti.

At sixty laps Wimille was still well ahead with Sommer second, now 21 secs. ahead of Dreyfus, who seemed to be now

BELLEVUE GARAGE AND SERVICE STATIONS Ltd.



Director & Manager
DENIS G. EVANS

MG agents

Austin agents

SALES

We can supply any make of car — deferred terms arranged and earliest delivery guaranteed. A selection of second hand cars may be inspected at our showrooms ; we shall be pleased to arrange a trial run at any time convenient to you.

TUNING

Modern equipment and an experienced staff is the keynote to our success in the sphere of tuning and preparing for all classes of motor racing events. Let us help you to gain honours on road or track.

SERVICE

Every repair and servicing job entrusted to us is executed by our skilled mechanics, with precision and attention to detail. Write or 'phone us regarding your requirements — we shall be pleased to submit an estimate.

BELLEVUE GARAGE
AND SERVICE STATIONS LIMITED

Director and Manager : DENIS G. EVANS

AA APPOINTED GARAGE

18-19 BELLEVUE ROAD,
WANDSWORTH COMMON, S.W.17

RAC

Telephone : Battersea 0478 (2 lines). Telegrams : " Belservice, Toot, London."

THE PAU GRAND PRIX—continued

lapping at a steady 1 min. 58 secs. to Sommer's 2 min. At the sixty-eighth lap Wimille was two laps ahead of all the field except Sommer and Dreyfus. At the seventieth lap, Dreyfus was 14 secs. behind Sommer, while at seventy-five laps he was only 7 secs. behind ; all of which was working the crowd up into a very healthy state of excitement, as well as another dog fight which was going on between Raph and Carriere for fifth place.

Sommer was told to speed up during the last few laps and so ward off Dreyfus's determined challenge ; and he speeded up to such effect that on his seventy-eighth lap he put up the fastest lap of the race in 1 min. 54 secs. (54.65 m.p.h.) and hung on to his second place—not forgetting 20,000 francs—by the small margin of 6 secs. Just before the end Perrot while on his seventy-fourth lap broke his gear-lever and so had to retire, thus leaving ten cars to follow the Bugatti home after its easy win. And so ended a very uneventful race ; memorable only for the very easy victory and a good fight for second place.

Bugatti still seems to be the best of the bunch, although it looks as though shortly Talbot may be able to give them something to think seriously about. Wimille after the race said that although it was a hard and difficult race it was not as tiring or as difficult as the Monaco Race whereas " Bira " and Divo were both of the opinion that the Pau circuit was the more difficult of the two.

RESULTS

1. Wimille (Bugatti) 80 laps in 2h. 41m. 14.8s. Speed 51.52 m.p.h.
2. Sommer (Talbot) 79 laps in 2h. 42m. 19s.
3. Dreyfus (Delahaye) 79 laps in 2h. 42m. 26s.
4. Divo (Talbot) 78 laps.
5. Raph (Talbot) 78 laps.
6. Carriere (Delahaye) 78 laps.
7. Chabaud (Delahaye) 76 laps.
8. Maillard-Brune (Delahaye) 75 laps.
9. Schell (Delahaye) 75 laps.
10. Paul (Delahaye) 72 laps.
11. de Sauge (Bugatti) 69 laps.

Fastest Lap : Sommer (Talbot) in 1m. 54s. Speed 54.65 m.p.h.

Retirements : Brunet (Delahaye) on his 4th lap ; " Bira " (Delahaye) on his 6th lap ; Perrot (Delahaye) on his 74th lap.

COLMORE TROPHY - NEW STYLE

DELAY MINIMISED BY DOUBLE-CIRCUIT PLAN. S. H. ALLARD (FORD V8 SPECIAL) WINS THE TROPHY.

The Colmore Trophy Trial, run on February 27th, by the Sutton Coldfield and North Birmingham A.C., proved a great success, for it marked a big effort on the part of the organisers to get rid of the long and irksome delays at the foot of hills which have marred so many recent events.

The system first invented by Brian Twist, of the Cambridge University A.C., and used by that club for the past two Inter-Varsity Trials, had been adapted by Alf Langley, the Colmore organiser, who actually worked out all the details without reference to the previous events. Two circuits of equal length (thirty-nine miles) were used, both starting and finishing at Cheltenham. Half the entry tackled one course in the morning, while the rest, instead of waiting about at the hills, were tackling the other. Then in the afternoon the two divisions switched over, each to the circuit they had not yet traversed.

An innovation in the Colmore event was that instead of alternative numbers departing on different circuits, as in the Inter-Varsity Trial, competitors were sent off in threes. Thus members of a team of three cars were enabled to start and run together throughout the event. One half of the entry had yellow numbers to distinguish them from the others.

In spite of the fact that the course was even stiffer than in previous years, and the weather was bad almost throughout, with drenching storms of rain, there was little delay, and had it not been for one competitor getting jammed on Leckhampton Hill towards the end, the whole event would probably have finished to schedule. Even so, competitors eating tea at Cheltenham were congratulating themselves and the organisers on such an exceptionally early finish to a gruelling event.

The two most difficult hills, Leckhampton and Juniper, were both on the south circuit. Leckhampton, or the Middle Jinny, as it is called locally, is on the outskirts of Cheltenham. The lower stretches were deep in mud, so that many were not even able to reach the 1 in 2 section at the top.

Juniper is much shorter, but much more slippery, with a muddy, rutted surface in the midst of a wood. The gradient, though not so sustained, is probably almost as steep as that of Leckhampton, and actually caused more failures—seventeen were successful on Leckhampton, and fifteen on Juniper out of a field of eighty-two starters.

It is interesting to compare performances on these two hills :—

Climbed Both : R. A. Macdermid, A. B. Langley, J. A. Bastock (1292 c.c. M.G.s) ; R. M. Andrews (939 c.c. M.G., S.) ; C. D. Buckley, W. H. Scriven, H. L. Hadley (747 c.c. Austins) ; T. C. Wise, S. H. Allard (Ford V8s) ; H. Bolton (2,663 c.c. SS.) ; E. Lloyd-Jones (1,497 c.c. Lea-Francis, S.)

Leckhampton only : A. G. Imhof, S. Crawford, J. E. S. Jones (1,292 c.c. M.G.s) ; D. E. Harris (1,287 c.c. M.G., S.) ; E. D. Woolley (Ford V8) ; K. C. Delingpole (1,493 c.c. Singer, S.).

Juniper only : W. S. Sewell (747 c.c. Austin, S.) ; P. S. Flower (847 c.c. M.G.) ; F. S. Barnes, J. D. Barnes (1,496 c.c. Singers).

Woolley was unfortunate in not recording the first success, after many failures, on Juniper, for he got almost to the very top. On Leckhampton the Barnes brothers came within an ace of success, as also did Toulmin with his M.G.

It was on Leckhampton where Povey stopped in the mud near the foot, but could not reverse owing to a broken exhaust pipe acting as a sprag. The pushers becoming very heated thought the car extraordinarily heavy till they found two large bags of cement in the back ! When these where being removed, one burst, and a white cloud descended upon all and sundry.

Kineton, on the other circuit, caused the next greatest number of failures, amongst them Bolton, who had taken his two-seater S.S. so well up Leckhampton and Juniper. The locals had been " treating " the hill with loose soil and bricks before the event, all of which had to be removed by the officials. Of the other hills, West Down caused only one car to stop (in spite of a restart test in the middle), and Station Lane stopped only nine.

Allard made certain of the Trophy by his performance in the principal test at Guiting, where with 18⅕ sec. his special Ford beat the field by a clear second, Toulmin being next best. At the timed section on Stancombe Buckley and Hadley did best with their Austins—this make did particularly well throughout. Then on Syde Allard and Hadley divided the honours of another timed section, while in the Stanway restart test Woolley's Ford excelled.

The best performer in each class was certain of a first-class award in any case, an excellent arrangement which slightly augmented the award list, apart from the few 100 per cent. performances.

RESULTS

Colmore Trophy : (best individual performance) : S. H. Allard (Allard Special Ford V8).

Rhode Cup (best under 1,100 c.c. performance) : R. M. Andrews (M.G.).

Bernard Norris Cup (best over 1,100 c.c. performance) : J. A. Bastock (M.G.).

Shell Cup (best Sunbac member) : C. D. Buckley (Austin).

Trial to Trial Trophy : W. H. Scriven (Austin).

Musketeers Award (best performance by driver who has never won first-class award, or better, in the " Colmore ") : E. D. Woolley (Ford V8).

Club Team Trophy : M.G. Car Club (Midland Centre). J. F. Kemp, A. B. Langley, J. A. Bastock (M.G.s).

Runners-up : M.G. Car Club. J. M. Toulmin, H. K. Crawford, J. E. S. Jones (M.G.s).

Committee Team Prize : Three Musketeers. R. A. Macdermid, J. A. Bastock, A. B. Langley (M.G.s).

First-Class Awards : *750 c.c.*, H. L. Hadley (Austin) ; 1,100 c.c., S. Curry (M.G.) ; 1,500 c.c., R. A. Macdermid (M.G.) ; 2,000 c.c., N. V. Terry (Frazer-Nash-B.M.W.) ; over 2,000 c.c. T. C. Wise (Ford V8). Only other first-class : A. B. Langley (M.G.).

Second-Class Awards : W. H. Scriven, W. S. Sewell (Austins) ; A. G. Imhof, H. K. Crawford, J. E. S. Jones, D. E. Harris (M.G.s.) ; F. S. Barnes, J. D. Barnes (1½-litre Singers).

HAS RACING CEASED TO BENEFIT THE UTILITY MOTORIST ?

Great interest has been displayed in the article entitled " Has Racing Ceased to Benefit the Utility Motorist ? " which appeared in the January and February issues of MOTOR SPORT. Consequently it is interesting to note that Fred W. Dixon, writing under the heading of " Speed is Progress " in the March issue of " Speed," is directly opposed to some of the views held by our contributor, notably on the question of the relation of racing to the development of independent suspension and light alloy construction for utility cars. Carlo Brighenti's interview with Commendatore Jano, the Alfa-Romeo designer, published in " The Motor " of March 2nd, throws more light on this subject. Jano emphasises the importance of getting ready for racing ordinary production models suitable for normal motoring, for he maintains that the finest racing-car is the one which will become to-morrow's touring-car. But he also considers that Grand Prix racing has served to perfect independent suspension, and braking.

Letters from Readers

30/98 VAUXHALL

Sir,

I happened to read in your periodical a paragraph about 30/98s with a reference to owners by the name of Clutton and John Bolster. The latter's car averaged 17-19 m.p.g. during fast driving. I would be glad if you would forward this letter on to one of these gentlemen as I would like to know what improvements in performance and economy are to be gained by hotting up this type of car. I am the owner of an O.E. 235 and have been contemplating raising the compression ratio and fitting twin ignition and carburetters but would like to hear what experiments have been successful in England in this regard. Also what is the best method of redesigning the front wheel brake mechanism which is very poor? For how much can spare axles, etc., be purchased, and is there hydraulic-brake mechanism available for sale either new or secondhand? In fact, I would be glad of all the information you may be able to foward—as apart from the Vauxhall instruction book, no service stations or private owners in Australia have done any experimental work on these cars. The article I referred to earlier was published about October or November and appeared under the sub-heading of "30/98 Lure."

I am, Yours etc.,
K. I. Benson.
c/o The Australian Estates Co., Ltd.,
Box 1609 M.,
Melbourne, Victoria,
Australia.

* * *

UTILITY OF MOTOR-RACING

Sir,

Upon reading the opinion on the Utility of Motor Racing in the February issue of Motor Sport, I feel it would not do to let it pass without a few views expressed in favour of the sport.

Judging from our friend's outlook, it would seem that the very fact of an idea being incorporated upon a racing-car, proves it beyond a doubt a complete success, is that the point? To my way of looking the idea is put there with the view of finding out whether or not it can stand up to the severe strain such as it would be put to in the course of a competitive race.

Motor racing does not necessarily make an idea perfect, but it is there to endeavour to find its faults, and if possible to rectify them.

A new idea proved to be a success upon a racing car does not mean that taking the thing as a whole it will be of much value to the public in general but only to a certain section of it. Probably the necessary alterations may be so drastic that the manufacturers will not harbour the idea for fear of it not being popular, and therefore the loss of a large sum of money. Hence only manufacturers in the experimental stage dare risk the change.

The question of lighter alloys was considered, in the construction of motor car engines for the public, why trouble? The average touring car does not need its weight lowering to the minimum, but a racing car necessitates that, it being of pure racing value.

With regard to streamlined coachwork, we are informed that they have not deduced from cars such as the Auto-Union, or the Mercédès-Benz. It must be remembered that the American streamlined coachwork, sometimes likened to tanks, is not the only kind: look for example at the latest Bugatti sports two-seater, has it not got the design of our foremost racing-cars?

Lastly we are led to believe that motor-racing is not improving the everyday car to any great extent, as it was some years ago. No doubt this is true, but nowadays the modern car is so near perfection that it is hard to discover something better than that which we have already got.

It must not be forgotten that motor-racing is not there solely to benefit the utility motorist, but to provide also, enjoyment for those who participate in it, or watch it.

I am, Yours etc.,
D. Lund.

Harrogate.

* * *

THE TYPHOON SUPERCHARGER

Sir,

I should be much obliged if you would publish this letter in your correspondence columns, in next month's issue of Motor Sport.

I read with great interest two letters in last month's issue of Motor Sport concerning superchargers. I would like to draw the attention of readers who are interested in supercharging to the "Typhoon Supercharger" for which I am sole agent in this country. The Typhoon supercharger is made by the Typhoon Manufacturing Co., Maryland, U.S.A. Its price is exceedingly low, being only $14.50 or £2 18 0 in English money, ready to install.

I should be pleased to hear from readers who are interested in this new type of blower. There is a standard model for the Ford Eight. It is also available for all other make of cars in this country.

I am, Yours etc.,
W. F. Halliwell.

Lincolnshire.

(We shall be pleased to forward any communications from readers to Mr. Halliwell.—Ed.)

* * *

INVICTA CLUB

Sir,

The first meeting of the Invicta Club was held on Sunday at the Wee Waif Café. Fifteen Invictas (including eight of the low chassis model) turned up with thirty people.

Twenty members have been elected to date.

Major Douglas-Morris is patron. I am secretary and H. O. R. Broadbent 11, Gray's Inn Place, W.C.1, is treasurer.

Subscription is 10/-, entry fee 5/-; or optional *founder membership* 21/- entrance.

I am, Yours etc.,
Donald Monro,
Hon. Secretary.
Messrs. G. Monro, Ltd.,
4, Tavistock Street,
Covent Garden, W.C.2.

* * *

ONE BIG TRIAL

Sir,

In view of the public attitude toward Reliability Trials, to which your paper has wisely drawn attention on more than one occasion, you may be interested to hear that the Mid-Surrey Automobile Club has suggested to the City and Guilds Motor Club, the Sporting Owner Drivers' Club and the Vintage Sports Car Club that the best interests of the sport would be served by amalgamating several trials, annually run in the same area, into one big trial on one day.

These three clubs have most sportingly fallen in with the suggestions of the Mid-Surrey Club and cancelled their own trials to combine with the Grand Cup Trial on May 17th.

The Mid-Surrey Club feel that this is an example, which might well be followed by other clubs with a view to relieving a much overcrowded calendar.

I am, Yours etc.,
R. de Yarburgh-Bateson

London, S.W.1.

* * *

THE MUCH DESPISED "DOODLE BUG" AND ITS "CHAUFFEUR"

Sir,

How excellent the article "On the Trend of Racing Car Design" was, how truly I enjoyed reading it, but how uncharitable the author's distaste for the "doodle bug" and chauffeur.

Midget car drivers do risk their necks and are subject to great personal danger in pursuing their hectic vocation.

Well, I know it myself, and a glance at reports of such competition, in my cuttings book for instance, though better still a race visit, would convince anyone that a true midget car speedway meeting is no kindergarten for half-hearted speed-king aspirants.

In my knowledge drivers have been seriously injured and unfortunately killed.

If vulgar publicity is poured copiously over their gyrational executions in the floodlight glare of the speedway circus, it is usually the promoters' advertising method and not so much the drivers machination.

LETTERS FROM READERS—continued

In Australia, where I raced during the 1935-36 winter season, quite a number of the participants are well known antipodean motoring figures; such as, Bill Thompson, holder of the Australian speed record; men who compete in the Philip Island races, W. Williamson, T. Poole, once connected with "Wizard" Smith; Les. Burrows and R. A. Lea-Wright, etc.

No questionable suspicion of errand boys stunting up a "Billy-Cart" Derby, is there?

I am, Yours etc.,
RALPH E. P. SECRETAN.
Cumberland Hotel,
London, W.1.

(We are glad that Ralph Secretan has come forward and stated the case for the "Doodle-Bug." He states it very clearly and concisely. But the writer of the article in question—W. Boddy—tells us that he still feels that no useful lessons result from scattering cinders and, consequently, if drivers are injured and killed on the dirt tracks, the more's the pity. Last month Miss Barbara Marshall showed that there is much fun to be had for a small outlay, running real cars in proper competition, if sport alone is the primary consideration.

So cinder-shifting must be a means of courting publicity or a fortune, hence the circus-atmosphere in which dirt track events are promoted.—Ed.)

* * *

A CORRECTION

Sir,

I have read with interest your January number of MOTOR SPORT but I must draw your attention to certain errors, in particular re M.G. twin-cam heads mentioned on page 72 where you state these were turned out by Bellevue Garages and L. E. W. Pomeroy, whereas they were designed by myself and Pomeroy, made and fitted by M. A. McEvoy Ltd., and sold to Evans, Connell and Briault respectively.

Incidentally the twin-cam M.G. now acquired by Alan Bainton was Connell's, Kenneth Evans's car having been bought by Joe Ashmore, the West Bromwich motor trader, who will be racing it himself at Donington.

All spares, jigs, tools and designs relating to the McEvoy-Pomeroy heads have been acquired by R. Parnell who has had a six-cylinder head of similar design constructed for his Magnette.

I am, Yours etc.,
M. A. MCEVOY.
Frankfort-am-Main,
Germany.

(When we coupled Bellevue Garage with these double-wipe heads for M.G.s, we were regarding the matter from that of technical interest and not of business. But we believe that the first of these heads was mated to its block in the Bellevue Garage racing-shops.—Ed.)

* * *

A SUGGESTION

Sir,

I have found your correspondent Mr. Robert Peaty's article on his "Hybrid" most interesting, it certainly shows that he has given a great deal of careful thought to the construction of the car, and also to the selection of a power unit, probably about the last unit most MOTOR SPORT readers would think of using, nevertheless I believe he will find "sleeping horses" by the half-dozen within its cylinders, and wish him every success in awakening and putting them to the useful purpose of making the wheels go round.

I might humbly suggest that he gives a little attention to the selection of a suitable lining for the clutch, of a much higher co-efficient of friction, and one that will agree with the particular steel with which it makes contact. Also I doubt if the third speed will be satisfactory for long, as the teeth are of insufficient width, and in consequence tooth pressure will be too great, and "digging in on the flanks" will take place rapidly, with consequent great wastage of power. I have often overcome this by making a new pair of gears of much better material and in addition it is often possible to make the teeth considerably wider and still fit into the box, also if new gears are being made the ratio can be suitably increased.

One further point, the material from which the rear axle shafts are made should receive careful attention as to the best of my recollection this was not one of the strong points of the axle being used.

It might also interest Mr. Peaty to know that the method of operating the front wheel brakes of the Hillman was made under licence from Messrs. Rolls-Royce, an excellent arrangement, which unfortunately he will not be using.

I hope to see his machine performing in events in the near future.

I am, Yours etc.,
L. C. MCKENZIE.
McKenzie's Garages, Ltd.,
1, Bridge Place,
Belgrave Road,
Victoria, S.W.1.

* * *

HIGH ROAD SPEEDS

Sir,

As a very keen enthusiast of motoring in its every shape and form I enjoy your journal immensely.

I feel sure you can throw some light on a rather heated discussion I have been having with some of my friends regarding high road speeds.

A mutual acquaintance of ours recently tried out an H.R.D. motor-cycle, twin-cylinder and most certainly a very fast job. He tells us he clocked 95 m.p.h. on the speedo going up to Stevenage from Winchmore Hill via the Great North Road. I believed him, the others however, staunchly maintain that such a high speed is impossible between my place and Stevenage, either by motor-cycle or car; in fact they very much doubt if 95 m.p.h. is possible on any road in the country.

I'm quite certain this is incorrect as I have many times heard of higher speeds especially by cars. I should be interested to hear whether you have any experience of high speed over that section of road also of any of your readers personally having obtained high road speeds. Naturally specially flagged-off roads are excepted or any artificial conditions.

Best wishes to your very excellent journal.

I am, Yours etc.,
DENIS W. JARVIS.
London, N.21.

(Mr. Jarvis raises an interesting point. Readers of long-standing will recall that the magic century was exceeded more than once on the road, and by a nice margin, when MOTOR SPORT road-tested the big Mercédès-Benz models of a few years back. Certainly 100 m.p.h. can be achieved on several roads in this country, notably A1, but so much can happen at that speed if anything goes wrong that it is saner to visit Brooklands track—open to non-members on non-race days. But we welcome a discussion.—Ed.)

* * *

THANK YOU

Sir,

I feel I must just write and tell you how pleased I was to find the December and subsequent issues of MOTOR SPORT back to its old form.

I particularly enjoyed the technical articles and the details of the latest Bugatti and Alfa-Romeos and the excellent photograph of racing abroad. When will you be able to publish details of the racing 12-cylinder Alfa-Romeo and Mercédès-Benz? I should like to know the details of their suspension system.

Above all, I was glad to find you again using paper which does credit to the photographs. Looking forward to you.

I am, Yours etc.,
R. J. G.
Cirencester.

* * *

CONAN DOYLE'S "MERC."

Sir,

Thank you for drawing my attention to Mr. Condor's letter regarding my advert. for my S.S.K.L. Mercédès-Benz. Mr. Condor is perfectly right in correcting the errors in dates concerning the races which Caracciola won driving the sister car to my machine.

One of the greatest successes achieved by this model was when Caracciola won the 1930 Avus race, averaging 119 m.p.h. for the 183 miles, and attaining a speed of over 147 m.p.h. As I wrote in your columns recently, I do not know of any other licensed car in Great Britain which is quite as fast as this.

Wishing your fine journal continued success.

I am, Yours etc.,
DENIS P. S. CONAN DOYLE.
Waldorf-Astoria,
New York.

(The advertisement referred to in the letter above appeared in the January issue of MOTOR SPORT, where D. Conan Doyle quoted "sister car of this machine driven by Caracciola, French G.P., 1932. Won the Irish G.P. in 1931." We forwarded Mr. Condor's letter to New York, U.S.A., and the above is the reply.—Ed.)

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.

250 MILES IN A DAY ON 570 c.c.

IMPRESSIONS OF THE BABY FIAT

When the 6 h.p. Type 500 /120 Fiat was examined at the last Olympia the query immediately arose as to whether it was just another baby car, or whether it would be a car with a special appeal all of its own. A desire to assist in marshalling the United Hospitals and University of London M.C. Cotswold Trial one February week-end provided an opportunity to answer this query, because, the usual transport being unavailable, J. Eason-Gibson loaned his own Fiat baby.

Taking the little car over on the Saturday evening a preliminary 50 miles were covered in London, at the end of which we were able to turn in anticipating a very enjoyable day on the morrow, notwithstanding the fact that we had to get right down to Burford early in the morning, then set out on marshalling duties many miles further on, which would necessitate the car being out of use for the better part of the day. However, a run up the Croydon By-Pass showed that the Fiat would do its 60 m.p.h. in spite of its modest engine size, and town traffic conditions reassured us of its liveliness and ability to nip through crowded streets.

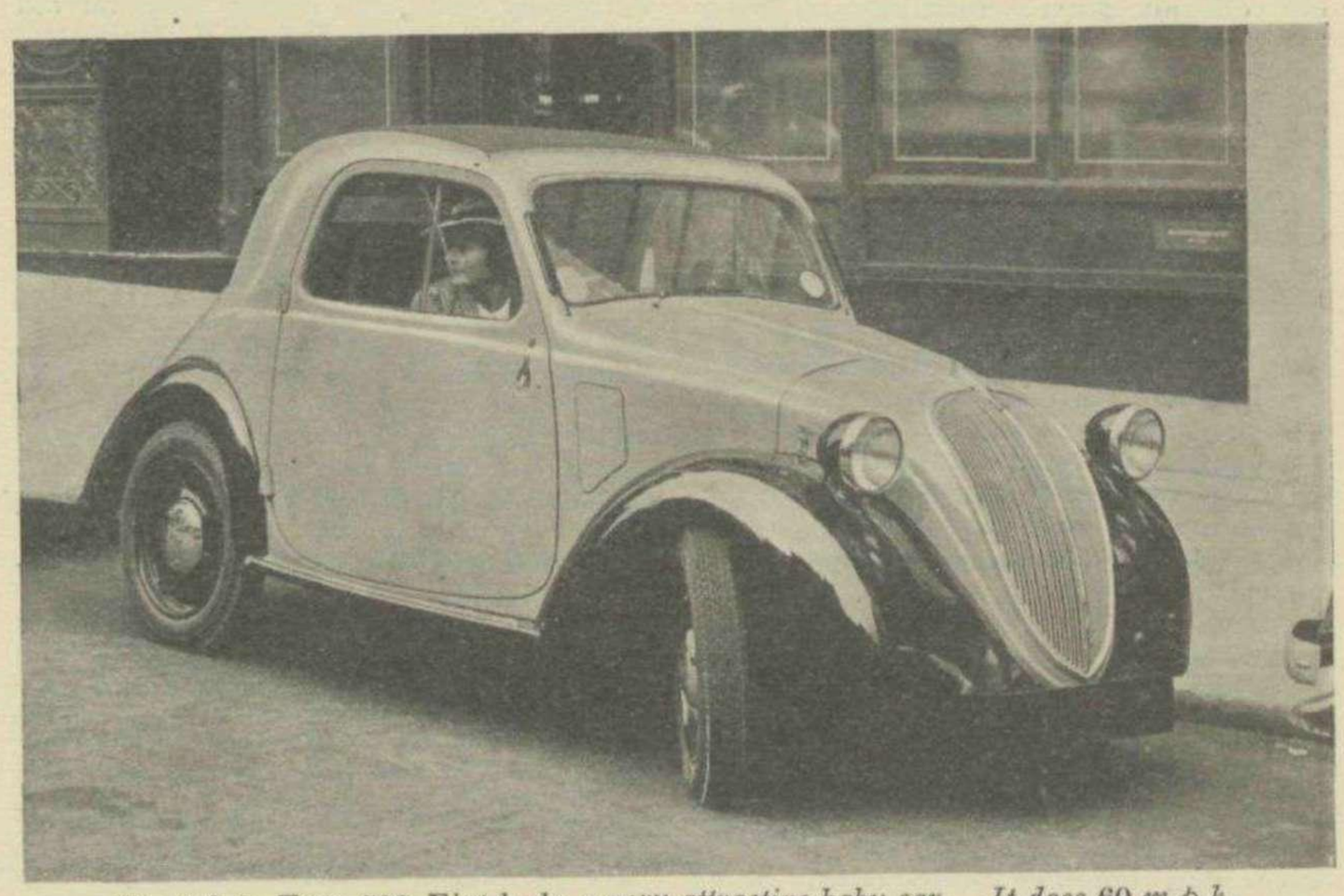
On the Sunday we woke the baby at 7 a.m., drove it easily for a couple of miles until the oil pressure needle lost its inclination to wander off the dial, then loaded the inevitable kit (2/9 alarum clock included) into the extremely roomy sternsheets, and left South London by 7.45 a.m. Incidentally, this very generous luggage accommodation is under cover and easily accessible from the seats, and we had already proved it possible to seat an extra passenger for short runs.

Soon we were through London and the tram-infested Uxbridge, the tiny engine humming around at a sustained cruising speed of 50 m.p.h., the oil pressure steady at 25 lb. per square inch. Indeed, fifty can be held all day on suitable roads, and the Fiat corners so well that much time can be made up on winding routes that would not be possible on more conventional baby cars. Suffice it to say that we were at the "Cotswold Gateway," Burford, by 10.15 a.m., inclusive of a stop for map reading and another to secure the engine-cover. The independent front suspension and low build allows one to take liberties on corners, tail slides being instantly brought under control, and over the worst surfaces the riding is surprisingly "even-keel," with never a trace of pitching—a remarkable achievement in a car so light and short. The steering is curious—fairly light, fairly high-geared, with no return action of any sort and very responsive. There is no castor action at all, yet no effort is required to hold a straight course, and the width is easy to judge.

Much of the fascination of this Type 500 Fiat is its extreme simplicity. Open the front and the little side-valve, aluminium head engine is readily accessible, as is the radiator filler. Open the off-side bonnet "flap," locked by a lever on the dash, and the petrol tank filler is revealed.

On the dash only two dials have to be observed; the very clear oil gauge and the speedometer with total mileage recorder (there is no trip reading). Pull-out buttons look after the starter and choke, a tiny switch starts the electric screen-wiper, the non-cancelling direction indicators are worked by another minute switch in the centre of the screen base-panel, and the petrol tap is under the scuttle, it being possible to go on to the reserve three-quarter gallon without stopping the car. The lights are worked by a single switch in the dashboard centre, giving a good dimming action and a splendid driving light, and there is an ignition lock. An effective hand throttle is provided, and one push on a button brings alive the dash lamps, which stays on even with all other lamps extinguished, until the button is again depressed, while a turn of the lamp-top converts it into a useful interior light. The doors have deep pockets, and the forward sections of the windows slide back, which allows ample ventilation and makes it just possible to give hand signals if desired. In spite of the light construction doors and windows are taut and silent. The interior mirror gives an adequate view with the coupé head erect and with everything closed the Fiat is extremely cosy. Driving vision is, perhaps, slightly impaired to left and right, but the forward view is exceptional. The door-handles on the exterior pull upwards to open the doors, a novel and convenient action.

Naturally, economy is an interesting study. There is a special fascination about a small, comfortable car which, driven sensibly, will put up a respectable average speed and yet show a very economical fuel consumption. The Fiat has an economy device on the dash which cuts down the jet area, and once the engine was decently warm we could not discern the slightest alteration in acceleration or pulling with this in full operation. Under these conditions a rough check gave 45 m.p.g. over 200 varied miles, and certainly better than 40 m.p.g. throughout, with fast driving and constant re-starting from cold. The tank gives a range of approximately 170 miles, before going on to the reserve.



The 6 h.p. Type 500 Fiat looks a very attractive baby car. It does 60 m.p.h. and is priced at £120.

BRIEF SPECIFICATION

Four-cylinders. 52 x 67 mm. (570 c.c.). Side valves, fan cooling. Tax £5 5 0. Four-speed and reverse synchro-mesh gearbox. Central control.

Independent front suspension.

Four wheel brakes.

Coupe : £120.

During our marshalling duties we negotiated sufficient hilly and slimy sections to credit the little car with the ability to go any sane place, and it certainly is the ideal for impecunious trials officials. Anxious to get back to town, we frequently held 60 m.p.h. on the run home, and were seldom below 40. The lower two gears are used merely to move away, but third provides useful acceleration up to about 40 m.p.h., though normally the final change-up is made at 28 to 30 m.p.h., after which 40 m.p.h. is reached almost at once. The synchro-mesh really works, the gear-lever is long and astonishingly rigid and the clutch very light and positive. The gears are not noisy and the whole transmission is very taut. The engine is a real "revver," and it picked up cleanly, except for an occasional hesitation at low speeds if the throttle was rammed open carelessly. We have emphasised the splendid riding

Continued on page 121

THE J.C.C. BROOKLANDS RALLY

BEST PERFORMANCE OF THE DAY BY DON ALDINGTON (FRAZER-NASH-B.M.W.) W. M. COUPER (TALBOT 110) DOES 91.86 M.P.H. OVER THE HALF-MILE.

Although we hold no brief for the circus type of driving test, the J.C.C. Rally which opens the season at Weybridge is an entirely different matter. Tests of the wiggle-woggle, Monte Carlo and Test Hill variety, while putting a premium on skilful driving, are also the kind of tests that allow comparisons to be made between the cars themselves, while the flying half-mile contest is certainly the real thing. And the J.C.C. meeting is such an excellent prelude to the R.A.C. Rally and to the season generally. In spite of an entry of 135 cars, put through seven tests, the organisation on February 27th went through in the J.C.C. tradition —faultlessly. The weather could not have been more unpleasant, a high wind and heavy rain and hail sweeping the track, but officials stayed manfully at their posts, though one unfortunate individual not only got soaked naturally, but was, in addition, drenched every time a car passed him flat out on its way to the flying half-mile.

The entry was grouped into three h.p. classes, and the individual makes were set to run consecutively—which added much to the interest of those who spectated, which quite a number did, from the shelter of the Press stand on the finishing straight if they were wise, which, like the B.A.R.C. Clubhouse, was opened to J.C.C. members.

This year new or special cars were not very much in evidence, though several T-type M.G. Midgets were present and Charles Follett drove a blown Lammas-Graham. The vintage brigade was represented by R. Johnson-Ferguson, who had again come all the way from Scotland in his very stark, side-valve Aston-Martin, C. W. P. Hampton's beautiful little 1½-litre Mercédès-Benz which is fifteen years old and kept Hugh McConnell himself guessing, Clive Windsor-Richards's familiar fabric-bodied 30/98 Vauxhall two-seater, and Allason's 4½-litre Bentley.

First of all came the Easy-Starting test, with drivers out of their cars, engines silent and a line 10 yards away to cross within 10 secs. A. Percy Bradley cannot suffer from gout, because he started the first man and all that followed, clad in a light raincoat! We stayed to see fifteen drivers do their act. O. M. Lewin was in no way worried about the absence of doors on his Austin, and R. C. Mitchison (Austin) took a great leap in. Biddle (Ford) wasn't so neat, but Blackford's Ford was very good indeed, though we don't like his mascots. The rest were quite neat, excepting Major Douglas-Morris with the Hillman.

The Parking test was said to be more difficult this year, but we went straight to see the fun at the Wiggle-Woggle.

I. D. Struthers (Ford) was good, but Major Douglas-Morris took the wrong bay. D. T. Russell (Hillman) was neat and left his screen up for the half-mile, and W. W. Walther (Hillman) just toured round, as did W. J. Lanes (Lagonda Rapier), who also needed two reverses at the first pylon.

C. M. Cooper's big fur gloves worked hard for M.G. and his Magnette was steady but not rapid, but F. N. Crane's blown T-type M.G. Midget came in fast with locked front wheels, and made an extremely good performance. In contrast F. A. H. Frey (T-type M.G.) was slow and crunched his lower gears. Major Douglas-Morris's Hillman saloon was slow but neat, and C. G. Gibbs's T-type M.G. gave a nice show, using second gear for the turns. P. T. Gifford Nash (blown M.G.) was fast and very very neat, and J. E. Nuthall (M.G.), after selecting a forward ratio when he wanted to reverse, made a neat, noisy run, Dennis Parker (M.G.) was neat, C. F. H. Shepherd (M.G.) selected the wrong bay, and A. P. Squire (M.G.) and F. H. Stileman (M.G.) were extremely good, the latter with an old M-type. C. E. Taylor (M.G. Magnette) was creditable, and Lewin's Ulster Austin most snappy, the correct hand signal being given before the first turn, but Wilde's T-type M.G. was slow in contrast. Peter Woollett (M.G.), his exhaust flashing back, was extremely fast, and undismayed when the wind blew the hurdles down, but T. G. Woollett (T-type M.G.) went about it jerkily. W. O. Corbett's Morris Eight tourer with polished brake drums and aero-screen, had a poor lock, but was blipped steadily round, but George Walker, handkerchief over mouth, went along the wrong course and ended with his Riley Imp literally "cornered." P. J. Spanjer (Riley saloon) went sedately, with flapping wing bird-mascot working overtime. Then Walker, having a second shot, pleased everyone by stopping and opening the bonnet, before trying the turns—remember that the wiggle-woggle is timed throughout. K. T. Hall (Singer) lost his way completely, and N. A. Prince (Singer) touched the first pylon. E. W. Seabourne (Singer saloon), pipe in mouth, wasted time on the first reverse, and Stocking's Singer, the first car to emit brake squeal, had to reverse for one of the "woggles," though it was calmly done. G. W. Walker's Le Mans Singer was fiercely handled, with much wheel-twirling, and revved furiously, but seemed slow, and Ward's Singer, hood up, went the wrong way, though either way was permissible once you found the figure-eight, as an irate marshal told all of us when we tried to direct drivers who were hesitant. Dr. Waters (Singer saloon) was slow but very neat. Singer revving was in evidence. L. M. Buffey's open Talbot Ten, signalling for the turns, stalled its engine, but then went very nicely in second gear through the "eight," and Proctor's Talbot Ten with special folding head body, also stalled, but was very good subsequently, displaying ample steering lock.

The 10-16 h.p. class was opened by the Hon. Yarburgh-Bateson's sporting A.C. which was slow at the first pylon, and too long in the chassis to be fast afterwards, though the gears were brutally used. Just before this C. O. Jackson's Austin saloon gave a champion exhibition of super-rolling with leisurely recovery. Poor Brant (A.C.) arrived to find the marshal in charge of the "eight" kneeling under a gamp, and he was doubtful of the route. Andrew Fairtlough, blipping furiously, was extremely nice to watch (or his driving was!) in the short, yellow A.C. Ace, and for a big car Houlding's A.C. was rapid. Maynard's A.C. was steadily and sanely handled, with reverse crashed in unmercifully, and the Rev. W. P. Cole-Sheane's Armstrong-Siddeley saloon, with isolated passenger in the rear quarters, was obviously fearful of being in a built-up area, and rolling grotesquely. C. Anthony's Aston-Martin, of trials fame, spinning its wheels, was carefully and very expertly driven, going out of the "eight" in a final vivid skid, whereas Miss Bean's Aston-Martin nosed round at a crawl, possibly worried by oiled plugs. Johnson-Ferguson, in neat racing attire, skidded his s.v. Aston-Martin up to the first pylon, to which he stopped too close, but thereafter was vivid, though the timing-gears (?) seemed less happy. G. H. Goodson (Aston-Martin) approached fast, braked confidently, nearly touched a barrier, then went through very well but spoilt everything by going round again. C. E. J. Mann's Ulster Aston-Martin, popping back, with noisy brakes, was a model performer, and let the revs. mount heartily on accelerating away. Brister's British Salmson saloon asked for a reverse at the first pylon. Then came Fane with the blown Frazer-Nash sports job. Fane was on the Salmson's tail on initial acceleration, and turned the 'Nash round to save reversing at the pylon. Working hard, he tried to skid the tail, not too successfully, but was immensely fast nevertheless, and at the other pylon he nearly spun round again, reversed quickly and accelerated to a fine speed before the finish—an excellent show throughout. Miss P. McOstrich had a slide at the last post but did not hit, and she just failed to obviate a reverse at the last pylon, but was extremely quick, changing up finally as she repassed our stand—applause thoroughly deserved, and she *was* clapped.

Peaty's business-like, big-tyred Frazer-Nash was also very quick, displaying very good steering lock, though he seemed unduly harsh on the gear-lever when finding another ratio for acceleration out of the "pen." D. A. Aldington's closed-up, drop head Frazer-Nash-B.M.W. coupé was extremely good, with much revving and spinning wheels. H. G. Symmons managed to turn his 2-litre Frazer-Nash-B.M.W. saloon cleanly round at the first pylon and was rapid, with very spirited rolling—a run heartily clapped. He rather overslid at the last pylon. Winnicot (Frazer-Nash-B.M.W.) overdid things on the last turn. Halford's H.R.G. was splendid—very quick, accelerating vigorously into the "eight," and sliding and revving round the obstacles. Robins's H.R.G. demonstrated excellent braking qualities, but made an error on the second bend, being the first driver to hit the barriers. After this

J.C.C. RALLY—continued

liquid (!) refreshment arrived for the officials. T. L. Seccombe (H.R.G.) was outstanding, blipping and sliding to good effect. Using similar tactics, Uglow upheld the fine impression made by this marque.

Then came Eason-Gibson, last year's winner, in the lone supercharged Lancia Augusta. He was wearing black poncho and beret and seemed to be thoroughly at ease, blipping excessively, nearly pulling off the front tyres, and judging things to a nicety, especially at the first pylon.

Hampton's Mercédès-Benz was cautiously reversed, splendidly handled, and had a fine lock. Accelerating away the siren-scream was again evident, followed by protests from the gas-works. Hampton went very fast into the half-mile, screen up and eye on rev. counter.

Baker's M.G. was slow after a blipping approach, Macklin's Triumph was neat, and Miss Joan Richmond, smiling happily, was driving steadily and very well in her famous blown Triumph.

Over 16 h.p.

Gordon Wood's Vauxhall saloon put up a very nice exhibition of how to swerve the "eight," but Maclean (Railton) was untidy, was baulked, had another shot and gave up. Mrs. Wood, working hard, dressed for a Bond Street shopping expedition, put up a very finely judged drive with a big Alvis saloon, but Birkett's Armstrong-Siddeley went for a conducted tour all of his own planning. James Allason's Windrum and Garstin 4½-litre Bentley was very well handled, reverse being neatly engaged and the heavy car slung round the "eight," Peter Robertson-Roger as passenger nearly falling out, obviously immensely bucked by the old car's showing. Crossley put on a useful tail slide with his Bentley saloon and Ivo Peters's Bentley scattered the spectators, the modern Bentleys all handling exceptionally well. Crockatt (Ford) earned a "very good" in the MOTOR SPORT notebook, likewise Denton (Ford), and Hall's 22 h.p. Ford V8. G. A. Jackson's Ford was not actually gonged, S. M. Lawry's open Ford V8 was a rapid, neat performer. J. R. Lines (Ford), smoking and revving, was very spirited, but unfortunately hit the side of the track in a slide on leaving the "eight" and forthwith gave up—a pity, as the damage was very slight and the hit would probably not be penalised, as it was against a "natural hazard" and not a sheep-hurdle. A. Esson-Scott, the racing driver, toured his Ford V8 through, missing out some of the figure eight. G. C. Terry made a classic grab when his Ford's door flew open, and St. East's Hudson was well driven and very responsive. Terry, having another run as a reward for saving the life of a straying marshal, was excellent, Miss Bacon as a crawler with a 4½-litre Lagonda and T. C. Mann (4½-litre Lagonda) with passenger in the rear, nearly swung his big car round for the first pylon and drove as it should be driven. J. Sieger's elderly Lagonda obviously had a very strong gear-lever and was silent and sedate. Charles Follett gave a fine show with the Lammas-Graham, but very nearly contacted with a hurdle, R. J. W. Appleton was neat but not very fast with a Railton, while C. H. Mann first selected a forward ratio when wanting reverse and then carried away quite a lot of hurdle.

Scenting a long delay we went over to the Test Hill. Mann (Railton) failed to restart, Lady Iris Capell's SS., with the whole family seemingly aboard, petered out after leaving the line, but Lines (Ford) did well, and Goldman (SS.) relied on plenty of engine. E. H. Jacob (SS. "Grey Ghost III") and Matthews (SS.) showed us that it could be done, and Peter Smith's SS. spun its wheels contemptuously.

After this we had had enough of rain and writing and gave it up. The J.C.C. Rally is a difficult event to cover, but if those we have missed will send us a post-card, we will look out for them next year. The detailed results follow for your complete edification :—

RESULTS (Provisional)

Classes

Class I : Cars up to 10 h.p.
Class II : Cars between 10 h.p. and 16 h.p.
Class III : Cars over 16 h.p.
Best Performance of the Day : D. A. Aldington (Frazer-Nash-B.M.W.).
Best Performance by Lady Driver : Miss P. McOstrich (Frazer-Nash).

Easy Starting Test

Class I : 1, O. M. Lewis (Austin), 7⅘ s.; 2, M. H. Fortlage (Ford), 7⅘s.
Class II : 1, tie between C. M. Anthony (Aston-Martin) and W. F. F. Martin-Hurst (Rover), 7s.; 3, W. P. Uglow (H.R.G.), 7⅕s.
Class III : 1, S. M. Lawry (Ford), 7⅘s.; 2, tie between G. C. Terry (Ford) and C. Sabey, Junr. (Railton), 7⅘s.
Test : Run to car, start up, and cover 10 yards in 10 secs.

Parking Test

To reverse into a space proportionate to the length of car, given one reversing and one forward movement, and coming to rest with both off-side wheels not more than 9 in. from kerb.
Competed : 122 cars. Passed : 65. Failed : 57.
Monte Carlo Test, 1936 ("Wiggle Woggle").
To cover 220 yards from standing start, reverse round pylon, enter prescribed area and execute figure of eight, return to start, reverse round pylon, accelerate from start to finish over a distance of 327 yards.
Class I : 1, F. N. Crane (M.G., S.), 1m. 18⅕s.; 2, P. T. Gifford-Nash (M.G., S.), 1m. 19s.
Class II : 1, A. F. P. Fane (Frazer-Nash, S.) 1m. 10s.; 2, J. Eason-Gibson (Lancia Augusta, S.) 1m. 13⅕s.
Class III : 1. E. H. Jacob (SS), 1m. 17s.; 2, Charles Follett (Lammas-Graham), 1m. 17⅕s.

Half-mile Speed Test

Flying half-mile.
Class I : 1, F. N. Crane (M.G., S.), 71.43 m.p.h.; 2, P. T. Gifford-Nash (M.G., S.), 70.31 m.p.h.
Class II : 1, D. A. Aldington (Frazer-Nash-B.M.W.), 76.92 m.p.h.; 2, C. M. Anthony (Aston-Martin), 74.38 m.p.h.
Class III : 1, W. M. Couper (Talbot 110), 91.86 m.p.h.; 2, tie between J. H. Allason (Bentley) and Charles Follett (Lammas-Graham), 85.71 m.p.h.

Monte Carlo Rally Test, 1937

Cover 218 yards, stop astride a line, reverse back over the line and accelerate again 109 yards to flying finish.
Class I : Tie between B. A. Blackford (Ford) and F. N. Crane (M.G., S.) 31⅕s.; 3, A. P. Squire (M.G). 32⅖s.
Class II : 1, E. A. Halford (H.R.G.), 29s.; 2, D. A. Aldington (Frazer-Nash-B.M.W.), 29⅖s.
Class III : Charles Follett (Lammas-Graham), 28s.; 2, E. H. Jacobs (SS), 28⅖s.

Test-hill Test

From standing start climb test hill and half astride a line. Restart and climb non-stop to finish.
122 competed, 11 failed to restart clean, 15 failed to complete climb non-stop.

---

250 *MILES IN A DAY—continued from page* 119

and road-clinging qualities and must couple this with the brakes, which are absurdly light to apply, yet so powerful that they may be used with confidence if an open bend is entered a shade too rapidly. Descending the approach to Stancombe Hill called for only a touch of brakes, with second gear engaged, in spite of the engine being right in the nose. The diminutive hand-lever, which a fair passenger would term "just too cute," is nevertheless quite practical. That this baby Fiat is not tedious for a full day's motoring is proved by our re-appearance in South London by 11 p.m., leaving Burford at 7 p.m. and with many delays en route. And there is so little to criticise. There are sundry vibrations from mirror and anti-dazzle shields, etc., which it should be easy to cure. The adjustable bucket seats are on the flimsy side, but the backs fold and there is ample leg-room.

We enthuse over this Fiat on four points (*a*) It is interestingly unorthodox. (*b*) It can beat most babies on road-holding, cornering, comfort and braking. (*c*) It is so simple and possesses so much accommodation and (*d*) It is able to get on with a real job of work really economically.

It is notable that this 6 h.p. baby has about it something of the character of those other famous marques with which Eason-Gibson is so closely associated—The Frazer-Nash B.M.W. and Lancia. Let the Beecholme Motor Company, London, S.W.12 demonstrate this new baby to you.

A FEW COPIES OF BACK NUMBERS OF

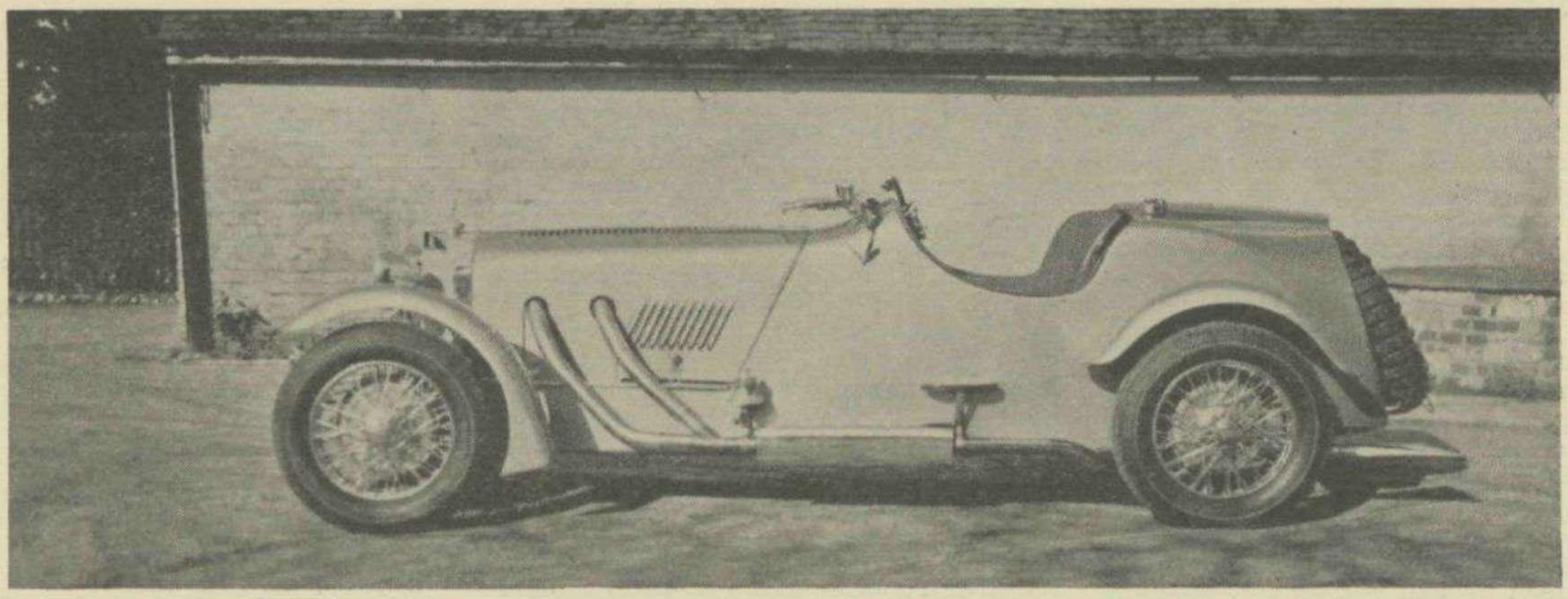
MOTOR SPORT *and* The Brooklands Gazette

ARE STILL AVAILABLE

Volume I Nos. 1-12	...	2/- each	Volume IV Nos. 1-12	...	1/- each
,, II Nos. 1-12	...	1/6 ,,	,, V No. 1	...	1/- ,,
,, III Nos. 1-12	...	1/- ,,	,, VI, VII,	...	1/- ,,
			,, VIII, IX, X, XI		6d. ,,

KINDLY SEND REMITTANCE WITH ORDER TO :— (POSTAGE ON EACH COPY 1½d.)

MOTOR SPORT (1929) LTD., . - 21, CITY ROAD, LONDON, E.C. 1.



The 1½-litre Mercedes-Benz looks anything but a 1922 car !

MY 1½-LITRE TARGA-FLORIO MERCEDES-BENZ

By

C. W. P. HAMPTON

In this article Mr. Hampton describes in his own words his fascinating little Mercédès-Benz, which has of late been attracting great attention whenever it has appeared in public. The car has puzzled many people including, we believe, Hugh McConnell himself, for its present appearance belies its fifteen summers ! It is actually a 1922 1½-litre sixteen-valve twin camshaft four-cylinder job with the usual Mercédès blower system and an E.N.V. gearbox. It ran in the recent Vintage S.C.C. Chilterns Trial, and the J.C.C. Brooklands Rally on February 27th. About ten years ago Raymond Mays owned two of these cars, one of them subsequently passing into the hands of the Hon. Dorothy Paget, who stabled it at Thomson & Taylor's—the car was illustrated in MOTOR SPORT in March 1931. These cars must not be confused with the 2-litre and 1½-litre *eight-cylinder* Mercédès cars that Mays drove in sprint events in 1927. There follows quite a wealth of detail about this extremely individualistic, "pur sang" motor-car, from the pen of its present owner, who, incidentally, is on the Council and Competitions Committee of the Bugatti Owners' Club and is the owner of a Type 55 and a Type 49 Bugatti.—Ed.

I purchased this Mercédès-Benz from J. H. Bartlett for £90 in November 1935 and found that mechanically it was in poor condition. (Incidentally, Bartlett told me that he thought it needed an overhaul as the previous owner had dismantled it and reassembled it himself and "there's a mass of mechanism when it is in pieces and it needs an expert to put it back reliably.") The rear axle hummed excessively, especially when turning to the left, which suggested something wrong; the E.N.V. self-change gearbox slipped in first and reverse gears; the brakes literally hardly worked at all, and the engine sounded rather loose and suggestive of big-end trouble, though it ran satisfactorily up to about 70 m.p.h. The carburation, however, worked well and the "blower" could be held in without spitting back but by means of a "Heath Robinson" arrangement of floats, pipes, tanks, taps, etc., made of odd bits and looking most untidy. On being dismantled, the engine was found to be in an appalling state—the connecting rods were out of balance, one piston was odd, the valve guides, cylinder bores, pistons and timing wheels were badly worn, the bearings very loose with practically no white metal, and the oil-ways broken and choked with dirt, sludge and odd bits of metal. The electrical wiring was faulty and antiquated, as also were most of the component parts. The Corsica two-seater body, painted red with black flared wings, was in shabby and uncomfortable condition.

As to the car's history, I know little. Apparently only six of this type were ever made and two were entered for the Targa Florio race in 1922, being driven by Minoia—who retired with ignition trouble—and Scheef, who finished twentieth. This appears to be the date of their construction, as mine has August 1922 stamped on the crankshaft. Of their subsequent racing history I know nothing, except that mine, and one other of the six that were constructed, were sold to Mr. Raymond Mays about 1926/27. I know little of my car's history since, except that it was first registered in England on November 22nd, 1928; probably when Mays disposed of it. The Hon. Jock Leith had it for a time and found it satisfactory except for a complete absence of brakes and perpetual carburation trouble when using the "blower." Then a Captain Fane bought it and fitted the E.N.V. gearbox and made other modifications, principally to the supercharger system, which he managed to improve, but by means of the aforementioned complicated and untidy layout. He, too, found the brakes an apparently unsurmountable difficulty in that any attempt to produce braking on the front wheels twisted the dumb-irons and front axle, causing the car to swerve violently.

The whole engine and all component parts are most beautifully made and an absolute model of metallurgy and design—considering four wheel brakes (admittedly practically inoperative), double overhead camshafts, supercharger, etc., in 1922 !

The bore was originally 63 mm. and R.A.C. rating 9.8 h.p. It is now 65 mm. with a stroke of 112.75 m.m., giving a cubic capacity of 1,496.5 c.c. and R.A.C. rating of 10.4 h.p. The compression ratio is nearly 7 to 1, which is high when supercharging at 8 lb. per square inch. Incidentally, I believe this model is rather apt to throw connecting rods and, when dismantled, it was evident that trouble had been experienced previously in this direction, so that I am determined not to over-rev., to try and prevent a blow-up which would obviously be expensive in view of the limitation of spare parts and the money already spent in getting everything O.K. The low oil pressure of about 8 lb. at 2,000 r.p.m. and 16 lb. at 4,000 r.p.m. (when warm) does not help in this direction, but appears to be sufficient. Maximum safe revs. are 4,500/5,000. It needs practically no oil, using Price's "C" de luxe. I use Cleveland Discol petrol, but have no idea of the consumption—probably about 16 m.p.g. at the moment, as I think the main jet in the old Claudel-Hobson aero-type carburetter is larger than necessary. The honeycomb radiator does not leak and the water (circulation by pump) runs very cool normally, except in traffic, when it overheats, as no fan is fitted. The oil runs at the same temperature as the water and I am contemplating the fitting of an oil cooler. These cars originally had two axle ratios, but I have only the higher of the two, viz., 4 to 1 on top, giving 19½ m.p.h. per 1,000 r.p.m. on that gear. The gearbox is fairly close-ratio, except bottom, which seems rather low, probably about 14 to 1. There were two "blowers," but I only have the smaller of the two, though I tried to fit a 36/220 S. type "blower," but there was no room. The "blower" was O.K. for conditions. Lubrication is from the engine to the "blower" clutch and also by means of a screw-down type grease

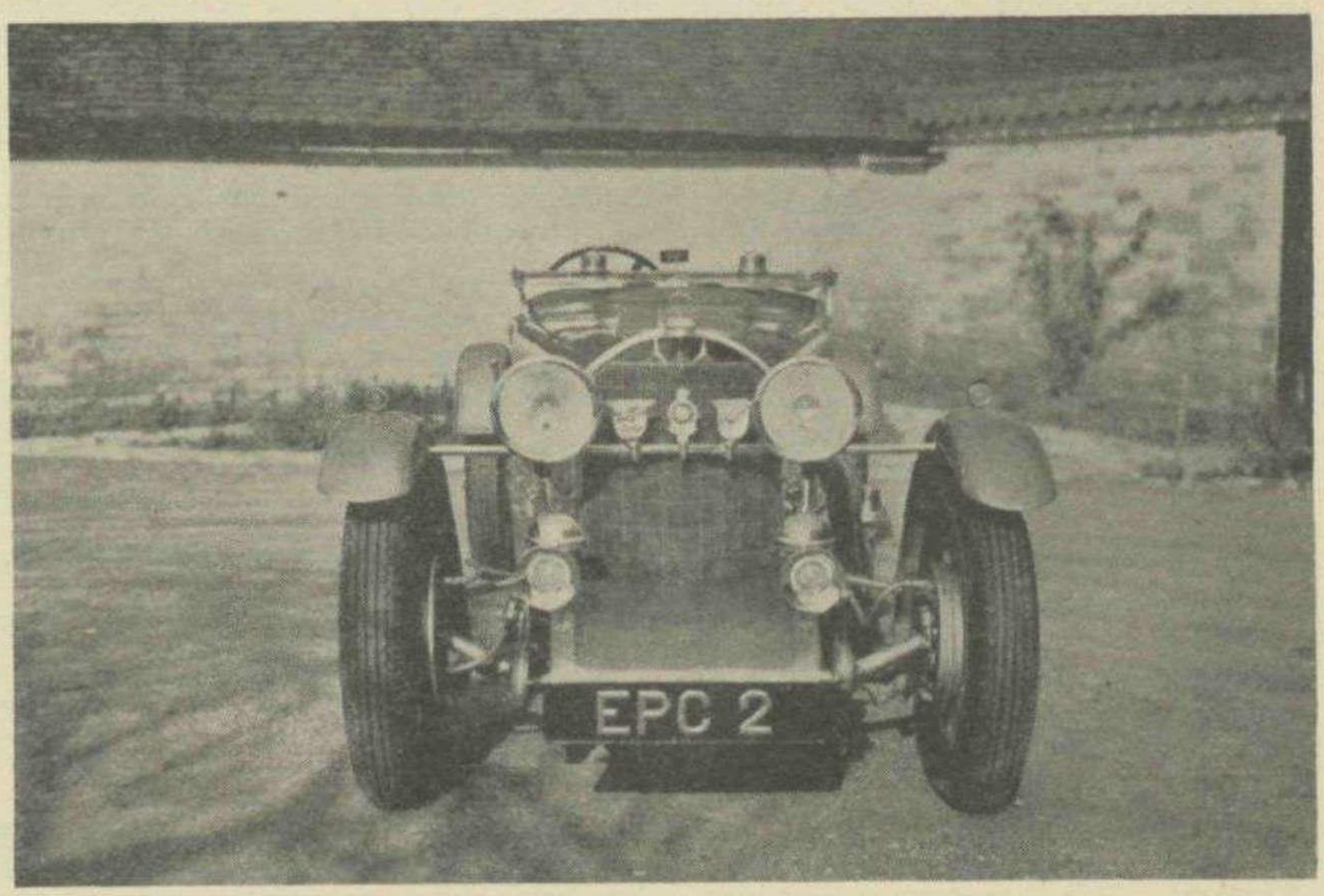
MY 1½-LITRE TARGA-FLORIO MERCEDES-BENZ

gun which I have had fitted on the central gear-quadrant, giving a turn or so every so often according to how much I use the supercharger.

Now for what I have had done.

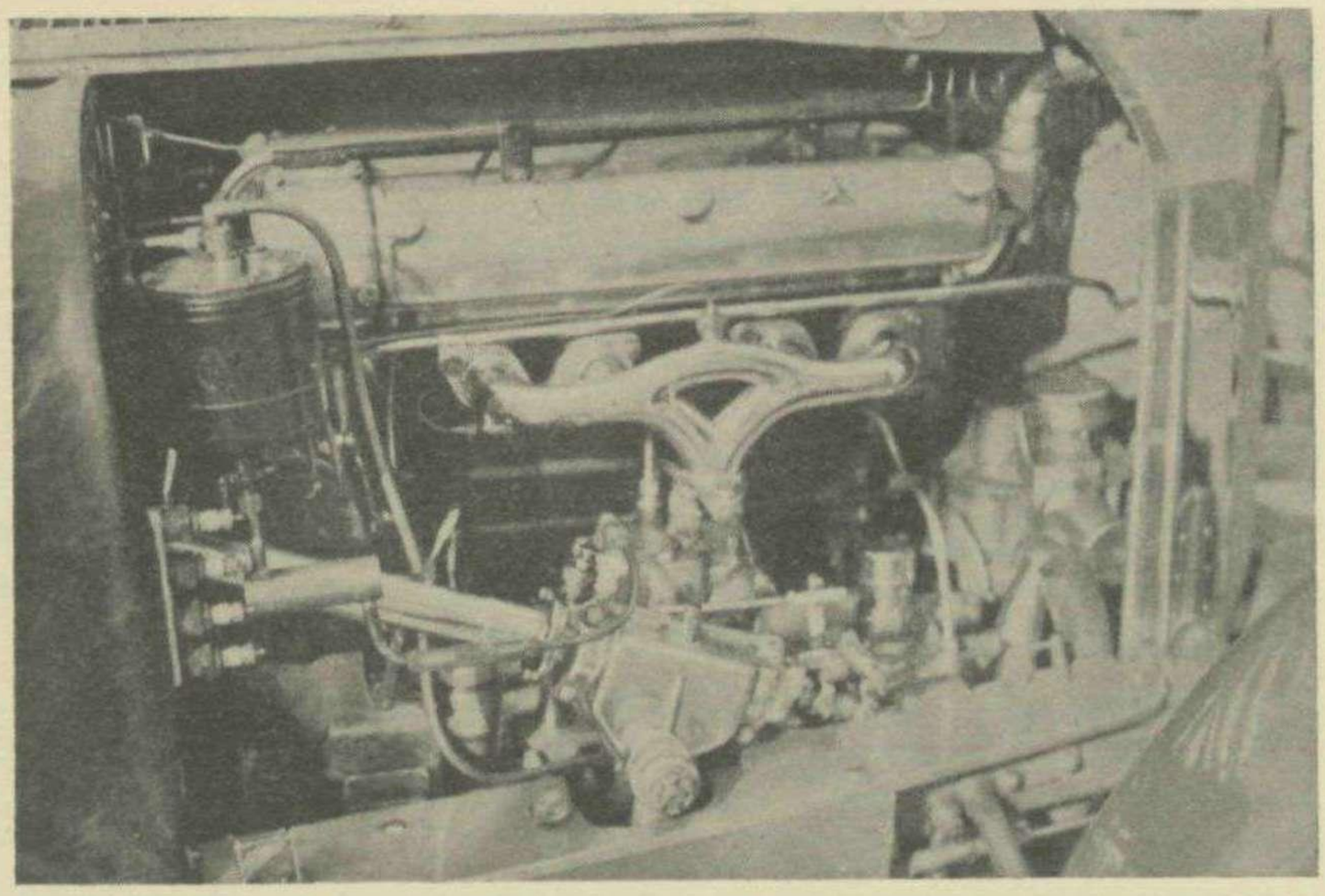
Soon after I bought the Merc. I took it to Messrs. West & Chittenden, Ltd., Sutherland Street, Walworth Road, who have been responsible for all the mechanical overhauls and have worked excellently, though taking many months over it. They completely stripped the engine; rebored the cylinders which are separate steel castings with the water jackets welded around. Martlett pistons were fitted at normal sports-car clearances. The crankshaft was reground and the oilways cleaned and repaired where necessary. They made up new brass valve guides and replaced the original valves (sixteen of them, filled with mercury for cooling purposes) as being O.K. They took up wear or made up new parts wherever necessary. The twin overhead camshafts are amazingly light, as also the flywheel which really comprises only a self-starter ring. The crankshaft is beautifully made with three large bearings which were, of course, rewhite-metalled and fitted with new bushes.

The gearbox was returned to E.N.V. who said it was a very early type and always liable to give trouble, so I had a new or service one fitted which is most satisfactory and absolutely makes the car, as the original crash-type was, I believe, heavy and slow to shift. The rear axle was dismantled and found to be out of line, so was reground and refitted with new races, etc. It is fitted with two crown wheels which were in



The baby "Merc." from the front. Note the Lucas dual tone horns, and Lockheed braking, applied to a Riley Nine axle with Morris drums.

cylinder Bosch converted to a four-cylinder) and dynamo were sent away for overhaul and refitted, also a new 12-volt 70 amp. Young accumulator. The car is, however, difficult to start and even this battery is insufficient; so I am having two 6-volt batteries of even greater amperage fitted each side of the rear axle, lower in the frame than the present one and therefore more accessible.



Beneath the bonnet. Note the unusual inlet manifold, the twin o.h. camshaft covers, the Roots blower and the high class finish of machinery generally.

good condition, and it is a most substantial affair. It is quieter now, though still hums at high speed, being of the straight bevel type. The axle half-shafts were O.K., but new Hardy universals were fitted. The magneto (an eight-

I then took the car to Newns, the coach-builders of Thames Ditton, and had a lightweight two-seater sports body made entirely to my own design, which endeavoured to depart from the usual trend of two spare wheels hung on a large rear petrol tank! The body is made of light aluminium on duralumium framing and is fitted with a flat underpan from the engine to the back axle to aid streamlining. The existing 12-gallon M.G.-type petrol tank was removed forward to just behind the seat squab but under the body panelling, with battery, jack and rubber inset chromium tool-kit behind that. The two spare wheels were shod with Dunlop competition covers of 17" x 5.50". There is a detachable hood kept beneath the seat, which is of the single seat and single squab type, fitted air cushions and covered in blue leather. A new dashboard was made painted to match, with centre polished aluminium panel incorporating the following new instruments: Jaeger 5 in speedometer, 5 in. rev. counter and clock, oil thermometer, water thermometer, oil pressure gauge, supercharger gauge and amp. meter. Also on the dash is the new Scintilla switch-box, Ki-gass starter and Westric charger socket. There is a fold-flat windscreen fitted two chromium Bosch screen wipers. An extra long and well-louvred bonnet and light cycle type wings were made.

Scintilla stop and tail lamp and Scintilla headlamps were taken from my Type 55 Bugatti when I fitted Marchal "Strilux" to the latter car. Lucas dual tone trumpet horns are mounted on the front and an electric bell on the side! I had an outside chromium-plated exhaust system made, protruding through the bonnet with large flexible pipes (on similar lines to that of the "38/250") and leading into a chromium Burgess silencer, with 13 in. fishtail at the back. The whole looks very effective, though it is not particularly quiet when the "gasworks" are opened!

I had the wheels chromium-plated and fitted with new spokes by Messrs. India Tyre and Rubber Co., Ltd., who did the job at reasonable cost and of the most excellent quality. The four road wheels are fitted with India 13" x 4.5" tyres.

MY 1½-LITRE TARGA-FLORIO MERCEDES-BENZ—continued

India's also rebuilt one wheel to take a 17" x 5.50" tyre and made a new wheel to match—both chromium-plated.

The rest of the car is finished in opalescent blue and really looks very modern and smart, though the seating position is rather high, due to the chassis, which is now low judged by modern standards. Rear suspension is Cantilever, with semi-elliptics in front. Large Duplex Hartford shock-absorbers are fitted and I am going to have these converted to Telecontrols. New Rudge hub cabs are fitted; the radiator and all possible parts such as steering box and column, induction manifold, oil and petrol pipes, etc., are chromium-plated, and the steering column lengthened and fitted with an Ashby wheel.

From Newns, I took the car to Messrs. L. G. Bachelier & Sons, Ltd., of Durnsford Road, Wimbledon, who did the rewiring throughout and made an excellent job of it in Continental cable, giving a typical "Bach" finish to everything. They also raised the rear wings at a later date and fitted a twin S.U. petrol pump.

I then ran the car for about 800 miles, not exceeding 45 m.p.h., except for a burst of speed at Brooklands after 650 miles (when we first saw the car—Ed.), and returned it to West & Chittenden just before Christmas for carburation attention. This is now much simplified, by a pressure system to a large float chamber on the dash and also direct to the carburetter; pressure being from the "blower." It is satisfactory over about 3,000 r.p.m. They also tackled the brake problem in the summer. This was overcome at great difficulty by fitting Lockheed hydraulic system from a Morris Six. The drums were riveted on to the Merc. face and relined. A Riley "Nine" front axle was used as the Merc. axle was too weak. The Merc. "knock-on" hubs were fitted in place of the Riley "bolt-on," but as space was strictly limited the Morris drums on the front were narrowed down and Triumph Lockheed cylinders fitted—there being no room for the larger Morris cylinders! All very complicated, but a masterpiece of ingenuity, patience and workmanship. Radius rods were fitted to the front spring anchorages (which were, of course, specially made up to fit the Merc. springs on the Riley axle) to hold the axle in place under braking stresses and a tie bar fitted between the dumbirons (which are of great length, the radiator being set well back in usual Merc. fashion) to prevent chassis twist. Originally, the most forward member was under the radiator and this was cracked when I bought the car. The original brakes were quite hopeless, the drums inadequate and the leverages all wrong, but now the brakes are very good indeed, though probably not as good as those of many modern cars.

The outside handbrake is quite hopeless, being on the transmission and renders starting on a steep hill difficult, as it entails use of footbrake and hand throttle. West & Chittenden fitted a fly-off lever off an old Lancia "Lambda," which is much neater than the original cumbersome affair.

The car has now done just over 1,000 miles and I intend entering for certain trials, etc., as it should do quite well when fully run in and when the carburation is further improved.

I have so far had nearly 4,500 r.p.m. (about 85 m.p.h.) on top—still accelerating. The maxima on second and third are about 35 to 40 and 60 to 65 m.p.h. without over-revving. Probably a higher gear ratio will be necessary as the performance is turning out to be better than I had hoped.

On the recent Vintage Sports Car Club Chilterns Trial, it showed to have lashings of power on hills, failing on Widmere through wheelspin, and held 70 to 75 on the Oxford road with apparent ease, the "blower" giving the usual exhilarating siren-scream when cut in.

I have used Champion "13" plugs, but these are apt to burn up and I am now using K.L.G.s. They seem to stand up to revs., such as can be used on the road, yet do not oil up when left idling at about 1,000 r.p.m. In other words, I have experienced no plug trouble.

Thus, I have a unique car which causes immense amusement and fun and, though fifteen years old, can equal most sports-cars of similar horsepower and is highly individual, fast and "pur sang" to the highest degree. For obvious reasons, I am being careful to avoid a "blow-up," as by its willingness to rev. this might easily happen if the rev. counter were disregarded.

A NASTY TASTE

We Britishers take all forms of sport very seriously, and regard accurate determination of the results of any contest as of the greatest importance.

Consequently, when a quibble occurs between a competitor and the organisers of a contest over the official results, a very unpleasant flavour is imparted unless the matter can be finally cleared up to everyone's satisfaction.

This is particularly the case in respect of motoring sport, wherein it is quite impossible to rule out the trade element and where published results, by granting valuable publicity to particular makes of cars have a definite and often far-reaching bearing of incalculable magnitude on commercial enterprises.

Consequently, we maintain that every possible care should be taken to obviate any possibility of incorrect results being arrived at. Mistakes can occur only too easily, because voluntary officials are not on top of their jobs, because regulations are carelessly worded or wrongly interpreted, because faulty timing or measuring apparatus is used, or for a score of other reasons.

Certainly, where a competitor feels he has been treated unfairly he can protest to the R.A.C., who will, if necessary, bring the matter before the A.I.A.C.R. But we suggest that in certain cases trouble of an unpleasant sort might be obviated by imposing stricter and completely impartial supervision by responsible officials of the R.A.C. We feel that it is unfair to allow R.A.C. stewards to act on behalf of the R.A.C. and an organising club at one and the same time. And we consider it unjust to permit an organising club working under permit rules to include the clause "the judge's decision is final" in its regulations, save where a competition is of such a nature that only individual or group accessing of merit is possible (as in a Coachwork competition)—and in any case this should never imply that, once the judge has decided, an appeal to the committee of the organising club or to the R.A.C. will be disallowed.

Just as we close for Press we have heard of an unpleasant difference of opinion over the result of a recent competition, in which the judge representing one of our more important clubs, a scrutineer representing the same club, and a competitor having trade connections and driving for an interested party, held different viewpoints. The taste that arises is nastier than ever by reason of the fact that not only individuals, but the prestige of important marques, may suffer incalculable harm if the results have, in fact, been incorrectly arrived at. It is too early yet to make the matter public, but we believe that an appeal will be made by this competitor to the R.A.C.

In the meantime, let every organising body take especial pains to ensure that the results of its events are strictly accurate and fair. The R.A.C. might well stipulate that, if it is not found possible to take these pains, that the competition should either be disallowed, or that the makes of car used by the adjudged winners be concealed as much as is practicable, or, at least, that the results of the competition should not be published in the motoring Press.

BRITISH RACING DRIVERS' CLUB

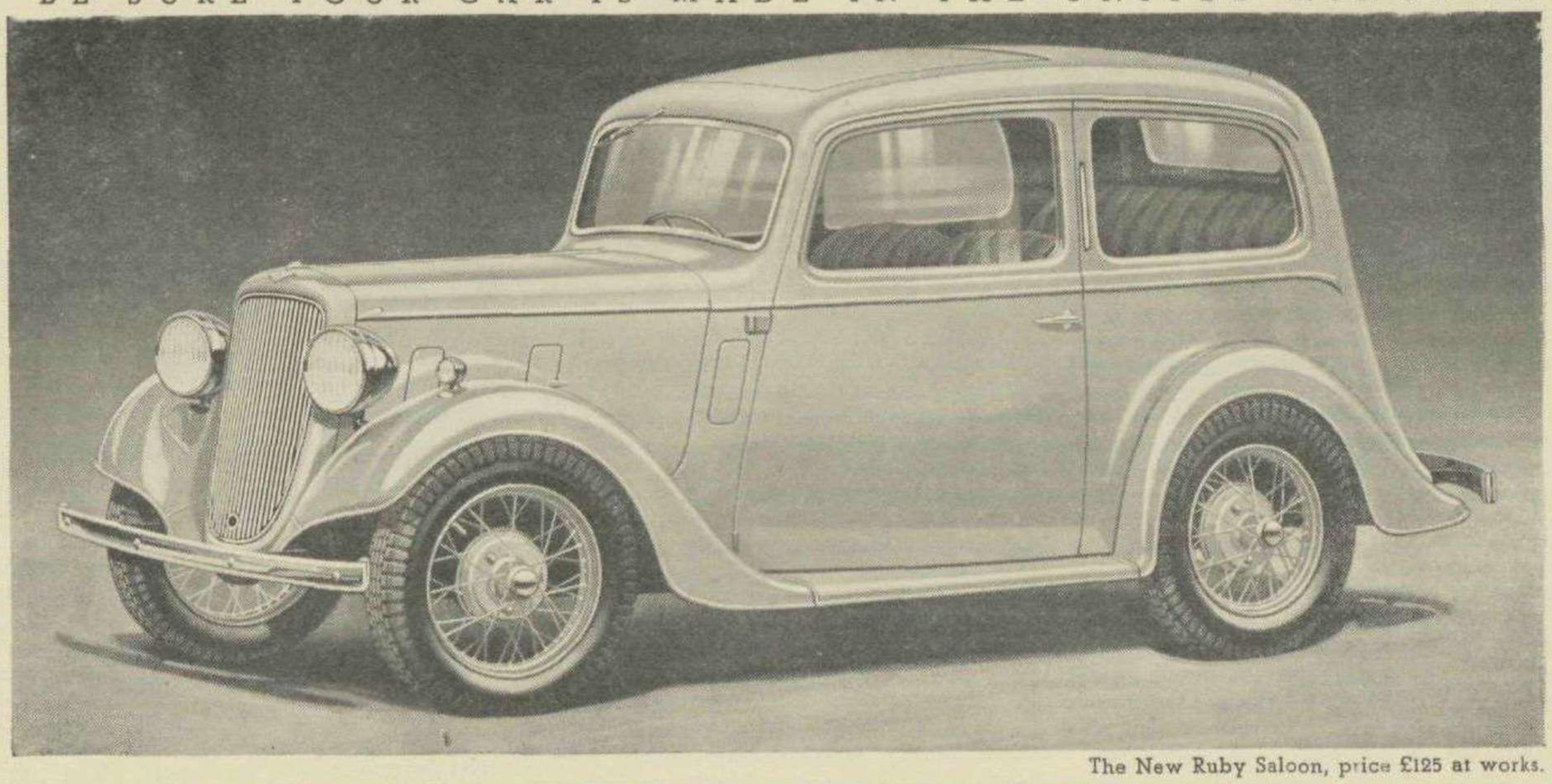
At a British Racing Drivers' Club dinner and film exhibition held in the Connaught Rooms, Mr. H. N. Edwards, former secretary of the club, was presented with a cocktail cabinet and a cheque by the members.

In proposing Mr. Edwards's health, Dr. Benjafield (vice-president), who was in the chair, gave a brief résumé of the early history of the B.R.D.C. and said that their present strong position was due to the inexhaustible energies of their late secretary who had been connected with the club since its inception.

Mr. Humphrey Cook (hon. treasurer), seconding, also paid tribute to Mr. Edwards and, referring to the amount of work that went on behind the scenes in the organisation of races such as the Empire Trophy and the 500-Mile Race, complimented him on the successful financial results obtained from them.

Returning thanks, Mr. Edwards referred to the fact that it was the first time in nine years he had made a speech to the members, and said that he had made more friends in the period than he could possibly have made in any other sphere.

BE SURE YOUR CAR IS MADE IN THE UNITED KINGDOM



The New Ruby Saloon, price £125 at works.

TRUST FATHER TO KNOW WHAT'S WHAT . . .

POST OFFICE TELEGRAM

BEFORE YOU CHOOSE CAR TRY LATEST AUSTIN SEVEN + WONDERFULLY IMPROVED PERFORMANCE + NOW HAS THREE BEARING CRANKSHAFT + GIRLING TYPE BRAKES + NEW CLUTCH + FULL PANELLED AND SOUND INSULATED COACHWORK + YOU CAN'T AFFORD WASTE MONEY + NOR CAN I + PLAY SAFE AND INVEST IN DEPENDABLE AUSTIN + FATHER +

The new Austin Seven has, of course, all the qualities of the old. It is the cheapest form of mechanical transport, with its running cost of less than a farthing a mile each for four people. It is the ideal car for the beginner or the driver without mechanical knowledge, because of its acknowledged safety, its great driving-ease and its outstanding dependability. And it is built to stand up to year after year of gruelling wear.

Now, however, it has a more powerful engine with finer all-round performance and better acceleration; improved brakes; instant in action and free from skidding; a new flexible clutch; and full-panelled coachwork that is not only smarter but is SOUND-INSULATED the sides, scuttle, dash, rear panel and floor being lined with sound damping material to ensure quiet running. Invest in the new Austin Seven and you have quiet, safe and dependable motoring at its lowest cost.

Seven Prices (at works)

NEW RUBY SALOON . .	**£125**
NEW RUBY Fixed-H'd SALOON.	**£118**
NEW PEARL CABRIOLET . .	**£128**
OPEN ROAD TOURER . .	**£112**
TWO-SEATER . .	**£102 10s**

You buy a car-but you invest in an

AUSTIN SEVEN

Have you seen the Austin Magazine for March?

Austin Motor Co. Ltd., Birmingham & 479 Oxford St., W.1. London Service Depots: 12, 14, 18 & 20—Holland Park, W.11. 7 & 10—North Row, W.1. Export Dept.: Birmingham

Club News

ULSTER A.C.

The next big event is the Circuit of Ireland trial, for which entries close at double fees (£2 2 0) on March 15th. The Veteran's Run will definitely be held some time in the summer, as at least ten entries are promised. Amongst the cars so far unearthed is an 1899 Clement, and Messrs. Hunter and Ayrton, of Belfast, are offering to lend two cars to anyone who will prepare them for the run, which is marked contrast to the fantastic prices now asked in this country for any heap of rubbish that can be proved pre-1904.

We should like to see teams entered by the Veteran Car Club and Vintage Sports Car Club, and if reliable specimens were selected their owners might have quite an enjoyable tour. It is proposed to establish the limiting age of manufacture as prior to December 31st. 1912.

Secretary: 65, Chichester Street, Belfast.

GREAT WEST M.C.

S. H. Allard, driving his special Ford V8, walked away with the Hayward Tankard in the trial run over those severe and freakish conditions of a course on Bagshot Heath. Fourteen hills were served out by asking competitors to cover the route twice. Twenty-three started, of which the only mud-stormers to get through without penalisation were S. H. Allard, N. G. Watson, driving a motor unusual in this form of competition, to wit, a supercharged 2.3-litre Alfa-Romeo, and R. M. Andrews (M.G. P.B.)

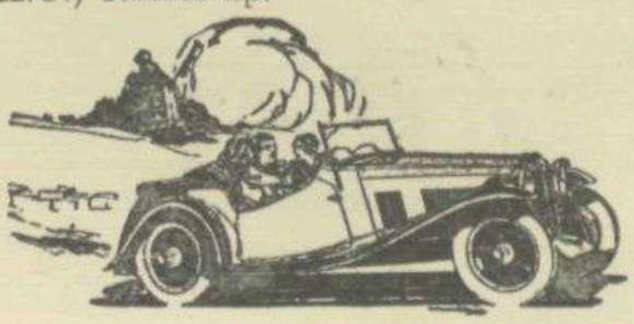
These drivers got up Red Road, as did C. M. Anthony (Aston-Martin) and K. Hutchison (Ford V8). As has happened before in this kind of scramble someone lost his engine in the middle of the Heath, and had to be salved in darkness and icy rain.

RESULTS

Hayward Trophy: S. H. Allard (Ford V8).
Eldred Cup: N. G. Watson (Alfa-Romeo).
First-class Award: R. M. Andrews (M.G.).
Second-class Award: K. N. Hutchison (Ford V8).
Third-class Awards: C. M. Anthony (Aston Martin), and J. H. T. Smith (Ford V8).

TORBAY AND TOTNES M.C.

A "special" ran off with the Premier Award in the Fill-Dyke trial, D. A. Simes (D.A.S. Special) being the victor and only competitor to get up the last hill. In the special test F. C. Rolfe (Singer) recorded the best time in 13⅘ secs., with J. Lucey (M.G.) runner-up.



RESULTS

Premier Award: D. A. Simes (D.A.S.).
Committee Cup: F. C. Rolfe (Singer).
First-class Awards: R. Green (M.G.), J. Lucey (M.G.) and J. Watts (M.G.).

UNITED HOSPITALS AND UNIVERSITY OF LONDON M.C.

The Cotswold Trial was held on February 21st, over a ninety mile course, in varied weather conditions. The hills were essentially of the better sort, and amongst the thirty-six competitors were many who used ordinary covers. In the parking place opposite the Cotswold Gateway Hotel some interesting motors assembled good and early. C. A. N. May had his blown P.B. M.G., "Buster" Baring came to marshal and was persuaded to drive his wife's 2-litre Frazer-Nash-B.M.W., N. V. Terry had brought a Type 55 Frazer-Nash-B.M.W. two-seater, C. E. Stothert his Balilla Fiat, Marcus Chambers was seen acting as back-seat driver cum ballast in a massive open Jensen Ford, G. Leyton had a crew of three in his low-chassis 4½-litre Invicta, C. D. C. Miller, in C.U.A.C. driving kit (very smart!) was running a Montlhéry M.G. Midget minus blower, and with normal tyres, M. Edmondson came in a touring Morris Minor two-seater, and J. K. Johnson's 1931 Frazer-Nash was another exponent of not-knobblies.

Secretary Hogarth arrived on a four-stroke Francis-Barnet. On Stanscombe a simple restart test on 1 in 4 failed ten cars, and Terry's B.M.W. and May's M.G. were outstanding. Darewski was reversed onto a mud-patch, but he calmly fitted chains to his white Talbot 90 saloon, and removed them before trying the observed climb.

A hairpin was included, at which one reverse only was allowed, and this failed several big cars, and one Morris Eight from sheer bad handling. This hairpin should be cut out of future trials, as there is another way up and the drop is considerable for anyone reversing too fast, while the hedge was considerably chewed-up, and although its owner, a sporting farmer, took it very well, damage to property is to be avoided at all costs. The upper reaches were merely steep and sandy, but scored some failures, though a most amazing chummy Austin Seven, steaming happily, just sneezed at the climb. Bismore failed six and Mackhouse only three, T. C. Wise (Ford V8) doing a spirited climb. Lunch at the Bear Inn, Rodborough, and then Nailsworth was tackled, resulting in twenty-one failures and providing Baring with an opportunity to show that he has lost none of his former skill, and can handle B.M.W.s as he used to do the "official" Frazer-Nashes. Seven failed in the Special Test on Bushcombe and May (M.G.) was fastest by a clear 3.1 secs., runner-up being Mansell (M.G.).

Piccadilly claimed nine victims. Watkins-Pitchford had lost reverse on his aged Frazer-Nash and Darewski had a tough time with the Talbot 90, though we overtook him on the sixteen mile run to the finish when the MOTOR SPORT Baby Fiat condescended to cruise at 60.

RESULTS

Hospitals Cup: C. A. N. May (PB. M.G., S.).
Members' Tankard: J. K. Johnson (Frazer-Nash).
First-class Awards: G. N. Mansell (M.G., S.), N. V. Terry (Frazer-Nash-B.M.W.), A. A. Baring (Frazer-Nash-B.M.W.).
Second class Awards: V. N. Beech (Sunbeam motor-cycle), T. C. Wise (Ford V8), C. E. Stothert (Fiat Balilla).
Third-class Awards: G. C. S. Montenaro (M.G.), J. Clough (Riley Sprite).

In medical tradition, Leyton's Invicta, ninth entry, was labelled No. 99.

The club is planning an ambitious programme, including three Donington meetings. It caters essentially for impecunious enthusiasts and a few vacancies exist for additional members. The subscription is 10/6 and the design of ties and badges is especially attractive. S. C. H. Davies is patron, Dr. Benjafield is president and Dr Roth hon. treasurer. Full details from: Hon. Secretary, H. C. Hogarth, 42, Torrington Square, London, W.C.1.

BUGATTI OWNERS' CLUB

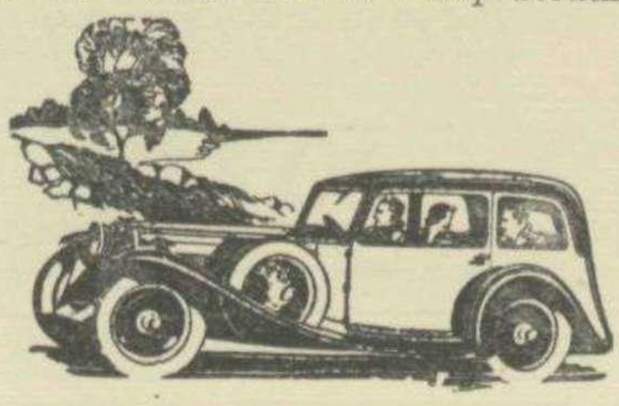
The annual dinner and dance was held at Claridge's on February 5th, the menu opening with Hors-d'œuvre Choisis 57 and Saumon Fumé au Castrol R and continuing in a distinctly motoring flavour. The annual general meeting will be held at the Green Park Club on March 10th, followed by dinner and a film-show. The competitions committee for 1937 is composed of K. W. Bear, J. K. W. Baines, J. Lemon Burton, J. G. Crowther, and C. W. P. Hampton.

The Opening Rally will be held on April 11th, probably at Wansford. Another issue of "Bugantics" will be issued this month.

Hon. Secretary: E. L. Giles, 2, Queen Street, W.1.

MARGATE AND DISTRICT C.C.

The Wye Cup trial was an exceedingly enjoyable and well-organised event. The first hills were comparatively easy, though on one of them Woolley lost a whole Ford V8 in the hedge. Mobbs' M.G. scored premier honours in the first special test, as did Bastock's M.G. in the second. After the lunch stop Stouting



CLUB NEWS—continued

had to be climbed, and the only successful attempts were those of K. Hutchison (Ford V8), Imhof, Macdermid, Bastock and Langley (M.G.s), and J. Eason-Gibson (1933 Ford V8).

RESULTS

Best Performance : J. A. Bastock (M.G. T-type).
Best in Opposite class : M. H. Lawson (Singer Le Mans).
Best Club Member : R. A. Macdermid (M.G. T-type).
First-class Awards : K. Hutchison (Ford V8), A. B. Langley, and A. G. Imhof (M.G. T-type), and J. Eason-Gibson (Ford V8).

GENERAL NOTES

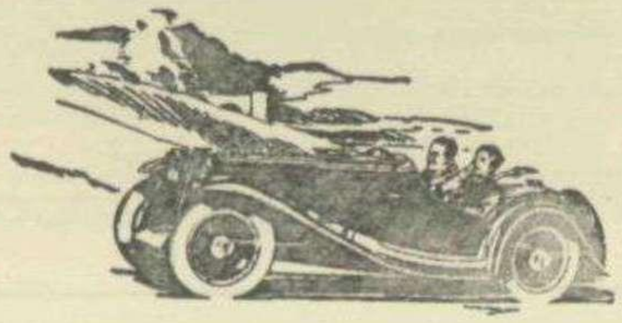
So this intense life continues ! The other Sunday a most pleasant day was spent marshalling on the Vintage S.C.C. trial. The 2/9 alarum clock which we use for recording standard time disturbed me, it seemed, unduly early, but then no doubt that is old age creeping on, a matter to which my attention has been called not infrequently since writing the Editorial for the last issue. But at last we were in the Austin heading for the rendezvous, by the British Salmson works on the Kingston By-Pass, where the crew transferred to the ever-willing Morris Eight, after leaving the Austin at the garage where, some years ago, we were thankful to leave " Chitty-Bang-Bang," after that motor-car had thrown tyres so effectively that a whole day was needed to tow it this far from South London, on an occasion when Brooklands was the objective. So to Marlow, after very amateur attempts at burglary at Marcus Chambers' premises, only to find that the cupboard was bare and the Chrysler that we had volunteered to drive down for him was apparently well on its way. At the start the Robertson-Roger brothers enticed me to travel with them in the Type 34 Frazer-Nash-B.M.W. saloon they had borrowed from their mother, and knowing that motor I was glad to accept. The trip to Lewknor was accomplished in the supple refinement that one has come to expect of the B.M.W., and we just sailed up Maidens' Grove and had time to visit some intriguing country inns in spite of being official markers of the route. And we had time on hand at the hill, where Heal awaited us, with husky-looking Ford V8, a Jensen-Ford and an M.G. Midget as transport for his helpers. Alas, the Morris was defeated by Maidens' Grove, a crew of three and a clutch that needed attention, and we only re-discovered it at the tea-stop, where practically all that remained of what I know must have been a vast tea was a lone, and cold, scone. The afternoon passed very pleasantly, the writer enjoying being amongst real motor-cars, doing their hill-climbing on ordinary tyres, and learning quite a bit about the tenacity of blue marking dye. The Robertson-Rogers sketched everything of note, including the motor cyclist who fell off gently on the downward journey and spent the rest of the afternoon rebuilding the model, the Morris-Cowley that so nearly ran away under the same conditions, making very Cowley noises, and Sam Clutton's leggings and umbrella. Finally, the run home, not too late, for a feed at the " Linden."

One of the good things about turning out to assist in trials organisation is the interesting places one visits that normally would be missed. On this trial we drank tea (yes ! tea ! !) at the " George and Dragon," Marlow, after negotiating the picturesque bridge in a morning fog with the swollen river swirling below. And we ate tea at the " Mill Stream," Amersham, where a mill-wheel is part of the building itself, and the spray from it plays on one's face when an innocent looking door is opened. Certainly we shall go there again when there is time to spare.

(N.B.—It was bad organisation that only one waiter was present to cater for all the hungry Vintagers. When planning a trial secretaries should write *first* to the hotels involved.)

Then there have been winter Sunday mornings when we have slipped swiftly and, we hope, unobtrusively through one or other of the stately University towns at church-going time, which never fails to please the driver and his passengers. Then there was an afternoon when we descended onto Broadway, Worcs., in warm sunshine, after sixteen hours behind the wheel, though the weather was deceptive, for it was late December, and soon we were fighting snow and ice. There have been runs along the South Coast, and unconventional glimpses of wintery sea, glorious views of the better bits of Kent, and scores of runs through obscure parts of Surrey and Sussex, that undoubtedly we should have missed had not a motoring competition bade us set that alarum clock for the early a.m.

On the Saturday after the Vintage trial an entertaining afternoon was spent with J. Eason-Gibson at Brooklands, practising J.C.C. Rally tests with the Earl of March's supercharged Lancia Augusta, which we both voted a really nice motor-car, possessed of extremely good steering and controllability, a beautiful gearchange and a most satisfactory and businesslike seating position. The joys of speed on the concrete were recaptured when we had a brief blind round the outside in company with a Ford V8 in the wintery sunlight, and the afternoon was enlivened by the spectacle of a well known M.G. driver well and truly sinking his standard saloon in a mud patch at the foot of the Test Hill. Eason-Gibson freely admits that he thoroughly enjoys driving tests and he certainly did some very snappy handling of the Lancia in the " Monte Carlo " and afterwards nearly set the rear tyres of the V8 alight. The Sunday was spent dispelling well and truly an illusion I have had for some time, namely, that during the winter one should confine marshalling duties to trials that start and finish within fifty miles of London. As recorded elsewhere, we started not too early in Eason-Gibson's 6 h.p. Fiat and got right down to the Cotswolds to assist with the trial of the United Hospitals and University of London M.C.—a club whose secretary cheerfully rides through two nights on a solo Francis Barnet to officiate and whose members, most of whom run weird motors and still scorn " comp." tyres, think nothing of spending two nights at that excellent hotel, " The Cotswold Gateway," so as to tackle real hills in daylight. We saw some exquisite views unsurpassed by those of any other county, at first lit by bright sunshine interrupted by scudding cloud-shadow and later dimmed by gathering rain clouds and the rapidly approaching dusk. And we met some very real enthusiasts, including a very keen M.G. driver from Bristol. It was gratifying, too, that they all appear to read this paper ! On the homeward trek we learnt a lot about skid-correction and were involved in our first accident, fortunately of a minor character devoid of personal injury, chiefly because authority sees no harm in blocking half a derestricted By-Pass road, planting a couple of oil lamps before the obstruction, and erecting a Stop-Go signal far above another oil lamp on the far side of the road, where the whole nasty business is rendered almost invisible by a hotel floodlight.



Notwithstanding, we were in bed again before midnight and so accommodating is the Baby Fiat that a feeling we have always had until just recently is returning—that these excursions are only really satisfactory if they involve a run of 100 miles at least, in both directions.

Given a good car there is ever something magic about a signpost reading " London —120 miles," seen just after you have eaten a hearty meal, donned the old leather coat and, tired, with muddy shoes and trousers, have decided that, with luck, you can still get yourself and party home before another day dawns.

Marshalling at a trial can be very good fun, as I have shown, but only if each man has one job to do, and one only. So it behoves club secretaries to get plenty of help good and early before their events, to send each helper clear instructions, and to provide a route to the hill direct, if there is likely to be any difficulty about getting to the hill or check from the start before the first competitor is due. In this case, armlets, route-card, check-cards, tapes, flags and diagrams, etc., should be sent direct to the marshal, beforehand. Now this means picking on people who can be relied upon to turn out, and to time, if it is humanly possible. Secretaries, may, and should, send a car-load of officials ahead of the competitors to see that all marshals are at their posts, who can save the situation if anyone is missing, but the important thing is that mostly such helpers are doing the job free of charge, for fun, and that fun evaporates if they have to rush and worry over several different jobs. If you wish to help, notify the secretary as soon as the event is announced. If you really want to pull your weight, start early, offer to do two hills or checks, and be prepared to return home late. If you wish to take a party and have an easy day, don't attempt more than one hill, or at all events don't attempt to hear the results at the finish into the bargain. We have considered the advisability of starting a panel of would-be marshals, with telephone numbers, on which harassed

CLUB NEWS—continued

secretaries could draw. The drawback lies in the feeling of obligation to total strangers and the lack of knowledge of their abilities and good faith. So, it is better, we feel, for readers who are keen to assist on the officiating side of the sport to write to one particular club, asking for a job and at the same time stating that they would like to be asked to turn out on future occasions. Expect a humble job at first and do it well. Then the secretary concerned will feel able to approach you next time and will regard you as a reliable official.

The golden rule is to work seriously and always make sure you are to be given a definite job. However humble, it seems, remember that you cannot have too many helpers. Remember, too, that most of the big official jobs in motoring sport are honorary. A very undesirable thing is for marshals to treat the whole thing lightly and either hand in useless reports or go off home without handing in anything, so that the unfortunate committee has to guess the results. If you really must get straight home, give your report to the last competitor if no other official is going to the finish. The pillar-box is no solution, because results are expected by competitors at the finish and by the weekly motoring Press on Monday morning. Does the R.A.C. do anything to ensure that results ring true? The solution rests so largely with the officials that I hope these notes will be read by prospective wearers of a marshal's armlet.

On the Saturday following the Hospitals trial we went to Brooklands again, this time in a deluge of rain and hail, to don competition numbers. Once again the "feel" of the Lancia Augusta was appreciated to the full and the punch it displayed low down the scale when the gasworks were opened up lent confidence for the afternoon's work, even though Eason-Gibson was worried about the abilities of the clutch, into which much resin had been injected the previous night, so that it locked solid after all the "dicing" was over, rendering Gibson's return to the Paddock even more hectic than he himself had intended. For ourselves, we hasten to congratulate the J.C.C. on not making passengers compulsory, so that the afternoon could be passed in the old Press stand by the finishing-straight, morally to assist the Lancia, but in actual fact to obtain comparative protection from the wind-swept beastliness outside. Gibson refused to be upset by these conditions, and accordingly nearly hauled off the front tyres on the wiggle-woggle, did some pretty grass-clipping round the Byfleet—and restarted on the Test Hill.

So that, having coped with a solid clutch and resin in the starter-splines, we could get home quite unashamedly, but not before we had had a decidedly exciting drive over that part of the new road course which is already opened, the Lancia taking the turns in long, controlled slides—very good for the soul and an attribute to Augusta stability. (One notes that there is a long straight between the corners, which are usefully wide, of nice radius, and only slightly banked—roll on May 1st.)

The next day an early start was made in Eason-Gibson's intriguing 1933 Ford V8 two-seater, with wings cut away expressly with trials motoring in view, but with everything else quite normal, if one excepts the involved arrangement of rubber bands that secure various bits of the instrument panel and controls, which are apparently beginning to feel the strain of hill-storming. A fierce snowstorm gave Gibson every opportunity to "warm-up" on the way to the start of The Winwood Cup trial, some of our tail slides being extremely sensational, but satisfying under command.

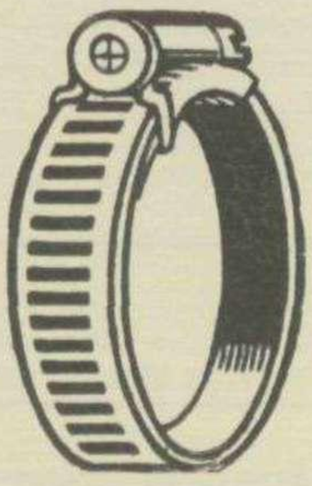
The same cannot be said of subsequent motoring, for on at least two left-hand bends the V8 showed a liking for the hedge, and at least one "L" driver stopped both car and engine to watch our rapid and not entirely directional approach. And on the last hill we charged a complete snowdrift with great effect, the marshals and onlookers promptly suggesting that we should do it again, though not supporting our suggestion that there should first be a silver collection for the driver.

The wintery conditions rather destroyed the sterner aspect of the trial, but it was immense fun just getting from hill to hill and certainly that drive, largely off the beaten track, in truly fairyland conditions (sorry boys!) was compensation in full. So after prolonged exchange of motor-lore at the finish, the hood was erected, the windows wound-up, and four enthusiasts came home very snugly to a sanded and shivering London.

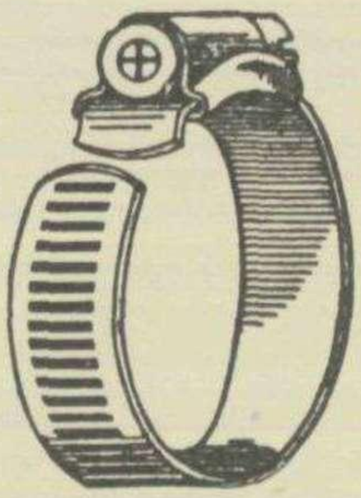
Really, the Ford V8 is a very remarkable motor-car. This one got a first-class award in the Wye Cup trial, has had four years' hard labour, still motors effortlessly on the road with a thoroughly satisfactory possession of power and performance, and has a market value of under £40.

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 & ACCESSORY DEALERS

MANUFACTURERS:
L. ROBINSON & Co.,
2, London Chambers, GILLINGHAM, KENT.

CLUB NEWS—continued

The season is getting into its stride now. As I've remarked before, it's grand to be an enthusiast.

BRISTOL M.C. AND L.C.C.

The Full Moon Cup trial was run off over a twenty-six mile course starting from Rodborough Common and finishing at Birdlip—well-known trials territory.

A novel system of allowing bonus marks in conjunction with two starting points on hills was in use, to obviate special test—will Major Johnstone please let us have a new edition of his book "Motor Trials" with details of these divers rules and regulations?

R. A. Macdermid—Saint of the hexagon—was the only driver to climb clean at two of the hills and the only driver to net those bonus marks at another.

Curiously, Nailsworth Ladder caused only one failure. A. R. B. Round (PB. M.G., s.) recorded 27⅘ in the special test with Macdermid runner-up in 28⅗ secs. Macdermid drove a model-T M.G. Midget.

RESULTS

Full Moon Cup : R. A. Macdermid (T-type M.G.)
Runner-up : A. R. B. Round (PB. M.G., S.).
Second-class Award : C. C. Evans (M.G. Magnette).
Third-class Award : W. S. Whittard (PB. M.G.).

Great plans are being put into execution to make a signal success of the Backwell House hill-climb on July 3rd.

SCOTTISH SPORTING CAR CLUB

A. C. Smith staged a very fine event recently, in the form of the Standard Tyre trial, and it almost seems that gradually interest is growing in storming gradients on Forts in place of Knobblies.

On the most severe section of all high praise was earned by Norman Gibson (PB. M.G.), T. L. McDonald (Singer), J. F. Diack (Morris Minor), H. G. Hannah (A.C.) and J. Spence (M.G. T-Midget).

RESULTS

Sleigh Quaich : N. W. Gibson (PB. M.G.).
Premier Awards (1½-litres or over): D. McQueen (Ford V8).
Team Award : "A" team: G. M. Frame and W. K. McDonald (Singers) and W. K. Elliot (Austin).
First-class Awards : N. W. Gibson (M.G.), T. L. McDonald (Singer), J. G. R. Watson (Ford), D. McQueen (Ford).
Second-class Awards : G. M. Frame (Singer), A. K. B. Clarkson (Ford), J. H. Blyth (Austin), W. K. Elliot (Austin), J. M. Archer (Standard), J. Flint (Frazer-Nash-B.M.W.), A. Dunn (Riley), J. Anderson (Anderson-Special), W. Stevenson (Morgan), W. J. Mill (M.G. T-Midget), W. L. R. Thorne (Frazer-Nash-B.M.W.), G. J. W. Moncrief (Ford V8), E. Pratt (Standard), L. Bissett (Wolseley), R. A. McMillan (Vauxhall), P. M. Goodall (Singer), J. F. Diack (Morris), G. F. Simpson (Ford), J. Spence (M.G. T-Midget), and H. G. Hannah (A.C.).
Third-class Awards : J. E. Playfair (Frazer-Nash-B.M.W.), J. P. Millar (Frazer-Nash-B.M.W.), T. G. Cunare (M.G.), I. C. Grant (M.G.), G. F. Ritchie (Wolseley), J. J. Nicholson (Ford).

All of which indicates a splendid entry, and indeed, only eight competitors failed to gain an award, and there were five non-starters. Bravo Scotland!

VINTAGE SPORTS CAR CLUB

The V.S.C.C. people started their Chiltern trial on February 14th from the George and Dragon at Marlow.

The fact that the start was an hour later than intended caused some entirely hypocritical grumbling, as it was fully apparent that everyone was very well able to occupy the time, and all twenty-one starters eventually left the George and Dragon entirely contented.

Widmere can be very difficult without knobbly boots, and none of the heavy brigade could touch it, though Parker's very specialised 1925 Lancia made a fine attempt, staving off wheelspin till quite near the top by using second gear.

Levy and Clapham just got up on 12/50 Alvises and Foxlee's Alvis was convincing, the passengers on all three resorting to colossal bouncing. Pitchford's decrepit looking Frazer-Nash hurtled up the hill entirely unaided by any bouncing, his passenger having his work cut out even to keep in the car.

Other good but unsuccessful attempts were made by G. Wilby (14-40 M.G.) and Mrs. Carson (3-litre Bentley).

Low Ruse did not cause quite so much trouble and several of the larger cars got up, including Swainson's 4½-litre Bentley and Windsor Richards's 30/98 Vauxhall, which never seems to have been seen within living memory with the hood down.

Maiden's Grove caused no failures but incorporated a reversing test at the bottom. Here, for the second year running, a 4½-litre Bentley (Allason's this year) made fastest time, with Miller's and Pitchford's 'Nashes second and third.

Lewknor was used for a combined see-saw and acceleration test. Parker was again outstanding on the Lancia, both he and Foxlee (Alvis) making perfectly judged performances. Few of the best times were aided by engaging reverse, and several people wasted a lot of time trying to find out where it had got to instead of allowing the car to roll backwards. The wet chalk surface also provided plenty of scope for skilful manipulation in restarting, and much diversity was apparent. Other good times were made by Pitchford, Allason, Levy and Clapham, and all were unofficially improved upon by H. P. Powell who gave a brilliant display on his H.R.G.

Much interest was caused by C. W. P. Hampton's entry of his beautiful 1922 blown 1½-litre Mercédès which once belonged to Raymond Mays and has recently been most thoroughly rebuilt. Most unfortunately Hampton mistook the length of the acceleration test and barely used the compressor.

The entry was divided into two classes and the results are as follows:—

RESULTS

Over 2-litres : J. F. Parker (Lancia) 1st class. J. H. Allason (Bentley) 2nd class.
Under 2-litres : D. D. Clapham (Alvis) 1st class. R. Watkins-Pitchford (Frazer-Nash) 1st class. G. C. Levy (Alvis) 2nd class.

The Club Bulletin is in future to be brought out in magazine form, and should make very interesting and amusing reading if it keeps up the present tradition.

The next event is the Sussex Trial on April 24th.

New members continue to be enrolled almost daily, and include John Morris (1913 200 h.p. Benz). The subscription is 12/6, with 5/- entry fee.

The Secretary is Tim Carson, "The Phoenix," Hartley Wintney, Hants.

"DICING WITH DEATH" *By NEVIL LLOYD*

For the benefit of those who have not yet read this book, it consists of a selection of Mr. Lloyd's articles on motoring sport augmented by the drawings of Mr. George Lane. Mr. Lloyd frequently competes in speed events and the good humoured fun poked at his fellow "dicers" and of which he is a past master, rings all the more true on this account.

The most commendable feature of this book is Mr. Lloyd's penchant for wandering from the point. He does this in the grand manner. He and his "ami de plume," Rollo Baring, in their thirst for material and under the influence of the said penchant (and perhaps even something stronger) find themselves running backwards and forwards between Poona, paying flying visits to Abyssinia, and as might be expected, doing great work in the Polish Corridor. This latter deviation was due to no better excuse than their efforts of trying to find out "Whether Motor-Racing has Come to Stay?" Needless to say, they fail majestically to solve the problem, having to dash off to Poona again.

A book with a very high laugh-page ratio.



Nevil Lloyd.

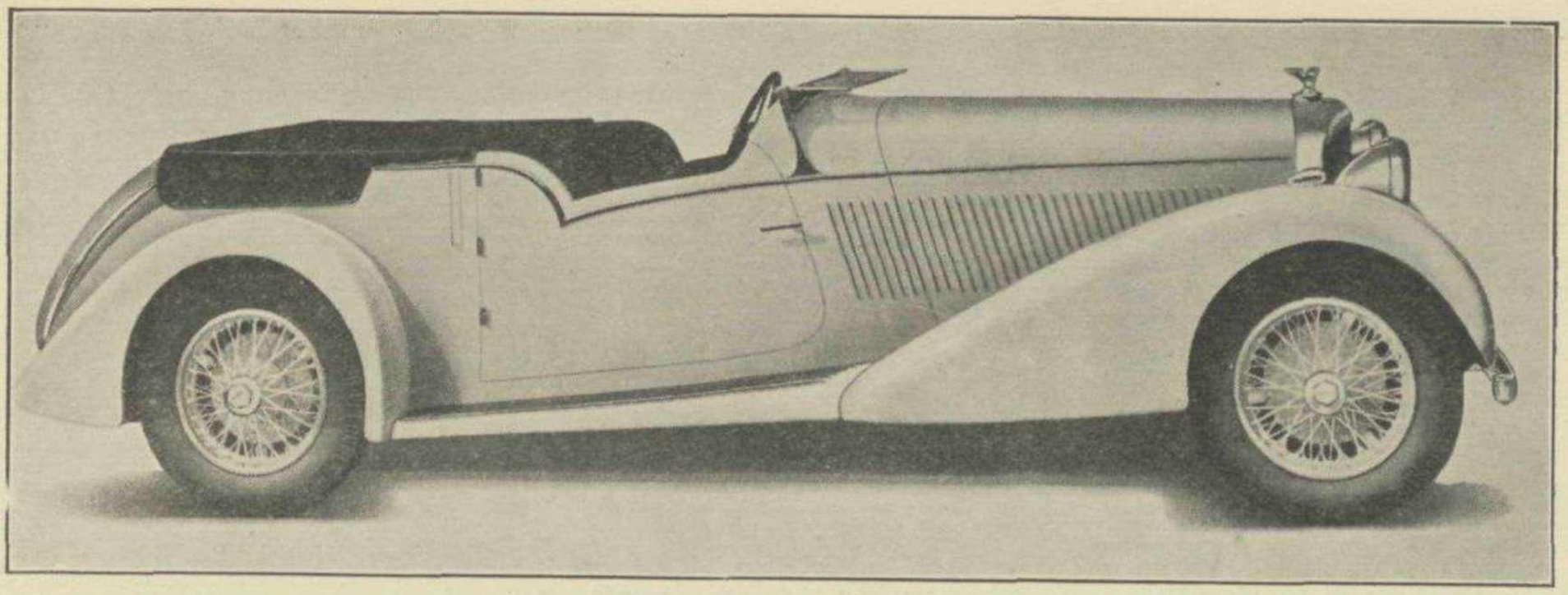
FIVE-DAY WEEK FOR ESSO STAFF

An example which it is hoped will be widely followed by big employers has been set by the Anglo-American Oil Co., Ltd., in introducing a five-day week for all their Head Office staff. In announcing this highly appreciated concession, the company makes it clear that their purpose is to afford employees ample opportunity for open-air recreation and exercises.

This very practical link with the National Fitness Campaign is not the only activity of the company in this direction for Fitness Classes have already been started with headquarters in Wellington Barracks.

Incidentally, the company has also conceded to all Territorials on their staff special leave on full pay for camp, in addition to the regular holidays.

The company's many thousands of employees throughout the provinces are to share in similar benefits as far as is practicable with the maintenance of public service.



The 4½-litre Bentley.

ON ACHIEVING HIGH PERFORMANCE

By

W. BODDY

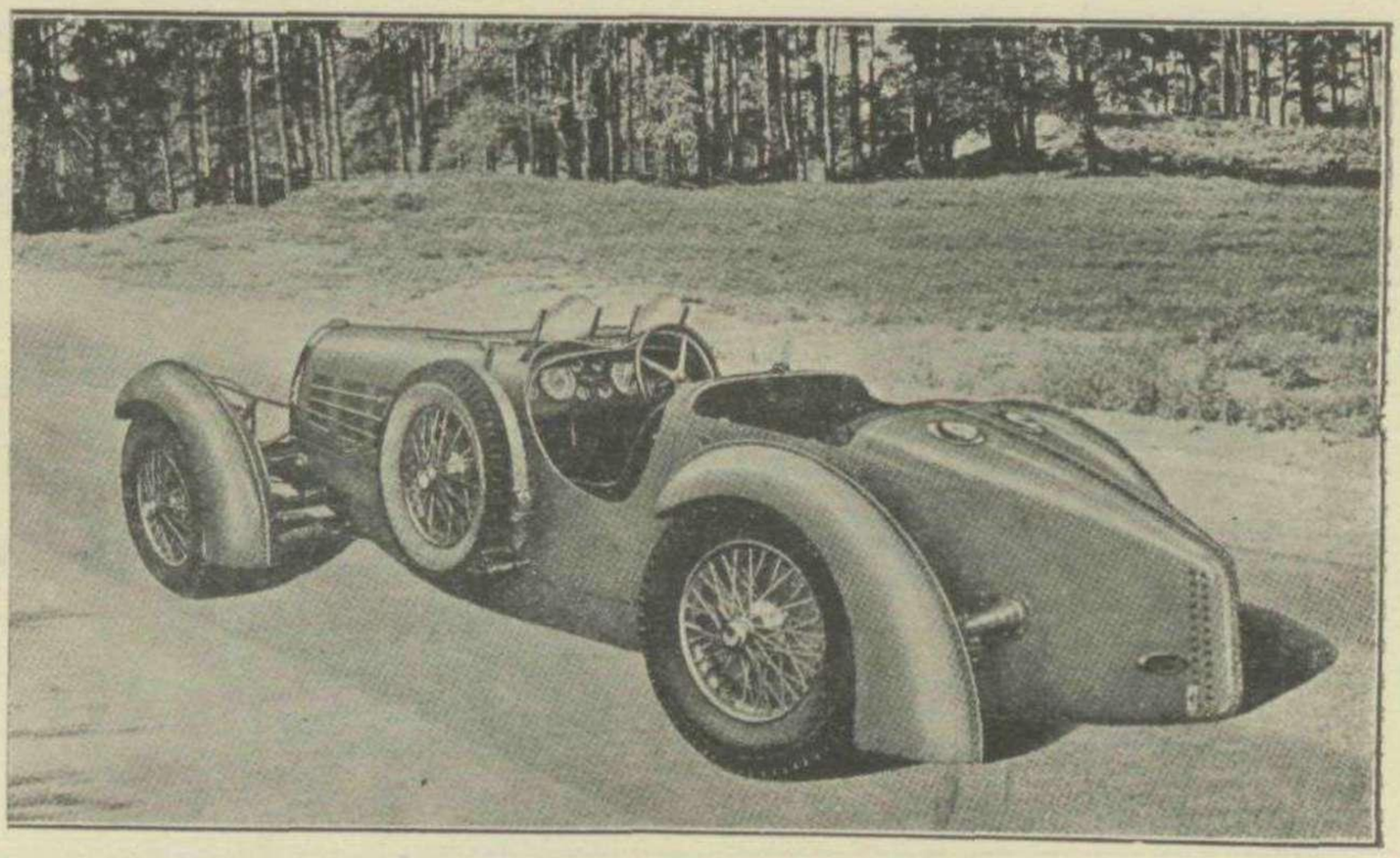
A very experienced automobile engineer told me the other day that in his opinion the buying public will very soon be demanding maximum speeds of 100 m.p.h. from production sports models. He knows the new German Autobahn, where cruising speeds and maximum speeds converge to the detriment of any engine the reliability factor of which weakens in the higher speed ranges, and he is familiar with conditions in America where he seriously believes that a 100 m.p.h. maximum will soon be the primary "selling-appeal." And he says that over here, in spite of our hopelessly out-of-date roads, the more wealthy sportsmen, who run big-engined fast cars, will soon be seeking assurance that if occasion permits and the mood moves them, a three-figure speed is waiting to be unleashed.

It is not proposed to dwell upon the possible accuracy of what is certainly an interesting prophecy, but there is no denying that present traffic conditions in this country, where we are continually checked in our journeyings by traffic-lamps, etc., do make high performance in all its aspects invaluable to all those who motor seriously for business or for pleasure. Now it may strike you as curious that the very items of performance that were once the playthings of enthusiasts should, in A.D. 1937, play a vital part in the speed and safety of modern motoring. Yet it is a fact that every designer who is worth his salt, attempts to instil into his mechanical child, at least, a reasonable degree of speed, liveliness, controllability and braking power, and, generally speaking, the fairer the distribution of these desirable performance factors, the nearer to commercial success is the vehicle in which they are embodied.

This state of affairs cannot fail to be extremely pleasing to sports-car enthusiasts, because all the sports-cars that have been evolved in the past have contributed something to our existing knowledge of how to achieve high performance, no matter how many of these cars have long since faded out, perhaps bringing despair and financial ruin on the shoulders of their optimistic sponsors. Likewise, all the efforts of the pioneers in preparing and racing fast motors over the race courses of Europe, some of whom achieved fame and fortune, many more of whom merely worked hard and risked their lives for no concrete return, have not been in vain.

One day I propose to collect all the bound volumes of "The Autocar" and MOTOR SPORT and as many back issues of Fletcher's "Motor Car Index" as I can lay hands on, and then retire to anywhere where the sun always shines and the wine and women are as they should be, there to write on the Evolution of the Sports-Car. Then perhaps I shall have a clear idea of what and when was the first sports automobile, and of the comparative efficiencies of the better examples through the ages.

All I know now is that there were really no "sports-cars" before the War. There were some extremely potent fast motors then in existence and in production, evolved to suit the requirements of those sportsmen who were returning to the idea that must have possessed nearly everyone right at the beginning of things, namely, that motoring embraced more than utility transport from A to B. Witness, for example, the Alphonso Hispano, the Alpine Rolls, the Prince Henry Austro-Daimler, the Ninety Mercédès-Benz, the Prince Henry Vauxhall, the Shelsley Crossley, the big La Buires and Talbots, etc. Certainly these cars were fast, and I will hazard a guess that, in spite of their avoirdupois, they picked up rather better than most of their brethren, but they were outwardly just touring cars, and certainly did not figure as anything else in their makers' literature. But they had big engines from which more power than usual was developed by enlarged bores or the applications of such tuning tricks as had



The Type 57S Bugatti.

ON ACHIEVING HIGH PERFORMANCE—continued

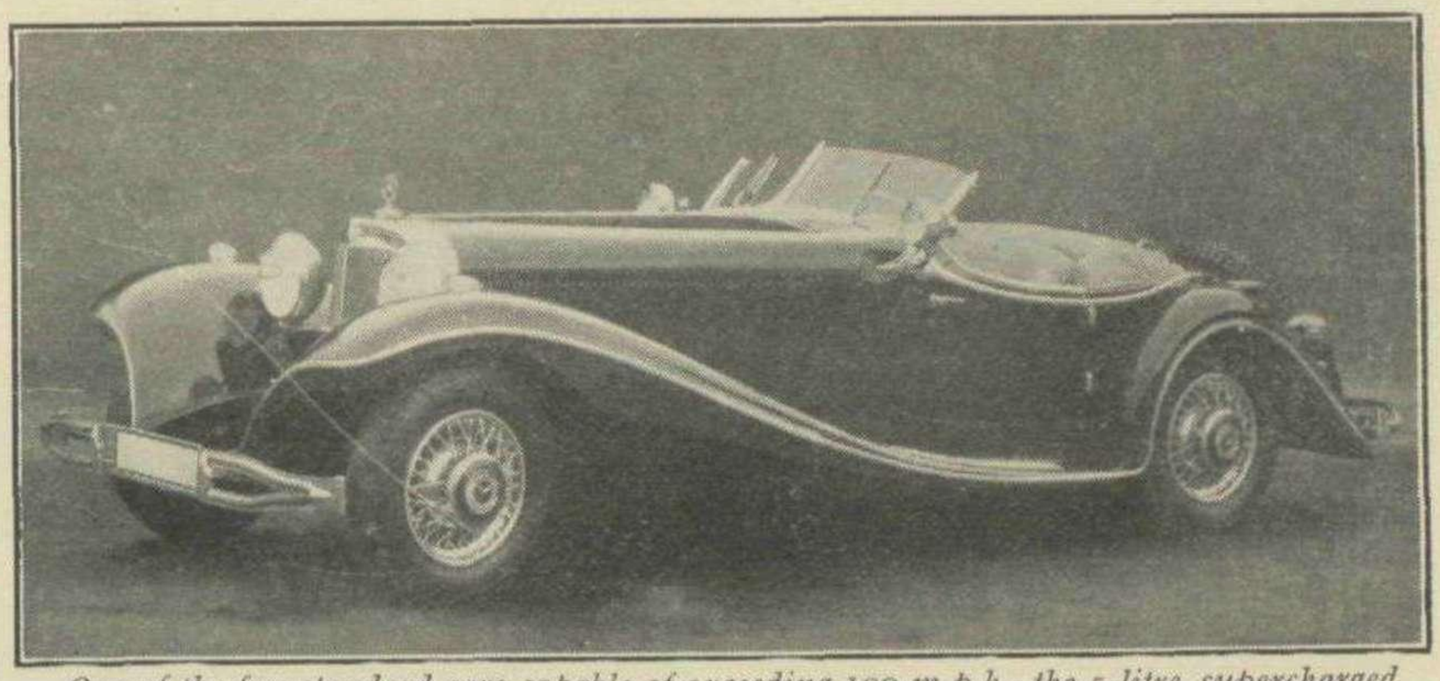
been learnt in a decade of fierce racing, and the germ was released.

Even the 30/98 Vauxhall was not really a special sports job, for when Laurence Pomeroy (then of Vauxhall s, though he afterwards went to Daimler s and is now helping to maintain the reputation of the world's most popular small aero-motors, at De Havillands) evolved the original 30/98 in 1913 for Mr. Higginson, he merely did some drastic things to a 25 h.p. Vauxhall touring engine and thrust the result into another Vauxhall chassis for which the big engine was never intended.

The power/weight ratio was abnormal and then, as now, that was the key to remarkable performance. But the 30/98 only became a sports-car, as such, in 1923, when valves in the head endowed it with 22 extra horses, in spite of a stroke docked of ten good millimetres.

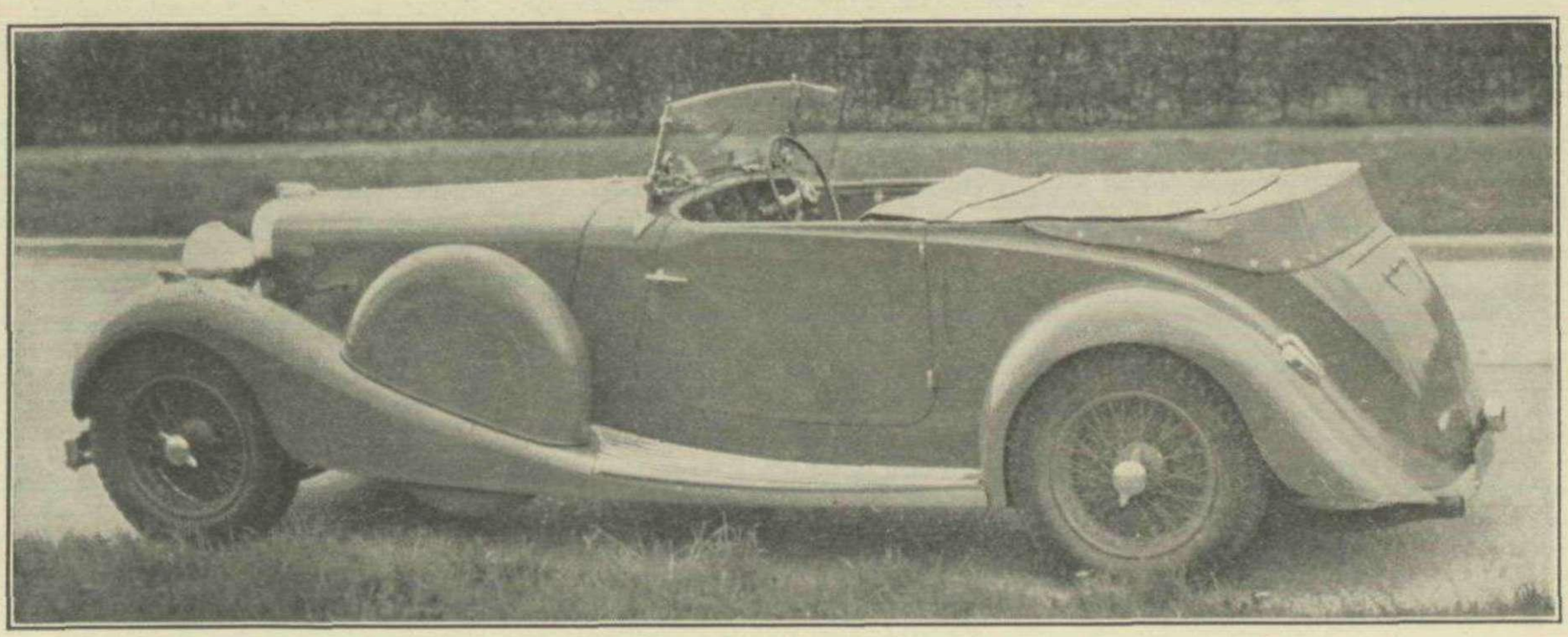
After the War, however, the specialised sports-car duly made its bow; perhaps because the war-time aeroplane was a plaything that made certain engineers' blood flow quickly, stimulating their peace-time imaginations. At all events, W. O. Bentley, Burgess of Humbers and some draughtsmen got together and gave us the 3-litre Bentley, sixteen valves, fixed head, shaft-driven o.h. camshaft, dual magnetos, dry-sump and all. The very first Bentley engine is still in existence and aroused much interest at the recent Bentley Drivers' Club dinner. Other advanced methods of wooing high performance followed. Seabrook had a remarkable aluminium o.h. camshaft engine in 1921. Bugatti startled small car folk by reason of an o.h.c. engine in which volumetric efficiency and mechanical losses were carefully studied. Later Salmson came to the twin o.h.c. idea. Lancia weaned the Lambda, Parry-Thomas the renowned Leyland Eight. Sunbeam applied their Grand Prix racing lessons to the production of the sports 3-litre in 1925. Lagonda had the 2-litre with "underhead" double camshafts, blown in later years. Straker-Squire built a camshaft "six" with separate cylinders, Vulcan tried twin camshaft construction, Lea-Francis likewise, as eventually did the Beverley-Barnes concern (which so faithfully served the old Bentley Company) after having tired of making an imitation Rolls-Royce. The Triumph people returned to a very advanced engine quite recently. Superchargers were applied to all manner of power-units, including the beautiful little Amilcar Six. So no one can deny that much money and thought, and some sound engineering, was devoted to development of the more advanced "racing" class of high-performance car. But, parallel with this, ran another and very important development, namely, the introduction and perfection of what is best referred to as the semi-sports car. M.G., Isotta, Hillman, Hispano, Sunbeam, Riley, Fiat, Alvis, O.M., Excelsior, Rover, H.E., Ansaldo, Alfa-Romeo, Triumph, Hadfield-Bean; scores of others, listed sporting versions of their utility models, or made semi-sports chassis. It was a question of reducing the wheelbase, lightening things a bit, tacking on another carburetter, perhaps altering gear-ratios and replacing cast-iron pistons with alloy. The net result was greater liveliness and 10 or 15 m.p.h. more pace, without untold upheaval of the manufacturing plant and, with luck, little additional worry for the service department. Engineers were pocketing their dreams and getting out practical high-performance cars that would sell and show a profit.

Now I am going to ask you to bridge a gap and come to the present state of things, because, although we do not publish a serial story, MOTOR SPORT is not elastic, and I cannot here mention every line of development. What do we find?



One of the few standard cars capable of exceeding 100 m.p.h., the 5-litre supercharged Mercedes-Benz.

The sports-car posing as a touring car finds no place, because substantial construction does not permit of modern performance standards with power-units of "utility" design. I suppose that pre-war tradition finally died when the side-valve 20/70 Crossley and 45 h.p. Renault sports job ceased production. But a modern counterpart is found in the high-performance American, with side or push-rod o.h. valve, multi-cylinder engine. True, such engines are subjected to extensive research and employ quite high-compression-ratios and so on, but virtually they are simple units, suited to quantity production. They hold their tune splendidly, are very lively and, mounted in light chassis, they are productive of a performance that shames



The 4½-litre Lagonda has an all-out speed to suit the most blase.

ON ACHIEVING HIGH PERFORMANCE—continued

many of our truly expensive sports motor-cars. The average big American has a power/weight ratio around .92 lb. per c.c., and that spells performance of the kind that is so very desirable under this Belisha regime. I have a great respect for these transatlantic automobiles, which are well suited to those seekers after high performance who do not have to devote too much attention to running expenses and who do not expect a car to serve in 1946 as it serves in 1936. Take just one example :—the Ford V8, now an all-British production. With a big closed five-seater body it does 80 m.p.h. on top, it can accelerate from rest to 50 m.p.h. in about 11 seconds, and it does over 20 miles to a gallon.

At the price, what a truly remarkable car ! The only thing that makes me shudder when I contemplate the extent of the American Invasion is the thought that so much performance is there to be turned on by so many people who have not the qualities that make a safe sports-car driver. Moreover, these cars are built for comfort, and are consequently suspended on very supple springs and given very low-geared steering. A friend of mine who loves the real motor-car once suggested to me in all seriousness that a special speed-limit should be imposed on cars of this kind. Actually, they are quite safe, of course, if they are sensibly driven, but they do not handle quite as well as our better high performance cars. I don't think there is any special mystery about this, whatever technicians may make of it. If you have ever built Meccano models of cars or trucks you will probably recollect how badly they ran if the axles were at all out of parallel. Now normal leaf-springing systems put the axles out of parallel every time a wheel rises over a bump or dives into a pot-hole, and with flabby tyres and the considerable weight involved, it is not surprising to me that rough surfaces and tram-lines often impart a feeling of insecurity to our modern touring cars. That, I think, is quite a good argument in favour of independent suspension, quite apart from safer riding and decreased chassis movements. It is also a sound reason why you should see that spring pivots and shackles are in first-rate trim, particularly if you run an elderly motor. The Railton, Brough-Superior, Lammas-Graham and Jensen, as naturalised Americans, have chassis more suited to fast driving, of course.

Coming to sports models in general, we see the outcome of those semi-specialised jobs, or gingered-up tourers, of a past decade. For the trend is to employ quite straight-forward engines, usually with vertical o.h. valves actuated by push-rods and rockers, normally disposed components, and ordinary constructional methods. The necessary responsiveness and output of adequate horses is achieved by careful attention to details of design. And because these engines possess horses with hairier legs, as S. E. Cummings would put it, than purely utility power-units, it is possible to offer higher performance while using more rigid chassis frames. More rigid chassis members spell vastly improved road-holding, and, although we once used to maintain that only race-bred motors really controlled properly at speed, I think you will concede that all modern cars that are justified in going down in their maker's literature as " sports models," leave nothing to be desired in this respect. I will not attempt a list of all the cars that follow this trend, because I should probably forget some of the best, but engines like those of the modern M.G.s, and Frazer-Nash-B.M.W.s and Bentleys and Lagonda, Alvis, Talbot, Riley, Rolls-Royce, and lots and lots of others are the type I have in mind. A very handsome performance with a high degree of economy and complete reliability is possible with this line of attack.

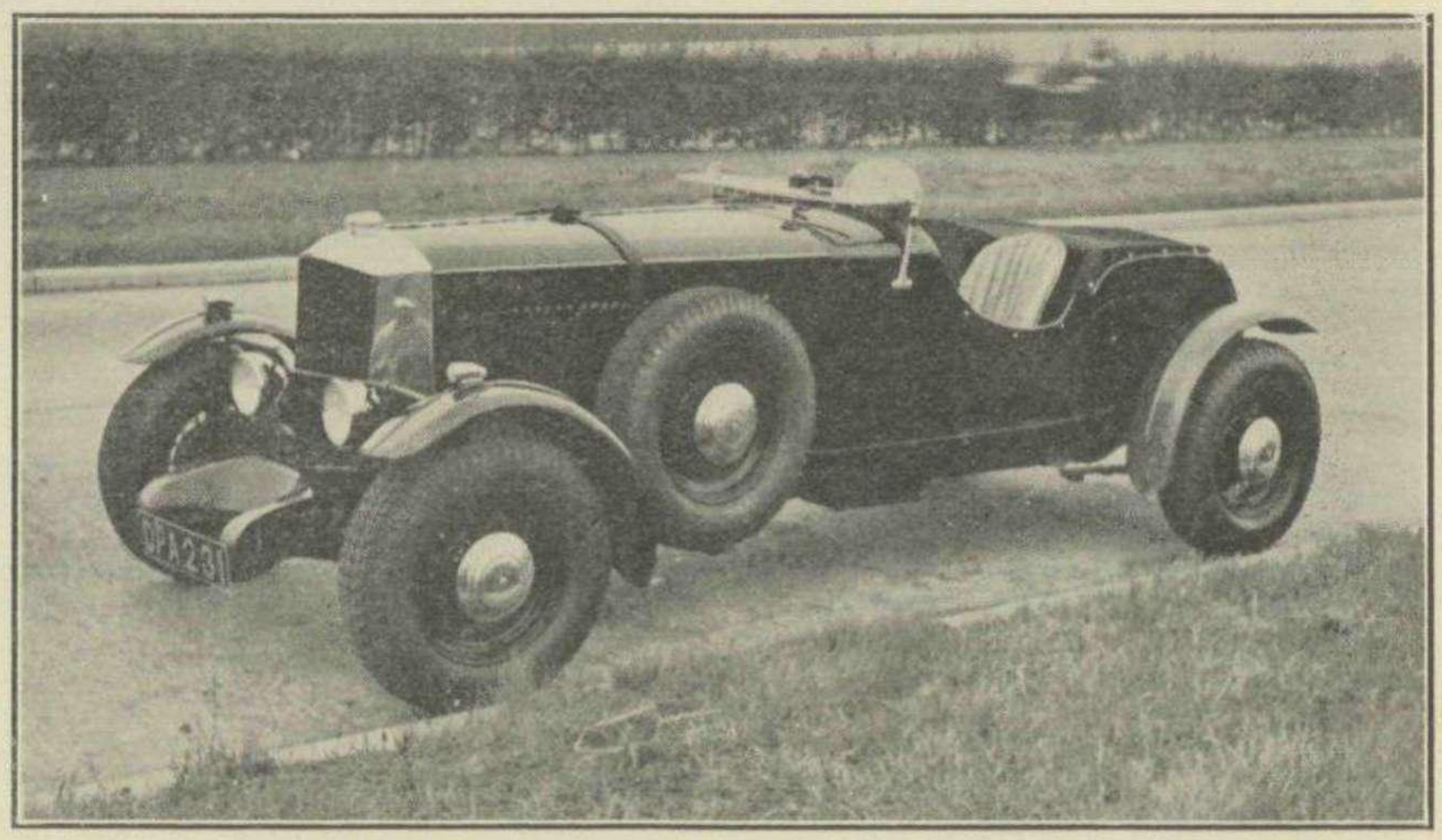
What of the " pur sang " ? Certainly it is by no means defunct. Bugatti and Alfa still make racing-type sports-cars and Mercédès-Benz applies a very fine blower system (blower is correct in this instance) to a more normal engine, thereby trapping the high spots of both types. W. O. Bentley is helping the V12 Lagonda to cut its teeth and Georges Roesch displays real artistry in the design of the eight-in-line Sunbeam. A.C., Alta, Frazer-Nash, Rapier, British-Salmson and others woo high performance in the most effective method of all, justifiable when first cost is not of extreme importance and when the designer is a man of true ability and long experience. Those who favour this method of in-building performance can take heart from the fact that out of all the cars tested in a twelvemonth by " The Autocar," only the modern 5-litre blown Mercédès-Benz and a second hand Type 55 blown twin-cam 2.3-litre Bugatti and a second-hand 8-litre twenty-four valve o.h.c. Bentley achieved the magic 100 m.p.h. Advanced engines of this sort develop so much power that chassis can be planned to give the highest possible controllability, for weight hasn't to be lopped off here and eliminated there or space conserved to further reduce avoirdupois. And a man who can design machinery of this kind should be able to make a steerable chassis to accommodate it. It used to be said that such engines were unsuited to road conditions, being noisy, oiling their plugs frequently, and being very costly to service. But when Ettore Bugatti offered the sporting public his first twin-camshaft sports model six years ago, he proved that extremely high output is possible without invoking these shortcomings, and if maintenance is a big item, there is the consolation that high gear-ratios can be pulled and the mileage between top-overhaul can be considerable. And if anyone doubts the silence of over block camshaft machinery, he has not been out in the Type 49 and subsequent Bugatti models. Small capacity engines usually depend on high rates of revolution for the output of horses in a quantity sufficient to produce vivid performance, even given a light chassis, and in this respect advanced design has points in its favour.

Admittedly this method of trapping sporting performance does not show up so well against that which utilises a carefully designed modern engine of conservative layout in a frame of moderate weight. But had the development of the " pur sang " been carried along with equal fervour the position would be very different, as witness the capabilities of that ex-Birkin blower Bentley or the possibilities of a supercharged 8-litre Bentley or a 57S Bugatti with the G.P. motor, for instance.

But with Hore-Belisha on his throne, and remembering the limited number of persons who could purchase and drive such motors, this development appears illogical.

So, in looking to the future, when the buying public will seek that 100 m.p.h. maximum and even better acceleration than it now enjoys, I visualise a medium-capacity push-rod sort of motor-car, as likely as not endowed with those hairy horses by the correct application of forced induction. It may even be that Laurence Pomeroy, Junr., with the variable delivery Velox supercharger, is due to start a new era in sports-car motoring, just as his famous father did all those years ago before the War.

Continued on the 3rd column, next page.



The Sports Railton is an enthusiast's motor car.

VETERAN TYPES

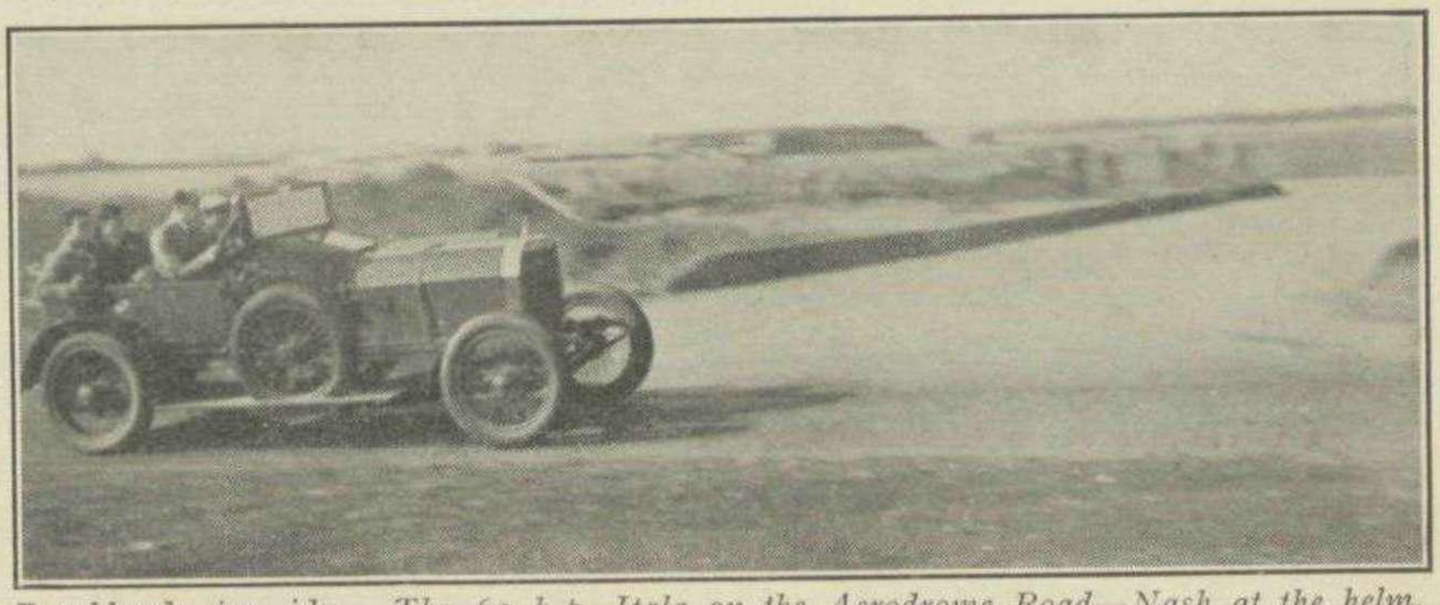
There are still quite a few enthusiasts who seek to run real he-stuff motor-cars, or who have an appreciation of cars with notable histories, and in the past Veteran Types have been given a considerable amount of space in MOTOR SPORT.

Some interesting developments have of late taken place in this sphere of activity.

Thus John Morris, of the S.U. Carburetter Co., Ltd., hopes to have the 200 h.p. four-cylinder four-seater Benz running again by April. The gearbox, which was in about fifty pieces as a result of a speedy outing on Southport sands, has now been successfully welded. The engine has been fitted with a booster magneto and two semi-downdraught 2½" S.U. carburetters, and is reported to start extremely easily.

The famous 21-litre Fiat "Mephistopheles" is intact and in fine running order, and said to make occasional trips on the road, when it gives 12 m.p.g. if the revs. are kept down to about 750 r.p.m. In the same locality is one of the racing 5-litre straight-eight G.P. Ballot cars, which has a 108 m.p.h. Southport Certificate, and gives 20 m.p.g. on the road. Its owner runs a 1921 30/98 Vauxhall and used to possess one of the Parry-Thomas-designed, 1½-litre Spurrier-Railtons. Also in this locality is a sleeve-valve chain drive four-seater Daimler with no accelerator, two gear-levers, and a mixture control worked with the left foot.

The aero-engined car described by a correspondent in MOTOR SPORT in December 1933, and believed to be one of the Chitty "replicas," has been sold for £3 as scrap and completely broken up and the same fate has definitely overtaken "Chitty-Chitty Bang-Bang I." Clutton and Pitchford are sharing the ex-Dunfee 1921 3-litre G.P. Ballot, the 1914 T.T. Sunbeam four-seater is stored at University Motors, a pre-war Minerva landaulette is running about in Cheshire, and we know of several early Rovers up for disposal. Two big 1907 Fiats and a pre-war Audi have turned up in London, and Tim Carson has an Alphonse Hispano and the T.T. Vauxhall-Villiers. J. Pole has unearthed a 1906 three-cylinder Vauxhall.



Brooklands joy-ride. The 60 h.p. Itala on the Aerodrome Road—Nash at the helm, Robertson-Roger beside him, C. Clutton and W. Boddy in the tonneau.

The Old Light Car Run mentioned last month has occasioned some interest in early small cars. The Swift cycle-car has been broken up, but another one, in really good order, has come to light in London, and a Peterborough enthusiast has unearthed a pre-war two-cylinder Humberette.

INFLATED PERFORMANCE

MARSHALL SUPERCHARGING FOR POPULAR CARS

Having a great respect for the Morris Eight, we were interested when Marshall Drew and Company, Ltd., invited us to try a saloon edition to which a Marshall supercharger installation had been applied. No alterations of any sort had been made beyond the addition of the blower set, the cost of which is £29 10s. (fitting 30/- extra) in this particular instance. The Roots-type Marshall supercharger is rigidly mounted over the cylinder-head, is lubricated automatically from a tapping of the engine circulation system, and feeds into a special ribbed intake pipe. An S.U. carburetter is fitted, of larger size than that supplied as standard on the Morris Eight.

In making the test we asked an experienced driver to follow us in an unblown Morris Eight saloon of identical type, and over give and-take roads our superior acceleration and higher cruising speed were very evident. The Marshall-blown car settles down so easily to a cruising speed of 50-55 m.p.h., and attains this pace so rapidly after checks, than an ordinary car of the same type is soon left far behind. The engine of the car tested made a good deal of noise, especially when accelerating, but the blower is virtually unobtrusive. Its presence has greatly improved the low-speed running, so that top gear suffices down to a crawl and the subsequent pick-up is clean and regular. There was considerable lost motion in the throttle connections, to which one soon became accustomed, and the engine stalled when the car was stationary unless the throttle was depressed slightly. On one occasion considerable smoking accompanied by a smell of burning was evident, but generally the temperature and oil-pressure remained normal. On a long hill with several acute bends and a gradient of 1 in 4 we climbed in second gear, four up, whereas the other Morris needed bottom gear and was reduced to a crawl with only the driver aboard. By using bottom gear momentarily on this hill a very fine ascent was made. On main-road hills this improvement in performance is naturally very pronounced, and materially improves the average speed capabilities. The actual acceleration figure from 0 to 50 m.p.h. is 17.5 secs., which corresponds to a figure of 46 secs. for the same test with the latest type standard model. The car tested had been used extensively for experimentation and demonstration, and its steering and braking qualities did not encourage speed tests, but it is understood that on second gear 45 m.p.h. is possible before valve-bounce intervenes, and that 72 m.p.h. is possible on top. These speeds represent an improvement of 6 m.p.h. and 16 m.p.h. respectively over those obtainable from an unblown Morris Eight. The fuel consumption works out at 25 m.p.g., driven hard, but it is possible to use a different needle in the S.U. carburetter, when the performance is slightly reduced and the consumption improved.

The engine started easily and did not spit back or misfire, but it pinked excessively at certain throttle openings, in spite of the use of Cleveland Discol fuel. It has run 10,000 miles with the blower installed, since when, we are assured, no trouble of any sort has been experienced, and it would seem that the need for decarbonisation accounted for the pinking, particularly as the supercharge pressure is as high as 8 to 9 lb. per square inch, while the compression-ratio is standard. Naturally, special heads, stronger valve springs and raised-axle ratios can be utilised with supercharging if desired, but experience of this Morris Eight indicates that they are not essential to a substantial improvement in performance.

ON ACHIEVING HIGH PERFORMANCE—continued from preceding page

Certainly I have heard of some interesting experiments with one of our most outstanding high-performance marques, in which a silent centrifugal blower is being employed to increase the upper-end performance of an engine sensitive to camshapes, which already gives an excellent output at lower speeds with its existing highly satisfactory camshaft. A straw in the wind, perhaps. In the meantime there are three distinct ways of achieving high performance, and it is up to you which one you choose to buy.



The Mercedes-Benz stand at the Show. The impressive car in the foreground is the 5.4-litre Mercedes-Benz roadster.

Herr Hitler Opens The International Motor Show

Influence of the Autobahnen

Independent Springing and Cabriolet Bodies

BERLIN'S GREAT EXHIBITION

Will Londoners ever see a team of British racing cars leading a procession from Whitehall through the main streets of the city, past Hyde Park Corner, down Kensington High Street to the ceremonial opening of a Motor Show? It seems unlikely, but that is what occurred at the opening of the International Motor Exhibition at Berlin on February 20th.

Four and a half miles of the main streets of Berlin were closed to all traffic, and thousands upon thousands of Nazi troopers lined the pavements. In the Wilhelmplatz, opposite to the Chancellor's residence, gathered the racing-cars of which Germany is so justly proud. The stately buildings echoed to the high whine of the Mercédès-Benz superchargers, to the sharp bark of the Auto-Unions. Caracciola, von Brauchitsch, Stuck, Rosemeyer, all the famous drivers were at the wheel. Racing motor-cyclists also figured in the procession, and Herr Hitler himself drove in state to perform the opening ceremony.

Germany is a motor-minded country, and is not slow to realise the value to the national prestige of her successes in Grand Prix racing, and to give her champions the place of honour in what is regarded as a national occasion At the Show itself, Caracciola's record-breaking 12-cylinder Mercédès-Benz, one of the Grand Prix Auto-Unions, and Henne's all enclosed *welterchord* B.M.W. were prominently displayed.

Herr Hitler in his opening speech had much to say of the great strides which the German motor industry has taken in the last few years. The first "four years' plan" was started in 1933, and the second "four years' plan" began on January 30th, 1937.

His object was to bring the price of cars within the reach of all classes. If a man started with a cheap car, soon he would want something better, and thus manufacturers of expensive cars would also benefit in the end. The production of synthetic fuel and rubber was proceeding, and he hoped that in about a year and a half Germany would be self-supporting in these essentials, as well as in other raw materials and minerals necessary for car manufacture.

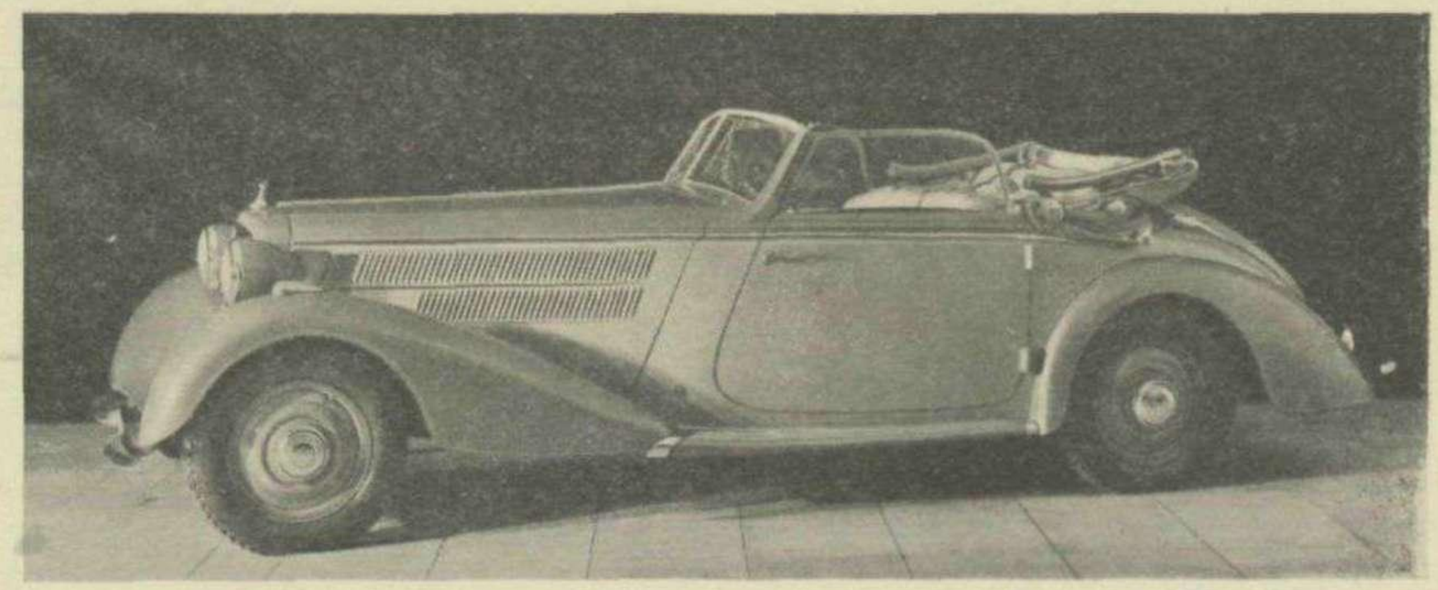
The eagerly awaited *Volkswagen*, or people's car, to be produced under State auspices, at a price which, it is believed, will not exceed 1,000 marks for a full five-seater family car, will, Herr Hitler said, make its appearance when they have sufficient materials, synthetic or natural, in Germany itself. Thus it may be expected within the period already mentioned.

The *Autobahnen* are already exerting their influence on German design. Streamlining is being encouraged, and cars of high maximum speed are developed. Several manufacturers made a talking point of a cruising speed of 70 or more m.p.h. In spite of the perfect surfaces of the new roads, however, independent suspension is also proceeding, and a considerable number of German cars have all wheels independently sprung.

The other feature of the Berlin Show was that on almost every stand cabriolet, or convertible, bodies of high quality were shown. This type of body, which included cars generally known as drop head coupés, is in Great Britain still largely confined to specialist coachbuilders. There were not many genuine sports-cars on exhibition, but a far greater proportion of cars which could be opened completely were seen than at Olympia.

A brief review of the German motor industry must inevitably start with the great Mercédès-Benz firm, most famous of Continental manufacturers. The 5.4-litre supercharged car, with its maximum speed of over 100 m.p.h., has now direct gearing on the "over-top" which can be engaged in a semi-automatic manner, instead of on third gear as on the previous model, and with most of the other Mercédès cars.

A new Mercédès-Benz type, however, is the 3.2-litre, which has a four-speed all-synchro-mesh gearbox. This is available either with a long or short wheelbase. Another Mercédès-Benz novelty is on the Diesel-engined car, where an



The Auto-Union Audi with the new special cabriolet body.

A good start for 1937

The 1½-litre E.R.A. in which I. F. Connell gained first place in class and second in race at the Swedish Winter Grand Prix, February 14th, was tuned and prepared by

MONACO

MOTOR & ENGINEERING CO. LTD.

★ *ENSURE SUCCESS THIS YEAR BY HAVING* **YOUR** *CAR PREPARED BY MONACO*

HIGH STREET, WATFORD

Telephone : Watford 4491 (2 lines)

The lighter side of Motor Sport

"Dicing with Death"

By NEVIL LLOYD

with illustrations by

GEORGE LANE

FIVE SHILLINGS

(By post 5/2)

From all good Booksellers or from the Publishers

METCHIM & SON, LTD.

32, CLEMENT'S LANE, LONDON, E.C.4

World-Wide Racing News

AIR - AUTO - BOAT - MOTORCYCLE

The World's Greatest Racing Personalities write Thrilling News — Stories — Facts and Actual Experiences each month in this New Complete Motor Racing Publication.

Be sure to get your copy of the big special issue commemorating the Silver Anniversary of the five hundred mile classic Indianapolis Speedway Auto Races. Subscription by the year, 12 shillings ($3.00). Sample copy 1 shilling (25c). Published monthly.

Advertisers can now reach the great American market at very low advertising cost. Write for rates.

MOTOR RACING

Air - Auto - Boat - Motorcycle

56 E, CONGRESS ST., CHICAGO, U.S.A.

BERLIN'S GREAT EXHIBITION—continued

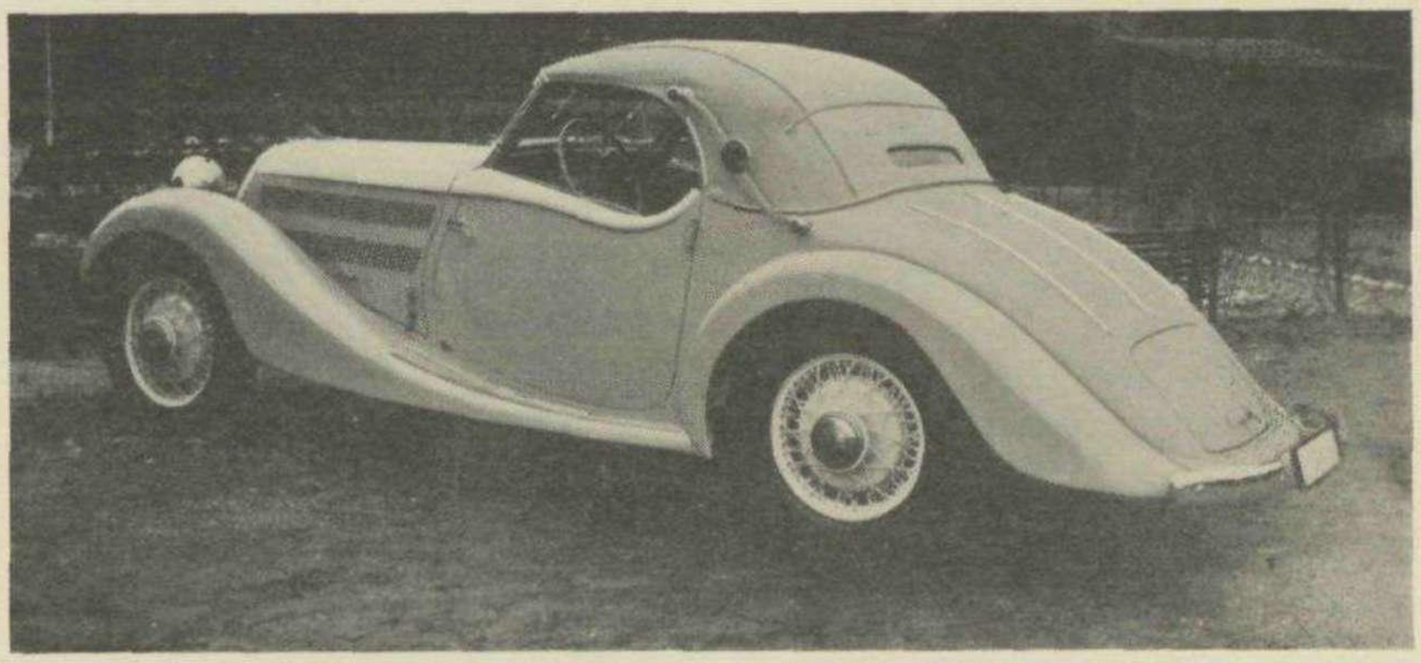
electric pre-heater for starting purposes enables fuel vapour to be drawn in instead of air.

One of the fastest machines at the Berlin Show was the 2.9-litre supercharged Alfa-Romeo two-seater, developed from the monoposto racing-car, from which it derives its double blower. A speed of 115 m.p.h. is claimed for this car.

Maybach showed an impressive display, including a sports roadster on the 3,791 c.c. 140 h.p. chassis. A big six-seater limousine appeared on the 8-litre 200 h.p. car.

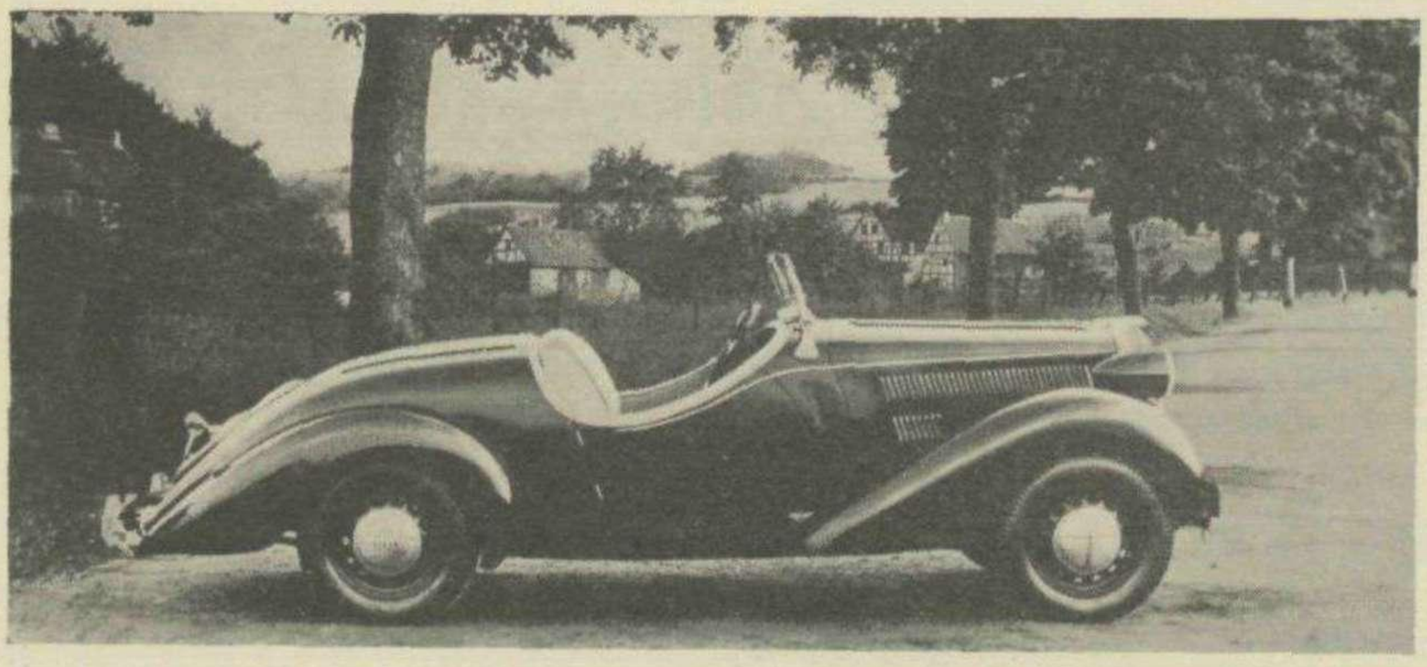
B.M.W., known, of course, as Frazer-Nash-B.M.W. in England, have now got the new 2-litre sports model in full production, and this car was a centre of interest. It was seen at Olympia, and has already won its spurs in the Tourist Trophy. B.M.W. also showed several new cabriolet bodies, which may make their appearance in this country. A distinct novelty was the natural hair calf-skin upholstery on two cabriolets, claimed to be warm in winter and cool in summer.

The only British firm exhibiting at the *Aussellung* was Austin. Lord Austin himself was present at the opening ceremony, and was seen discussing the exhibits with Herr Hitler. On the Austin stand appeared the "Nippy" sports Seven. Austin cars, with their typically British design, have yet won great respect in Germany, where unconventional features often attract.



The handsome sports two-seater on the Hanomag. The cabriolet body was made by Hebmuller.

A new Opel was the 2.5-litre Super Six, which appeared as a two-seater sports-car on the special coachwork Hebmüller stand. Hebmüller also showed a very handsome two-seater sports cabriolet on a Hanomag.



The Opel sports two-seater super six with coachwork by Hebmuller.

Handsome cabriolet bodies also appeared on the Ford stand, one V8 having particularly luxurious and roomy coachwork. The Ford Ten was shown, as the Eifel model, with a sports two-seater body, of attractive lines.

Auto-Union had no genuine sports-cars on exhibition except the 2-litre supercharged Wanderer (the racing-car was on a separate stand), but a number of cabriolet bodies of sports-type were seen. The 5-litre Horch appeared with a beautifully finished four-seater cabriolet, and the front-wheel drive Audi, the Wanderer, and D.K.W. were all represented with this type of body. Horch have also a V8 engined car, with the engine set far forward, allowing capacious body room.

Hansa had several new models, all with complete independent suspension, and a sports-saloon on the 1.5-litre chassis had a graceful streamline which obviously would be of great effect on the *Autobahnen*. Adler exhibited a sports roadster cabriolet on their new 2.5-litre car, which has a normal rear drive, but all-independent suspension.

The Berlin Show, it should be understood, includes motor-cycles, transport vehicles, garage equipment, accessories, and many other features, housed in eight inter-connected halls, besides cars, and is thus equivalent to the three London motor shows (cars, motor-cycles, and transport) combined.

For Motor Racing News in the United States read

COAST AUTO RACING

Authentic News of Speedway Events—Published Twice a Month

SUBSCRIPTION PRICE PER YEAR $2.00

All the latest news of A.A.A. races and Midgets—Pictures of Cars and Drivers—Action Shots—Intimate Interviews with Leading Drivers.

2307, HONOLULU AVENUE, MONTROSE, CALIFORNIA, U.S.A.

SPRINT EVENTS AND SAFETY

A fatal accident at Kop Hill in 1925, involving a spectator and a racing Bugatti, resulted in a ban on speed events staged on public roads.

Writing in the February issue of "The Sports Car," Mr. Norman Ruck predicts that an even blacker day is likely to be near at hand, when all but a very few of the speed-trial and hill-climb courses at present in use will be "condemned in the technical sense of being declared uninhabitable."

Certainly the ban on racing on the open road has resulted in a search for private speed venues that has not been so successful as might have been hoped, so that certain of the smaller events have been held at rather unsuitable venues.

But in every case R.A.C. permission has been obtained, and we see no reason why the R.A.C. should suddenly condemn venues that it has previously sanctioned. Mr. Ruck recalls the unnerving sight of a driver of long experience who shot off the road in practice at about 115 m.p.h. and cannoned into a tree. We agree that it was a miracle that he escaped injury but we feel rather dubious about the estimated speed. Mr. Ruck says that the crux of the whole matter is increased power of competing cars, and suggests that since 1927 the b.h.p. of typical 1½-litre sprint cars has increased from 90 to 120 or 125. Come to that, cars of upwards of 300 b.h.p. ran in speed trials last year, and there seems nothing gained by bringing in the matter of a problematical increase of 35 b.h.p. amongst the slower cars.

Accidents—fortunately none of them fatal—occurred at sprint meetings last year, but, generally speaking, we can see no reason why high speed along a straight road should be regarded as impossibly dangerous in a racing-car, whose stability should be amongst its most highly developed features. Most drivers know their car's capabilities and are not likely to risk an unpleasant incident for the sort of awards offered at club speed trials. Bearing on this, S. E. Cummings would have gone faster at the last Brighton meeting had twin rear covers been permissible, but they rendered braking unsafe and were very wisely not used twice. And when the Vauxhall-Villiers crashed so badly at Weatherby a tyre-burst was held responsible. The other bad accidents involved R. R. Jackson and Driscoll, and Mr. Ruck should remember that the latter crashed on a hill-climb course. It is a little difficult to agree with Mr. Ruck that hill climbs are safer than speed trials because hill-climb drivers have to cut out for bends. So much depends on the course, and Mr. Ruck should watch cars going into the "S," or taking the final straight, at Shelsley. Yet Shelsley has a good record, and the Alta accident this year occurred beyond the finish, due, we believe, to a stuck throttle. Surely the great point in favour of the speed trial is that spectators can be kept completely away from the fast section of the course, as is invariably done at Lewes. They can see from the start and remain happy, whereas at a hill climb they naturally seek the most spectacular spots, where the cars corner, which are also the most dangerous. No! We feel that it is a moot point whether it is more dangerous to drive alone along a straight road, round the rim of Brooklands track, or into a gutter at 200 m.p.h. to pass another G.P. car in a G.P. contest. Motor racing will always be dangerous, and the important thing is to safeguard the spectators—which can be done more effectively at a speed trial than almost anywhere else. It is nice of Mr. Ruck to suggest that no one is justified in allowing really fine drivers, in the prime of life, to risk themselves in pursuit of the elusive and wholly unimportant fifth of a second. But we are under the impression that it is this "elusive fifth" that drivers chase in practically every speed contest for which they enter, so it seems that Mr. Norman Ruck, is, as he himself admits, a scaremonger after all. Sprint events are growing in popularity, and fortunately the R.A.C. wisely issues permits for the courses now in use. A very experienced driver tells us that Southsea is a good safe course, whereas we were not impressed—which just shows that a spectator cannot always tell.—*W.B.*

A RETURN TO THE REAL THING?

The 1½-litre H.R.G. is now in production at the Tolworth works. Backed by H. R. Godfrey (the "G" of G.N. fame), the H.R.G. appears to represent an honest attempt to offer a modern version of the real enthusiast's motor-car. A 69x100 mm., four-cylinder, twin-carburetter, push-rod o.h.v. Meadows engine is used, with 7 to 1 compression-ratio large-clearance pistons and hand control of the magneto ignition. The four-speed gearbox has a silent third but no synchromesh, and is controlled by a tiny remote central lever. Final drive is by shaft, and the front suspension is quarter-elliptic, reminiscent of Frazer-Nash practice. The brakes can be adjusted while the car is in motion, the magnesium-alloy drums have aluminium back-plates and deep stiffening webs, and the hand-lever has ratchet or racing fly-off action at the driver's choice, control being by means of a swivelling grip. The H.R.G. pulls a 4 to 1 top gear, weighs just over 14 cwt., and is claimed to exceed 85 m.p.h. The steering asks 1⅝ turns, lock to lock. The fuel tank gives a range of approximately 420 miles. The makers have made use of an original test to emphasise the light weight of the car, claiming that 0-60-0 m.p.h. occupies a time of 19 secs. This is certainly a far better figure than that taken by many sports-cars to reach 60 m.p.h., without a braking period. The H.R.G. has a crab-track of three inches, and its equipment is simple and effective. The front axle is a tubular beam, the head-lamps are high set, the screen folds flat without preventing the bonnet being opened, the radiator is unashamedly naked, and there is ample luggage accommodation. The two-seater is priced at £395, commands a tax of £9 per annum, and is claimed to give approximately 30 m.p.g. We look forward to carrying out a full road-test of one of these cars in the near future. In the meantime details can be had from the following address on mentioning MOTOR SPORT:—H.R.G. Engineering Co., Ltd., Oakcroft Road, Kingston-By-Pass, Tolworth, Surrey.

FORWARD FERODO

At the E.R.A. Club dinner, Raymond Mays said that he was doing 150 m.p.h. before braking for the Fork turn on the Mountain Circuit at Brooklands, and that this course is the fiercest test of brakes in the world, as after ten fast laps they are nearly red-hot. Mays chooses Ferodo brake linings. Readers will have noticed the interesting series of advertisements on the front cover of this paper, showing famous drivers who use Ferodo, together with tiny pictures of their cars and a list of their recent outstanding successes. These form a useful quick reference.

FULL CIRCLE

An announcement in the January issue of the "Junior Car Club Gazette" states that, after all, the International Trophy Race will not be held at Donington and will not be run on Coronation Day, May 12th. Instead, it will be run off at Brooklands on August Bank Holiday. For the first time in the history of Brooklands an outside club is being permitted to stage a race there on a Bank Holiday, and it seems that the B.A.C.R. outer-circuit handicaps will be accordingly decreased in number this season.

The J.C.C. announces that the handicap-channels at the Fork will figure as in previous races, but otherwise no details are available. It is possible that parts of the new road-circuit will figure in the course, and it is not yet known whether racing or sports-type cars are to compete. From the start MOTOR SPORT disapproved the venue of Donington on Coronation Day, and we feel certain that Brooklands will draw a big crowd when the International contest, which suits the track so well, is staged there on August Bank Holiday.

In view of the 12-Hour Sports-Car Race at Donington, the Tourist Trophy and Le Mans, we incline to a racing-car event. The J.C.C. 200-Mile Race will be run off on August 28th at Donington as previously announced.

AN IMPORTANT APPOINTMENT

Mr. Trevor Westbrook, hitherto general manager of the Supermarine Aviation Works (Vickers) Ltd., at Woolston, has been appointed general manager of Vickers Aviation Ltd., at Weybridge. Commenting on this, the "Aeroplane" says: "He is also the owner of an aeroplane and he drives very fast cars very fast and very well." If that could be said of every driver of fast cars our roads would be far safer than they are.

Oh, MR. MERCURY you did give me a START!



NATIONAL
BENZOLE MIXTURE

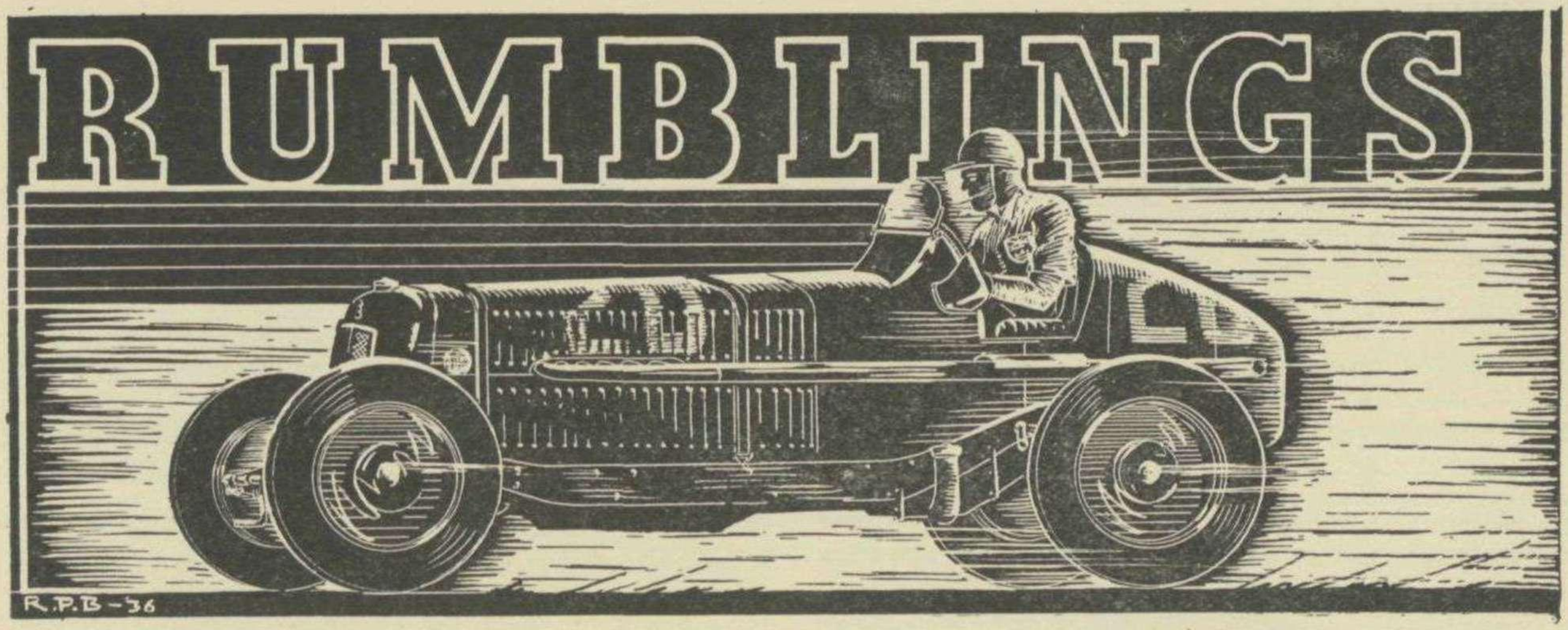
The Spirit of 'STARTABILITY'

National Benzole Mixture will give your engine a quick start on the coldest day. Run your car on this British Benzole Motor Fuel not only for easy starting, but because you will also get smarter acceleration and much greater power.

Write for interesting illustrated booklet—'The Spirit of Speed'

NATIONAL BENZOLE CO., LTD., (Dept. 207) WELLINGTON HOUSE, BUCKINGHAM GATE, LONDON, S.W.1.

(The distributing organisation owned and entirely controlled by the producers of British Benzole.)



Bravo Dobson !

Austin Dobson has announced his intention of running his newly acquired *bimotore* Alfa-Romeo in the B.R.D.C. Empire Trophy Race at Donington on April 10th. That should draw the spectators, and we hasten to congratulate Dobson on running such a fast car over an English road-course.

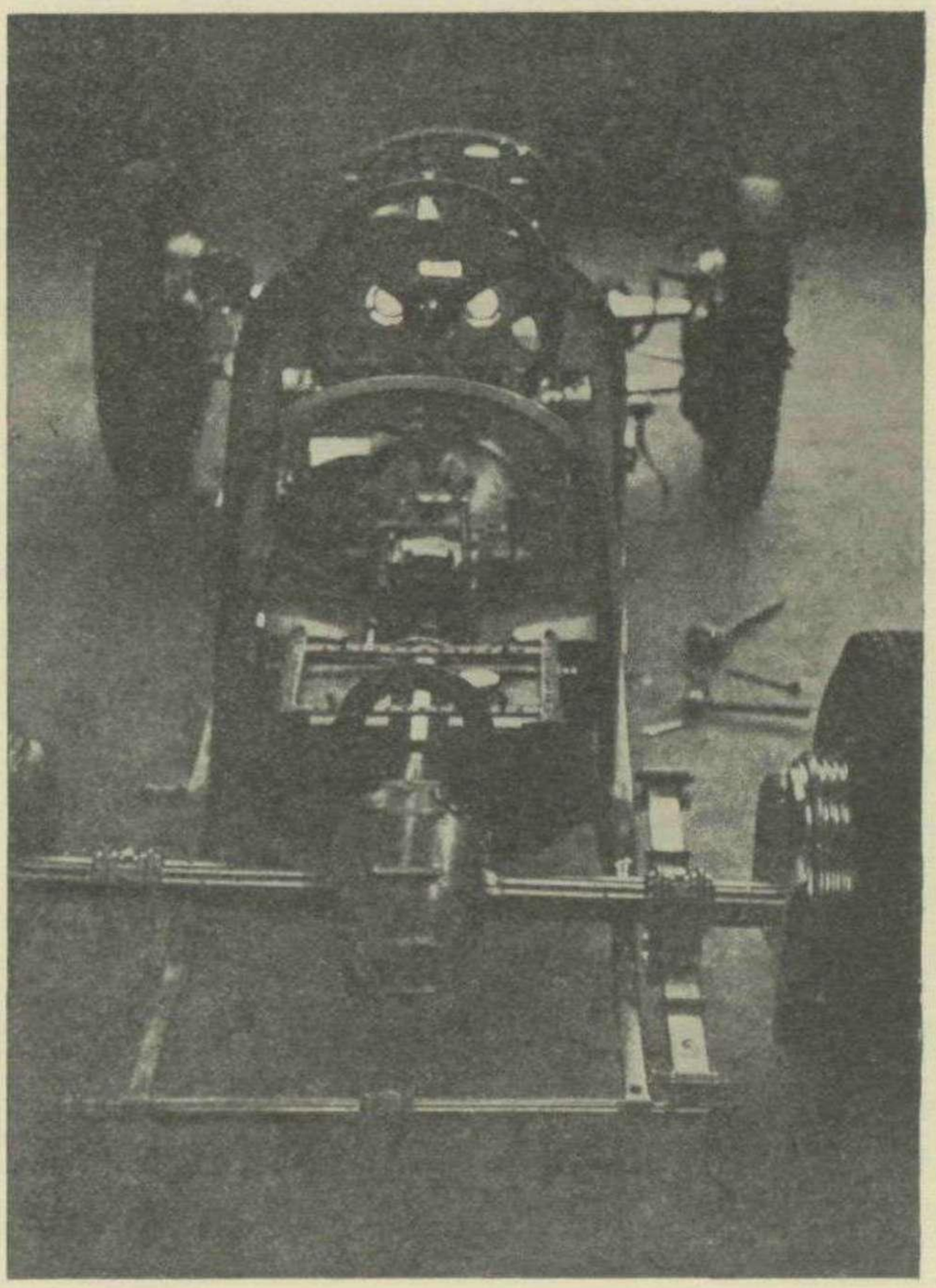
Apparently he has not suffered an attack of " nerves" as a result of his unpleasant experience at the same circuit last year, when the " mono " Alfa-Romeo broke its near-side front hub at 100 m.p.h. The *bimotore* will be the most exciting road-racing car in England this season, unless, as now seems quite likely, Dick Seaman manages a brief visit with a Grand Prix Mercédès-Benz. Dobson is in for some sound fun. His other interest is poultry-farming.

Sleeve Valves

It was just about thirty years ago that a luncheon was held in honour of the coming of the first Silent Knight engine, at which the menu was decorated with a drawing showing the flight of the poppet-valve before the attack of the sleeve-valve.

Since then lots of sleeve-valve cars have taken to the road. In the realm of racing this type of engine has shown up quite well, from the early Argyle record attempts, to the exploits of Capt G. E. T. Eyston with the big wooden-bodied Panhard Lavassor, which gave us such a thrill in the Empire Trophy race of '32, and which, though not so very cleverly streamlined, at all events in its earlier form, nevertheless was a 130 m.p.h. job and reliable. Then Voisin have been outstandingly successful in the long-distance record business, and M. Albert Guyot employed six-cylinder 2-litre Burt McCallum single sleeve-valve engines for the two cars which he prepared for Indianapolis in 1925. And you may recall that that so versatile Brooklands driver, Capt. A. G. Miller, brought a 4-litre four-cylinder sleeve-valve Voisin to Brooklands in 1927, though it was sent back in disgrace to France, having done little else than indulge in persistent misfiring.

Yet to-day Minerva alone upholds the sleeve-valve principle. All of which lends interest to the answer which Mr. G. F. Gibson gave during the discussion that followed his recent lecture before the I.A.E., when asked if he would return to sleeve-valves if permitted by his directors. Mr. Gibson, who has been with the Vauxhall Motors, Ltd., since pre-30/98 days, replied with an emphatic " yes." You will remember the Vauxhall sleeve-valve six, one of which I came upon recently at the Phœnix Hotel at Hartley Wintney, and quite a few of which must still be in service. The path of technical development is ever wrapt in mystery.



The new 1,500 *c.c. Maserati for the forthcoming season, nearing completion at the Bologna works.*

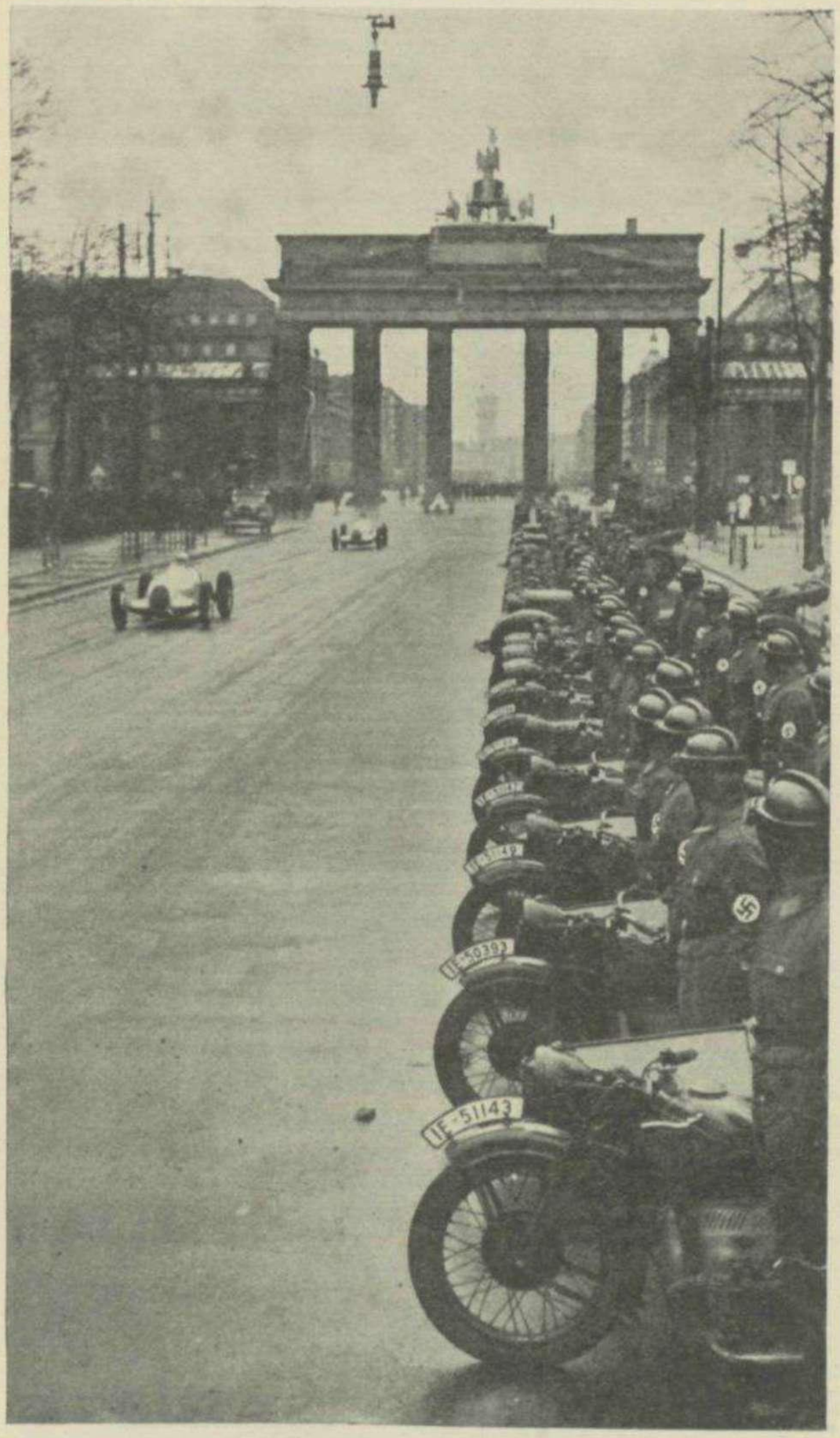
RUMBLINGS—continued

Re-reading "The Autocar Biography of Owen John" reminds me that Itala successfully mastered the rotary valve many moons ago, for we are told that H. R. Pope drove one of the first of the rotary-valvers so rapidly that "Owen John" frequently cast his cap into the road to compel a halt! Yet the Cross rotary valve engine, although claimed to be extremely successful by eminent engineers, cannot yet be bought by you and me.

Where Racing-folk Eat

Following up a tip given by Eason-Gibson a party of us, hungry after a strenuous day marshalling a trial, called a halt in Notting Hill Gate and went to the Linden restaurant, with the running of which some of the Nockolds brothers are involved.

Saw many motoring personalities there, R. L. Duller one of the first. Roy Nockolds has some of his racing pictures on view upstairs. We are eating there again.



Mercedes-Benz Grand Prix cars in the main streets of Berlin! The procession in Charlottenburgh Strasse going to the opening of the Berlin Motor Show.

A Book

Curious how a stray book is picked up casually and read eagerly. "The Flying Shadow" by John Llewelyn Rhys (Faber & Faber, Sept. 1936) may appeal to you. On the other hand, it may not.

A Welcome Return

Another change has taken place at Brooklands, which is likely to be a far-reaching one. Douglas Hawkes and Mrs. Hawkes (*nee* Mrs. Gwenda Stewart) are settling down there, and have taken over the commodious premises formerly occupied by L.B.B. Motors Ltd. Mrs. Hawkes needs no introduction and neither does her famous husband, but we might just remind you that Douglas Hawkes was a popular figure at Weybridge in the early nineteen-twenties, when men were men and proud to drive real motor-cars. Amongst his mounts in 1921, for example, were the 15-litre Lorraine-Dietrich and one of the first racing Horstmanns.

Activity at Tolworth

H. R. Godfrey was in command, as in days gone by, when we called in unexpectedly to see just what is happening at the H.R.G. works. So often cars designed to be built in small quantities by hand are assembled one at a time, so we were pleasantly surprised to find five H.R.G. chassis nearing completion, and the essential parts of several more rapidly taking shape, apart from three complete cars. It is now more than two years since Godfrey laid down the design with which he has staged his come-back, so the bugs should have been gotten out, well and truly. We examined several of the component parts and were astonished at the weight-saving which has been accomplished in the braking system alone. It was this ability to save avoirdupois by utilising modern materials that largely influenced Godfrey in dropping his old love—chain drive.

On the subject of wheel adhesion for trials motoring he was very interesting, and it is noticeable that in an H.R.G. you do not sit on top of the back axle. The engine is a Meadows, of quite conservative design, but with a substantial crankshaft and high compression ratio, and the aim has been to supply a high performance, enthusiast's car embodying proved components. A Moss gearbox is used, and the back axle is of E.N.V. manufacture. Godfrey still lives to some extent in the past—palmy days of the G.N. cycle-car. On Sunday mornings he often amuses himself building up bits of "Kim"—the 1919 G.N. once raced by Capt. "Archie" Nash, who now has a factory next door to the H.R.G. works—but not for making motors. Someone once said that the pioneer engineers cannot be surpassed.

Simple and Effective

The H.R.G. front suspension, composed of quarter-elliptic springs, a tubular axle and shock-absorbers placed beneath the springs to act as radius arms, is very simple and very effective. It was evolved all those years ago for the G.N. cycle-car and adopted, in improved form, for the Frazer-Nash. In returning to it for the H.R.G. Godfrey has used springs 2 in.

RUMBLINGS—continued

wider than those he formerly employed, and incorporated special bearings in the shockers to take side thrusts.

The Future of the T.T.

We received the news that this year's T.T. has been banned from the Ards Circuit just after reading a very well balanced article on the future of motor-racing in Northern Ireland, that appeared in the February issue of the Ulster A.C. Monthly Review. In that article it was pointed out that, while the risk of accident and the inconvenience to persons living on the course was a very grave consideration, the loss to Ulster that would follow the banning of the T.T. would not be realised until after the summer season, and that it would then be found that tourist receipts had decreased seriously. The loss of the T.T. was regarded as the surest method of starting the Province's tourist income on the downward path. Now Ulster has rid itself of the race. The R.A.C. announces that the T.T. will still be run on September 4th, and has the Isle of Man, Brooklands, Donington and the Crystal Palace circuits in mind. Is it too much to suggest that while these alterations are being made the rules be revised as well, so that much more standard cars compete? So many modifications are allowed under the present ruling that it should be quite as easy to scrutineer for greater standardisation, and even if there are so few modern sports-cars that would last the race under the stricter conditions, at least the makers of real sports-cars—like Frazer-Nash, H.R.G., Alvis, Bentley, Lagonda, Riley, etc.—might be given a chance to excel on sheer merit. At least we might have fuel limitations that would prohibit racing compression-ratios in our premier *sports-car* contest. Will the organisers of Donington's 12-Hour *sports-car* race bear these observations in mind, please?

Those Road-Tests

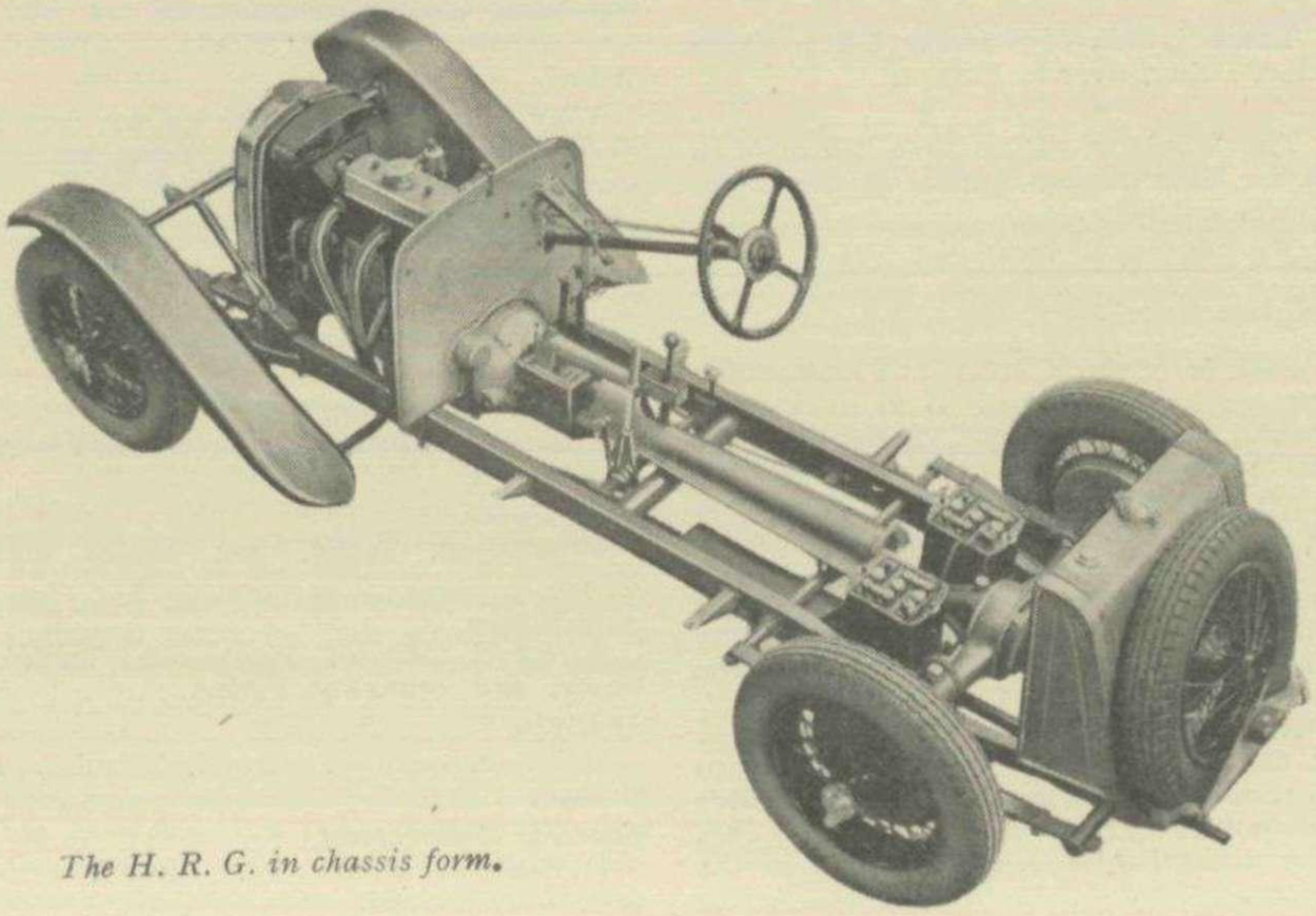
Looking through a pile of old motoring weeklies we were surprised to find how very good modern cars are, for according to the road-tests reports they all had impeccable handling characteristics, all behaved in an identical manner, and varied only in respect of performance figures. Even the tiniest shortcomings were conspicuous by their absence. If Motor Sport road-tests make rather heavy reading at times, at least we endeavour to give a detailed account of each car tried, and to indicate what it will do in the hands of an average driver. We plan to resume the full reports next month, and hope to deal with such interesting cars as the 1½-litre H.R.G., V8 Jensen, and supercharged Lammas-Graham, etc., in the near future. In the meantime, impressions of the 570 c.c. Fiat are published in this issue.

The Magic Century

During a recent discussion amongst a gathering of motoring personalities someone raised the interesting question of the important difference between standard 100 m.p.h. cars that just reach a three-figure speed, and those that will exceed the magic century without protest for some considerable length of time. Interest is lent to the point by W. Boddy's opening paragraphs in his leading outpouring, "On Achieving High Performance," published elsewhere in this issue. We wonder how many makers of 100 m.p.h. cars would feel embarrassed if asked by a client to drive down to Brooklands, go out onto the track without touching plugs and shock-absorbers, put in five or so consecutive laps each at over 99 m.p.h., and then return rapidly to the showroom without attending to the machinery. With Brooklands open again this creed might be recommended to those purchasers of 100 m.p.h. motor-cars who have racing and high-speed trials in view and who therefore have some use for an easy three-figure maximum.

Goodbye to India-Rubber Chassis

An interesting sidelight on modern road-racing is the manner in which the increased speed of present-day events shows up the frame design and construction of the older cars. The owner of a 2-litre G.P. Sunbeam once told me that driving fast enough to put up any sort of showing against the handicapper at Donington the car became practically uncontrollable on account of inadequate frame rigidity, although the layout was apparent satisfactory for pukka Grand Prix work in 1922. Similarly, we have seen the stripped chassis of Conan Doyle's 1924 twelve-cylinder Delage, and, beautiful piece of workmanship that this is, the construction looks flimsy by 1937 standards and the compensated brake gear unduly complicated. Then again, there is Hampton's 1½-litre Mercédès, which braked abominably until Lockheed came to the rescue, and a dumb-iron tie bar and axle radius arms were added, although in 1922 it ran in the Targa Florio, of all events—the



The H. R. G. in chassis form.

RUMBLINGS—continued

most severe test of braking and road-holding then extant.

A Wise Link-up

It seems that a link-up will be seen this year between the Bugatti Owners' Club, Vintage S.C.C., United Hospitals and University of London M.C., and the City and Guilds M.C., inasmuch as these clubs will invite one another to Donington meetings, trials and speed events. This seems a good move, because all cater for the better class of sports-car, and the combined membership reaches considerable proportions. The Bugatti Club has amongst its supporters some of our finest drivers and best cars and is entirely non-trade. The Vintage S.C.C. also has an influential membership and its officials exude life and enthusiasm. The United Hospitals and University of London M.C., which made a profit on all its events last year, and City and Guilds clubs cater for real enthusiasts without much money and we believe that the latter body has no entry fee and its members can be affiliated to the Hospitals club for a nominal fee. Together these four bodies should do excellent work in their own category. On April 17th, the City and Guilds, Vintage and Mid-Surrey A.C. are putting on a joint Surrey trial, with a common team award, but otherwise with separate officials, rules and prizes—a good way of reducing the number of trials in the Surrey area. The City and Guilds opened their March 7th trial to "Hospitals" and the latter club is having three Donington meetings to which Vintagers and Bugattisti are invited to those for May 29th and July 10th. The scheme should be watched carefully by other small clubs.

ODD SPOTS

Kaye Don, who returned to racing last year with a Delahaye, will probably drive this marque again this season.

* * *

The Beechholme Motor Co. recently sold Miss Goodban's Type 55 Frazer-Nash-B.M.W. to a Mr. Johnson, who ran it in the Winwood Cup trial as a try-out and was very pleased with its behaviour. In the same trial, which was run in thick snow, Fitt's Type 55 Frazer-Nash-B.M.W. won the Visitor's Cup.

* * *

The rumour which the Daily Press perpetrated a short while ago, that Riley and Austin were giving up racing, has been denied. Austin will race frequently this season, but without making definite fixtures at the beginning of the season.

* * *

The V8 Batten-Specials have done well in recent trials.

* * *

Plenty of racing-cars of repute are available just now, including Miss Ellison's monoposto Maserati, Lemon-Burton's varied Bugattis and 4½-litre Lagonda, and Dr. Roth's Talbot.

* * *

J. Eason-Gibson will run an all-night service for R.A.C. Rally competitors at his London premises, as his Lancia Aprilia did not arrive in this country in time for him to compete.

A new E.R.A., possibly a sports-car, is rumoured "on the stocks."

* * *

Le Roy electrical timing apparatus will be used at the Crystal Palace. The human element is not completely obviated.

* * *

New models. Singer are introducing a 1½-litre sports job. The 30 h.p. Ford V8 has been improved. Frazer-Nash have launched an additional sports model, priced at £395.

* * *

V8 B.M.W.—another rumour that went astray.

* * *

Vanden Plas recently fitted a concealed head coupé body on one of the new 4.3-litre Alvis chassis.

* * *

Ian Connell scored a very popular victory in the 1½-litre class of the Swedish Winter G.P., his E.R.A. finishing behind Bjornstadt's winning Alfa-Romeo.

* * *

The Alfa-Romeo *Bimotore* does 3½ m.p.g., the tank holding 110 gallons.

* * *

There is talk of a racing 4-litre single o.h.c. Delage over in France.

* * *

The Wisdoms will drive a 2-litre M.G. in the Mille Miglia, running in the super-sports category.

A. C. Bertelli has left Aston-Martins where he was designer and chief engineer.

* * *

The new Atalanta car has been seen in mysterious guise, apparantly undergoing final pre-production tests.

* * *

The J.C.C. has a special scramble on March 20th.

* * *

The recent Racing Mechanics Club dinner was a great success.

* * *

A Delage of the type which Imbert and Franqueville drove in the Monte Carlo Rally recently attracted great admiration in South London.

* * *

Jucker's New Mount

Frazer-Nash exponent Jucker has on order the first of the independently sprung racing Altas, and we understand that he is disposing of his 2-litre Alta, which car Mrs. Millington crashed at the last Shelsley meeting, though without seriously damaging the machinery.

* * *

Why?

Why did a certain well known driver deem it necessary to don racing helmet and goggles before trying the fit of a new body for his M.G.?

A TOUR OF THE CONTINENT—continued from page 148

send a car to Donington and Seaman has a Mercédès-Benz it should be a red letter day for the organisers of this popular venue.

Convado Filippini, the well known Italian journalist and R.A.C.I. official, who travelled with the Ferrari people to U.S.A. for the Roosevelt race, told us an astounding fact as regards Nuvolari's car, which is not generally known. Namely, that the car never fired on all twelve cylinders during the race, but was so easily superior to all others, that it was decided to allow it to continue on ten or eleven whichever case it was. What a car!

Assirelli of the R.A.C.I. at Fiorence was another helpful Italian to us during our Italian trip, and very kindly took us around the circuit he has evolved for the 1,500 c.c. Grand Prix which is being held in a Park at Florence on June 13th. Although the corners of the course are exceedingly slow, the very long straight will make it a fast circuit. Incidentally there are large sums of money to be won in prize money.

Assirelli's driving was sufficiently quick in the Fiat saloon during our trial laps to cause a certain amount of trouble with the police, but all was well in the end. The following are the personnel of the teams.

Mercedes-Benz

Caracciola, Lang, Seaman.

Cadets. Kautz, Brendl, Baumer and Hartmann.

Auto-Union

Rosemeyer, Stuck, von Delius and Hesse.

Alfa-Romeo

Nuvolari, Brivio, Pintacuda, Tadini, Severi and probably Farina.

Maserati

(1,500 c.c. team). Trossi, Tenni and Bianco.

Scuderia Ambrosiana

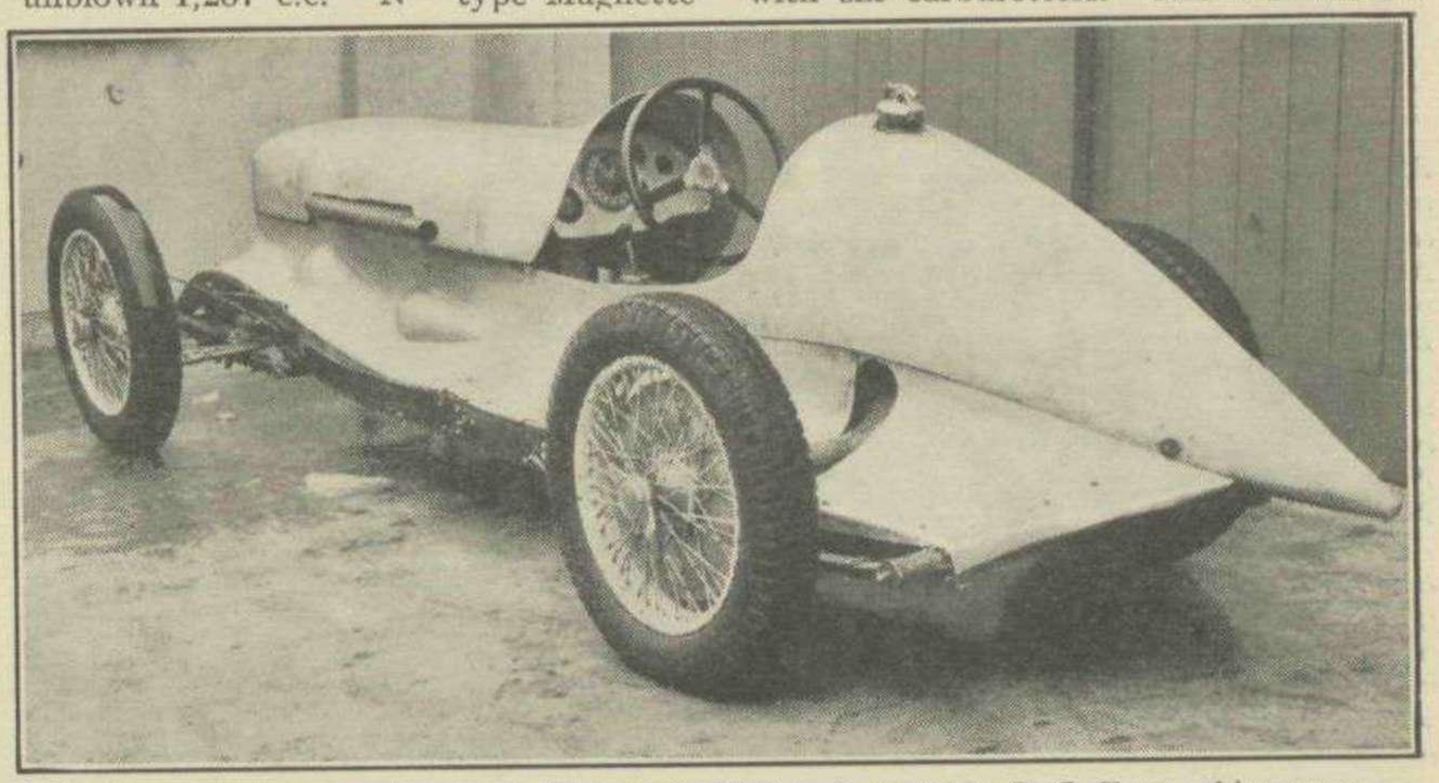
(1,500 c.c. Maseratis). Lurani, Cortese, and Villoresi.

ACTIVITIES AT THE BELLEVUE GARAGE

Owing to greatly increased business in the racing and the commercial departments of the garage, further extensions have been made to the racing workshops. Adjacent property has been acquired and new buildings are now in the course of erection.

It is hoped that the new buildings will be ready by the commencement of the racing season and they will accommodate many more cars than in previous years. It has been found necessary to entirely separate the racing department from the ordinary garage and service department and a subsidiary company is being formed, to be called "Bellevue Garage (Racing) Ltd." and will only specialise in the preparation and tuning of racing and sports-cars for any type of event. Mr. W. Wilkinson, who is well known to readers of MOTOR SPORT, has been elected a director of the new company and will also continue to act as General Manager.

The plans of D. G. Evans will be to run the special "Sprint" Montlhèry M.G., which is fitted with a "Q" type engine, in speed trials and hill climbs for the forthcoming season. This car has been further modified during the winter months, particular attention having been given to reduction of weight. The unblown 1,287 c.c. "N" type Magnette which was raced by G. B. C. Sumner has been completely rebuilt. The capacity of the engine has been lowered to bring the car in the 1,100 c.c. class, and is fitted with six carburetters. This car will be driven this season in various events by K. Evans and W. E. Wilkinson.



The three-quarter rear view of the Montlhery M.G. to be raced by D. G. Evans this season.

ANOTHER WORLD SPEED ATTEMPT

At Connersville, the first body designs for Ab Jenkins's 3,600 h.p. two-motored racing-car in which the noted driver will attempt to lower Sir Malcolm Campbell's Bluebird record of 301 m.p.h., will be ready shortly, Jenkins has just announced

Jenkins's car, which will incorporate many airplane features of design, will have a speed of better than 360 m.p.h. he believes, and will be perfectly balanced even at 360 m.p.h.

"One of the chief problems in designing a racing-car capable of doing better than 350 m.p.h. is to keep it balanced at this tremendous speed" he said. "At this speed a car has a tendency to take off like an airplane, and this shifts the balance. Also if the front wheels leave the ground, the car cannot be steered, and when the wheels strike the ground again they are likely to be at an angle that may turn the car over."

Another problem that Jenkins is faced with is stopping the car, since as yet no brake drums have been designed that will stand the strain of the terrific pull necessary to slow a car down from 350 m.p.h. In tests, ordinary brake drums have crumbled into bits trying to stop at 175 m.p.h.

"The run naturally will be made at the Bonneville Salt Beds in Utah" Jenkins said "as that is the best speedway surface in the world. I plan to use the same thirteen-mile straightaway that Campbell used. This straightaway is about thirteen miles long, and the problem is to stop the car from a 350 m.p.h. speed in about three miles, as I will have to take a flying start of at least four miles. Consequently, ordinary brakes are out of the question, and I am having flaps, or side wings, similar to those on an airplane, designed to assist in braking. These hinged wings will be operated by a lever, and pulled open by the motor when I want to stop the car. A horizontal rudder will also be used to keep the front end of the car from lifting up and trying to take off."

Jenkins, who is associated with the experimental department of the Auburn Automobile Company, here, said that work in laying out the chassis of the racer had already begun. Two 1,800 h.p. engines will be used on a 200 in. wheelbase chassis, one at each end, and traction will be from all four wheels. The front engine will drive direct and the front wheels will brake against compression. The rear engine will free wheel, thus eliminating the necessity of synchronisation.

The American believes he will have no difficulty in bringing the automobile speed record back to his country, and has called on the best engineering brains available to assist him in working out the design of the car. Auggie Duesenberg, Russell Howe, Jim Robinson, and a score of others prominent in racing-car design, have been called in. Wind tunnel tests on the streamlined body design are now being made at the Auburn plants here, and the final lines will be accepted, it is believed, soon.

Jenkins's Mormon Meteor, in which he established 144 speed and endurance records last summer at Bonneville, is now being rebuilt at the Auburn plant at Connersville, in preparation for an assault on all records from ten miles to twenty-four hours.

AN OUTSTANDING BOOK

The year 1936 saw the establishment of many speed records on land and in the air.

A new book has just been issued called "1936 Achievements" in which these are well portrayed and described. To all motorists this comprehensive little book will make a strong appeal, since it forms an interesting souvenir of a really record year of speed.

Copies can be obtained by filling in the postcard which you will find facing page 132

FAIR PLAY, PLEASE!

It seems likely that the Irish Motor Racing Club will take action through the R.A.C. in respect of the Junior Car Club's date of August 2nd, for the International Trophy Race at Brooklands.

In 1934 the date for the Craigantlet Hill Climb was fixed for August 31st, and the J.C.C. asked the Ulster A.C. for permission to use the same date for a Donington race meeting, to which consent was given.

In the following year the Craigantlet fixture was arranged for the Saturday before the T.T., as in eight consecutive years. Nevertheless, the J.C.C. applied for an international date at Donington, which was granted.

Now the J.C.C. is asking for August Bank Holiday as the date for the International Trophy Race, which is already settled as the day of the I.M.R.C. Limerick G.P. Certainly the impossibility of holding their big race at Donington on Coronation Day was the reason for the J.C.C. making the change, but with an overcrowded fixture list and a shortage of fast racing-cars any protest which the I.M.R.C. decides to lodge should have careful consideration. The cars eligible for the J.C.C. event clash far more seriously with those permitted in the Limerick race than the usual entry for a B.A.R.C. short-handicap race meeting. There is a strong feeling in Irish motor-racing circles, that the J.C.C. should fix its dates before the season commences, and with that view we incline to agree. There are several Saturdays free in the Brooklands fixture which shou'd suit.

BROOKLANDS REMINISCENCES

By

Capt. A. G. MILLER

No. I. EXPERIENCES WITH THE WOLSELEY VIPER

In the following article Capt. Alistair Miller takes us back to the early nineteen-twenties, and his experiences at Brooklands with the Wolseley-Viper. Capt. Miller raced probably more cars than any other driver in the early post-war days of Brooklands, nearly all of them essentially outer-circuit jobs typical of the Weybridge venue. Quoting only from memory we recall Wolseley, Bianchi, Voisin, Buick, Napier 40/50, *Benz, Delage, Sunbeam, Nazzaro, Donnet-Ledel, Lombard and Alvis.*

The Wolseley Viper first appeared at the 1921 *Autumn B.A.R.C. Meeting, and gained its last win in a Long Handicap at the* 1926 *Whitsun Meeting. It had, we believe, a* 120 *mm.* x 130 *mm.* 11,762 c.c. *V8 Hispano-Suiza "Viper" aero engine, of the type built at Wolseleys during the War, installed in an old Napier shaft-drive chassis. It was able to lap at over* 112 *m.p.h. and although we do not know what became of it finally, it was for sale at £*25, *in good order six years ago.*

For some years before the War, Capt. Miller was with the Benz Company and during the latter part of the War was chief Inspector of Transport, Eastern Training Brigade, R.A.F. He was appointed Competitions Manager to Wolseley Motors Ltd. in 1920. *During that period he broke* 124 *records at Brooklands and won some* 300 *prizes, cups and medals.*

His last Brooklands success was at the 1930 *Whitsun meeting, when he won the Cornwell Junior Short Handicap with one of the old Wolesley "Moths" at just over* 71 *m.p.h., lapping at over* 84 *m.p.h. He is now general manager of Messrs. Gauntlett and Miller Ltd., Brompton Road, S.W.3, who specialise in Rolls-Royce cars, supplying every type at prices from £*50 *to £*2,000. *We hope subsequently to publish more articles from his pen. Incidentally we may emphasise that this really is Capt. Miller's work—it is doubtful if anyone else could supply the information that follows.—Ed.*

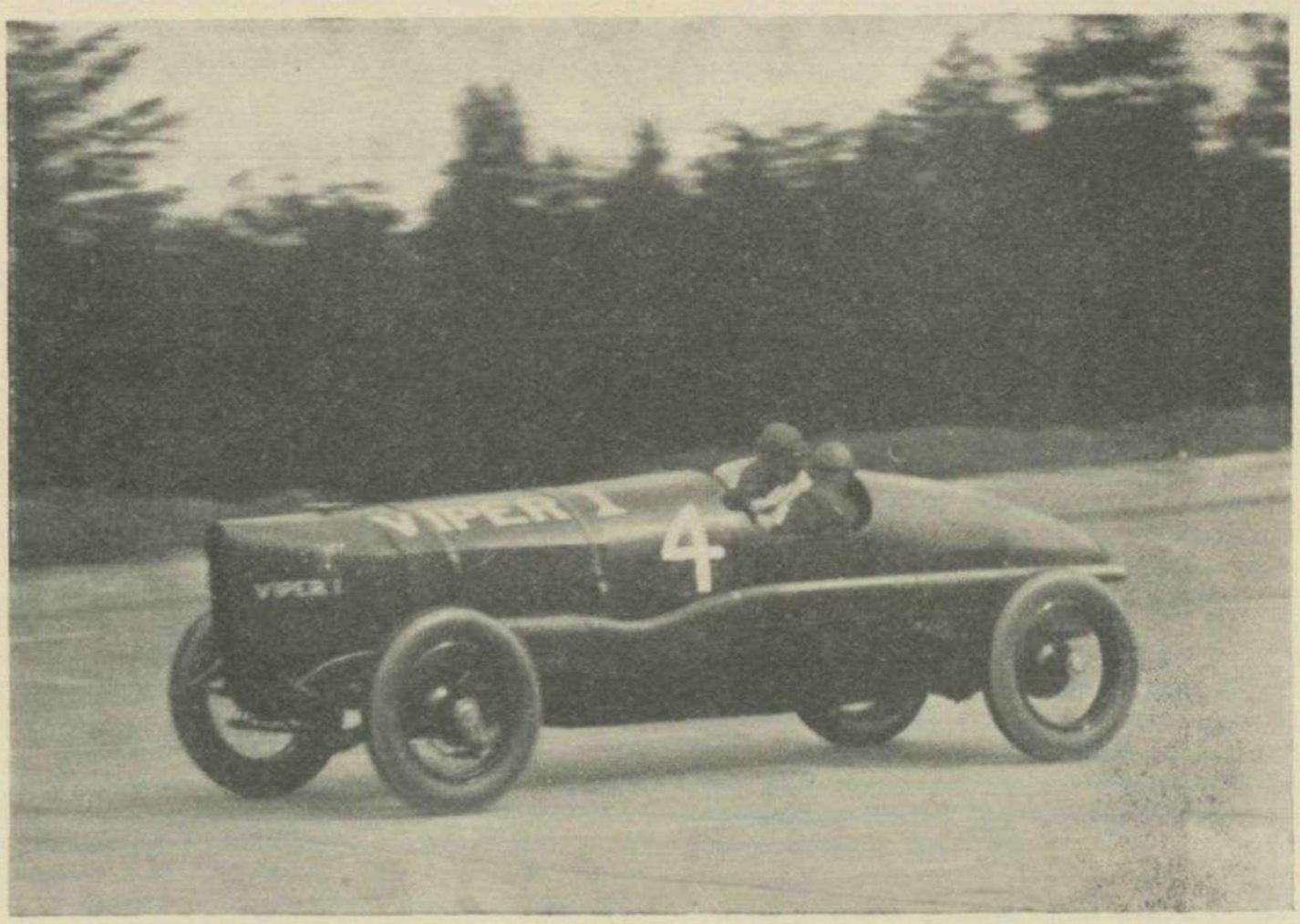
Good Heavens! Time has flown, for it only seems yesterday when I bring my memory back to Brooklands just after the War, when the really big racing cars were at their zenith. Naturally, owing to the War, there was only a limited number of racing-cars available and practically no new ones were being built, when Brooklands track was re-opened, so it meant that enthusiasts had to build their own cars, and in consequence a lot of very amusing and exciting incidents took place. For a "Sport" where improvements in design and in fact everything connected with it is so rapid, one can only look back at the old days and the formidable racing-cars as they were at the time, monsters, with alarmingly huge aero engines fitted, highly dangerous and untrackworthy compared with the racing-cars of to-day.

These monsters were built by several sportsmen, and they certainly put up some astonishing and hair-raising performances. What fun they were! And what an attraction to the crowds who flocked to see the Big Fellows run! Yet, in their days they were the machines of the moment and produced thrills galore. although, through the amazing development of the smaller powered machines of to-day and the colossal speeds they do, I doubt, very much, if they create the intense excitement, interest and terrific thrills which the grand old Bolides produced in their time. I am convinced that they were the biggest public "draw" at Brooklands that there has been.

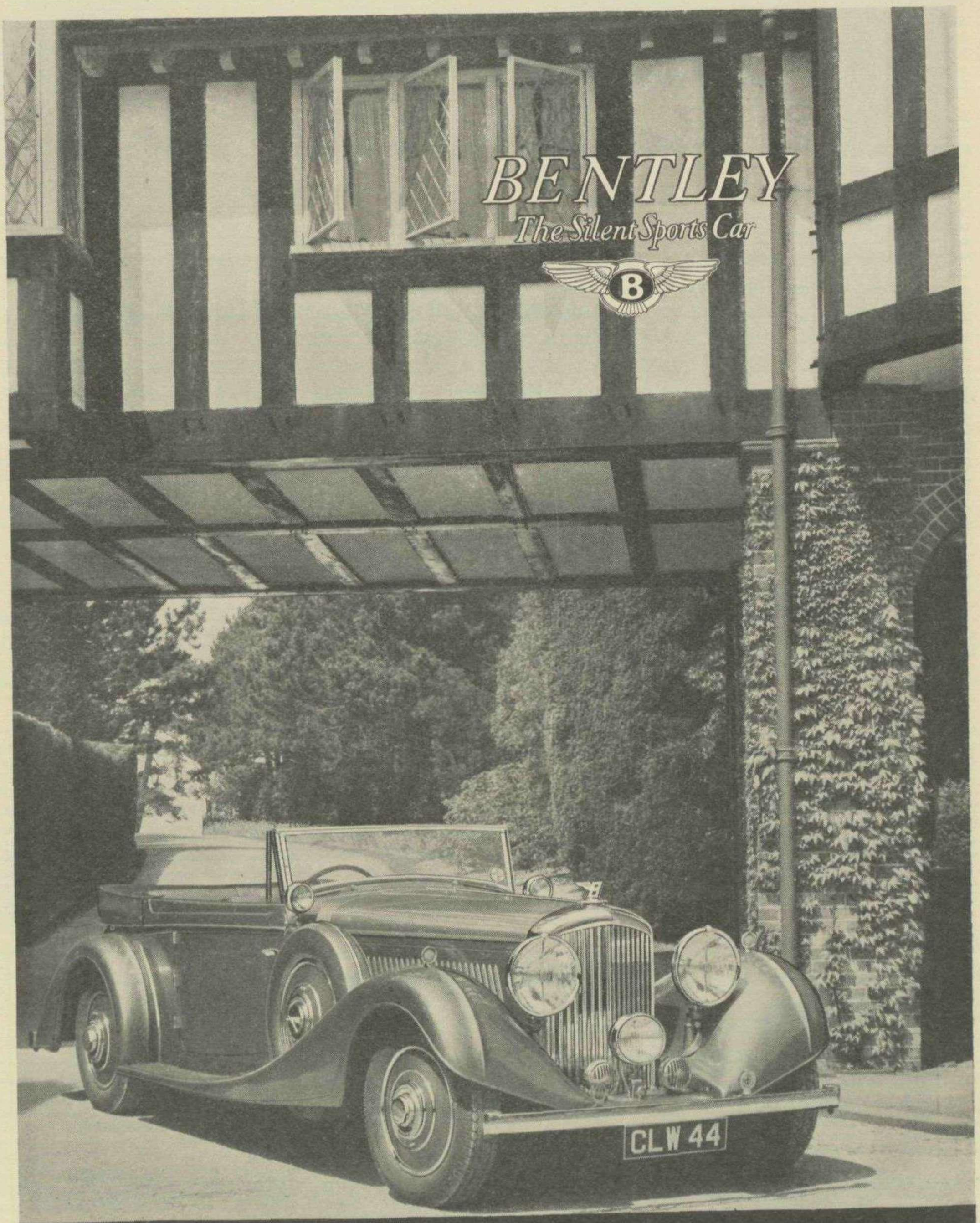
The mammoth cars which could always be relied upon to put up a real show were the late Count Lou Zborowski's two Chitty-Chitty-Bang-Bangs, the big twelve-cylinder aero engined Sunbeam driven by Kennelm Lee Guiness, the late Ernest Eldridge's 200 h.p. and 300 h.p. Fiats. Douglas Hawkes on the big Lorraine de Dietrich. Dick Warde's big Mathis Fiat, Brocklebank's big Peugeot (this and the de Dietrich were actually pre-war Grand Prix cars) and last, but not least, my own dear old and famous 200 h.p. Wolseley Viper, also a little later my big 200 h.p. Benz and the late Parry Thomas's big Leyland and his Liberty engined "Babs," on which poor Parry Thomas ultimately met his death, when attempting the world's Land Speed Record at Pendine Sands.

The big Peugeot ultimately came to grief in one of the important big car races at Brooklands, when poor Toop was killed, just past the Byfleet Bridge, when driving for Brocklebank. Ir was a nasty accident and I witnessed every detail of it, as I happened to be watching from the Byfleet Bridge, I went there particularly to watch the late Norman Norris, whom I was trying out on the Viper with my partner Desmond Fitzgerald, and so was watching this race very carefully. It seemed to me that Toop was far too high on the banking for the speed he was doing approximately a lap speed of 110 m.p.h. and coming under the Bridge he found himself with a bunch of cars in front all more or less wanting the same position, and it appeared to me that he momentarily slackened his speed too acutely for the height on the banking and in consequence his tail dropped and his nose went up which caused him to lose control and he and the Peugeot dashed over the top of the banking amongst the trees, mowing them down like "nine-pins." Toop was killed instantaneously.. He had been staying with me for a few weeks just prior to this, and we all missed him frightfully.

In addition to the cars already mentioned, there was the big Blitzen-Benz, which came over with a German driver, but he did not remain long and subsequently the late Bill Barlow re-appeared with it, and did his best to burn himself to death during a race on one occasion. Luckily he came off unhurt, but finally, he was not so fortunate and whilst careering up the Finishing Straight could not pull up, and went over the top of the banking through the trees near the Members' Bridge and got some first hand information



The Wolseley Viper cornering an easy race. Captain A. G. Miller is seen looking back, with Colonel Stewart beside him


BENTLEY
The Silent Sports Car
B
CLW 44
BENTLEY MOTORS (1931) LTD. 16 CONDUIT ST. LONDON. TEL MAYFAIR 4412
BUY A CAR MADE IN THE UNITED KINGDOM

BROOKLANDS REMINISCENCES—continued.

about the subject of " Forestry." Fortunately he was comparatively unhurt, and I do not know what happened to the car after that, but I believe it returned to Germany.

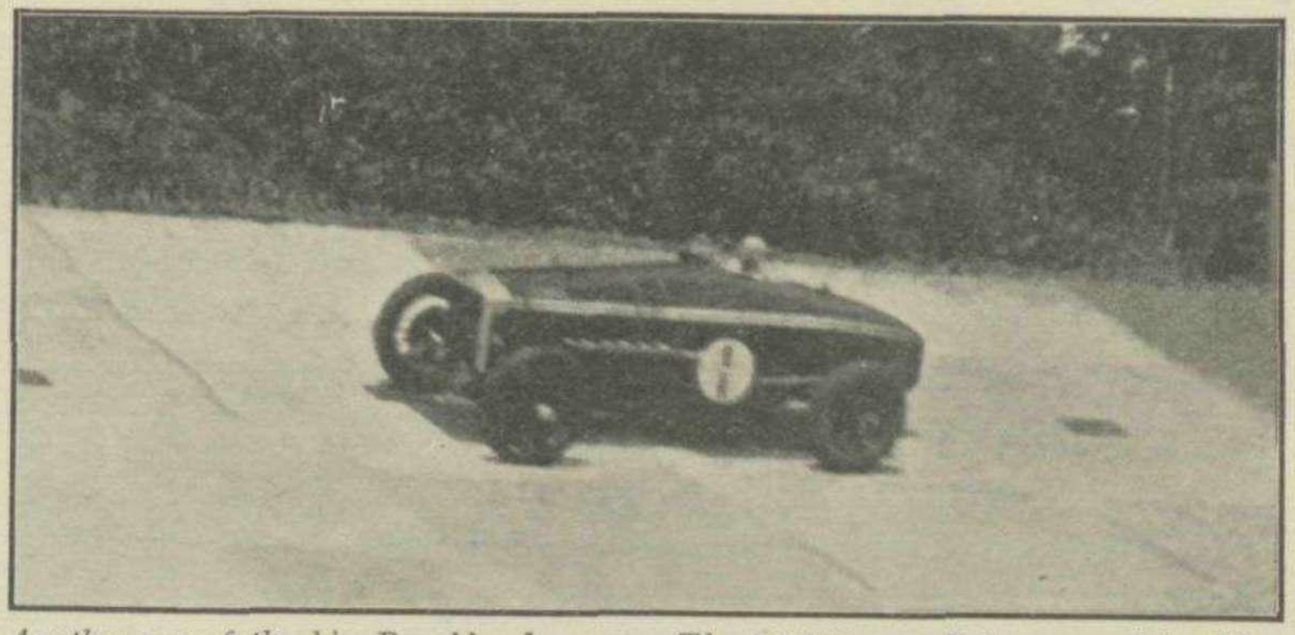
What more thrilling sight could there possibly be than to see two of these enormous cars thundering round the track at 120 to 130 m.p.h. roaring and swaying, tearing through the field of smaller cars from scratch, everybody holding his breath wondering if the tyres would burst or fling their treads (and they did too in those days) or the machines themselves fly to pieces in the super-human efforts of their drivers to keep them on the track; mechanics, pumping up the petrol pressure frantically. What heroes these mechanics were, grappling to get every ounce of speed they could and to see these big fellows neck and neck plunging through the field and ultimately winning. I can so well remember " Bill Gunners " heading the laps record in the old aero-engined twelve-cylinder Sunbeam at 122 m.p.h. which seemed an incredible performance and speed at the time, and it still is an incredible performance. Although this record has been surpassed many times since on much more track worthy cars of later design and improvements, I doubt if there are many men of the present generation who would tackle the job, assuming all the conditions were the same; it really was a star performance. My own car, the 200 h.p. Wolseley-Viper had a reputation of being the most dangerous car on the track for it had a habit of plunging from the top of the banking to a lower part, which looked both alarming and exceedingly dangerous. This it so happened was a complete and absolute fallacy. The Viper was as safe as a house, and so long as one kept one's head, she always pulled out of it and got her dear old nose in a proper direction again, and always none the worse. I have tried dozens of times to let her full out but never succeeded, but I had always that delightful extra speed to play with, which on so many occasions gave me the chance I was looking for to pop through and win. The photo used in this article will show myself and the Viper with Colonel Bobby Stewart as mechanic, just about to turn into the old Finishing Straight to win an easy race. You will notice that we are both looking back to see where our nearest rival might be. If you realise the car must have been doing well over 120 m.p.h. at the time, how could this car have been considered so unmanageable? One meeting when I had to drive in several races with other Wolseley cars, I had to give the Viper to Kaye Don to drive, and it was in this race that the Viper disgraced itself, but in all fairness to Don it was owing to his lack of experience of the car.

Kaye Don could always be relied upon to get every possible ounce out of a car and on that occasion made the mistake of keeping his foot down well past the Finishing Post, which in the old Finishing Straight was highly dangerous as there was quite insufficient space to slow down. When he came to pull up finding he was going miles to fast, he tried to brake, instead of switching off the ignition, and in trying to find the side brake he inadvertently bumped the gear lever and put it out of gear, and then found instantaneously that he had not time for the brakes to be sufficiently effective, and with that enormous weight travelling at colossal speed he had no alternative but to charge and slither along the sand bank of the Members' Hill, to avoid going straight over the top of the banking ahead of him, like Wilkinson on Gray's Prince Henry Benz before the War, and Bill Barlow in the Blitzen Benz after the War.

After this, the best sportsman I have ever driven for, A. J. McCormach, the big White Chief of Wolseleys, forbade me to enter the car again, but I had set my heart on records, which were easily within my reach. So Colonel Stewart and I decided we must get round him somehow and finally, sportsman that he was, he gave in, and we made preparations to annex the flying mile and kilo records. Our difficulty was that we had to lap the track to get up sufficient speed to attack the records on the Railway Straight. It was a fearfully hot summer day, the sun was blazing down and the concrete simply scorched one's feet, and we feared the tyres.

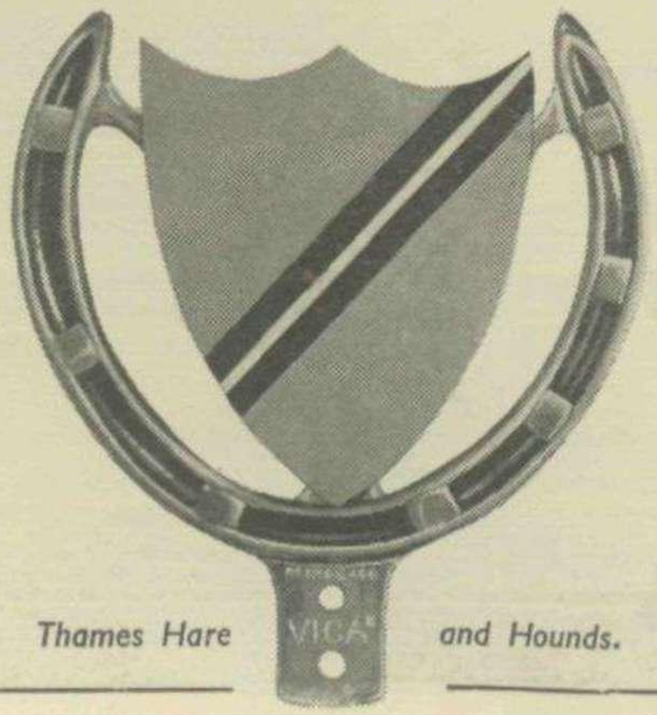
After two attempts, which were not quite good enough, we made certain adjustments and had another " go," and this time we managed to get both the class mile and kilo records by a sufficient margin with only one tread left intact.

My last impression of the Viper was in the Gold Cup Race, which I won on the Indianapolis six-cylinder Sunbeam, and I only just managed to beat Kaye Don and the Viper by a bonnet's length. I shall never forget that exciting moment when it was touch and go if I managed to overtake the Viper in time, it was a near thing and really exciting, and I was cursing myself all the way round for ever having parted with it.



Another one of the big Brooklands cars. The 10.688 c.c. Delage raced by Mrs. Petre, J. Cobb and Oliver Bertram.

Registered Design : 5" x 4½"



Thames Hare and Hounds.

THE OLD SCHOOL TIE

Our Horseshoe Car Mascot can be supplied with any Colours—School; Regiment; Royal Navy; R.A.F.; Racing, Flying, Yacht, Golf, Tennis Club, etc.—on centre shield as in illustration

Made to order 17/6 Post Free

Any fitting : Honeycomb, two types Stoneguard, Wingstay, three types Bumper or Number Plate.

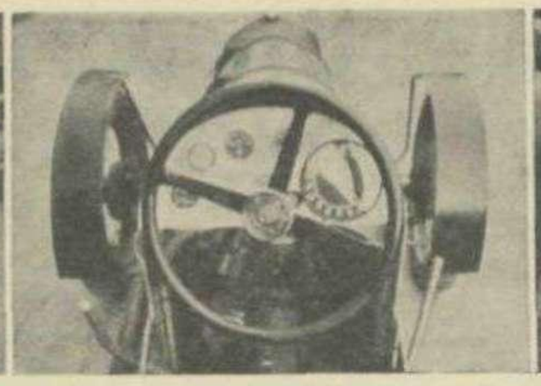
SPECIAL ENGRAVINGS BY QUOTATION

On sale at Henley's, Truefits, Burlington Arcade, etc., and other stores, : or direct from the Head Office :

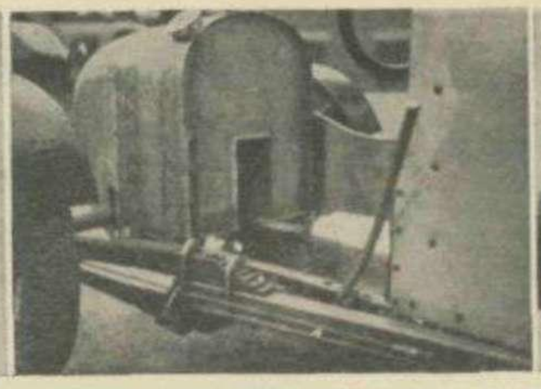
" VICA " PRODUCTS,
190a, UPPER RICHMOND ROAD, LONDON, S.W.15



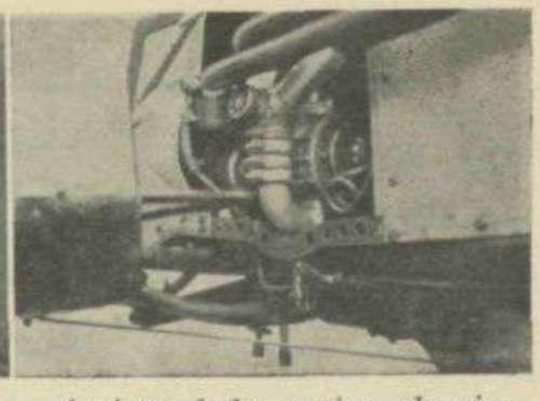
The rear view of the remodelled Austin Seven.



The 16" steering wheel, the instrument board and the gear shift.



The 10-gallon petrol tank and the rear springing.



A view of the engine showing supercharger, exhaust manifold and radiator support.

A VISIT TO THE MONACO GARAGE

A REMODELLED AUSTIN SEVEN THAT TOPS THE THREE-FIGURE MARK IN SPEED

The other day we paid a visit to the Monaco Garage of High Street, Watford, to see all the bright things that we had heard about them since they opened their business on March 7th of last year.

This concern is owned by those two popular racing enthusiasts, P. R. Monkhouse and I. F. Connell who are well known to all. I. F. Connell had a fair season last year at the wheel of an R-type M.G., and later with a 2.6-litre Alfa-Romeo, but between them they have had little time to give to serious motor-racing. P. R. Monkhouse's T.T. Magnette was prepared with great care for Le Mans, but since that event was not held, the car was run in several speed trials with great success, notably, Syston, Lewes, Littlestone, and Brighton, where it scored a first and two second awards. The Magnette is now licensed for the road, and includes a few modifications to the braking system, so that it will be available to take part in road-racing events, in all probability the 12-Hour sports-car race at Donington on July 12th. Connell acquired Briault's E.R.A. and has covered himself with distinction by being second in the General Classification and first in his class in the Swedish G.P.

A most interesting car, an Austin, was built last year by the Monaco Garage, for E. C. Brettell, the secretary of the C.U.A.C. This car was originally raced by the Marquis of Belleroche a few years ago. The old car was dismantled, the rear springing underslung in order to bring the transmission in line with the rear axle and the crankshaft, a duralumin sub-frame added to accommodate a ten-gallon petrol tank and the driver's seat.

The body and framework was constructed of light alloys, use being made of RR.66, which is a heat treated material with properties equal to those of mild steel, but an advantage is that it can be worked cold without annealling and additional heat treatment. The width of the body of the car is only 17½ in., being only a little wider than the steering wheel which is 16 in. in diameter. The steering box is mounted on the side of the car which means that the column comes into the cockpit at an angle.

An outside left-hand gear change is fitted and an instrument board containing the minimum number of instruments. Great attention has been paid to the assembling of the engine, and this alone took five weeks, since enormous care was spent in getting the various moving parts as free from friction as possible as there is not much power to spare in so small a unit.

The supercharger arrangements are quite standard and a small Cozette gives a blow of about 9 lb. Lubrication to the blower is via a motor-cycle sight feed attachment, so that it is possible to regulate the flow of oil to the supercharger with accuracy.

It was necessary to make up a special exhaust manifold since the standard one was made for a two-seater body. This meant, of course, that the exhaust pipe would be too far away from the car. All the ports have been matched up very carefully and since they are of a different size in the block and in the manifolds, a special light alloy distance piece had to be made with tapered ports in order to align them.

The radiator has been set forward in a light steel framework in order to accommodate a larger supercharger driven from the front end of the engine, should this be deemed necessary.

The standard 4.9 axle is fitted and alternative gear ratios obtained by the use of different sized wheels and tyres.

The true performance of the car cannot of course be revealed and it has indeed only done about 200 miles at Brooklands on test, but it is anticipated that it will top the three figure mark in speed, while the acceleration for so light a car is naturally very good.

At the end of last season, Monaco Garage modified an M.G. four-cylinder engine by enlarging it to 1,100 c.c. and equipping it with an R-type cylinder head and a double figure compression ratio. The engine was dropped into a hastily reconstructed and temporary test chassis and gave a distinctly encouraging performance. It is hoped that the first meeting for this car will be the Coronation Meeting on May 12th at Donington, when it will be fitted with a smaller chassis with independent suspension. The Monaco Garage will be only too glad to meet any enthusiast who cares to come out to Watford and show him over their extensive premises.

VINTAGE PETROL

One often hears a motorist say—" At that time I had a 1923 so-and-so. That was a good model." This is because cars change every year, but some years they change more than others. How many people realise that the same is true of the petrol which they use? Any petrol which wants to remain a best-seller has to adapt itself to suit changing conditions. Some years the changes may be very slight, because only slight changes are needed. Other years call for bigger changes. 1937 is such a year, and it is likely to be a vintage year for Shell because Shell has had the foresight and the resources to make such changes in its petrol as are needed to keep it in step with motor-car design. This is actually done as part of the routine of the business, but the 1937 change happens to be more spectacular than usual, and I therefore propose to give readers some idea of what it is.

Most people know that the chief change in engine design is a trend towards higher compression ratios, because it is in this way that engineers are able to give us more for a given size of engine. This is all to the good, but it does mean that the petrol has to work under much more severe conditions—and frankly, ordinary petrol cannot stand the strain.

To understand why ordinary petrol is unsuitable in the modern engine, one must first of all realise that all petrol consists of hydrocarbon molecules—or atoms of hydrogen and carbon combined together in certain fixed ways. In ordinary petrol these atoms can take the form of long chains, in which formation they are very susceptible to detonation—or " pinking." This is because the oxygen atoms supplied by the air from the carburetter are able to combine too easily and irregularly with the carbon and hydrogen atoms.

The problem therefore, has been to find some way of controlling the combination of the atoms, and Shell has solved it with a process called " re-forming," by which it is able to rearrange the molecular structure of the petrol so that these atoms stay together in compact masses. In this formation they are less susceptible to detonation. thus combustion is controlled and " pinking " is prevented.

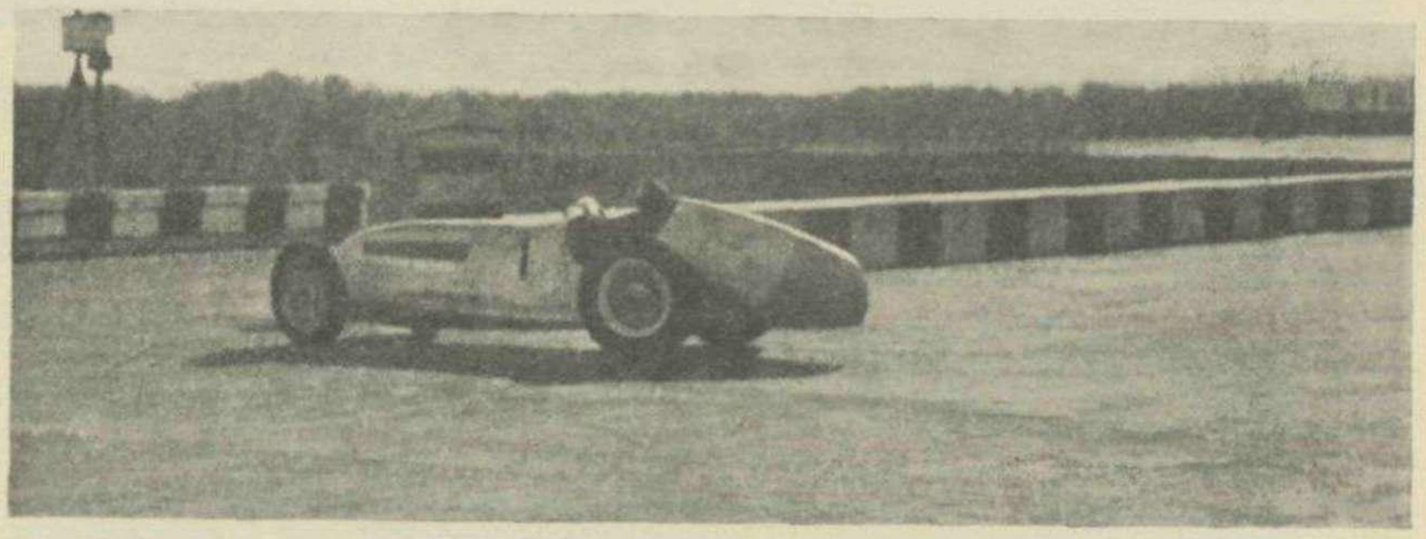
A TOUR OF THE CONTINENT

By OUR CONTINENTAL REPRESENTATIVE

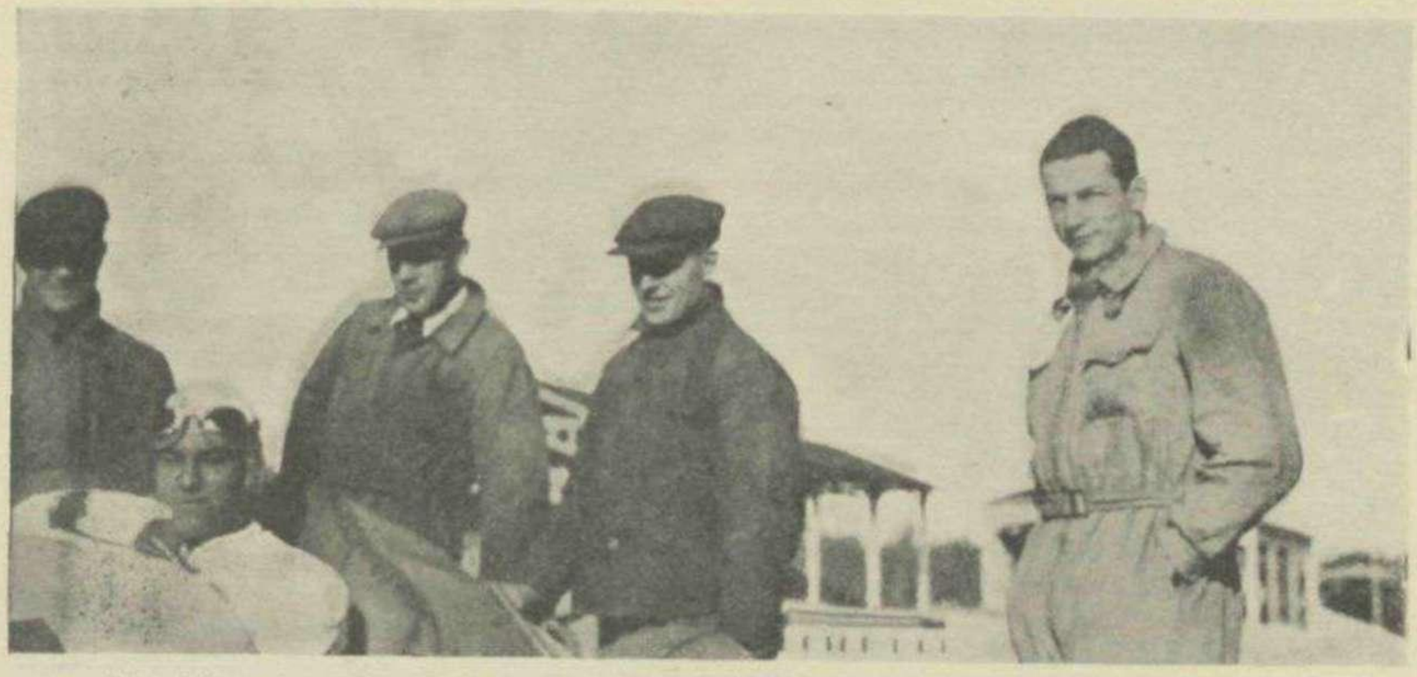
Plans for the Season

Continental motor-racing plans are now almost complete for the coming season, several teams having been already formed and great activity is being made in the various camps. Mercédès-Benz having fixed their first three drivers in Caracciola, Lang and Seaman. Of Caracciola, enough is already known. Lang was definitely one of "the" finds of last season, and those who were at Nurburg will never forget his superb driving in last year's Grand Prix. His car was well placed, being second, when he was called in to allow Caracciola to take the wheel, in an effort to overcome the Auto-Unions. Even the typical German crowd boo'ed their own Caracciola, whereas in actual fact the reason for the replacement of the drivers was that Lang had a broken finger. Richard Seaman has earned all the praise that he can ever receive by being included in the official team. This, surely must be one of the greatest compliments ever paid to an English driver, to be included in one of the three crack Grand Prix teams. His fine driving, coolness, and his charming personality have certainly been repaid.

The Mercédès-Benz track for cadet drivers, at which seventeen appeared for selection, proved Seaman the outstanding driver of those who were tested both at Nurburg and Monza. The four next best drivers chosen seem to be Christian Kautz, the Swiss driver, who has appeared several times in England, H. Hartmann, at one time a mechanic, Baumer, the Austin specialist, who has driven at Shelsley Walsh on numerous occasions, and that very cheery individual, Brendl, incidentally a great humorist, and a great hater of publicity. These four drivers were all at Monza recently undergoing strenuous trials, under the supervision of Neubauer, the Mercédès-Benz chief of staff. The four cadets did not seem the slightest overawed by the presence of the great man himself, and all seemed to be enjoying themselves immensely. So perhaps, this year, the tense atmosphere, which seemed to dominate the team last year, will give way to little more of the friendliness, which the Auto-Union drivers seemed to enjoy.



One of the Mercedes-Benz team cars at practice.



The Mercedes-Benz Trial at Monza. Christian Kautz has just taken over from Henry Hartmann.

We visit Italy

When at Milano, our good friend, Massa of the Biffi Restaurant, once again looked after us in his own perfect way, and found everyone we wanted to see, including Count "Johnny" Lurani, who was only in the town for twenty-four hours, breaking his journey from St. Moritz to Contina for the winter sports.



A rear view of Hartmann trying out the Mercedes-Benz during the trials.

The "Crazy Gang"

Count Lurani and Cortese have formed the Scuderia Ambrosiana for this season together with Villoresi. He calls the outfit the "Crazy Gang."

They will be driving 1,500 c.c. and 1,100 c.c. Maseratis. And in all probability will be appearing in England for the Isle of Man race. The season has started remarkably well for them, with Villoresi winning the small car class in the Monte Carlo Rally. The car he drove was a standard 1,500 c.c. Fiat saloon. Ferrari and Maserati are both busy with different plans for the year. Maserati is building 1,500 c.c. cars only this year but are contemplating a very fast car for the next Grand Prix formula. Ferrari deny any plans for 1,500 c.c. cars, but Nello Ugolini is very interested in the E.R.A. The new Alfa-Romeo is definitely more than on paper, and it is hoped that two of the new machines will be prepared in time for the Avus race in May. The cars will be built with a lower body, more in keeping with the Mercédès-Benz and Auto-Unions, new engines of increased power, and different suspension and braking system.

Maserati have prepared a team of three cars for Austin Dobson. Dobson is also acquiring one of the famous Ferrari *Bimotore* Alfa-Romeos. It has been modernised in many ways.

A famous Organiser

Ugolini of Ferraris must be a great organiser to be able to arrange all the details for such a well known firm for thirty-six events in just over six months, which is the Ferrari calendar for 1937, on circuits as far distant as Los Angeles, and Brazil, in addition to those meetings all over Europe. Very seldom does one find a hitch anywhere in this efficiently run team. Donington is also considered in their plans. If Ferraris do decide to

Continued on page **142**

MOTOR RACING IN THE UNITED STATES

By
STEVE O'CONNER

The motor racing fraternity throughout the country is preparing for a very busy season Many new planes, automobiles, and boats are now being planned and built, besides the activity in the field of motor-cycle racing and hill-climbing. Nearly all the members of the Professional Racing Pilots Chapter of the National Aeronautic Association are building new high speed planes. They are still keeping in mind the sensational race flown by Michel de Troyat of France in winning the famed Thompson Trophy at Los Angeles during the National Air Races.

The National Air Races will return to the Cleveland Municipal Airport and will offer more than $78,000 in prize money according to an announcement by Cliff and Phil Henderson, managing directors of the races. It is more than likely that four or more foreign countries will be represented at this year's races.

The midget racing automobiles are still drawing tremendous crowds at Boston, New York, Milwaukee, Detroit, and Chicago. also on the West Coast. Bill Schindler of New York City, the one legged speed king, scored three impressive wins for the championship trophy at the midget auto races on the board track at Boston recently. He drove one of the most sensational races of his career when he nearly lapped the field during a tight contest—that one is being talked about all over the country. Another recent ride has drawn wide admiration from the fans and that is the great burst of speed Frankie Bailey made in winning a $1,000.00 bet. He risked his life on the soft sands at Nantasket Beach at some 112 m.p.h. in his so-called "mystery midget car." This little speed creation is equipped with a J.A.P. English motor and is the pride of its owner. Bailey thinks with better racing conditions he can do 130 m.p.h. and he has a great many of his followers pulling for him.

There is a great many of the big car drivers interested in the coming British Empire International Race at Donington Park.

This year's 500-mile race will be known as the Silver Anniversary of the Indianapolis Motor Speedway Corporation. The race will have more than usual interest for fans as well as car owners, drivers and mechanics due to the fact that this year's race will be run with strict ruling pertaining to commercial fuel. Many drivers predict that Duray's 124 m.p.h. record will be broken this year. When one takes into consideration the fact that Duray made that record in a little supercharged Miller Special the breaking of that record with the heavy two-man cars will be a feat beyond the average fan's conception. It is possible that approximately one million dollars will be spent this year in the building and perfecting of new speed creations to be used during the coming season which gets off to a great start with the opening at Indianapolis. Foreign competitors will find new and surprising changes in the American racing equipment when they next compete in this country. Much International surprise was shown by the figures recently released to the effect that more than 3,800,000 people witnessed motor-cycle events during the 1936 season—there were 25,000 competitors who participated in 825 sanctioned events. Motor-cycle racers are looking forward to this year as their greatest racing year.

The motor-boat race meets in the southwest corner of the Salton Sea, Imperial Valley, California, drew a record number of entries and a tremendous crowd to their opening events staged last month. One of the greatest motor-boat speed kings in the world is Fred Jacoby, Jnr., during the past two seasons, Jacoby has scored fifth place or better in forty-one sanctioned races or marathons.

For two years he has been the National high scoring champion in the professional classes A, B, and C, and last year with a class C outfit, he was the chief scorer in class E, professional division.

Rumours have it that Miss Amelia Earhart will fly in the Lindburgh New York to Paris race.

The British Racing Drivers' Club

The following are the Awards of Merit and Rules 1937 for the schedule of marking for the Road-Racing Star of the British Racing Drivers' Club.

Races held under International Permit excepting B.A.R.C. outer-circuit races :—

1st	...	...	...	10 marks
2nd	...	...	...	8 ,,
3rd	...	...	...	6 ,,
4th	...	...	...	4 ,,
5th	...	...	...	3 ,,
Finishers		...	...	2 ,,

B.A.R.C. Mountain Races :—

Championship	1st	...	...	2	marks
	2nd	...	...	1	mark
Ordinary	1st	...	...	1	mark

Donington Park, Crystal Palace and Brooklands road circuit races held under National Open Permit :—

Over 25 miles and up to 99 miles		100 miles and over	
1st	... 3 marks	1st ...	... marks
2nd	... 2 ,,	2nd ...	... 3 ,,
3rd	... 1 mark	3rd ...	... 2 ,,
		4th ...	... 1 mark

* * *

Rules Governing Road Racing Star Marking

1. No marks will be given for class winners.

2. No marks will be allotted unless there are at least eight starters in the race.

3. In the event of two drivers handling the car, marks will be halved ; except where the duration of the race exceeds six hours when full marks will be awarded to both drivers, subject to each having driven at least for 40 per cent. of the duration of the race.

4. In races which are comprised of preliminary heats and a final, marks will only be given to drivers placed or finishing in the final. For the purpose of ascertaining the number of starters in this type of event the total number running in the heats will be taken.

5. In order to obtain marks as a finisher, drivers must complete the course within the time, if any, specified in the Regulations, and must comply with any special rules regarding finishing. If any time limit is laid down or if the course is closed prematurely upon the winner crossing the line, only those drivers who are still running and who have completed at least 80 per cent. of the full distance by the time the race is stopped shall be deemed to be a finisher.

The schedule of markings for the Track Racing Star is as follows :—

All Brooklands events held under International or National Permit, other than those shown for road-racing and excepting team races :

Races up to 20 miles

1st	...	...	...	6 marks
2nd	...	...	...	4 ,,
3rd	...	...	...	2 ,,

Races over 20 miles and up to 100 miles :

(Including Gold Star Race)

1st	...	...	...	8 marks
2nd	...	...	...	6 ,,
3rd	...	...	...	4 ,,

Races over 100 miles and up to 250 miles :

1st	...	...	...	12 marks
2nd	...	...	...	9 ,,
3rd	...	...	...	6 ,,
4th	...	...	...	3 ,,
Finishers		..	...	1 mark

Races over 230 miles :

1st	...	...	...	15 marks
2nd	...	...	...	12 ,,
3rd	...	...	...	9 ,,
4th	...	...	...	5 ,,
5th	...	...	...	4 ,,
Finishers		...	...	2 ,,

PHOENIX GREEN

" The home of the 30/98 Vauxhall "

Thoroughbred sports cars from the enthusiasts:— T. W. CARSON, J. L. PASSINI & L. T. C. ROLT.

30/98s. In the past few months we have supplied six of these famous cars to enthusiastic owners. Two special cars are in course of preparation ; these and other selected models will shortly be available

We also offer

30/98 Special racing 2-seater B.A.R.C. winner, lap speed 110 m.p.h., full road equipment, demonstration by appointment.....**£200**

30/98 E 327 late s.v. 2-seater, award winner, repainted, new hood.....**£25**

BENTLEY Choice of three red label 3-litres all f.w.b. and well base wheels, **£85, £70, £65**

ALVIS T.E.12/50 sports 4-str. perfect order, little used, f.w.b. safety glass.....**£30**

LANCIA *6th series long chassis*.....**£30**

LAGONDA SPECIAL, 2 litre chassis, 4-seater remarkable performance.....**£20**

ALFA-ROMEO 21/70 Saloon.....**£20**

Also these unique examples of the veteran sports car :—

S.A.V.A. 16 h.p. 2-str. 1914 TT repilca, just overhauled by Laystalls and re-wired throughout, the whole car in perfect order **£30**

ALFONSO HISPANO-SUIZA, 1914 4-str., 4 speed, in excellent condition throughout, fully equipped for the road including safety glass **£30**

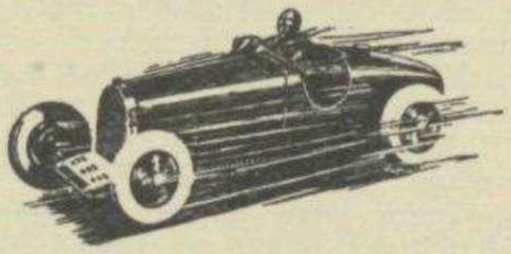
Also spares for the following :—Anzani, Bentley, 19/100 Austro-Daimler, G.N., Lancia, Riley and Vauxhall 30/98.

Tuning and overhauls, pure Benzole, pure Castor, improved type car carrying trailers made to order.

THE PHOENIX GREEN GARAGE,
Hartley Row, Hants.
Phone : Hartley Wintney 133.

SPORTS CARS

J. LEMON BURTON
BUGATTI RACING CARS



Bugatti, 2.300-litre double cam Grand Prix racing cars. Machines of various dates, 1932-1934, in perfect order and ready for racing. Late property of world-famous drivers. From **£395**

Lagonda, 1936 French Grand Prix 4½-litre class winner. 1,000 miles only ... **£695**

Bugatti, 2-litre Grand Prix. Winner German and Dieppe Grands Prix and many other records **£175**

Bugatti, 1½-litre eight-cylinder Grand Prix. Roller bearings **£145**

Bugatti, 1931 2.300-litre Grand Prix ex works car. 130 m.p.h., aluminium wheels, and large brake drums. Ready for racing **£225**

Bugatti, 2-litre eight-cylinder Grand Prix. Road equipment **£85**

Mercedes-Benz, 38-250 open sports four-seater **£295**

Telephone appointment at only address as below :—

17 Cavendish Road, Brondesbury, London, Willesden 1394 N.W.6

MALLOWAY MOTORS

AUSTIN 750 c.c. Brooklands model 2-seater. Special crank-shaft, etc..... **£27**

ASTON-MARTIN 11 h.p. super sports, 2-seater. Green Jarvis body. F.w.b's. 4-speeds, etc. **£44**

BUGATTI 11.9 h.p. Type 40 sports 4-seater by Compton. Blue, new tonneau. **£45**

LAGONDA 3-Litre Speed-model. 1930 Sports Saloon. Cycle wings. 80 m.p.h..... ..... **£50**

LEA FRANCIS Ulster T.T. unsupercharged hyper 2-seater. 1930 series. Overhauled..... **£39**

TALBOT 75 special Paris Show Saloon. Continental body finished duo-grey **£59**

Many others under £100

ALSO

£10 ALVIS 12.50 h.p. 1928 Sports Chassis. Complete with battery, dashboard, wire wheels and tyres. In good running order. Starter, dynamo, radiator, etc. Bargain for enthusiasts.

EXCHANGES TERMS

Ia Saltram Crescent, Shirland Rd., Maida Hill, W.9. Willesden 5407

BELLEVUE
GARAGE AND SERVICE STATIONS, LTD.

PARTICULARS OF SECOND-HAND RACING & SPORTS CARS FOR SALE

1934 Magic Magnette, the famous record breaking car formerly driven by Captain G. E. T. Eyston, who holds many records with it. Specially built regardless of cost. Completely overhauled. Excellent condition. Many spares including track and road racing bodies **£425**

1935 Supercharged short chassis Aston Martin fitted with Ulster T.T. engine, 2-4 seater Le Mans body. With or without Centric supercharger. Colour black. Many extras. One owner. Just thoroughly overhauled. The whole in excellent condition, including body and tyres. Exceptional acceleration and maximum speed. Six months' guarantee **£395**

1935 M.G. N Type Magnette, fitted Marshall supercharger and special light body. Specially tuned for trials work. Many extras, including two spare wheels fitted with competition tyres, 6 in. rev. counter, aeroscreens, close ratio gearbox ... **£170**

1934 Supercharged "Q" type M.G. Midget. Ready to race. ... **£245**

Numerous spare parts of every description are available for sale. Can be inspected any week-day between 8 a.m. and 8 p.m., and any Sunday by appointment.

18 & 19, Bellevue Road, Wandsworth Common, London, S.W.17.

Telephone: BATtersea 0478 (2 lines)

Inland Telegrams: Belservice Toot, London.

PEMBRIDGE MOTORS
Sports Car Specialists LTD

ALFA ROMEO 1½-litre 16 h.p. single camshaft foursome drop-head Coupe by Young..... **£95**

ALVIS 1932, Speed 20, Vanden Plas saloon, Vee radiator, black and chrome with cream waistline..... **£135**

BENTLEY 1924 3-litre Speed Model by Vanden Plas, recellulosed green **£85**

BENTLEY 1926 3-litre Speed Model by Vanden Plas, new hood, new oversize tyres..... **£150**

BENTLEY 1927 3-litre Speed Model by Vanden Plas, new hood, Marchel headlights **£165**

FRAZER-NASH 1928 Anzani Boulogne Vitesse 2/3-seater 4-speeds **£85**

FRAZER-NASH 1931 O.H.V. 2/4-seater, 4-speeds, grey-black and chrome, rebored..... **£115**

LAGONDA 1928, special model, 4 str. **£65**

LAGONDA 1931 supercharged 2-litre 13 h.p. 4-seater, overhauled by Laystall, really fine condition, choice of two from..... **£145**

LANCIA 8th series, short chassis, 4-seater, small wheels, perfectly maintained **£95**

M.G. MAGNETTE, 1934, 2-4 seater, black and silver, new tyres and all weather equipment..... **£95**

ABOVE IN GUARANTEED CONDITION

Phone: BAYswater 4633. Open Sundays 10-1

PEMBRIDGE MEWS . PEMBRIDGE VILLAS
NOTTING HILL GATE . LONDON, W.11

WINDRUM & GARSTIN LTD.
Sports Car Specialists

Speed Six Bentley tourer. New four-seater body **£95**

1928 3-litre Bentley, smart drop-head coupé. First registered 1932. New 5.25 by 21 tyres. Overhauled. A bargain **£90**

Short chassis Vanden plas 3-litre Bentley red label. Balloon tyres, P100 headlamps, rev. counter, cut-away side. Owner must sell cheap.

M.G. sports two-seater, rebored, smart **£25**

Also good Bentley spares, really cheap.

14 HANSARD MEWS, HOLLAND RD. LONDON, W.14. PARK 4032

A.B.C.

1921 A.B.C. 1928 engine, two carburetters, enclosed valve gear, starter, good hood, paint, chromium, spares, offers. Box No. 107 c/o MOTOR SPORT.

BENTLEY

3 LITRE Black and Silver. Four wheel brakes, oversize tyres, engine perfect. 22 m.p.g., Does not smoke, hood new. Excellent performance. £60 Sparrow, 2 Chilton House, Cecil Park, Pinner, Middlesex.

& SPECIALISTS

300 CARS UNDER £100

SENSATIONAL OFFER! We are prepared to offer any reader of "Motor Sport" who produces this advertisement, 10 per cent. off the price of any car in our enormous stock. You are welcome to inspect our mammoth showrooms from 9 a.m. to 9 p.m. every day, including Sundays.

A few cars picked at random from our Super Stock—

	Gns.
1934 (Dec.) Crossley 15.7 rear-engined 4-door streamlined saloon, self-changing gearbox, latest type radio fitted. Cost over £750, offered at the greatly reduced price of...	95
1935 (Aug.) Singer 9 Le Mans sportsman's coupe, literally as new	95
1935 Singer 9 Le Mans super-sports four-seater, equal to new	89
1933 (July) M.G. J.1 fitted very attractive foursome drop head coupe, many extras. Cost over £325	85
1933 M.G. J.1 sports four-seater, resprayed green, new hood and tonneau cover	75
1933 M.G. J.2 sports two-seater, many extras including luggage grid, very low mileage	75
1934 Singer 9, sports four-seater, twin carburetters, 6 inch instruments	75
1936 Morris 8 semi-sports four-seater	75
1933 M.G. J.2 sports two-seater, outsize exhaust, engine rebored and specially tuned	70
1929 Riley 9 genuine Brooklands model, outside exhaust, twin carburetters, just resprayed	65
1932 Wolseley Hornet "Special" E.W. International sports four-seater, very fast	65
1933 Ford 8 fitted very attractive Four-some drop head coupe	59
1933 Singer 9, sports four-seater, specially tuned engine, reduced to	59
1933 Ford 8 alpine super-sports four-seater, very attractive	55
1933 Austin 7, A. & W. Special Sports four-seater, fold-flat screen, many extras	55
1931 Wolseley Hornet, long-tailed sports two-seater, attractive car	39
1931 M.G. Midget M. Type sports two-seater	35
1930 M.G. Midget M. Type sports two-seater	29
1928 Austin 7 long-tailed sports. Two-seater	19
Choice of several 14/40 M.G.'s two and four-seaters from...	15

6 MONTHS' WRITTEN GUARANTEE

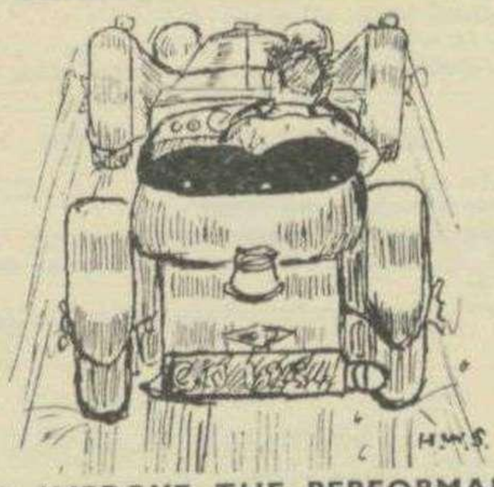
RAYMOND WAY

CANTERBURY ROAD Turn left in Kilburn High Road at Kilburn Bridge. **KILBURN, N.W.6**

KILBURN PARK, BAKERLOO LINE, 150 YARDS. MAIDA VALE 0063

:: OPEN EVERY DAY, INCLUDING SUNDAY 9 a.m.—9 p.m. ::

H. WHITFIELD SEMMENCE
FRAZER-NASH SPECIALIST

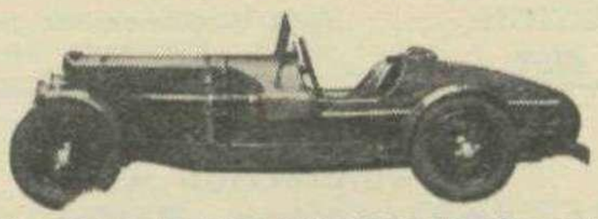


CAN IMPROVE THE PERFORMANCE OF MANY OTHER SPORTS CARS WITH CONSIDERATION FOR THE ENTHUSIAST'S POCKET

OVERHAULS. TUNING.

161 ELGIN TERRACE, MAIDA VALE, W.9. MAIDA VALE 2752

ASTON MARTIN



1932 1½-litre **ASTON MARTIN Le Mans** two-seater. Actual works racing car. Just completely overhauled and recellulosed racing green and specially prepared for road use. Fitted with special close ratio gearbox, full road equipment, new hood, etc. Capable of over 90 m.p.h. Fitted with four new tyres. .. **195 Gns.**

KILBURN BRIDGE GARAGES
67, HIGH ROAD, KILBURN, N.W.6
Telephone : Maida Vale 4787

MARCUS CHAMBERS
(Late of Terence Windrum & Garstin, Ltd.)

TUNING AND RECONSTRUCTION FOR ALL 1937 HIGH-SPEED AND TOURING EVENTS

All makes of cars treated with the same care and efficiency as his own prize-winning Bentley

VINTAGE CARS A SPECIALITY

Complete sports car service, spares & equipment

Call or phone **Park 6237**

5 HANSARD MEWS, HOLLAND ROAD, W.14

SUNBEAM

3-LITRE SUNBEAM, spares, including cylinder block, crankshaft, etc. All perfect, cheap. 8, Stanley Park Road, Wallington, Surrey,

M.G. MAGNETTE

SPECIAL Supercharged Magnette, 2-seater, Marchal blower driven direct from crankshaft. Wilson racing self-change gearbox. Special engine with many "K" type features. A most lavishly equipped vehicle in faultless condition and ideal for trials or touring. 100 miles an hour and phenomenal acceleration. £255. Would consider good "N" 4-seater in part payment. Box No. 109, c/o Motor Sport.

FRAZER-NASH Cars, Falcon Works, London Road, Isleworth (Hounslow 3172) have for disposal a number of reconditioned cars.—Full particulars on application.

MOTOR SPORT CLASSIFIED ADVERTISEMENTS

1/- per line (minimum 3 lines)

(Cash with order)

Send to :-
21, CITY ROAD, LONDON, E.C.1

PROGRESS
MOTOR WORKS (LITTLEHAMPTON) LTD.

P.A. 1935 M.G. four-seater, decidedly fast, excellent condition, water and oil temperature gauges, thermostat. Has always been driven fast but not hacked. Taxed **£125 0 0**

Mark IV 1929 Riley 9 open four-seater, twin S.U. carburetters, excellent 14 in. brakes, sprung wheel, definitely good acceleration. Taxed and insured **£37 10 0**

Mark I 1928 Riley 9 open four-seater, magneto and dynamo just overhauled, car repainted green, very good performance. Taxed **£25 0 0**

Specialists in the Tuning and Service of Sports-cars

Telephone 123

Arundel Road, Littlehampton, Sussex.

Motor Sport Classified Advertisement Section

SPORTS SPARES

(ALEX S. BLACK)

Carry a full range of used components for the following makes: 14 h.p. Vauxhall, 8-cylinder Ballot, Hispano Suiza.

12/50 Alvis, F.W.D. Alvis, 30/98 Vauxhall 3 and 6½-litre Bentley, 3-litre Sunbeam and Lagonda, 2-litre Bugatti, O.M., H.E., and Diatto, 1½-litre Bugatti and Lea Francis, 22/90 Alfa-Romeo, 2 LTS Ballot, Mark IV Riley, Delage DI and DIS, M.G. Midget and 18/80, Austro-Daimler 19/100, Lancia, Ansaldo, Hadfield Bean, Amilcar Senechal, Morgan, Gwynne, Talbot 8/18, 10/23 & 14/45, Salmson 9.5 and 10.4.

All parts dismantled, cleaned and ready for delivery.

Also large stock of complete engine units. **Over 50 sports and racing-cars always in stock.**

30/98

VAUXHALL

We have spent 10 years experimenting and working on these famous cars, and besides carrying a stock of reconditioned 30/98's are in a position to undertake any rebuilding or overhauls.

Selection of fifteen 30/98 o.h.v. models, etc., from £90, overhauled and with six months' written guarantee.

Overhauls :—

We have also fully equipped workshops staffed by mechanics experienced in dealing with genuine sports and racing cars. All types of reboring, rebuilding and tuning carried out efficiently and swiftly.

SPORTS SPARES,
CHILWORTH STREET,
PADDINGTON, LONDON, W.2.
Telephone : Paddington 2309.

Works: 14, South Wharf, W.2.
Sports Car Depot : Porchester Square Mews, Bishops Rd., Bayswater.

Any Loan from £50 to £5,000

granted by

ELDRIDGE & MORRIS

6 Albemarle Street, London, W.1

to responsible applicants, without any security

QUOTATION LIST on request

Phone or telegraph REGent 4901

The 8 Litre BENTLEY

We specialise in the re-building and super tuning of the above cars.

120 m.p.h. guaranteed with special models. 6½ Speed models a speciality. Guaranteed 3-litre and 4½-litre models in stock.

McKENZIE'S GARAGES LTD.

Vic. 4923-4.

Specialists in the Servicing of Rolls and Bentley Cars.

1, BRIDGE PLACE, BELGRAVE ROAD, S.W. 1.

(Back of Victoria Station)

Note the Address

S. LEWIS'S

OF

RACING, FLYING AND MOTOR CLOTHING FAME

27, Carburton Street,

LONDON, W. 1.

EUSTON **4793**

First turning on left from Great Portland Street Met. Station

No Connection with any other Firm

10% Discount to "Motor Sport" Readers.

Send advert. with order, please

RACING CLOTHING

PREPARE FOR MOTOR-RACING BOOM

RACING SUITS — RACING SUITS

Best quality white drill racing suits, unshrinkable material, zip front, button ankles and cuffs 27/6
Best quality white drill suits, zip front, zip sleeves, legs, side split through pockets 30/-
White racing suits, lightweight material 22/6, 18/6
Unbleached racing suits, zip front... ... 18/6
Special line, white suits, button front, lightweight material 12/6
Racing suits made to order in Oxford and Cambridge blue, black, and green, zip front 27/6
Racing suit in Grenfell colours, black, white, green, red, navy maroon, Bugatti blue, Cambridge blue, Oxford blue, zip front, sleeves, legs and pockets 65/-
Racing trousers in white, zip front ... 14/6

CRASH HELMETS

Crash Helmets, special lightweight with peak, any colour 32/6
Super quality leather covered, in white, blue, red, green, black 42/-
Special line crash helmets 26/-

RACING VISORS

Racing visors to fit on crash helmet peak 8/6
Do. smaller pattern 7/6
These can also be worn with linen helmets for fast touring.
Visors for sports-cars 7/6, 8/6

RACING GLOVES

Nett back racing gloves, super quality ... 8/6
Nett back racing gloves, chamois palms 3/9
Racing gloves in very pliable leather ... 4/9

RACING GOGGLES, Perfect Fitting

Genuine Government goggles as used by the Air Force. Perfect vision, curved eye pieces, special ventilation 30/-
High speed goggles, large rubber cups, curved safety lenses, adjustable nose ... 29/6
High speed goggles adjustable air slide, large vision lenses, Triplex glass ... 27/6
High speed goggles, rubber cups, special lightweight model, adjustable nose, Triplex glass 21/-
Do. in ordinary safety glass 18/6
Special large rubber cup goggles, to go over glasses, Triplex lenses 10/6
Do. special featherweight, to go over glasses, Triplex lenses 8/6
Triplex Model C.2 ... ... 12/-
Triplex model C.3 ... ... 10/6
Goggles, pear shape, Triplex lenses ... 7/6
Luxor goggles, No. 4 ... ... 40/-
Luxor goggles, No. 6, curved lenses ... 85/-
Luxor goggles, No. 6, Meyflex lenses ... 45/-
Luxor goggles, No. 10, Triplex lenses ... 42/-
Any goggles made to prescription to order at special prices.

GRENFELL HELMETS

Grenfell helmets in double material, waterproof, for ladies or gents, perfect fitting. Colours, red, maroon, blue, black, fawn, cream, brown, white, Bugatti blue, all sizes 10/-
Do. in white drill 7/6
Do. drill in black, navy or royal blue. ... 7/6

SPORTS CAR USERS

Oilskin slickers, full cut 22/6, 19/6
Rubber ponchos, zip front 37/6
Rubber ponchos, rubber neck 39/6
Black or fawn twill coats, will wear for years 42/-
Gabardine slip-on raincoats, super quality 37/6, 35/-
Do. 18/6, 21/-

WATERPROOF SLEEVES

Made from black rubber, zip under arm, Raglan shape 5/6
Do. ordinary shape, white rubber or black 4/-
Grenfell gref. jackets in all colours, single texture 29/6
Double texture ... ...

SPECIAL FOR HORSE RIDING
Made to Measurements

Ladies Jodpurs... ... ... 18/6, 27/6, 30/-
Ladies riding breeches 14/6, 16/6, 20/-, 23/-
Gents riding breeches 14/6, 17/6, 22/6, 25/-
Riding boots, ladies or gents, 29/6, 35/-, 37/6
Made to measurements 4/- extra.

LEATHER COATS

Leather coats, double breasted, black or tan 65/-, 75/-, 85/-
Leather flying coats, large wrap over 95/-, 105/-
Bucklefast pattern ... 85/-, 95/-, 105/-

S. LEWIS'S, 27, CARBURTON STREET LONDON, W.1.

CLOTH BOUND EDITION OF VOLUME XII

OF

"MOTOR SPORT"

(contains all the issues from November, 1935—November, 1936).

THE CHARGE FOR THIS VOLUME IS 12/6 (postage 9d. extra).

CASH WITH ORDER

WE CAN STILL SUPPLY THE FOLLOWING FROM STOCK:

Volume 3 at £1 - 1 - 0 Volume 4 at £1 - 1 - 0

Volumes 7, 8, 9, 10 and 11 at 12/6.

(Postage on each of the above is 9d. extra).

All applications to:—

MOTOR SPORT,

21, CITY ROAD, LONDON, E.C.1.

INDEX TO ADVERTISERS

	PAGE
Austin Motor Co., Ltd.	125
Bellevue Garage & Service Stations Ltd.	150
Bentley Motors (1931) Ltd.	114
Chambers, M.	110
Dunlop Rubber Co., Ltd.	back cover
Ferodo Ltd.	front cover
Lemon Burton, J.	150
Lewis, S.	152
Malloway Motors	150
Metchim, Ltd.	135
McKenzie's Garage Ltd.	152
Monaco Garage	135
National Benzole	138
Pembridge Motors	151
Progress Motor Works	150
Robinson, L., & Co.	128
Sports Spares	152
Windrum & Garstin Ltd.	150
Whitfield Semmence	150
Raymond Way Motors	151

YOU WO

fr



7H/101

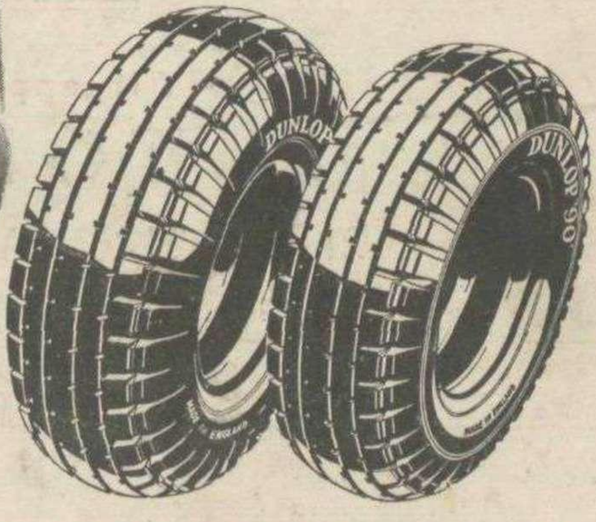
Printed by Tee & Whiten and J. Mead, Ltd., 21, City Road
London, E.C.1. Agents for Australasia : Gordon and Gotch (A
W. H. Smith & Son, 248, Rue de Rivoli, Paris ; and W

ULD NOT TRUST A

ayed rope...

when climbing! On the road, unreliable car tyres are just as dangerous to life and limb. Fit DUNLOP and ride in the confident knowledge that you have the most dependable tyres in the world, built to withstand the test of the most formidable strains, under all conceivable motoring circumstances.

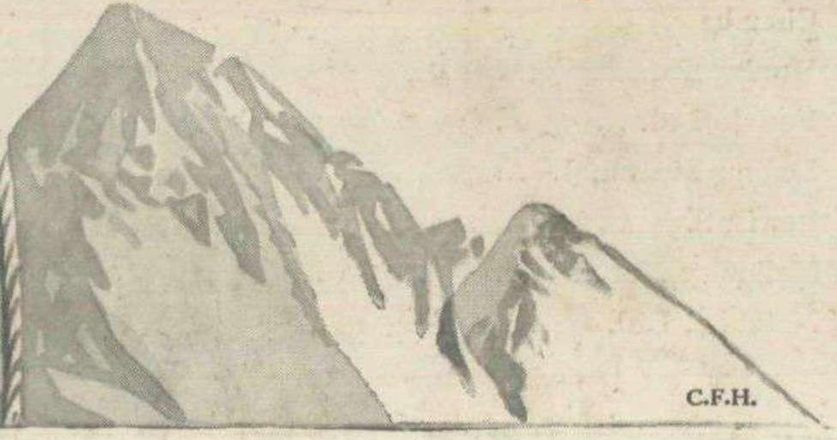




YOU **CAN** TRUST

DUNLOP

The World's Master Tyres



C.F.H.

, London, E.C.1, and Published by Motor Sport, 21, City Road, ustralasia) Ltd. Copies obtainable and subscriptions received by . H. Smith & Son, 71/75, Bld. Adolphe Max, Bruxelles.