Vol. X. No. 4 *February, 1934*

MOTOR SPORT

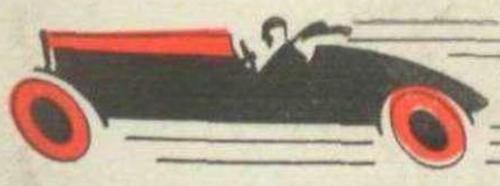
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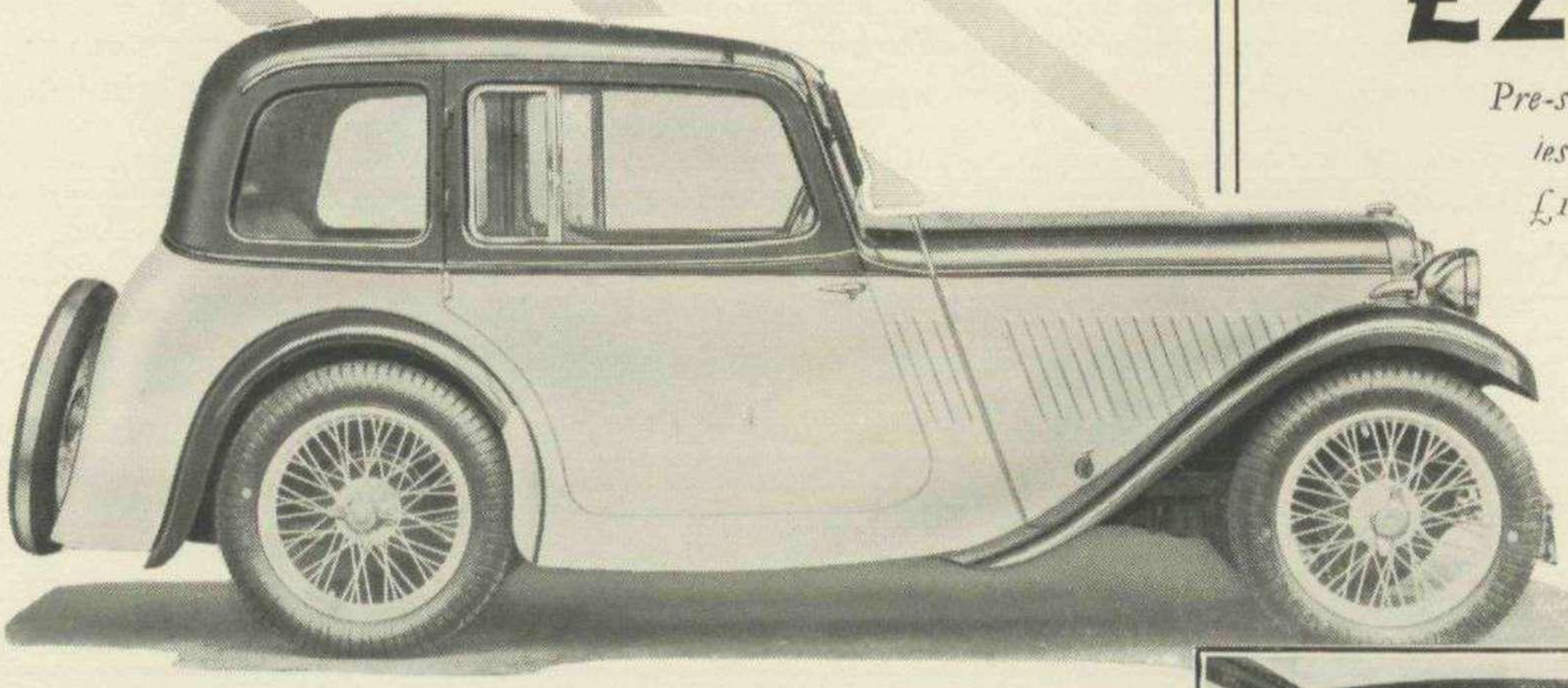
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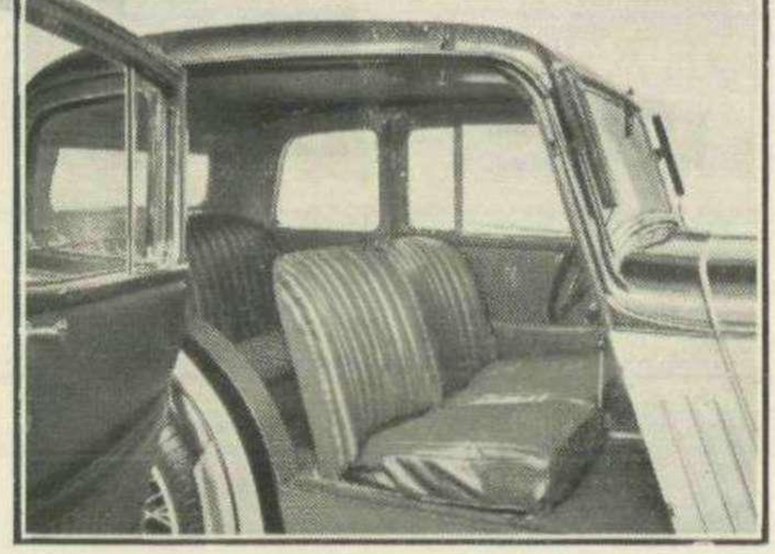
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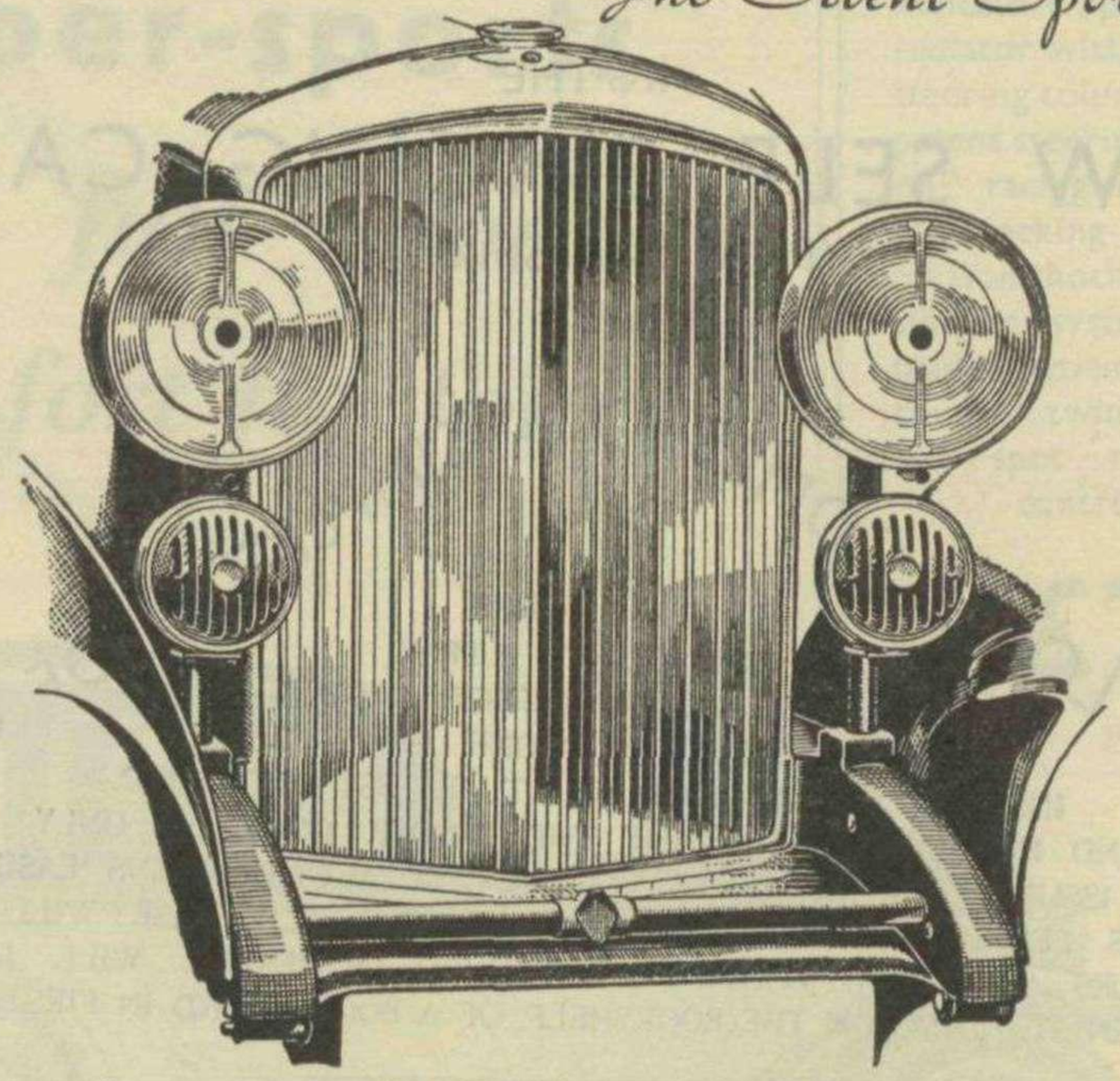
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Equally as remarkable as the riding qualities of the car was its extraordinary silence. Indeed although definitely a sports car with almost racing car performance, it glides along so silently, however fast, and in whatever gear, that practically the only sound heard is the wind in the radiator and the hiss of the tyres on the road—Manchester Daily Dispatch

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EDITORIAL.

THE TRUTH ABOUT THESE ACCIDENTS

NO one can deny that the casualty list from road accidents in this country is too high. The bare figures of 6,425 killed and 198,610 injured during 1933 are bound to give rise to urgent demands by sections of the Daily Press that new legislation should be introduced to reduce the number of accidents. Unfortunately, although it has been proved that more often than not the pedestrian is responsible for his own death, and sometimes that of the motorist, it is the latter against whom such panic legislation is certain to be directed.

The rumour that the Daily Press agitation is probably prompted by those interested in the limitation of road traffic is immaterial. The fact remains that the motorist's freedom of the road is likely to be seriously restricted.

What should be done, in fairness to all road-users, to reduce accidents? The following points would, we consider, provide the surest way of bringing about this desirable end.

1. The issue of a driving license should be subject to the applicant passing a driving test, and to his memorising every article of the Highway Code.

2. The existing mobile force of mediocre drivers equipped with medium-powered cars should be substituted by a force of expert, intelligent riders of fast motor-cyclists, in greater numbers than the present quantity of police cars.

3. Many more parking places should be provided in cities, thereby saving the wages of the innumerable constables whose job it is at present to stand about for hours waiting for the return to his car of an unfortunate motorist who has been unable to find room on an authorised park. The money thus saved could be used to supplement the force of motor-cyclists.

4. These police motor-cyclists should be able to recognise any transgression of the Highway Code, and should overtake and stop all motorists and cyclists thus guilty.

5. Many pedestrians will never be induced to exercise care in crossing the road until they are penalised for not doing so. Legislation should therefore be introduced which would make it an offence for pedestrians to cross the road without due care.

6. Certain sections of the Highway Code should be enforced under stress of a severe penalty, such as "filtering" from a side turning into a main road without first stopping. This applies also to cyclists. Flagrant cases should be penalised by suspending the culprit's driving licence.

7. It should be made compulsory for bicycles to carry rear lights.

8. A drastic overhaul of road surfaces should be made immediately. It should not be beyond the scope of human ingenuity to devise a non-skid surface. Wrongly cambered corners should be eliminated as far as expenditure will allow.

9. Parents allowing children to ride miniature bicycles or use roller-skates in the road should be prosecuted. Road safety lessons should be included by law in the curriculum of every school.

10. It should be a punishable offence to allow a dog to stray into a main road off the lead.

CONTENTS

	PAGE
Hotchkiss wins the Monte Carlo Rally	148
Alvis Speed Twenty, The	152
Looking back at the Exeter	154
Rumblings	158
1934 Racing Cars, The Monoposto Maserati	161
Winter Work in the Garage	164
Fiat, The 17 h.p. Ardita"	168
British Motoring Fixtures for 1934	170
Letters from Readers	171
Club News	173
News from the U.S.A.	174
Continental Notes	175
Dirty Work, The	180
To Athens by Road	181
La Studeria Whitney Straight	186
A Hand Made Fifteen Hundred	187
Packard Twin Six, The	189
What do you know about Cars	191

HOTCHKISS AGAIN WIN THE MONTE CARLO RALLY

GAS AND TREVOUX FIRST IN THE UNLIMITED CLASS WITH 1,013.73 POINTS. MAGNIFICENT PERFORMANCE OF 1,233 C.C. TRIUMPH DRIVEN BY DONALD HEALEY, IN WINNING THE 1,500 C.C. CATEGORY AND FINISHING THIRD IN THE GENERAL CLASSIFICATION. 15 OUT OF 23 GET THROUGH FROM ATHENS.

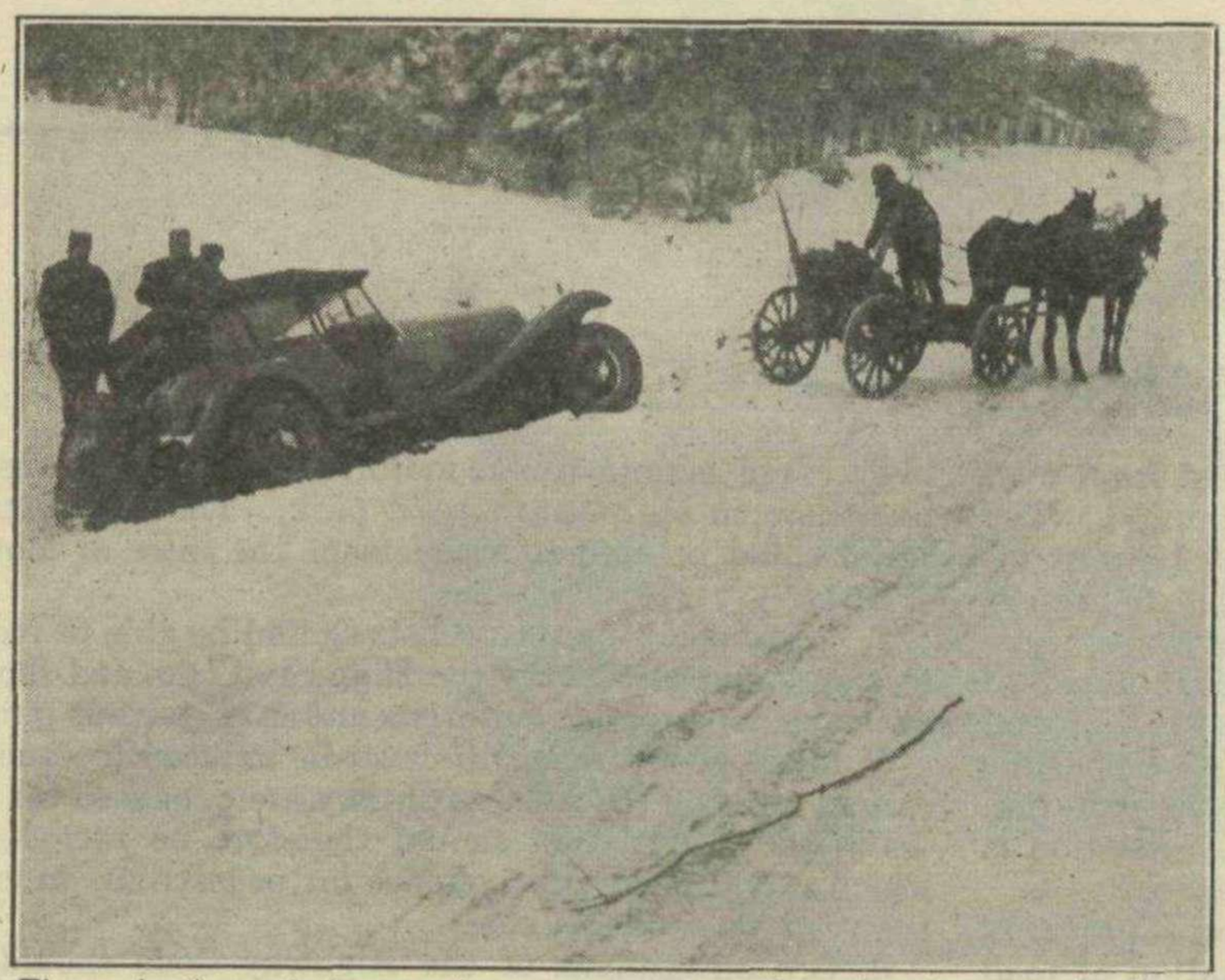
FOR the third time in succession the famous French *marque* Hotchkiss has gained the highest possible award in the arduous and keenly contested Monte Carlo Rally. Gas and Trevoux started from Athens with their 3,485 c.c. model, and their total score of 1,013.73 points secured for them the coveted position of first place in the whole Rally. Their victory is the result of careful preparation and competent handling of a well designed and constructed motor-car. All praise to them!

Another French car was second, namely the 3,600 c.c. Chenard-Walcker driven by Chauvierre and Lanciano. They also started from Athens and scored a total of 1,012.41 points. British prestige was more than upheld by a really magnificent performance by that confirmed Rallyist, Donald Healey, who drove his little 1,233 c.c. Triumph from Athens into third place, with a total of 1,011.57 marks. Here again careful preparation and experienced driving counted for a lot, and the small engine capacity of the Triumph in comparison to that of the Hotchkiss and Chenard-Walcker makes its gallant journey from the most difficult starting point in the Rally a feat of outstanding merit.

Then followed three American cars, the 4,020 c.c. Railton-Terraplane driven by F. de Ribeiro Ferreira, J. W. Whalley's 3,622 c.c. Ford V-8, and J. Van der Heyden's 3,620 c.c. Studebaker. Seventh was Rupert Riley, who has at last succeeded in getting through from Athens, a trail he has blazed in previous years.

How they fared from Athens.

For the first time in the history of the Rally, competitors succeeded in getting to the finish from Athens within the scheduled time. Actually 15 out of the 23 starters arrived. Being the highest marked starting point, this contingent naturally provided the leaders in the final placings.



This is what frequently happens when you try to average 25 m.p.h. on frozen road. Here is the Lagonda, driven by T. G. Moore, ditched in Yugo-Slavia.

Those who drove their cars to Athens by road experienced very bad conditions *en route*, in fact a good deal worse than on the return journey towards Monte Carlo. For this reason the cars which were shipped direct to Athens by steamer were in a better condition at the start, although the drivers were liable to be handicapped by being unfamiliar with the route. Gas and Trévoux got over this difficulty by having a separate car for each journey.

The adventures of Lord de Clifford's 4½ litre Lagonda in travelling to Athens are related in another part of this issue. Ice and snow on the road were encountered on most of the route from Strasbourg onwards, in addition to appalling surfaces in the later stages.

The two days before the start witnessed a torrential downpour of rain which did not promise well for the Rally. The weather report gave ice in Salonica, ice and fog at Belgrade and Vienna, and at various other places on the way. 540 men were said to be working with 8 steam rollers on the Greek roads, which showed a great improvement even since Lord de Clifford's survey trip in December. The Greek Club organised guides and signposts at various doubtful spots. A company of 150 cavalrymen were said to be stationed at Sidero-Castron near the Bulgarian frontier to guide competitors round the mud-holes, gendarmerie were going to be placed in every village to keep the crowd back, and all arrangements were made to facilitate the progress of the competing cars through Greece.

All the entrants except R. Carrière and H. Avril (Peugeot) and W. E. Belgrave and M. T. Lacroze (M.G.) arrived at Athens. The former stopped at Belgrade. A. Kegresse with his wonderful Citroen, complete with caterpillar tractors at the rear and skis as well as wheels in front attracted great attention. He



Another ideal road for fast averages! The huge pot-holes play havoc with chassis and springs.

HOTCHKISS AGAIN WIN THE MONTE CARLO RALLY—continued.

did not intend to start unless the roads were so bad that no other cars could possibly get through. His maximum speed on the road was low, so that he would have great difficulty in maintaining the scheduled average speeds for the journey.

K. Bryde, the Norwegian driver of an Austin Sixteen was very despondent before the start because Sundersonn, his relief driver, fell ill. Fortunately the latter recovered in time for the Rally. Healey and Ridley, who arrived by steamer, took the precaution of driving about 50 miles up-country to inspect the roads. The wheels of their cars were exactly the same size as the brake drums, and were fitted with enormous low-pressure tyres in order to make sure of plenty of ground clearance.

Charles Brackenbury arrived from London by train to take Browning's place in Lord de Cliffrod's Lagonda, as the latter was called back to London on business. After four days in the Orient Express Brackenbury was calling loudly for a bath!

H. E. Symons and M. D. Scott had a good deal of trouble with their Essex Terraplane Eight. By the time they arrived at Athens the rubber bearings of the tie-rod had perished, the controllable shock absorbers had ceased to function, the front axle clips had broken, and the brakes were seizing.

The start was given from 7.22 a.m. onwards from a point in the outskirts of the city. Gas and Trévoux were first away with the Hotchkiss, while J. C. Ridley brought up the rear. Although the road conditions were easier, difficulty was experienced by some of the competitors. H. E. Symons ditched the Essex in trying to pass by Van der Heyden's Studebaker, which had skidded off the road. Soon after, Symons had to retire with a broken axle shaft. All but 4 cars got through to Salonica. Lord de Clifford's Lagonda was showing signs of wear at this stage. A shock-absorber bolt had disappeared, the car nearly shed a rear wing and the sump had been cracked by contact with a rock. Mme. Schell had retired with radiator trouble and others to fall out were the Kegresse Citroen and the Austin 16.

Sofia was the next objective, and De Clifford was forced to retire during this section, the crack in the sump growing worse and letting all the oil out. The rest of the British competitors arrived here safely.

From then to the finish much better weather conditions were encountered. There was little snow and ice, and no fog, and fifteen out of the 23 starters eventually arrived at Monte Carlo. They reported intense enthusiasm by villagers and townsfolk throughout the route, almost as keen as that shown during the Mille Miglia.

In the acceleration and braking test, in which competitors have to get off the mark and cover 110 metres, braking as heavily as possible as the end, the leading finishers all performed well with the exception of F. de Ribeiro-Ferreira (Railton Terraplane) who would have finished higher in the final placings if he had not applied his brakes prematurely.

The Other Starting Points.

Bucharest is the next highest marked starting point, and this year attracted 16 competitors—in spite of the fact that in 1933 the road was impossible. Heavy snow was again encountered this year, but three cars got through on time. They were Ch. de Cortanze (Peugeot 1,465 c.c.), Mlles. Hustinx and des Forest (Peugeot 1,465 c.c.), and Cdt. A. Berlesco (Ford V-8, 3,622 c.c.). The latter used skis on the front of his Ford right the way from Bucharest through Roumania and Poland.

Umea, Tallinn and Stavanger were all marked the same with 910 points. From Tallinn, drivers reported that the famous frozen ruts which were so disconcerting last year had lost their terror through a providential thaw. A fresh difficulty arose, however, for the faster cars found great trouble in passing slower vehicles because their windscreens were deluged with mud as soon as they approached within striking distance. Vasselle (Hotchkiss), winner of the Rally in 1932 and 1933, was the leader of the Tallinn group, being 19th in the final results; the next man was Malaret, who drove a Talbot 3,380 c.c. into 20th place in company with Lavillangonet. At no time were drivers in fear of being held up by snow.

There was a good deal of ice on the road from Umea, but on the whole a fairly comfortable ride was enjoyed by everyone, and there were no delays. Stavanger, too, was in good condition.

Five out of the 25 starters from John o'Groats had completely no trouble runs. The journey North before the Rally was very severe, high wind, rain and sleet all making it very unpleasant especially for the drivers of open cars. A certain amount of ice was encountered, and required watching. J. A. Lriskell was caught napping on one occasion, and ditched his Ford spectacularly.

The two Mercédès-Benz, both 7 litre models, attracted the inevitable attention, particularly that entered by a German, Capt. F. E. Nord, who was accompanied by a uniformed chauffeur. An obvious attempt at sabotage, either joking or serious, but in any case annoying. was found by D. E. Harris when he discovered a quantity of sugar in his petrol tank. Miss Fay Taylour was apprehensive of not being able to start owing to a temperature, but she returned to normal before the start.

Mr. C. J. Joyce's Talbot "95" saloon was greatly admired. No car was more thoroughly equipped, for its entrant has been a regular driver in the Rally for many years. Every conceivable fitting and cubby hole has been fitted inside the body, there was a special roll-up route map holder, a warm-air heater for the windscreen and a radio set, while every possible mechanical accessory had been duplicated in case of failure.



[*Monte Carlo Rally.*

The usual crowd of spectators, this time in Greece. The gentleman in the kilt, however, say he prefers his buggy.

S. C. H. Lavis (Railton Terraplane) led the field at the start. Beyond a little rain as far as Inverness, and some fog in Yorkshire, the journey to London was uneventful.

In France, however, misfortune overtook R. C. Porter and his passenger in the little André V-6. The car had performed with complete satisfaction when it was involved in an accident near Toulouse. Porter himself was not seriously hurt, and after treatment at a hospital was able to travel on to Monte Carlo. R. M. Stoneham, however, who was driving received concussion and a broken leg. We are happy to be able to state that his progress has been favourable.

The last 1,000 kilometres of the Rally had to be traversed by everyone at an average speed of 50 k.p.h. (roughly 31 m.p.h.) and most of the competitors found that this left them no time in which to execute repairs and adjust brakes before entering Monte Carlo—which was what the organisers wanted. If the weather had been bad it is doubtful whether many would have got in in time. J. A. Lriskell

HOTCHKISS AGAIN WIN THE MONTE CARLO RALLY—continued.

made the best performance of the John o'Groats brigade, finishing 62nd in the whole Rally.

There was fine weather at Monte Carlo at the finish. Everyone was pleased at this except those who had made elaborate arrangements to deal with the worst possible weather.

The First 20 Places.

GENERAL CLASSIFICATION.

1. Gas-Trevoux (Hotchkiss 3,485 c.c.), Athens. 1,013.73 pts.
2. M. Chauvierre-Lanciano (Chenard-Walcker, 3,600 c.c.), Athens. 1,012.41 pts.
3. D. M. Healey (Triumph, 1,232 c.c.), Athens. 1,011.57 pts.
4. F. de Ribeiro Ferreira (Railton-Terraplane, 4,020 c.c.), Athens, 1,011.19 pts.
5. J. W. Whalley (Ford, 3,622 c.c.), Athens. 1,010.41 pts.
6. J. van der Heyden-F. Habrut (Studebaker, 3,620 c.c.), Athens. 1,010.15 pts.
7. R. S. G. Riley-H. Gardiner (Riley, 1,089 c.c.), Athens. 1,009.01 pts.
8. J. Bignan (Renault, 3,670 c.c.), Athens. 1,009 pts.
9. B. Turek (Aero 998 c.c.), Athens. 1,008.38 pts.
10. G. de Lavalette-H. Naas (Peugeot, 1,465 c.c.), Athens. 1,008.01 pts.
11. H. Stoffel (Peugeot, 1,465 c.c.), Athens. 1,007.59 pts.
12. J. H. Van der Meulen (Ford, 3,622 c.c.), Athens. 1,006.96 pts.
13. J. C. Ridley (Triumph, 1,233 c.c.), Athens. 1,003.18 pts.
14. Dr. J. J. Sprenger van Eijk-A. A. J. Wielemann (Ford, 3,622 c.c.), Athens. 993.99 pts.
15. E. A. Chazel (Peugeot, 1,465 c.c.), Athens. 958.30 pts.
16. Ch. de Cortanze (Peugeot, 1,465 c.c.), Bucarest. 945 pts.
17. Mlles. Hustinx-des Forest (Peugeot, 1,465 c.c.), Bucharest. 934.40 pts.
18. Cdt. A. Berlesco (Ford, 3,622 c.c.) Bucarest.
19. M. Vasselle (Hotchkiss, 3,485 c.c.), Tallinn.
20. Malaret-Lavillaugonet (Talbot, 3,380 c.c.), Tallinn.

UNDER 1,500 C.C.

1. D. H. Healey (Triumph, 1,232 c.c.), Athens. 1,011.57 pts.
2. R. S. G. Riley-H. Gardiner (Riley, 1,089 c.c.), Athens. 1,009.01 pts.
3. B. Turek (Aero, 998 c.c.), Athens. 1,008.38 pts.
4. G. de Lavalette-H. Naas (Peugeot, 1,465 c.c.), Athens. 1,008.01 pts.
5. H. Stoffel (Peugeot, 1,465 c.c.), Athens. 1,007.59 pts.
6. J. C. Ridley (Triumph, 1,232 c.c.), Athens. 1,003.18 pts.
7. E. A. Chazel (Peugeot, 1,465 c.c.), Athens. 958.30 pts.
8. Ch. de Cortanze (Peugeot, 1,465 c.c.), Bucarest. 945 pts.
9. Mlles. Hustinx-des Forest (Peugeot, 1,465 c.c.), Bucarest. 934.40 pts.

COUPE DES LAMES.

1. Mlles. Hustinx-des Forest (Peugeot, 1,465 c.c.), Bucharest. 934.40 pts.

PLACINGS OF OTHER BRITISH COMPETITORS (in General Classification)

(27) J. Beck, Junr., Triumph (T), 920.33; (28) M. T. Minshall, Singer (U), 920.11; (29) J. Hobbs, Triumph (U), 919.96; (38) T. A. Sangster, Riley (T), 918.78; (45) T. C. Griffiths, Riley (U), 917.94; (48) Mrs. M. W. Stanton, Riley (U), 917.39; (52) Miss E. M. Riddell-Comtesse H. Moy, A.C. Ace (T), 000.00; (58) Miss D. C. N. Champney, Riley (U), 915.23; (60) Miss M. Allan, Triumph (U), 913.10; (62) J. A. Driskell, Ford (J.o'G.), 861.45; (63) C. Joyce, Talbot (J.o'G.), 860.51; (64) S. C. H. Davis, Railton Terraplane (J.o'G.), 860.20; (65) S. H. Light, S.S. (J.o'G.), 859.75; (66) R. P. Gardner, Lagonda (J.o'G.), 859.51; (67) R. R. Pelham-Burn, Riley (J.o'G.), 859.02; (68) R. H. G. Howard, M.G. (J.o'G.), 858.47; (69) D. H. Murray, Delage (J.o'G.), 858.02; (70) L. Martin, Talbot (J.o'G.), 858.01; (71) T. V. G. Selby, Chrysler (J.o'G.), 857.85; (72) W. P. Maidens, Riley (J.o'G.), 857.52; (73) Maj. and Mrs. Montague-Johnstone, Triumph (J.o'G.), 857.08; (74) A. C. Scott, Triumph (J.o'G.), 857.07; (75) J. Kingston-Whittaker, M.G. (J.o'G.), 857.01; (76) C. B. E. Morgan, Vale Special (J.o'G.), 855.89; (77) J. Charters, Lagonda (J.o'G.), 855.22; (78) F. L. Winter, Alvis (J.o'G.), 852.83; (79) Miss Labouchere, Singer (T), 851.68; (80) F. S. Barnes, Singer (S), 850.78; (82) G. R. Brocklebank, M.G. (J.o'G.), 821.14; (83) C. J. Kingsley Scott, Triumph (S), 821.03; (87) G. Coulthurst-Holroyd, Ford (V), 819.52; (89) Sq.-Ldr. J. Fullerton, Sunbeam (A), 804.47; (93) K. W. B. Sanderson, Alvis (G), 782.43; (99) G. E. Stott, Alvis (W), 720.81; (100) Miss R. M. Harker, Sunbeam (L), 720.74; (105) H. T. van Marken, Talbot (T), 703.92; (114) Maj. D. M. Douglas-Morris, Invicta (J.o'G.), 576.71.

KEY TO STARTING POINTS.

(A) Athens; (B) Bucharest; (U) Umea; (T) Tallinn; (S) Stavanger; (J.o'G.) John o'Groats; (A) Aberdeen; (V) Valencia; (G) Glasgow; (L) London.

TROPHY WINNERS

International Sporting Club Cup (premier award in General Classification).—Gas-Trévoux (Hotchkiss).

Riviera Cup (premier award for cars under 1,500 c.c.).—D. M. Healey (Triumph).

The Ladies' Cup (for the competitor who, without a male passenger, obtains the highest number of marks).—Mlles. Hustinx-des Forest (Peugeot); Mrs. G. Molander (Chrysler).

"Le Journal" Challenge Cup (for longest distance).—Gas-Trévoux (Hotchkiss).

"L'Illustration Automobile" Challenge Trophy (for the competitor whose name figures for three years among the first three in the general classification).—Gas-Trévoux (Hotchkiss); M. Chauvierre-Lanciano (Chenard-Walcker); D. M. Healey (Triumph). The cup has been won outright by D. M. Healey.

The Late Public Schools Motor Club Challenge Trophy (for the member of a British Public School obtaining the best classification.—J. W. Whalley (Ford).

Portugal Automobile Club Challenge Cup (for the best classified competitor starting from Portugal).—B. de Souza Amorim (Ford).

Automobile and Touring Club of Greece Challenge Trophy (for the competitor whose name figures for three years in the classification of those having completed within the time limits the itinerary from Athens to Monte Carlo).—Gas-Trévoux (Hotchkiss); M. Chauvierre-Lanciano (Chenard-Walcker); D. M. Healey (Triumph).

Prince Pierre Ghika Challenge Cup (for the best classified competitor starting from Roumania).—Ch. de Cortanze (Peugeot).

Automobile Regal Roman Challenge Trophy (for the best classified competitor of Roumanian nationality).—Cdt. A. Berlesco (Ford). Won outright.

"Aftenposten" Challenge Trophy (to the best classified competitor in the 1,500 c.c. category starting from Norway).—Nany (Peugeot).

Thistle Challenge Cup (to the best classified competitor starting from Great Britain).—J. A. Driskell (Ford).

Barclays Bank (France), Ltd., Silver Cup (to the entrant of an all-British car obtaining the best classification).—D. M. Healey (Triumph).

Norway Cup (to the best classified competitor from Norway).—C. Lahaye-R. Quatresous (Renault).

"Officiel de la Couture" Challenge Trophy (to the competitor winning the Ladies' Cup three times).—Mlles. Hustinx-des Forest (Peugeot).

Royal Scottish Automobile Club Prize (to the best classified competitor from Scotland).—J. A. Driskell (Ford).

"L'Auto" Grand Prix (for the greatest number of marks in the coachwork comfort competition).—C. J. Joyce (Talbot).

Challenge Cup of the Con. Sve. of the Automobile Club of Portugal (to the Portugese competitor obtaining the best classification).—F. Ribeiro Ferreira (Railton Terraplane).

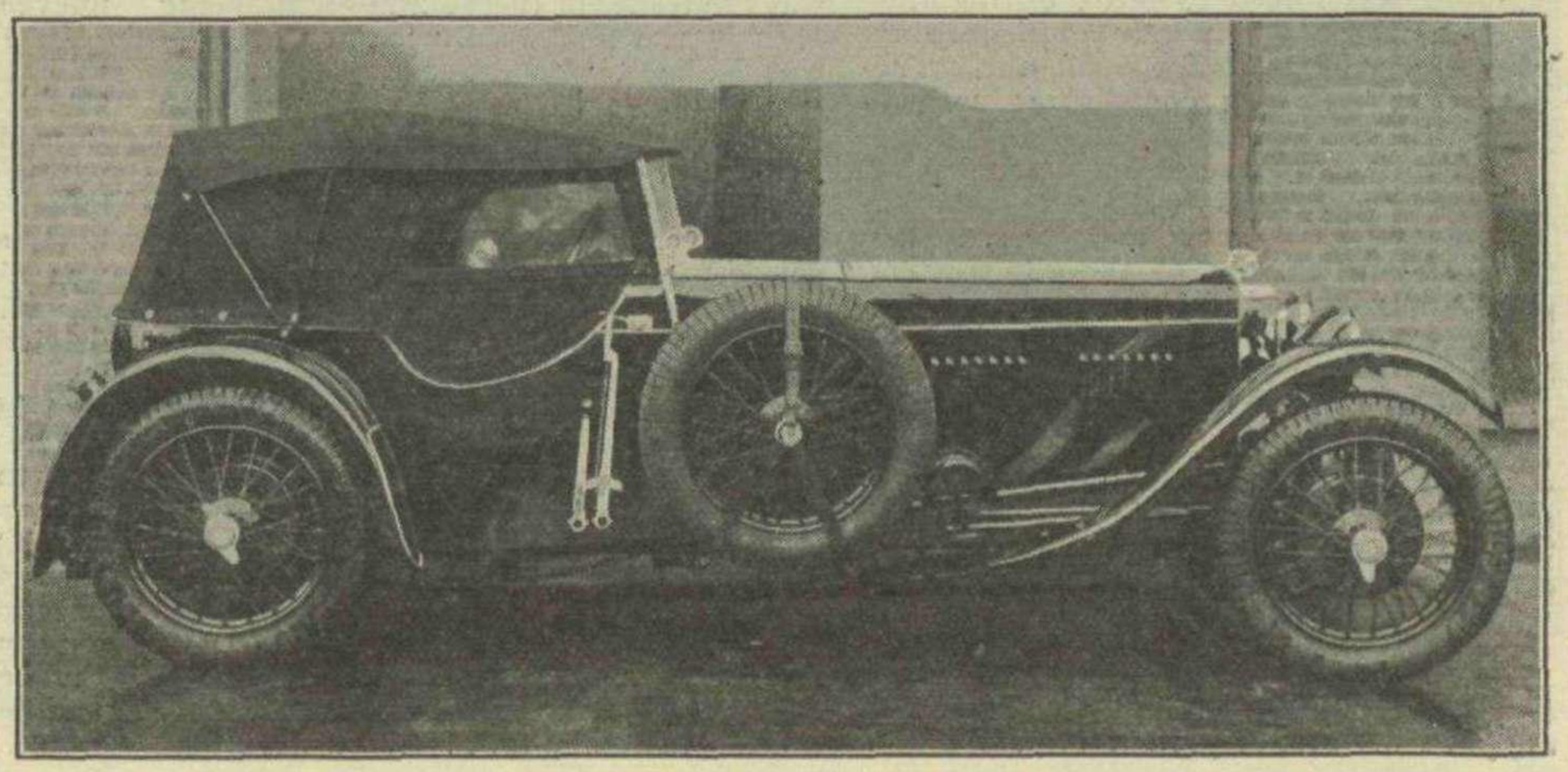
De Motor Challenge Trophy for the Dutch Indies competitor obtaining the best classification in the next five rallies).—J. A. Van Beeck Calkoen (Ford).

Rene Leon Challenge Cup (for a member of the Monte Carlo British Competitors' Club obtaining the best classification).—D. M. Healey (Triumph).

Harstad Cup.—Ch. de Cortanze (Peugeot).

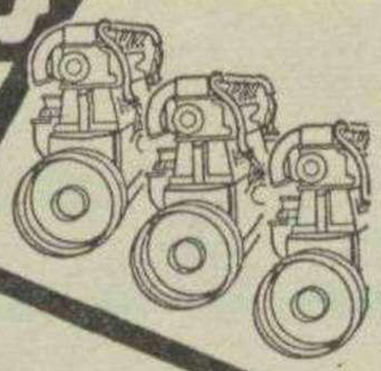
Netherlands Cup.—J. van der Heyden (Studebaker).

The Continental Frazer-Nash can be obtained with either a 4 or 6 cylinder engine. The car shown here was recently delivered to Mr. R. Brooke, of Grazeley Court, Reading, and is finished in black, with grey upholstery.



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Just two letters chosen at random from the many congratulatory letters we receive, together with our assurance that they are genuine. Owners' opinions are likely to carry more weight where you are concerned rather than our claims as manufacturers, which, although perfectly justified and which we are in fact always ready to substantiate by demonstration, are nevertheless apt to be read with suspicion, particularly in view of the many exaggerated performance claims made nowadays.

From the owner of a new model:

"I am extremely pleased to be able to write and let you know that I like the new Colmore model even more than my previous Frazer Nash, which is saying a great deal. Looking back, I very much regret money spent on other sports cars costing much more than the Frazer Nash, which had only a very limited performance. Any fun I did get out of owning any of these cars was heavily discounted by the extraordinary number of engine revs. one had to use to cruise at 70 miles per hour, and by the very low geared steering, which definitely made them difficult to control on grease and very tiring on long runs. Your cars must easily be the safest cars in production to-day."

A. L. MARSHALL, Pontefract, 10.10.33.

From the owner of a second-hand model:

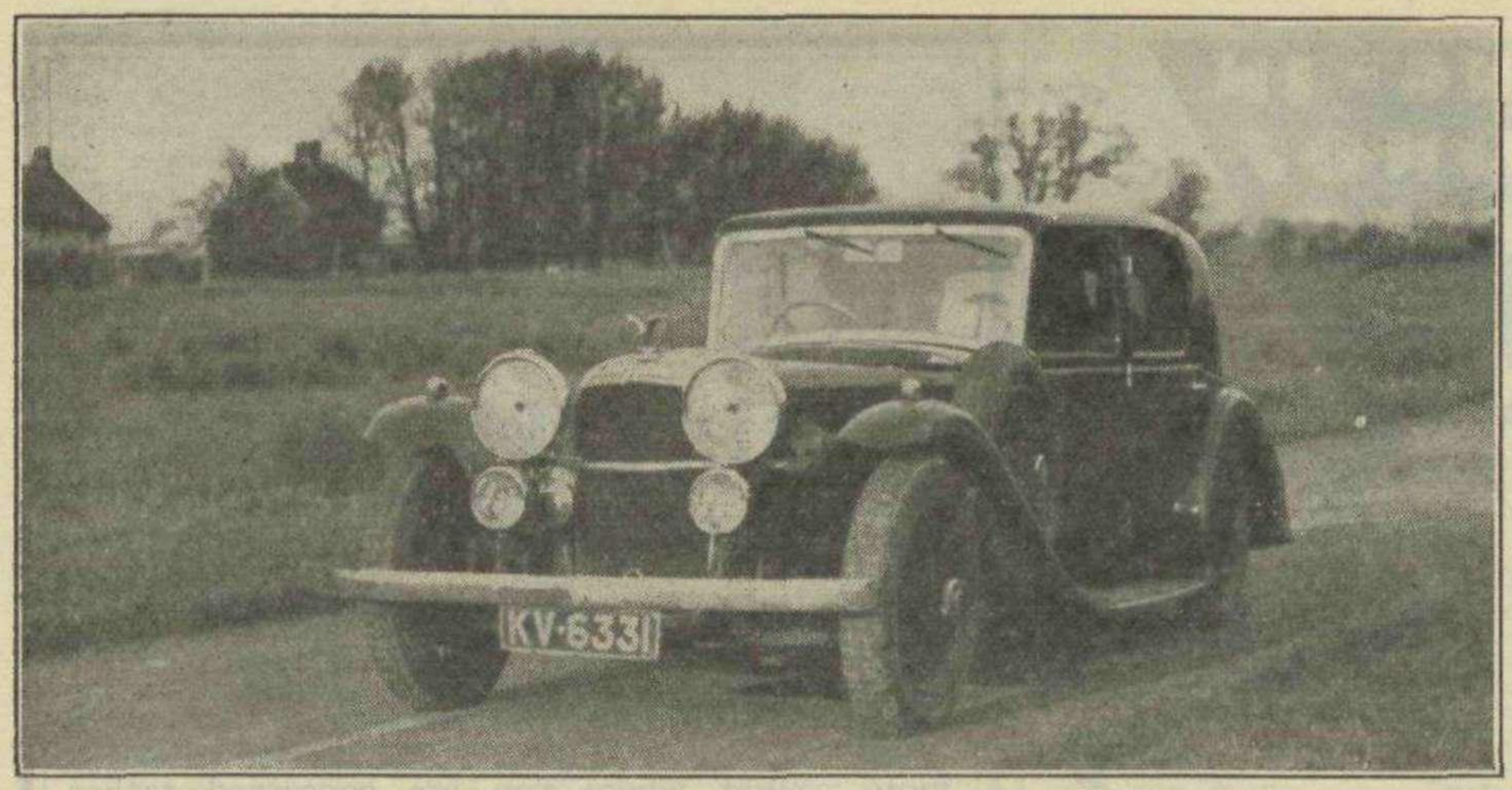
"It's always pleasant to realise ambitions, but when one does so, one generally feels disappointed afterwards. The Frazer is about the only thing I've met that is definitely much better than anything I've ever seen in print about it. The car seems to be definitely my ideal, and I find it hard to see why all other sports car makers don't go out of business in despair. I expect you get bored with nice things said about you, but I really can't find anything to criticise."

C. R. WASON, Edinburgh, 12.11.33.

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THE ALVIS "SPEED TWENTY"

A High Cruising Speed and First-Class Road Holding at all Speeds are Features of 1934 Model with Independent Front Springing.

Brief Specification.

Engine: 6 *cyl. bore* 73 *mm., stroke* 100 *mm., total capacity* 2,511 *c.c., detachable head. Push rod operated o.h.v., pump cooling, 4-bearing crankshaft. Three point rubber engine mounting. Dual ignition by coil and polar inductor magneto. Three S.U. carburetters.*

Clutch: Single plate.

Gearbox: Separate. Central change, synchromesh on all four gears.

Transmission: Tubular propellor shaft, metal universals.

Rear Axle: Fully floating, with spiral bevel final drive.

Brakes: Alvis self-energising type.

Springs: Independent for front wheels with Alvis shock absorbers. Semi-elliptic at rear with Andre friction hydro-telecontrol.

Battery: Lucas 12 *volt.,* 2 *unit electrical system, dynamo positively driven.*

Wheels and Tyres: Dunlop wheels, 19″ *rims. Dunlop* 5.50 *cord tyres.*

Wheelbase: 10′ 3″.

Track: 4′ 8″.

Price: Chassis £600. *Sports* 4 *seater* £695. *Drop head coupe* 4 *seater* £825. *Charlesworth saloon, as tested* £825.

THE Alvis Company has always earned the respect of discerning motorists, partly for the extraordinary wearing quality of their products, and also for their pioneer work in incorporating unorthodox features of design ahead of other manufacturers.

Their "Speed Twenty" model is a case in point, for mechanically it has proved itself to be a car of extremely robust construction, while the latest edition includes in its specification the unusual—albeit generally accepted on principle—system of independent springing of the front wheels, and a unique gear box in which all ratios are synchromesh.

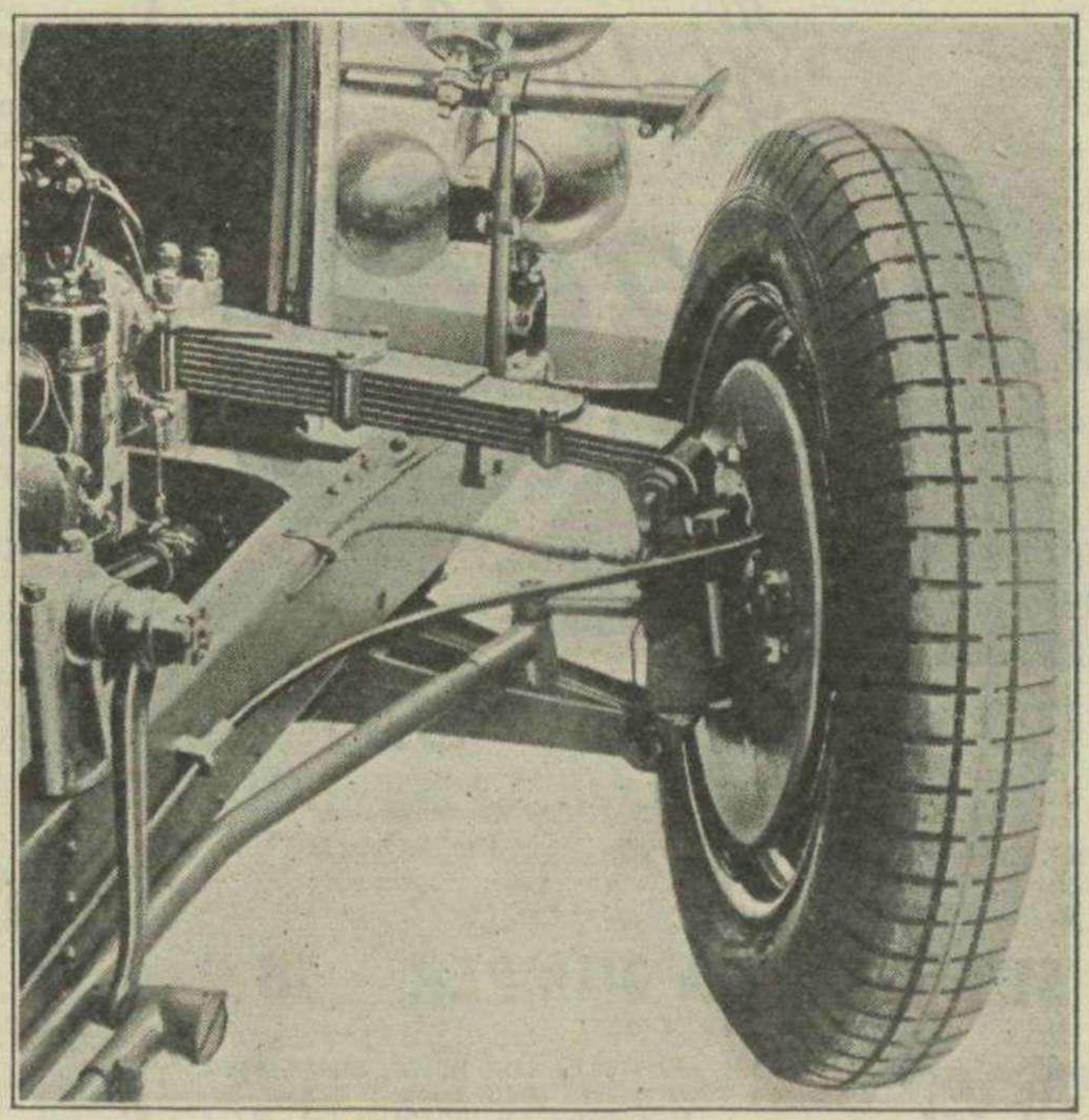
Before going on to describe the behaviour of the car on the road during the short week-end it was placed at our disposal by the London Distributors, Messrs. Charles Follett, Ltd., a brief description of the Alvis suspension may be of interest to the mechanically minded reader.

A single transverse spring is used, mounted at the centre on a rigid cross member of the chassis, formed by two U sections back to back and attached at the outside to forgings carrying the stub axles of the front wheels. These forgings are secured at their bases by rigid triangular radius members which incorporate friction shock absorbers. Each wheel is steered independently, by means of track rods which run behind the engine.

On leaving Charles Follet's showrooms in Berkeley Street and joining the thick traffic of Piccadilly, we were immediately impressed with the smooth clutch and excellent vision, important factors in the handling of a car in such circumstances for the first time. Second gear can be used for getting away, if desired, while the low bonnet line enables both front wings to be clearly seen.

As the traffic thinned out we were able to give rein to the desire of the car to leap at any gap ahead, and the fierce acceleration was equal to every demand we made on it. These periods of acceleration grew longer and longer as suburban arterial roads were reached, and a touch of third

[*Continued on page 185.*

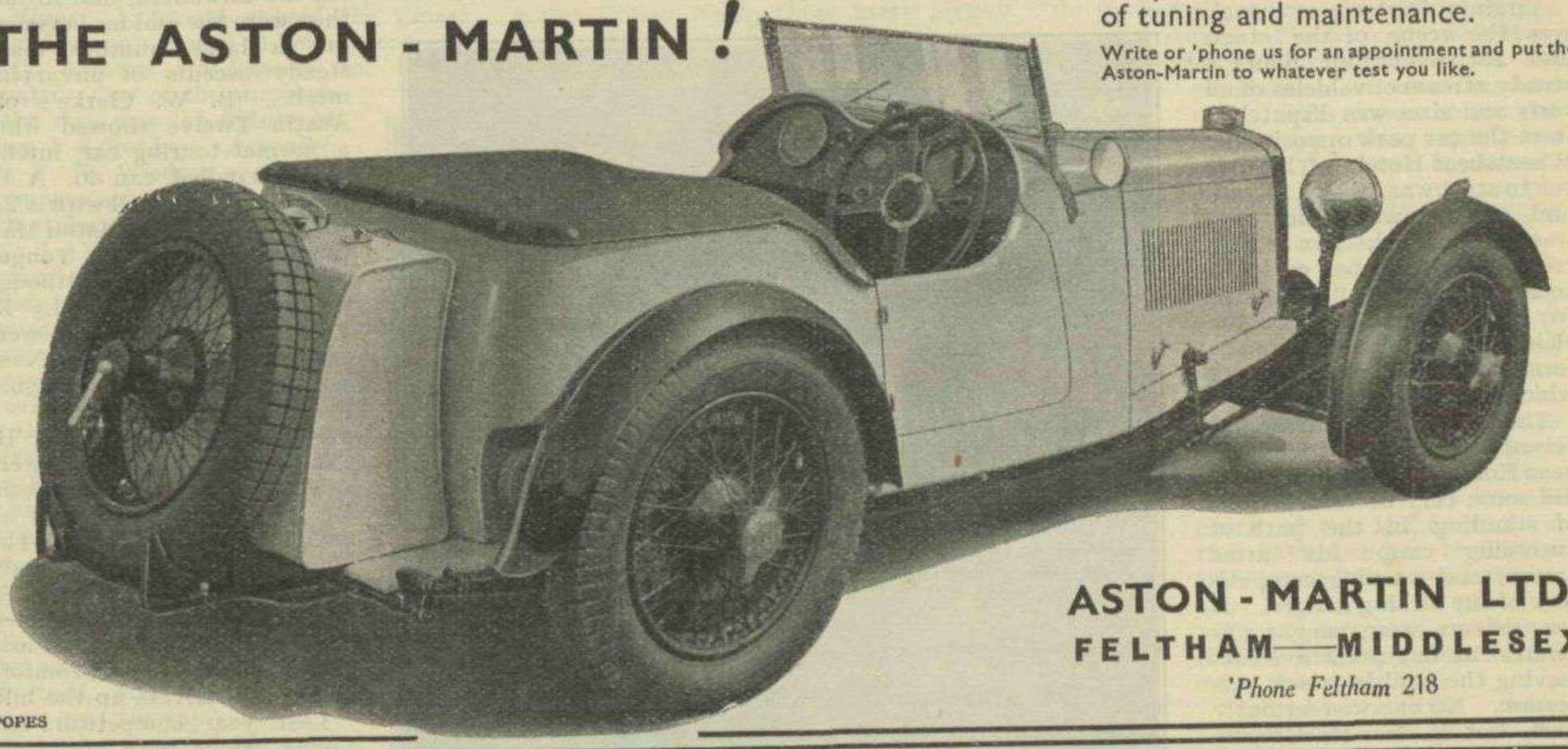


The salient features of the Alvis independent springing are clearly shown in this close-up photograph.

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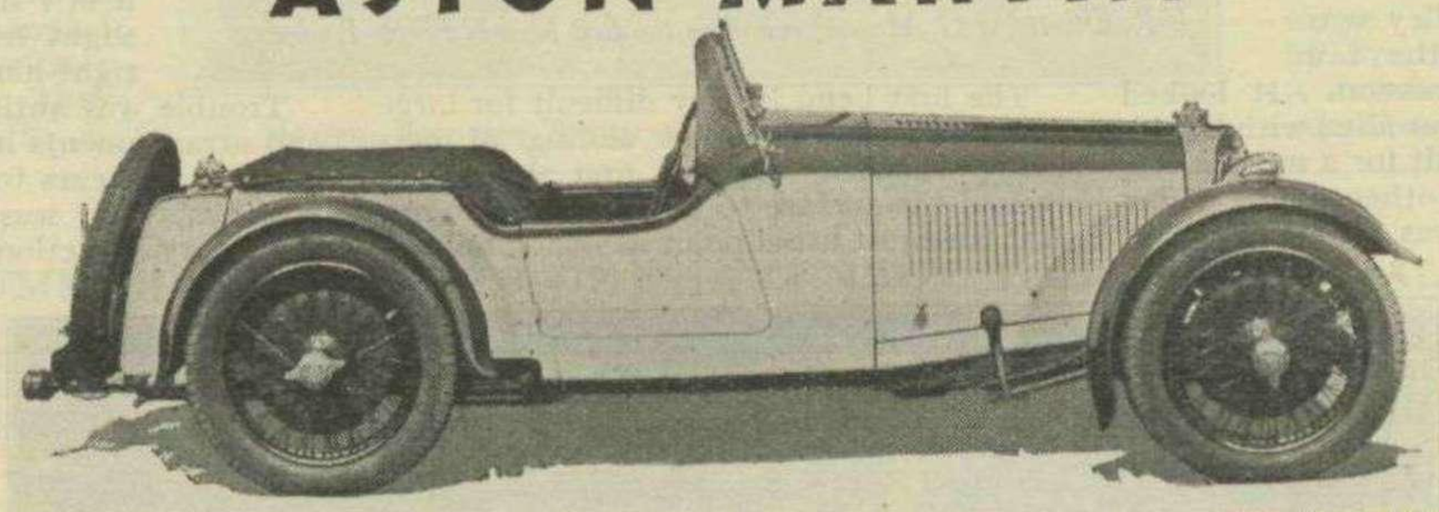
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Looking Back at the "Exeter"

COMPETITORS in the M.C.C. London to Exeter Trial can always depend on bad weather, and the event which took place on the last day but one of December was no exception. Fog, snow, ice, hail, sleet and rain, all were encountered in turn, making the task of averaging 25 m.p.h. quite difficult enough for most drivers.

Virginia Water, as usual, was the scene of the start, and for over four hours a steady stream of vehicles of all sorts and sizes was dispatched from the car park opposite the Wheatsheaf Hotel. The first car to start was off at 1.14 a.m. and straightaway thick fog was encountered. It was very cold for those in open cars, but soon the "fug-box" gang had to expose themselves to the elements too, for ice began to form on windscreens, over which wipers slid ineffectually.

Then the road surface received a thin film of ice, and near Honiton a certain marshal did some very necessary work of standing in the path of oncoming cars, his arms awave, and warning competitors of the lurking danger. A few drivers were caught unawares, at one point five cars leaving the road in quick succession. No one was seriously hurt, but K. D. MacGregor-Bowran's open Humber hit a telegraph pole and shook him up a bit, while his passenger was slightly injured. A Riley Six driven by D. S. C. Macaskie took charge and did a most lurid *tête-à-queue*, but that was about all.

Hereabouts a remarkable fog-formation in a valley was seen by drivers at the tail end of the long procession. It looked as though the hollow was filled with liquid, and driving was difficult for a mile or two in order to reach the other side. After this the weather was fine and clear all the way to Exeter, before which control many took the opportunity of changing over from normal to-competition tyres.

Deller's Café and the Bedford Garage presented the annual sight of wan drivers entering and refreshed giants departing, and well they needed fortifying—for the dreaded Fingle Bridge lay hard by. Rows of cars queued up in the narrow lane leading from Crockernwell, and soon the delay had reached considerable proportions as the failures were slowly removed from the hill.



J. R. Elliott (M.G. Magna) rounding the first bend of Fingle Bridge.

The first bend is very difficult for large cars, and the constant sliding of cars being "rushed" up the first slope soon caused the surface to be badly cut about. But the most usual point at which failures occur is much higher up, almost at the top, when tired engines cannot cope with the loose, heavy surface, or wheelspin sets in through an injudicious—albeit pardonable—depression of the throttle, according to the gearing of the car. It is difficult, not to say invidious, to single out special climbs out of so many good ones. Spectacular climbs are unwanted, and in fact they were few and far between, but a large number made steady ascents of unvarying merit. B. W. Clarke's old Austin Twelve showed what a normal touring car, intelligently handled, can do. A. G. Bainton got up well with a 2.3 Bugatti, as did the Aston Martins driven by R. E. Tongue and Morris-Goodall—although the former was baulked. K. M. Roberts and P. Lees were two of many good Frazer Nash ascents. The M.G. Magnas were consistently good, a driver of note being C. A. H. Cann. The Midgets too were good, T. C. Taylor, J. M. Tomlin, and R. A. Macdermid all making a clean show. The Singers were wonderful, only two out of 32 failing. R. Gaspar's Vale Special hummed up with great ease. Rain and hail added to the discomfort of the last drivers up the hill.

Last year competitors left Fingle Bridge with the comforting thought that the worst of the trial was over, but this time Fingle took second place to Simms, a famous gradient some 13 miles farther on. Simms is short, unlike Fingle Bridge, and its power lies in a very steep gradient (some say it is 1 in 2½) approached by a slight left-hand and a sharp right-hand bend.

Trouble was anticipated by the M.C.C. and arrangements had been made accordingly to pull cars to the top as rapidly as possible. This was done by means of a stationery traction engine, a method which worked rapidly and which did not tear up the surface as is sometimes the case when a team of horses is used. In view of the fact that only 17 out 250 cars made unassisted climbs, all praise must be given to those who were successful, and to the makes of cars which they drove.

M.G.'s scored a convincing triumph by providing 11 of the 17, the drivers being A. C. Cookson, T. C. Taylor, R. A. Macdermid, J. M. Toumlin, J. A. Elliott, A. E. Hann, J. A. Bastock and A. C. Hess (all on Midgets), C. A.



R. J Barker (Morris Major) got up Fingle Bridge without difficulty. [*Motor Sport photographs*

LOOKING BACK AT THE "EXETER"—continued

H. Cann, R. J. Harter, and H. F. Wilmot (on Magnas). Singers came next in order of merit with three clean climbs, these being J. A. M. Patrick on a 1½ litre sports model, and A. T. K. Debenham and M. D. England on Nines. J. Stoate upheld the Frazer Nash flag with a well-judged ascent and A. G. Bainton did likewise for Ettore Bugatti. One of the surprises of the day was the failure of many V-8 Fords. Actually, only T. H. Wisdom and J. B. Thompson scored clean climbs, such stalwarts as G. M. Denton, J. W. Whalley, W. J. Haward, and H. Hillcoat all having to submit to the ignominious assistance of the traction engine. Although not competing in the trial, special mention must be made of H. J. Aldington's fine climb with a Frazer Nash. "Aldie" was a travelling marshal, and came up before the field of cars.

Then the route swung back towards the East, and after 30 miles or so had been covered the cars reached Harcombe Hill, near Sidmouth. The test here was not so much the hill itself, but the stop and restart near the top. 15 yards had to be covered in seven seconds, and all but a dozen or so succeeded in keeping within this limit quite comfortably. The surface remained good, even after hundreds of cars had spun their wheels on it and rain had fallen. Fastest time of all was shared by four drivers, all of them well known trials drivers who handled their vehicles with competency born of great experience. They were A. C. Cookson and R. A. Macdermid on M.G. Midgets, A. B. Langley and M. H. Lawson on Singer Nines, and J. W. Whalley and J. Harrison on V-8 Fords, all of whom recorded less than 4 seconds. Slightly slower, with 4 seconds dead, came D. G. Hopkins on an old 4 seater Frazer Nash, three more Singers handled by C. V. Wells, M. D. England and W. E. Kendrick, J. A. Elliott with an M.G. Midget, and N. E. Bracey (Wolseley Hornet).



At times there were 70 cars waiting to climb (?) Fingle Bridge.

Still heading Eastward, the long string of cars drove on to Meerhay Hill, a rather long and rocky climb which caused few failures, although drivers had plenty to do in keeping a straight course on the slippery stones. Finally came Ibberton, an easy climb which is well within the capabilities of most modern cars. The main cause of trouble here was anxiety to keep up the revs., a proceeding which was apt to leave too little time in which to round the first corner.

And so at last to the finish at Blandford, where weary competitors continued to arrive until after 11 o'clock on the Saturday night. When trials in many cases are tending to become fairly easy for modern cars with a good power-to-weight ratio and low bottom gears, it is to the credit of the M.C.C. that in the 1933 London to Exeter they proved that good driving can be put at a premium without recourse to a grotesque route. Their organisation, as ever, was perfect.

Undoubtedly the most remarkable feature of the results of the trial is the fact that M.G.'s scored 11 out of the 18 Premier Awards. This represents a 23% success of their total entry. Their nearest rival was Singer with three awards (10%). Fords scored two, while the balance was made up of single "premiers" gained by Frazer Nash and Bugatti. A day out for M.G.'s with a vengeance!

SUMMARY OF RESULTS OF THE LONDON TO EXETER TRIAL

Four-wheelers: 250 started, 40 retired, 18 premier awards, 91 silvers, 87 bronze, 14 no awards.

A.A. SPECIAL.
Attwood, A. A. (1,120) 2.6 ... ... NA

A.C.
Lockhart, W. G. (1,991), 1.2 ... ... B
Torry, G. N. (1,991), 1.2 ... ... B

ALLARD SPECIAL.
Allard, S. H. (1,100) ... ... R

ALTA
Taylor, G. (1,074) ... ... R
Finch, J. R. G. (1,074), 1.2.5 ... ... B

ALVIS
Bigg, D. J. H. (1,645), 1.2.6 ... ... NA
Dracup, G. (2,148), 2 ... ... S
Lye, F. H. (1,646), 1.2 ... ... B
Bass, E. W. (1,645), 1.2 ... ... B
May, M. (1,496), 2 ... ... S

ASTON-MARTIN
Tongue, R. E. (1,493) ... ... R
Morris-Goodall, M. H. (1,493), 1.2 ... ... B

AUSTIN
Clarke, B. W. (1,660), 2 ... ... S
Watson, W. J. (747) ... ... R
Prince, N. A. (747), 2 ... ... S
Miller, D. R. (747), 1.2 ... ... B
Mather, E. (747), 1.2 ... ... B
Conway, H. G. (747), 2.4 ... ... B
Sharp, P. G. (747) ... ... R
Milton, W. (1,125), 2 ... ... S
Connell, I. F. (747), 2 ... ... S

BENTLEY
Rose, R. (4,398) ... ... R

B.S.A.
Barton, H. S. (1,185), 1.2... ... ... B

BUGATTI
Bainton, A. G. (2,263) ... ... PA

CHRYSLER
Maclean, D. (3,364), 1.2.3 ... ... B

ESSEX
Day, P. L. M. (2,738), 1.2.6 ... ... NA

FIAT
Nott, S. C. (1,460), 1.2 ... ... B
Prime, E. A. (1,195), 1.2.5 ... ... B
Froy, D. (1,994) 2.8 ... ... B

FORD
Wisdom, T. H. (3,622) ... ... PA
Thompson, J. B. (3,622) ... ... PA
Denton, G. M. (3,622), 2 ... ... S
Haward, W. J. (3,622), 2 ... ... S
Bartley, A. H. (3,622), 2 ... ... S
Harrison, J. (3,622), 2 ... ... S
Whalley, J. W. (3,622), 1.2.3 ... ... B
Hillcoat, H. (3,622), 1.2 ... ... B
Gardiner, J. S. (3,622), 2 ... ... S
Hutchison, K. N. (3,622), 9 ... ... NA
Helm, W. O. (933), 1.2.4.8 ... ... NA
Garbett, G. C. (933) ... ... R
Curtis, M. L. (3,622), 2 ... ... S
Upjohn, D. L. B. (933) ... ... R
Hamilton-Fleming, J. (3,260) ... ... R
Driskell, J. A. (933), 1.2 ... ... B

FRAZER-NASH
Stoate, J. (1,496) ... ... PA
Barnes, W. S. (1,496), 2 ... ... S
Hopkins, D. G. (1,496), 2 ... ... S
Ponting, W. A. (1,496), 1.2 ... ... B
Parnell, L. A. (1,496), 1.2 ... ... B
Inderwick, W. H. (1,496), 1.28 ... ... B
Porter-Hargeaves, H. H. (1,496), 1.2.3 ... ... B
Watkins, N. A. (1,496), 1.2.4 ... ... B
Wright, R. E. (1,496), 2.6 ... ... NA
Roberts, K. M. (1,496), 2 ... ... S
Lees, P. (1,496), 2 ... ... S
West, D. (1,496), 1.2.3 ... ... B
Higgins, J. L. (1,496), 1.2 ... ... B
Whiddington, A. S. (1,496), 2 ... ... S
Gardner, R. P. G. (1,496), 2 ... ... S
Terry, N. V. (1,496), 2 ... ... S
Duffin, H. (1,496), 1.2 ... ... B
Robinson, F. B. (1,496) ... ... R
Berry, N. A. (1,496), 2 ... ... S
Marshall, A. L. (1,496), ... R
Blaw, H. W. (1,496), 1.2 ... ... B
Booth, W. T. (1,496) ... ... R
Moore, T. G. (1,496) ... ... R
Mitchell-Thomson, Hon. P. (1,496), 2.8 ... B

HILLMAN
Paul, R. G. M. (1,185), 1.2.4 ... ... B
Uglow, W. P. (1,185), 2 ... ... S
Holloway, B. H. (1,185), 1.2.4.5 ... ... NA
Peters, A. L. (1,185), 1.2 ... ... B
Davies, J. A. (1,180) ... ... R
Mellors, J. E. (1,185), 2 ... ... S
Tenbosch, M. P. (1,185), 2.8 ... ... B

SUMMARY OF RESULTS—continued.

HUMBER
MacGregor-Bowran, K. D. (3,498) ... ... R

INVICTA
Wills, P. L. B. (4,456), 1.2 ... ... B
Hawkes, C. J. (1,498) ... ... R

JOWETT
Harrison, H. (907) ... ... R
Garland, A. H. (907) ... ... R

LAGONDA
Boote, C. G. M. (1,954) ... ... R

LANCHESTER
Strong, G. H. (1,203), 1.2... ... ... B

LANCIA
Levetus, F. B. (2,120) ... ... R
Robinson, J. A. (2,120), 2 ... ... S
Bickford, R. (2,120), 2 ... ... S
Samuel, A. R. S. (2,120), 2 ... ... S

LEA-FRANCIS
Burman, H. W. (1,696), 1.2 ... ... B
Hawkins, R. S. (1,496), 2.3 ... ... B

M.G.
Taylor, T. C. (847) ... ... PA
Cann, C. A. H. (1,087) ... ... PA
Cookson, A. C. (847) ... ... PA
Macdermid, R. A. (847) ... ... PA
Toulmin, J. M. (847) ... ... PA
Elliott, J. A. (847) ... ... PA
Harter, R. J. (1,271) ... ... PA
Hess, A. C. (847) ... ... PA
Wilmot, H. F. (1,272) ... ... PA
Hann, A. E. (847) ... ... PA
Bastock, J. A. (847) ... ... PA
Cope, W. J. (746), 2 ... ... S
Fitt, C. A. (847), 1.2.4.5 ... ... NA
Shewell-Cooper (847), 1.2 ... ... B
Lloyd, G. C. (1,087), 1.2 ... ... B
Horan, G. F. (1,271), 1.2 ... ... S
Collier, M. T. U. (847), 1.2 ... ... B
Stark, J. W. (847), 1.2.3.8 ... ... B
Maxwell, L. (1,087) ... ... R
Pettitt, G. E. (2,468), 1.2 ... ... B
Smith, A. W. F. (847), 2 ... ... S
Tunstall, G. (847), 1.2 ... ... B
Heard, N. E. (1,271), 2 ... ... S
Leon, D. N. (1,086), 1.2.3.4 ... ... NA
Frazer, W. B. M. (847), 1.2 ... ... B
Evans, K. D. (847), 2 ... ... S
Clare, D. (847), 1.2.4 ... ... B
Harrington, G. H. (1,271), 2 ... ... S
Goodban, G. H. C. (2,468), 1.2 ... ... B
Connolly, M. H. J. (847), 1.2 ... ... B
Weatherhead, C. D. (1,087), 1.2 ... ... B
Elliott, J. R. (1,089) ... ... R
Watkinson, W. E. C. (1,089), 1.2 ... ... B
Bennett, O. B. (847), 1.2.3.4 ... ... NA
Knott, E. (1,286), 2.8 ... ... B
Mortyn, S. E. (847), 2 ... ... S
Clayton, G. A. V. C. (847), 1.2 ... ... B
Soames, A. L. W. (847) ... ... R
Summerfield, J. H. (1,286), 2 ... ... S
Mason, A. L. (847), 1.2.4 ... ... B
Squire, A. P. (847), 1.2.4 ... ... B
Horan, J. M. (847) ... ... R
Cleghorn, A. E. (1,271), 2 ... ... S
Cotton, P. E. (1,086), 1.2 ... ... B
Tanner, P. B. (746), 1.2.8 ... ... B
Clarke, S. H. R. (1,271), 2 ... ... S
King, W. B. (1,271), 2 ... ... S

MORRIS
Greenleaf, W. E. C. (847), 1.2.4 ... ... B
Firmin, G. V. (847), 2 ... ... S
Hay, J. V. (1,550), 1.2 ... ... B
Whitnall, W. W. (847), 2 ... ... S
Bocock, J. H. (1,802), 1.2.3 ... ... B
Wilson, G. R. (847), 2 ... ... S
Barker, R. J. (1,802), 2 ... ... S
Barker, F. P. (2,468), 2 ... ... S
Crutch, K. S. (847), 2 ... ... S
Pease, C. A. (847), 1,2.4.5 ... ... NA

RILEY
Audigier, L. (1,633), 2 ... ... S
Broomfield, F. (1,089), 1.2 ... ... B
Collier, S. H. (1,089) ... ... R
Wooding, G. A. (1,089), 1.2.3 ... ... B
Maltby, Lieut.-Comdr. G. M. D. (1,089), 1.2 ... B
Dargue, T. W. (1,089), 1.2.4.5 ... ... NA
Alexander, A. G. R. (1,089), 2 ... ... S
Colbran, S. V. (1,089), 1.2 ... ... B
Winkworth, F. (1,089), 1.2.8 ... ... B
Hutton, H. M., Junr. (1,089), 1.2.4 ... ... B
Ross, C. A. F. (1,089), 1.2 ... ... B
Hunter, H. C. (1,089), 2 ... ... S
Appleton, R. J. W. (1,089 March Special) ... R
Roe, S. H. (1,089), 2 ... ... S
Gamble, A. T. (1,089), 2 ... ... S
Prevost, G. J. (1,089), 2 ... ... S
Gerard, F. R. (1,089), 1.2... ... ... B
Macaskie, D. S. C. (1,498) ... ... R
Gamble, D. J. C. (1,089), 1.2 ... ... B
Whitehead, P. N. (1,089), 1.2 ... ... B
Gamblin, R. C. (1,089), 2 ... ... S
Beddow, C. G. (1,498), 2 ... ... S
McGowran, A. P. (1,089), 2 ... ... S
Tweedale, N. (1,089 March Special), 1.2 ... B
Keogh, H. H. S. (1,498) ... ... R
Kemsley, J. H. (1,089) ... ... R
Lines, J. R. (1,458), 1.2 ... ... B
Sweeney, V. N. G. (1,089), 2 ... ... R
Knox, J. A. (1,089) ... ... R
Harvey, S. A. (1,089) ... ... R

ROSS-SPECIAL
Stewart-Ross, G. S. (1,602), 1.2 ... ... B

ROVER
Wood, G. G. (1,577) ... ... R
Burt, H. F. (1,577), 1.2 ... ... B
Jaggard, R. W. (1,185), 2.4 ... ... B
Challis, R. W. J. (2,565), 1.2.5 ... ... B
Hewitt, R. J. T. (1,389), 2 ... ... S

SALMSON
Daniel, N. M. (1,087), 1.2... ... ... B

SINGER
Patrick, J. A. M. (1,493) ... ... PA
Debenham, A. T. K. (972) ... ... PA
England, M. D. (972) ... ... PA
Roundhill, N. (972), 2 ... ... S
Symonds, G. H. (972) ... ... R
Wells, C. V. (972), 2 ... ... S
Elwes, J. C. (972), 2 ... ... S
Maclachlan, A. M. L. (1,493), 2 ... ... S
Barnes, J. D. (1,493), 2 ... ... S
Baker, J. R. H. (1,493), 2 ... ... S
Langley, A. H. (1,493) ... ... R
Richardson, W. J. B. (972), 2 ... ... S
Langley, A. B. (972), 2 ... ... S
Avery, H. M. (972), 2 ... ... S
Baldwin, J. H. (972), 2 ... ... S
Murphy, H. N. (972), 2 ... ... S
Lawson, M. H. (972), 2 ... ... S
Kendrick, W. E. (972) ... ... R
Thatcher, F. A. (972), 2 ... ... S
Glass, C. V. (972), 2 ... ... S
Norman, W. D. V. (972), 1.2.3 ... ... B
Selwyn, J. (972), 2 ... ... S
Hastings, H. C. (972), 2 ... ... S
Shepherd, F. M. (972), 2 ... ... S
Parrott, C. S. (972), 2 ... ... S
Hall, L. E. C. (972), 2 ... ... S
Cotton, K. G. (972), 2 ... ... S
Porter, W. (972), 2 ... ... S
MacKenzie, C. (972), 2 ... ... S
Hill, B. S. (972), 2 ... ... S
Durrans, T. E. W. (972), 1.2 ... ... B

S.S.
Gruzelier, A. (2,143), 1.2 ... ... B

STANDARD
Tice, J. G. (2,054 Avon), 1.2 .... B
Olive, G. W. (2,054 Avon), 2 ... ... S
Ainsworth, E. (2,662 Avon), 2 ... ... S
Dick, J. D. (1,052), 2.3 ... ... B
Borkett, A. J. (1,343), 2 ... ... S
Torromé, J. (1,343), 2 ... ... S

TALBOT
MacRobert, Sir A. W. (2,276), 1.2 ... ... B
Couper, W. M. (2,272), 1.2 ... ... B
Nash, H. A. (2,276) ... ... R
Im Thurn, J. D. (2,272), 2 ... ... S

TRIUMPH
Montague-Johnstone, C. J. S. (1,087) 2 ... S
Twist, B. P. W. (1,087), 1.2 ... ... B
Wagner, T. (1,087), 2.4 ... ... B
Horton, R. T. (1,087), 2.7E ... ... NA
Roy, B. A. (1,087), 1.2.8 ... ... B
Blake, E. (1,087), 2 ... ... S
Whittindale, J. H. (1,087), 1.2 ... ... B
Bellamy, R. L. (1,087), 2 ... ... S
Gibbs, C. S. (832), 1.2.4.5.8 ... ... NA
Knott, A. (1,087), 2 ... ... S

VALE SPECIAL
Gaspar, R. (832), 2 ... ... S
Morgan, C. B. E. (832) ... ... R

VAUXHALL
Mitchell, S. R. (4,250) ... ... R
Powys-Lybbe, A. (4,310), 1.2 ... ... B

WOLSELEY
Allott, F. (1,271), Patrick Special), 2 ... ... S
Brown, R. A. (1,271), 2 ... ... S
Boyer, S. E. H. (1,271 Special), 2.8 ... ... B
Norton, R. M. (1,271 Special) ... ... R
Bracey, N. E. (1,271) Special), 2 ... ... S
Davis, W. A. V. (1,271 Special), 2 ... ... S
Russell, W. (1,271 Avon Special), 2 ... ... S
Morphew, C. S. M. (1,271), 2.4 ... ... B
Thomas, A. (1,271), 1.2 ... ... B

COMPLIMENTARY AWARDS

L. Martin (Singer), H. J. Aldington (Frazer-Nash), V. L. Freeman (Austin), E. L. Brynildsen (Talbot).

CAR SILENCE AWARD

A. Gruzelier (2,143 S.S.I.).

TEAM AWARD

Cars.—Team No. 24 (T. C. Taylor, J. H. Toulmin, J. A. Bastock)—all driving 847 c.c. M.G. Midgets.

ABBREVIATIONS

P.A.—Premier Award.
S.—Silver Medal.
B.—Bronze Medal.
N.A.—No Award.
N.S.—Non-starter.
R.—Retired.
(The figures in brackets denote engine capacity.)

KEY TO FAILURES

1. Failed, Fingle Bridge Hill.
2. Failed, Simms Hill.
3. Failed, Harcombe Hill (non-stop section).
4. Failed, Meerhay Hill.
5. Failed, Ibberton.
6. Outside time limit, Shaftesbury.
7. Outside time limit, Exeter.
8. Outside time limit, Harcombe Hill (stop and restart).
9. Did not cover route.

Time limit penalties under Nos. 6 and 7 are for late arrival, except where indicated by E (early).

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1933 ACHIEVEMENTS

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(Held by The M.G. Midget, 750 c.c.)

1 Kilo, s.s.	... ...	67.21 m.p.h.
1 Kilo, f.s.	... ...	128.62 ,,
1 Mile, s.s.	... ...	74.74 ,,
1 Mile, f.s.	... ...	128.62 ,,
5 Kilos, ,,	... ...	128.50 ,,
5 Miles, ,,	... ...	128.08 ,,
10 Kilos, ,,	... ...	127.45 ,,
10 Miles, ,,	... ...	125.56 ,,
50 Kilos, ,,	... ...	115.00 ,,
50 Miles, ,,	... ...	114.47 ,,
100 Kilos, ,,	... ...	113.50 ,,
100 Miles, ,,	... ...	111.17 ,,
200 Kilos, ,,	... ...	95.52 ,,
200 Miles, ,,	... ...	95.02 ,,
500 Kilos, ,,	... ...	91.77 ,,
500 Miles, ,,	... ...	92.50 ,,
1000 Kilos	... ...	91.77 ,,
1000 Miles	... ...	88.36 ,,
2000 Kilos	... ...	69.95 ,,
1 Hour	... ...	110.85 ,,
3 Hours	... ...	94,59 ,,
6 Hours	... ...	92.79 ,,
12 Hours	... ...	86.67 ,,
24 Hours	... ...	70.61 ,,

THE WORLD'S FASTEST CAR OF 750 c.c. Holder of all existing International Class "H" Records, and the first 750 c.c. car to exceed two miles a minute.

Road Racing Successes

Winners 1100 c.c. Class and Team Prize, Italian 1000 Miles Race (Magnettes).
800 c.c. Class Winners, Eifel Race (Midget).
Second and Third, I.O.M. Mannin Beg Race (Midgets) Fastest Lap (Magnette).

Road Racing Successes—*contd.*

Winners 1000 c.c. Class, Le Mans 24 Hours Race (Midget).
1100 c.c. Class Winners, Coppa Acerbo Race, Italty (Magnette).
R.A.C. Ulster T.T. Race, First (Magnette), Second (Midget), Fourth (Magnette).
First in Class 7 (1100 c.c.) (Magnette).
First in Class 8 (750 c.c.) (Midget).
Winners Phœnix Park Junior Race (Midget).

Track Racing Successes

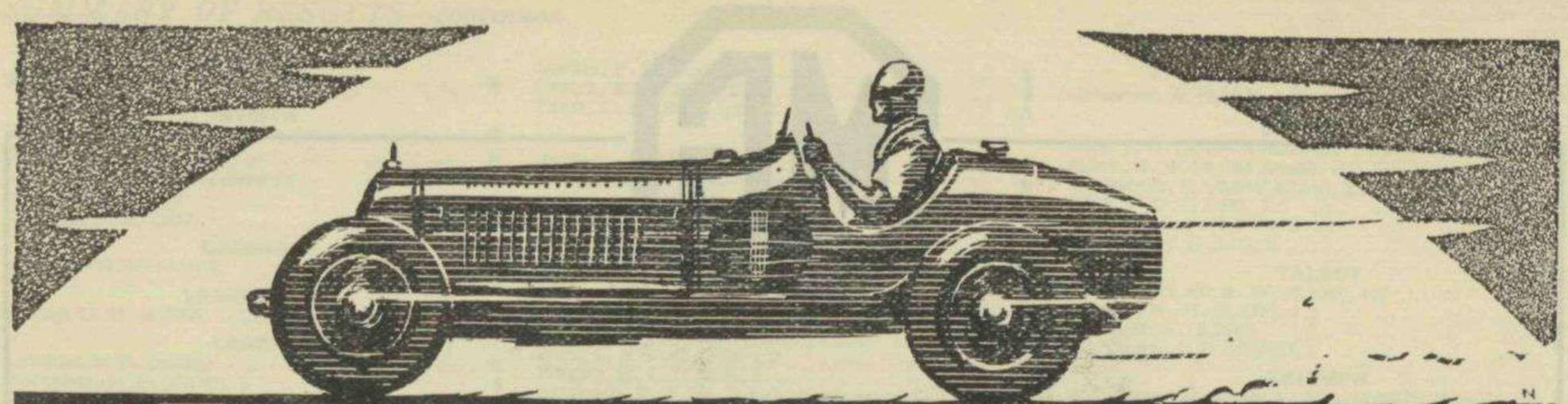
Second and Third, J.C.C. International Trophy Race (Magnettes).
First, B.R.D.C. India Trophy Race (Midget).
750 c.c. Class Winners, Avus Track Races (Midget).
Winners, L.C.C. Relay Race (Magna Team).
B.R.D.C. 500 Miles Race, First (Magnette). Second (Magna Unsupercharged).

Track and Course Records

Brooklands 750 c.c. Outer Circuit Record.
Brooklands 750 c.c. Mountain Lap Record.
Brooklands 1100 c.c. Outer Circuit Record.
Brooklands 1100 c.c. Mountain Lap Record.
Montlhery Track, 750 c.c. Lap Record.
"Mille Miglia" 1100 c.c. Course Record.
750 c.c. Lap Record, Ulster T.T. Race.
1100 c.c. Lap Record, Ulster T.T. Race.
Record Craigantlet Hill Climb (Magnette).

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RUMBLINGS

The Latest News from the Continent.

THE closing months of a year are always full of startling news as to the plans of racing-drivers for the coming year. If a famous ace happens to look into the window of a car manufacturer in Paris, this innocent act finally turns up in some paper in the form of: "Ferrolari, the winner of the majority of this year's Grand Prix races has been engaged by the Delatti factory to drive their new 24-cyl. hush-hush car." Being used to such exaggerations I was nevertheless surprised to read in one Continental automobile paper that Varzi had contracted to drive one of the crack French trains for the coming season! No doubt he had been seen at the controls of one of Bugattis new rail-cars.

However, things are now pretty well definitely fixed up with the majority of Factories, Drivers, etc., and I append below a table which is at least based on facts and not on rumours.

FACTORY	DRIVERS	CARS
Bugatti	Benoist, Dreyfus, Wimille, Divo and Brivio	2,800 and 3,000 c.c. Bugattis
Mercédès-Benz	Fagioli, von Brauchitsch, Henne and Bernet	2,900 and 3,800 c.c. Mercédès-Benz
Auto-Union	Stuck, Sebastian, Prince von Leiningen	3,500 c.c. P-wagen (Porschewagen)
Maserati	Taruffi, Tufanelli	000 c.c. Maserati

PRIVATE STABLES	DRIVERS	CARS
Scuderia Ferrari	Varzi, Chiron, Tadini, Trossi, Barbieri, Comotti and Ghersi	2,600 and 3,000 c.c. Alfa-Romeos
Gruppo San Giorgio	Balestreto, Biondetti, Battilana and Palmieri	2,600 c.c. Alfa-Romeo, 3,000 Maserati and 2,300 Bugatti
Scuderia Brianza	Count Lurani, Castelbarco	1,500 and 2,500 c.c. Maserati and 1,500 c.c. Bugatti
Scuderia Subalpina	Della Chiesa, Farina, Aymini, Dusio and Bona	Alfa-Romeo. Mostly for mountain racing
Whitney Straight	Straight and Paul	Maserati 3,000 c.c.
Rennstall Braillard	Braillard, Falchetto and Robert	3,000 c.c. Maserati and 2,300 c.c. Bugatti

FREE-LANCE DRIVERS.	CARS
Nuvolari	Maserati and Bugatti.
Etancelin	3,000 c.c. Maserati.
Siena and Grosch ...	Maserati and Alfa-Romeo.
Moll	2,300 c.c. Alfa-Romeo.
Lord Howe	3,000 c.c. Maserati.
Zanelli	4,000 c.c. National Pescara 16 cyl.
Broscheck	Mercédès-Benz.
Sommer	Rumour says new French car with 8 cyl. 2,800 c.c. motor.

Still Convalescent.

As regards the plans of Carraciola, the German champion, these are not definitely fixed. A friend of mine met him as Arosa, in Switzerland, where he is convalescing, and "Carratsch" said he hoped to be at the wheel again (presumably of a Mercédès-Benz) by the middle of the season.

Winter Sports.

Ski-ing and bob-sleigh racing naturally attracts motor-racing enthusiasts. Chiron and Carraciola are confirmed adherents of *les sports de neige et de glace* and they claim that their muscles and nerves are kept in training through the winter in this way.

Many Englishmen have made famous names in Switzerland, among them being Col. Warwick Wright and Capt. "Archie" Nash, the Cresta Run being their happy hunting ground.

A great ski-ing enthusiast is Temple, the M.G. Competition Manager, and he recently conceived the brilliant idea of forming an M.G. Ski-Club. The result was that a party was gathered together and departed for the Alps, among them being C. Martin, who finished second in the "500," C. A. Watkinson, a member of the Alpine Trial team, M. Toumlin, a well known trials man, and J. C. Elwes, who has raced a good deal at Brooklands and Shelsley. Altogether a splendid idea.

Hitler and Mussolini.

The inclusion of Luigi Fagioli, champion of Italy for 1933, in the Mercédès-Benz team rather gives the lie to the report that none but German drivers are to drive the new cars, by the express order of Chancellor Hitler.

When one remembers the wave of intense nationalism which is sweeping Germany it certainly seems curious that an Italian should be given a place in the team, especially in view of the fact that Burggaller and Broschek are available. It is probable that Fagioli will only drive until Carraciola is fit again.

Then there is Mussolini's reaction to the affair. Nationalism is just as rife in Italy, and I should have

RUMBLINGS—continued.

thought Il Duce would have had something to say about Fagioli going to Germany. And what about Chiron in the Ferrari team? Perhaps Hitler and Mussolini take a broader view of sporting matters than they are credited with. I hope so.

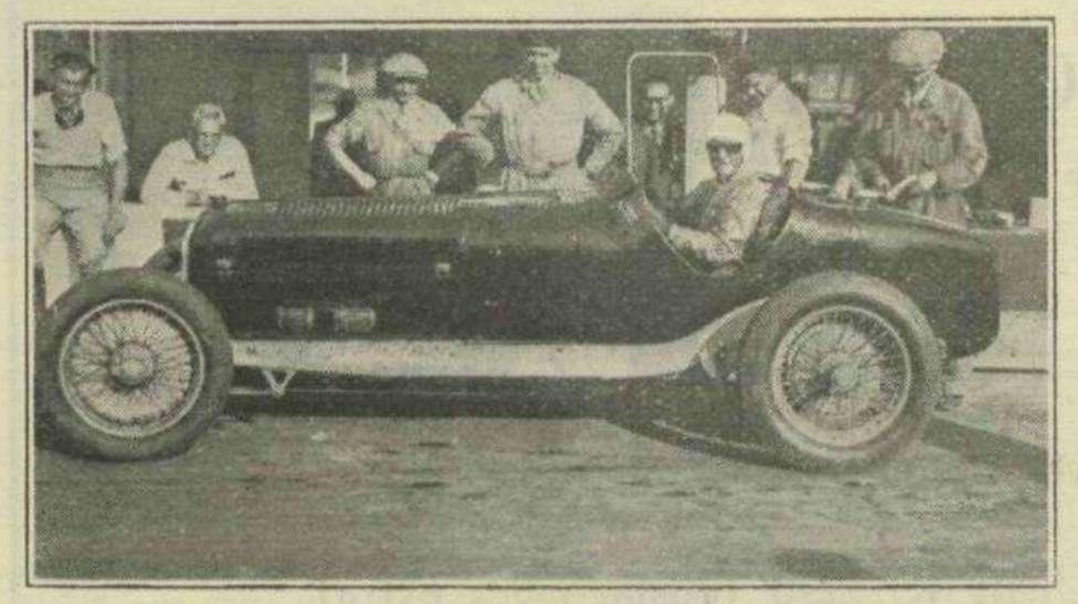
Not for sale to foreigners.

There is a rumour that Bugatti and Mercédès-Benz have followed the example of Alfa Romeo in refusing to sell their new models to foreigners. I do not know at the moment how many cars Mercédès-Benz intend to build, but in Bugatti's case a dozen of the new 2,800 c.c. machines are being constructed, so that sales will be made—but to whom?

The Belgians take Action.

The Belgian authorities are doing their share of tightening the regulations governing production car racing with considerable effect. It is safe to say that ears are burning in Milan. Here are some of their new rules: Cars must be catalogued on January 1st this year, and must be on sale regularly to the general public. Those of a special design called "Type Sport" in the catalogue will only be allowed if the engines have the same number of cylinders, valves and plugs, and are fitted with the same induction system as the standard models in the catalogue. Finally, superchargers are barred, and *no car may have more than one overhead camshaft.* The italics are mine.

Of course the Belgians will be accused of favouring their own cars, such as the F.N.,s. But can you blame them.? The F.N.,s are normal production cars, carefully



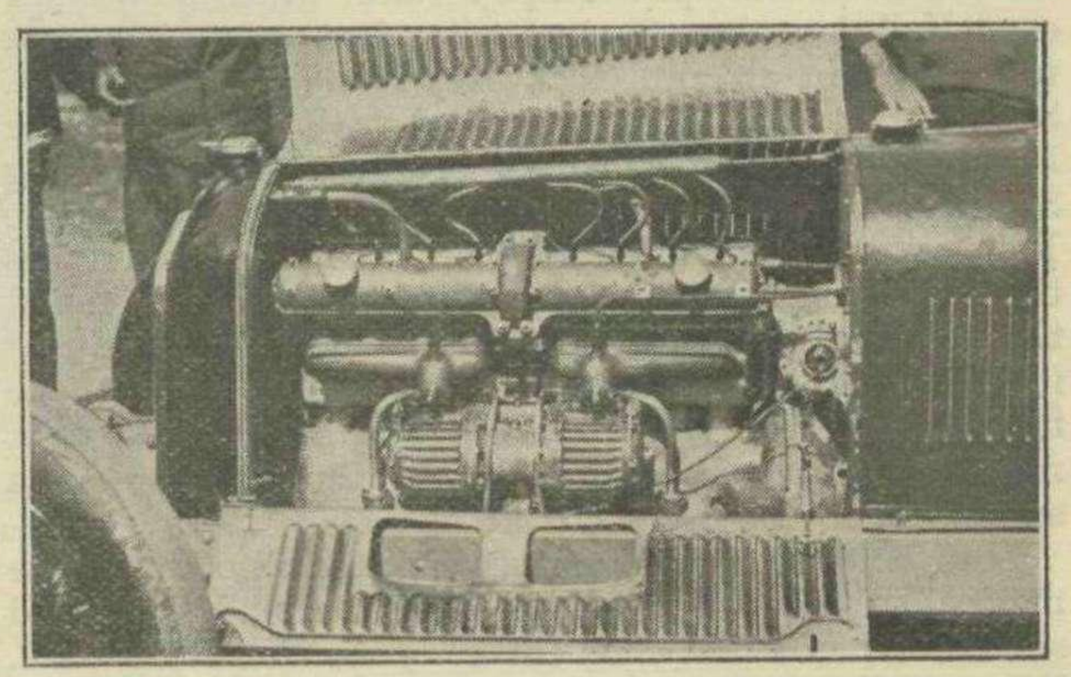
Everyone is asking "Will the Monoposto Alfa Romeo retain its supremacy this year.

prepared, and every year they put up a wonderful team performance on the exacting Spa circuit. But they gain little credit for a show which is characterised mainly by regularity and the fact that the cars are of normal design and sell at a low price, while phoney production cars costing many hundreds per cent. more run away with all the glory.

A Daring Experiment.

The Sporting Commission of the A.C.F. have made a daring experiment with the rules for the 1934 French Grand Prix. Only manufacturers, and private owners nominated by them, up to a maximum of three cars per make, will be allowed to enter! If you refer to list at the beginning of these notes you will see that there are only four manufacturers eligible. The position of Alfa Romeo is a doubtful one. I suppose they will be able to nominate three of the Ferrari cars, but against this, of course, is the fact that they have officially renounced racing for this year. Otherwise it looks like an answer to the Alfa ban on foreign purchasers.

Leaving Alfa Romeo out, that leaves 12 possible entrants. In France the new 2,800 c.c. car to be driven



Where the power comes from; the engine of the 2,000 c.c. Alfa-Romeo.

by Sommer is still in an early stage, as are the similar sized cars contemplated in England by H. W. Cook and his associates.

At the time of writing no entries at all have been received. The trouble is partly due to the clause in the regulations which requires the sum of 30,000 francs (roughly £40) to be sent with each entry. This will be returned if the car comes to the starting line.

In theory this method of ensuring that the public will see a good race is splendid. On the other hand, it is a little hard on manufacturers to be forced to part with £120 for 6 months, with the possibility of losing this sum if the cars should develop mechanical trouble in practice.

Entries close on January 31st, and if the entry seems insufficient to guarantee a good race, the A.C.F. have the power to cancel the event, up to February 15th.

The Jenkins Case.

There is no definite news yet about the Pierce-Arrow records. You probably remember that Jenkins was reported to have broken a lot of Worlds long distance records, including the 24 hours, driving single-handed a 12 cylinder Pierce-Arrow on the dried lake-bed of Murock.

Well, those records haven't been confirmed. The A.I.A.C.R. has maintained a discreet silence on the subject, but I believe there has been a fairly good scrap going on between that august body and the A.A.A. I hear that some of the necessary papers have been sent over, but not all of them.

It would be a thousand pities if the Jenkins case should cause a split between the A.A.A. and the A.I.A.C.R., because records lose a lot of their value if certain countries are not included.

RUMBLINGS—continued.

" Road-circuiting " on Brooklands.

One of the most successful circuits of recent years at Brooklands was that devised by the J.C.C. secretary, L. F. Dyer, for the International Trophy Race. The use of this original course was quite deservedly given exclusively to the J.C.C., and it has prompted other clubs to think of ways and means of obtaining road conditions at Brooklands.

The B.R.D.C. have now come forward with a circuit for the British Empire Trophy Race, which as a track event failed to draw a good entry last year. The cars will travel in an anti-clockwise (or normal) direction. Starting at the Fork, the cars will go round the Members Banking to a fast ' S ' bend where the Finishing Straight joins the outer circuit. Halfway down the Railway Straight will be a set of ' S ' bends, acute ones this time, and then the cars will proceed straight round the Byfleet Banking to the Fork, where a course used in the J.C.C. 200 miles race many years ago will be followed, i.e., up the Finishing Straight a little way, round a " tub " hairpin, back to Chronograph Villa and so on to the outer circuit again.

Lord Nuffield has generously donated £1,000 as prize money, so that the race will have a sound basis and should attract a first-class entry. June 23rd is the date. Better make a note of it.

More Speedway Plans.

Mr. Jean Reville, of Palmer Reville & Co., the B.S.A. people, has sent me some details of his activity in the formation of a Speedway Racing Drivers' Club. The idea is to run the first meeting on Easter Saturday at the Crystal Palace. I understand that R. G. J. Nash, Victor Gillow, Gordon Norchi, and H. R. Taylor have already promised to compete, and that the services of two Australian drivers, Tommy Sulman and F. Hare, have been enlisted. Reville says that Austins, Vale Specials, M.G.'s, Singers and B.S.A.'s are quite suitable for the work. Frazer Nashes will be allowed in the handicap events only, the scratch races being confined to 1,100 c.c. cars.

The first meeting is to be primarily a try-out for the cars and drivers, and if it is successful the Club hopes to form a League, with various tracks all over the country, limiting the cars to 1,100 c.c. It is intended to have teams of six drivers and two reserves.

The Club subscription will be one guinea for drivers who own cars, and ten guineas for those who don't. From what I have heard about speedway racing, the Crystal Palace will need a lot of its loose cinders taken away, otheriwse there will be a danger of cars turning over instead of sliding.

Meanwhile " Spike " Rhiando is also going ahead with his plans. Greenford has been abandoned, owing to the cost of putting it into order and the disadvantage the track possesses of only having accommodation for spectators on one side. Instead, " Spike " hopes to start a mile-track somewhere in Kent, round the outside of an aerodrome.

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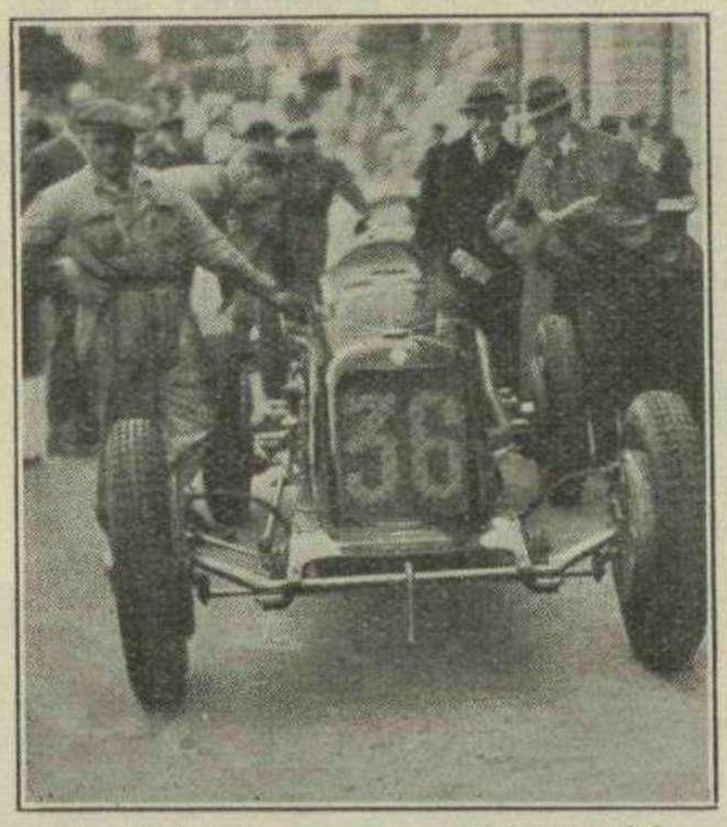
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1934 RACING CARS

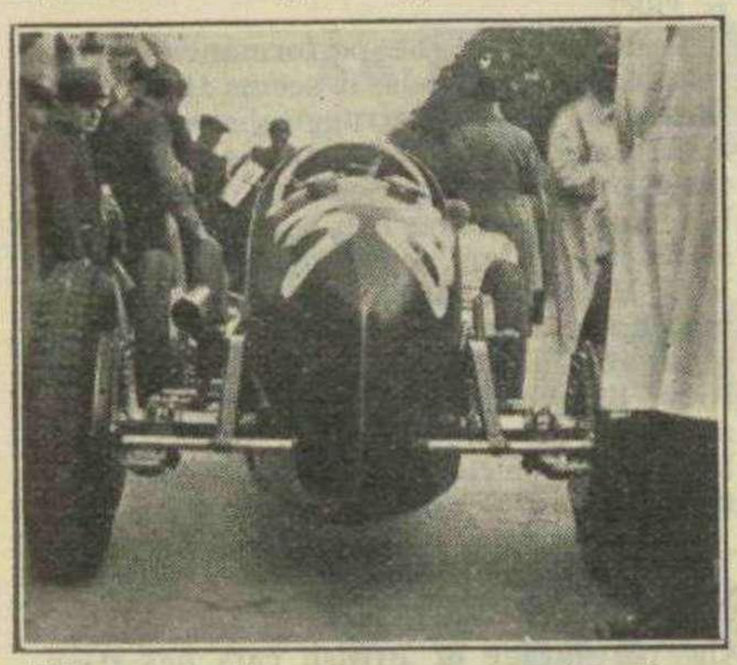
2 and 3.—THE MASERATI 3-LITRE AND 1,100 c.c. MODELS

TO the average follower of motor racing the name "Maserati" generally suggests a machine with phenomenal acceleration and speed, varying reliability and one extremely difficult to drive. The brothers Maserati have always been prepared to build a car to suit the customer's taste from the car which held the world's road speed record to the 16 cylinder machine which ought to have won the Monza G.P. in 1932.

The factory which is situated at Bologna is quite a modest establishment, and only the final erection and tuning is carried out there. A good many of the parts, such as the back axle and gearbox are made for Maserati by the firm of Isotta-Fraschini. The Societe Alfa-Romeo, which of course is their principal rival, possesses magnificent research laboritories where all the material for the racing cars may be tried before use, but the enterprise of the Maserati engineers has overcome this disability by trial and error and sheer hard work, and the cars from Bologna have many times proved successful against strong Alfa-Romeo and Bugatti opposition.



Lockheed brakes are an unusual feature of the 3-litre Maserati.



This rear view shows the arrangement of the chassis and springs.

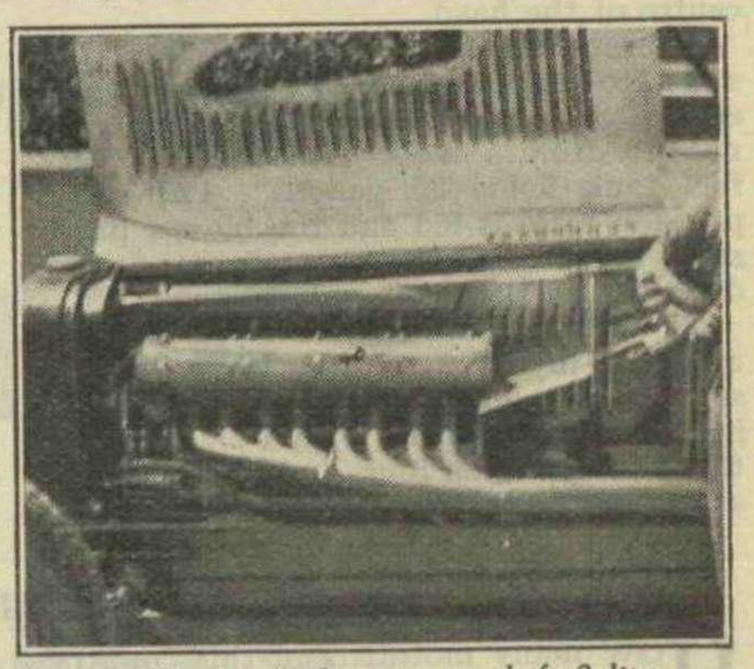
ity by winning the French Grand Prix on his two-seater and Nuvolari celebrated his transfer from the Scuderia Ferrari to the Bologna factory by winning the Belgian Grand Prix on his new mount. During the practise period incidently the chassis was found to flex excessively, and some additional bracing was put in at the Imperia factory. Nuvolari also collected first place in the Coppa Ciano and the Nice Grand Prix.

The Coppa Acerbo promised to be interesting, for it marked the re-appearfince of the Monoposto Alfas driven by Borzacchini and Fagioli. Borzacchini retired in the first lap and Nuvolari, Taruffi and Campari on Maseratis had a terrific struggle till the latter retired. Nuvolari looked like being a certain winner, but stopped on account of back-axle trouble. While he was at the pits both Fagioli and Taruffi swept by. He was able to continue and succeeded in repassing Taruffi, but Fagioli's lead was sufficient to bring the Alfa-Romeo into first place. The back axle trouble was not surprising in view of the strenuous season of racing which the Maseratis had undergone.

The decision of the Alfa-Romeo factory not to sell the single-seater cars to foreign drivers has sent a flood of orders to Bologna. Lord Howe has ordered one, and Whitney Straight a team of four, which are having Wilson self-changing gear-boxes fitted to them. Birkin's two-seater car which has the same type of engine as that used in the single-seaters has been bought by Noel Rees, and after some strengthening of the chassis will be driven by the Hon. Brian Lewis during the 1934 season.

Nuvolari of course heads the list of foreign drivers who will be driving Maseratis, and Etancelin, Moll and Sommer have also ordered them for next season.

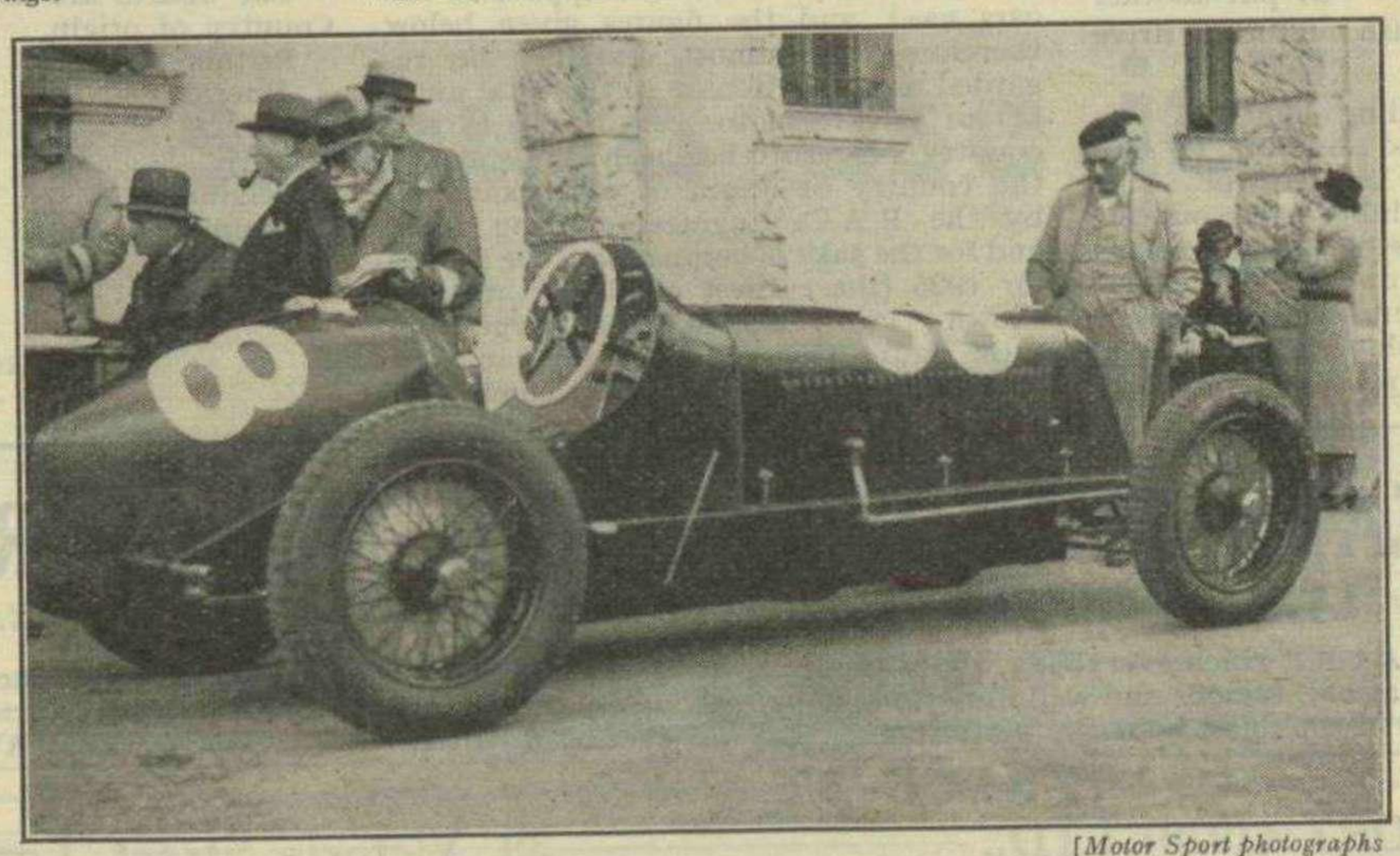
The 1,100 c.c. Maseratis are similar in appearance to the larger cars of the same factory, and are amazingly light, their weight complete being only 10½ cwts. In spite of this the English M.G. Magnettes, which weigh about 19 cwt., have shown themselves superior in the 1,000 mile race and the 1,100 c.c. class in the Coppa Acerbo, which Whitney Straight won by ⅕-second. Barbieri won the 1,100 c.c. class of the Coppa Ciano, driving the small Maserati and was second to Straight in the Coppa Acerbo.



A glimpse of the twin-camshaft 3-litre engine.

The engine of the three-litre car is a straight-eight with cylinders 69mm. by 100 mm., giving a capacity of 2,992 c.c. It has a detachable head which carries the valves, two per

The three-litre single-seater cars first appeared at the 1933 Tunis G.P. when Zehender finished third on one of them. Sir Henry Birkin was third in the Tripoli Grand Prix driving a three litre car with a two-seater body, and might have won the race but for the delay caused by bad pit arrangements. Sommer and Zehender were not very successful at Monaco, and the cars appeared to be too light for their power and consequently difficult to hold on corners. In spite of this, Campari proved their qual-



[*Motor Sport photographs*

At Monaco. This is the Monoposto Maserati driven by Freddie Zehender.

1934 RACING CARS—continued.

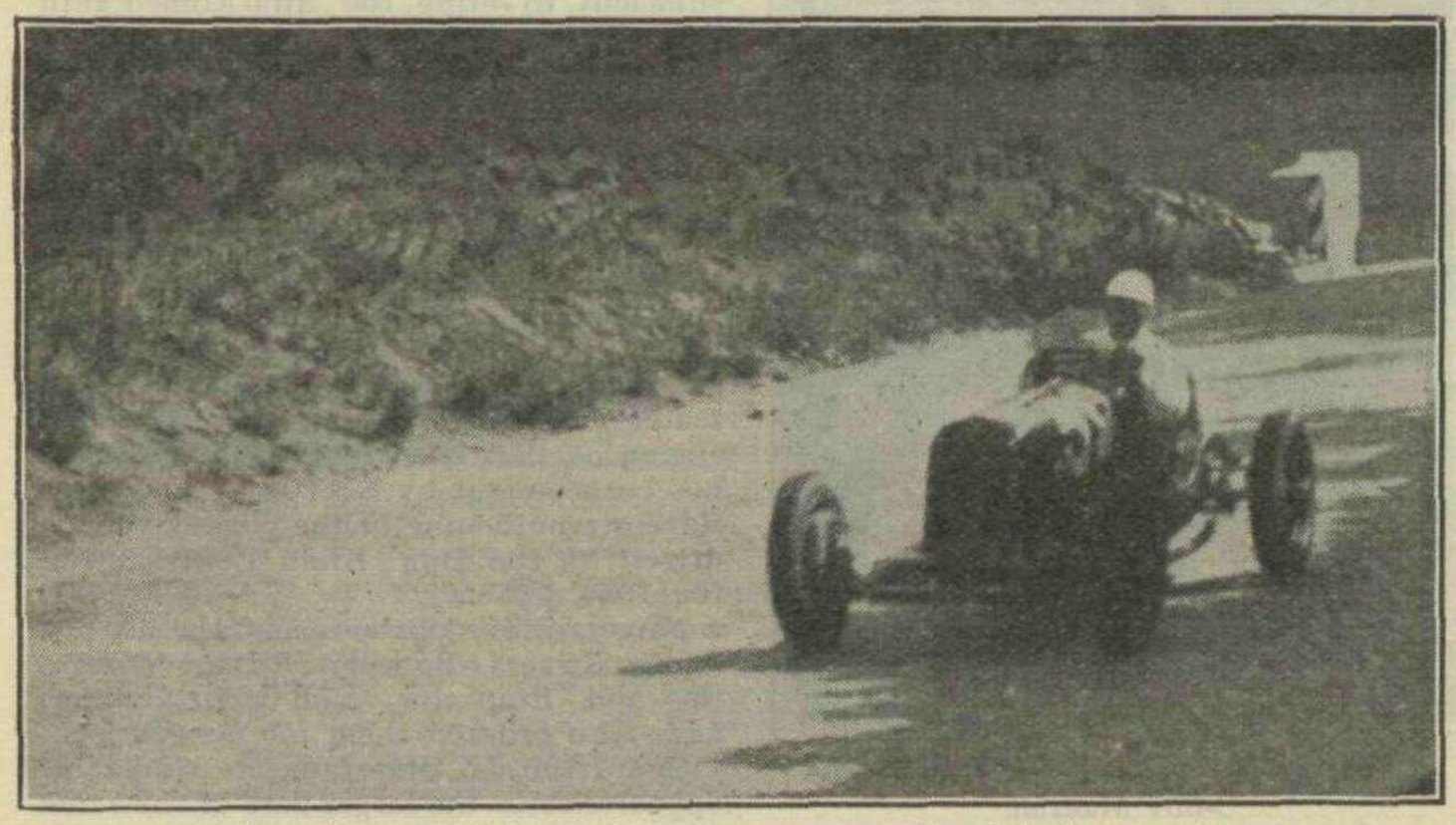
cylinder, set at approximately 90° to one another. The two overhead camshafts are driven by gears at the front end of the engine, and the cams bear direct onto thimbles on the end of the valve stems.

The sparking plugs are carried in the centre of the head.

The supercharger, which is of the two-vane Roots type, is driven off the front end of the crank-shaft, and draws its mixture from a Weber carburetter. The fuel tank holds 35 gallons. The compression ratio is 6.5 and the blower pressure 11½ lbs. One magneto is fitted, driven from the front-end pinions.

The solid crank-shaft has its throws arranged in two sets of 4, with the two sections at right angles. The centre bearing is a roller bearing, with a plain one in the centre of each four, and ball bearings at the extremities of the shaft. The oil is fed into the hollow shaft through the plain bearings, and white metal used for the big-ends.

The horse-power is nominally 210 at 5,500 r.p.m., but there will be an increase of 15 to 20 h.p. in the coming season's cars.



The single-seater 1,100 c.c. Maserati is an exact replica of the 3-litre model.

The gear-box is bolted up in unit with the engine, and the drive is transmitted through a multiple-plate clutch. The four-speed gear-box is controlled by a central lever, which comes up between the driver's legs, and the clutch and brake pedals are arranged on either side of the steering column. The final drive is enclosed in a torque tube. The springs are normal half-elliptics with Hartford shock-absorbers, while hydraulic operation for the four-wheel brakes is a unique feature on modern racing cars. The brake drums are 15½ inches in diameter.

Another outstanding point is that the chassis is constructed of elektron bronze.

The car complete weighs 15 cwts., with a wheelbase of 8ft. 5½ins. and a track of 4ft. 5 ins. It is interesting to notice that though the Maserati is 5 inches shorter with 2½ inches less track, the monoposto Alfa-Romeo weighs one hundredweight less. (The weight of the Alfa Romeo was incorrectly given in last month's article of this series as 15 cwt.) The all-out speed is about 150 m.p.h., and the price is 100,000 lire or £1,610.

The small Maserati has a four-cylinder engine with bore and stroke of 65 and 82 mm., with a capacity of 1,074 c.c. The engine lay-out is similar to that of the large engine but it only has three bearings. The blower pressure is 17 lbs., and the compression 5½ to 1. The horse-power is 95 at 5,700 r.p.m. and the maximum speed about 110 m.p.h. The clutch, the gear-box, the elektron chassis and the hydraulic brakes figure also on the smaller model, and the brake-drums are 13 inches in diameter, or almost as big as the 18 inch wheels.

The wheel-base is 7ft. 10½ins., and the track 3ft. 11ins., while as has been said, the weight of the complete car has been brought down to 10½ cwts. In Italy the 1,100 c.c. Maserati costs 55,000 lire, which is £887.

Reflecting on the performance of the two Maserati models, it seems that there should be a lively struggle between the 3 litre and the Alfa Romeo, especially if those owned by the Scuderia Ferrari and bored out to 3 litres can be made to withstand the extra power developed. The M.G. Magnette has so far proved itself a match for, if not superior to, the 1,100 c.c. Maserati, and if some reduction in weight could be achieved in the former without affecting the road-holding, there should be at least one class in which Great Britain need not fear Continental opposition.

BRITISH CARS IN GREAT BRITAIN

HOW many motorists in this country listen and respond to the slogan "Buy British?" Or put another way, how many British motorists drive British cars?

Some figures shedding light on this problem are provided by the R.A.C. through its Engineer's Department. This Department of the Club carries out for members examinations of cars in various connections and the number of cars inspected each year numbers many hundreds. The membership of the R.A.C. is made up of every type of private user and may be said, therefore, to be representative of the general body of motorists in this country. The same applies to the cars used, and the figures given below therefore, can almost certainly be regarded as proportionate to the total number of private motor cars in use in this country. A record has been kept showing the country of origin of cars examined by the R.A.C. Engineers during 1933, and for the sake of comparison, the figures for 1925 (the earliest available) are also shown. Two principal facts emerge from these figures—first, that more than 86% of the cars are British, and second, that the percentage of British cars has risen by 20% in eight years.

The figures are as follows:—

Country of origin.	1925	1933
Britain ...	66.2	86.3
America ...	13.9	9.5
France ...	8.5	2.2
Italy ...	7.2	1.4
Belgium ...	1.9	.6
Spain ...	0.9	—
Austria ...	0.9	—
Germany ...	0.5	—
	100%	100%

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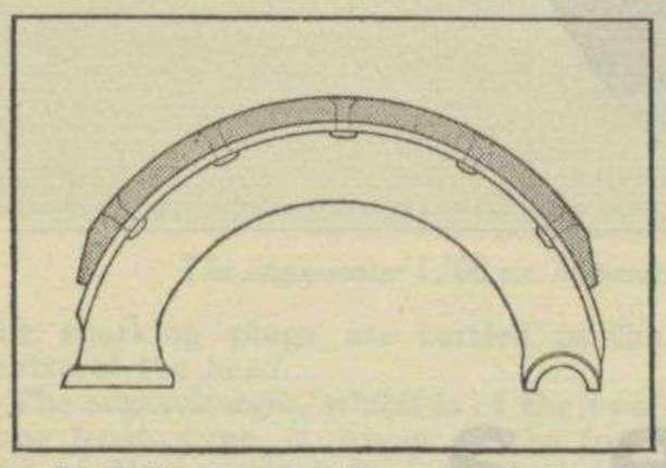
WINTER WORK IN THE GARAGE

(*Continued from the January issue of* MOTOR SPORT).

Now is the time to carry out an overhaul of your car, and in the following article will be found some useful information as to the best means of setting about the work.

THE engine accessories and components should next receive attention. A beginning may be conveniently made on the carburetters and the fuel feed system.

If the engine has been giving previous to the overhaul a performance and petrol consumption normal for the car in which it has been fitted, there is no point in experimenting with different chokes and jets. The instrument should, however, be dismantled, and any sand, water or other foreign bodies carefully removed from the bottom of the float chamber and the jet passages, and also from the small



By drilling at a slight angle, the lining can be rivetted up and held tightly on the shoe.

filter often found in the union at the top of the float chamber. Punctured floats are rare nowadays, but may be detected by shaking them. If the float should have a leak, the petrol may be driven off by heating in very hot water. The petrol vapour escaping will show as a stream of bubbles, and the puncture may be repaired with a careful application of solder.

When tuning the carburetter for speed or other special work, the advice of the competition manager of the manufacturer should be sought, as he will probably have had experience on other cars of the same make and type. The principle is roughly that one wants the biggest possible choke for all-out speed, but a smaller one is needed at low speeds for good acceleration, so that a compromise must be effected. The jet size will be a little bigger than that which gives maximum power, in order to keep the plugs cool.

Carburetter Adjustment.

The S.U. carburetter, which is one of the most popular on British sports cars, uses a large jet which hardly ever needs changing, the metering at various points in the throttle opening being effected by means of a tapered needle. Engine suction raises the piston, the bottom end of which acts as a choke, while needles of varying contour allow the setting to be changed to suit all conditions. For a richer setting over all the range, the jet may be lowered by means of the hand control, and the new position made permanent by screwing down the nut at the bottom of the jet chamber to meet it.

The simplest method of fuel feed is by pressure, and the only points which require attention are the washer on the filler cap, which may need replacing if it does not hold its pressure, and the pump washer, which should be greased occasionally. The tightness of the pipe-lines should be checked and if there are any sections of flexible piping these should be examined for signs of perishing. Pressure feed finds out weaknesses in carburetter float needles, and if they are deeply ridged, they should be replaced, as grinding them in to form a new face is not satisfactory.

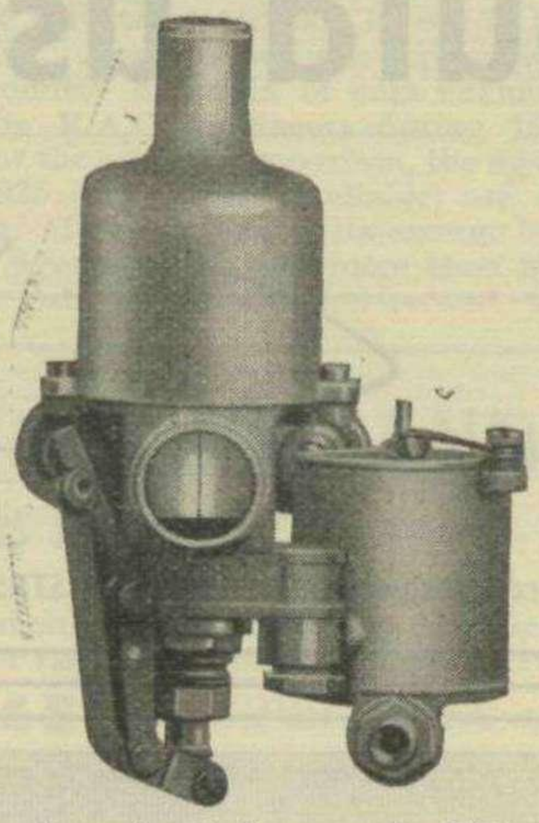
Vacuum feed is seldom found nowadays, partly owing to its habit of drying up after a long burst of full throttle. Water and sediment should be drawn off through the drain cock at the bottom of the tank, and the suction pipe from the induction system to the tank should be kept tight. If a suction windscreen-wiper is fitted, and its pipe leaks this will materially reduce the efficiency of the Autovac.

Types of Fuel Pumps.

The S.U. Petrolift is a simple form of electric pump which seldom requires attention, but grit occasionally gets into the centre tube and causes one or both of the plungers to stick. The top one can be withdrawn on raising the lid, while the bottom one can be reached after removing the filter The centre tube should then be wiped out with clean rag. The new L. Type S.U. pumps are much more compact and exert a positive lift instead of gravity to feed the carburetter. They should be free from trouble, and any derangements are dealt with thoroughly in the instruction book.

The Autopulse, another popular electric pump, employs a thin copper diaphragm which sometimes splits. If fuel drips from the instrument, and the pipe unions are tight, it should at once be returned for servicing, as otherwise there is likely to be an internal explosion, when the mechanism will cease to operate.

The A.C. mechanical pump is deservedly popular, but on the earlier types

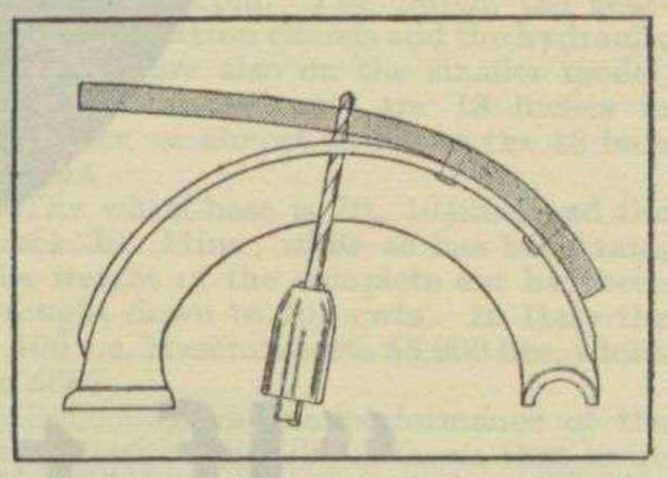


A popular Carburetter—the S.U.

the connecting linkage between the operating lever and the diaphragm sometimes developed excessive play, while the return spring occasionally broke on high-revving engines. If petrol starvation has been suspected, and the pipe lines are all tight and clean, these two points should be checked over.

Ignition.

The magneto should next be dealt with. First see that the carbon brush which picks up current from the slip-ring is of ample length to make good contact, and that the spring has sufficient tension to hold



A diagram showing the right method of drilling the new lining to ensure the holes registering.

the brush up to its work. A piece of soft rag wrapped round a pencil may be used to remove carbon dust.

The rocker arm on the contact breaker must be free on its bush, and the points should be free from pitting, and should butt square when forced together by the cam ring. Slight pitting may be removed with careful use of the magneto file, but a badly burnt appearance points to a defective condenser. Turning the engine till the heel of the rocker arm is fully raised by the cam, the gap should be set to the distance shown on the guage on the magneto spanner.

A jump-spark distributor requires no attention unless the revolving finger is badly burnt. Where a carbon-brush distributor is used, the fibre between the segments is liable to be covered with a film of carbon. On a new instrument this may often be removed with petrol and a rag, but as the track gets rougher, judicious use of emery paper will be required. Naturally the rougher the track becomes, the more carbon will be scraped off, so the need for careful treatment will be appreciated. The carbon brush found at the end of the distributor shaft should be inspected, and also the one at the back of the contact breaker.

If an oil-hole is provided on the magneto two or three drops of light oil should be used, and a trace of vaseline on the cam-ring.

In a coil ignition set the coil and the distributor are of course two separate units, but the remarks about the distributor and the gap-setting are equally applicable. In order to reduce the speed at which the contact breaker operates (225 times per second on a six-cylinder

WINTER WORK IN THE GARAGE—continued.

engine running at 4,500 r.p.m.) it is quite usual to have two of these mechanisms working on a three lobe cam. Unless the contact-breakers open exactly at an interval of 180 degrees to one another, much power will be lost, and unless the owner is prepared to go to some trouble to get the setting exactly right it is worth paying a visit to a competent service station at least every 5,000 miles to have it checked up. The same applies to those ignition systems in which the advance and retard mechanism is automatic, controlled by weights and springs.

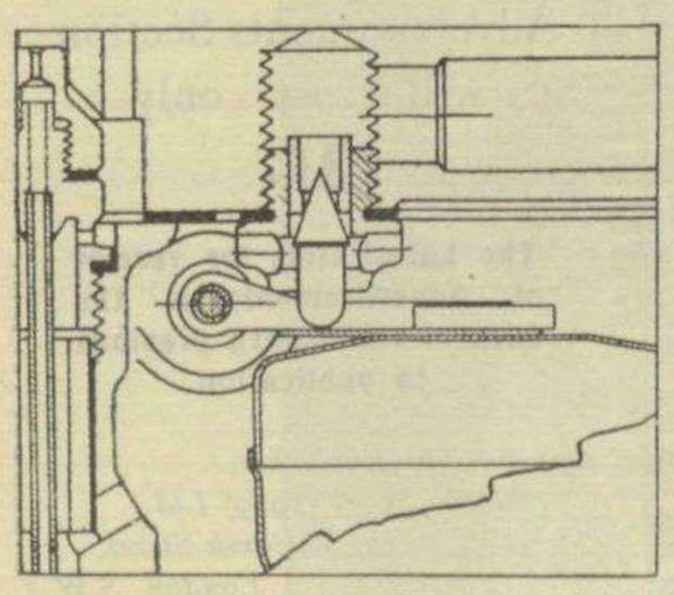
The voltage passing through the coil does not rise as in the case of the magneto, so that its efficiency falls off the greater number of sparks it has to produce per minute, and performance is often materially improved by fitting the magnetos produced by Scintilla or B.T.H., which are interchangable with the coil distributor.

Sparking plugs deteriorate after a season's strenuous use, and even if the points are not burnt away a deposit of film of low insulating properties forms on the porcelain or mica. A set of new plugs of the correct grade should be put in after the overhaul, with the appropriate gaps of .018 for magneto ignition and .028 for coil. The high-tension leads should also be replaced if the rubber is perishing, or if they have been much in contact with oil and water.

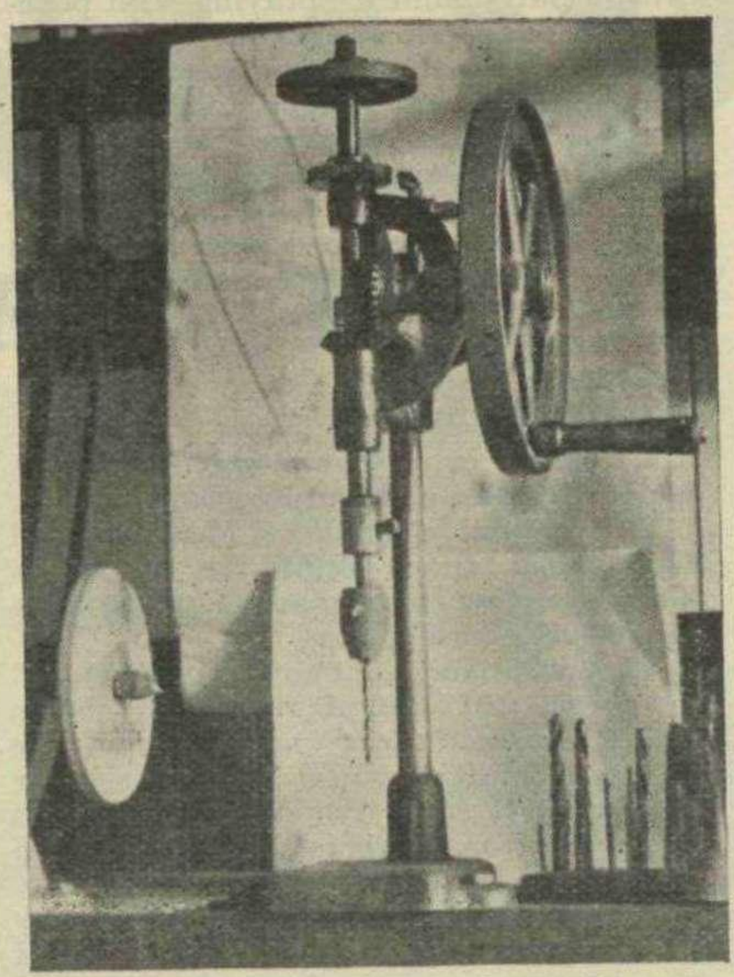
Battery and Dynamo.

The electric system is of ever increasing importance on the modern car, but can be maintained at a good pitch of efficiency without much difficulty. The dynamo should be inspected to see that the brushes are all free in their guides, and are pressed into firm contact with the commutator by their springs. The commutator should be cleaned with a rag soaked in petrol, and the spaces between the segments cleared of carbon with a blunt pen-knife blade. The leads should all be tight, and the grease cup, if one is fitted, used sparingly but regularly. The starter may also require to be cleaned. The bendix drive should be washed with petrol and dried with a clean rag, for oil on this part will cause the travelling pinion to stick on its thread. A back-fire sometimes breaks the cushion spring at the end of the shaft, and this or a bent shaft will prevent the starter from working properly.

That hard working but often neglected accessory the battery, should have each



The detachable needle-valve seating of the Zenith 'U' type carburetter.



A bench drill, such as that shown above, is a tool for which the amateur mechanic will have constant use.

cell tested with a syringe hydrometer, and if the readings show that it is low, it should be charged at a service station. An individual cell with a low reading may mean an internal short-circuit caused by a piece of one of the plates coming loose due to vibration, and if the method of securing the battery is not a positive one it is worth while having two upright screws secured to the battery crate with a cross-piece to hold the accumulator in position. If one cell in a battery fails, it can be replaced for a small sum at the battery maker's service station.

If the battery has been in use for a year or two, it may be wise to have the acid changed, otherwise it should merely be "topped up" with distilled water.

Water Pump and Transmission.

Oil and water ways are the only remaining things which require attention on the engine. External oil cleaners or filters should be dismantled and cleaned out, and a new filter unit put into to the type which use a felt strainer. The outside of oil-coolers, such as are fitted to the bottom of the radiators of Hornet Specials, should be cleared of mud and dirt to restore their radiating efficiency.

The water pump is sometimes the Achilles' heel of the modern engine, but the fault more often lies with the owner, who does not maintain a proper supply of lubricant, with consequent wear of the pump shaft. If a leak occurs when there is plenty of grease in the pump gland, there is usually a nut for further compressing the packing, while if this adjustment fails, the pump will need to come off for the packing to be replaced. It should be noted that "any old grease" will as a rule not stand up to the high temperature of sports car cooling water, and special compounds, which usually contain tallow, are required. As has already been mentioned, Jubilee clips are particularly valuable watertight hose joints.

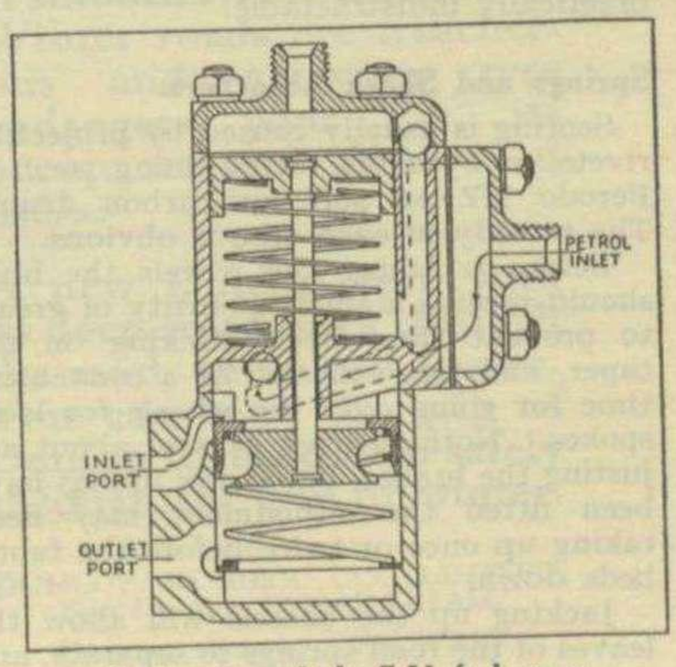
The dry-plate clutch, which is almost universal in England, has little in it to get out of order. As the linings wear, however, the pedal comes further up, so that in time it may touch the floor boards at the end of its travel, and put pressure on the clutch race, apart from causing actual slip. The position of the clutch lever must be altered so that at the end of its travel it is clear of the boards. The clutch lining only needs renewal when this adjustment can no longer be made, while clutch springs, if of sufficient strength in the first place should last for several seasons. The lubrication of the clutch race and of the pedal shaft should not be overlooked.

The gear-box should be drained, preferably after the lubricant has been stirred up after a run on the road, and the sludge flushed out with thin warm oil or paraffin. The correct grade of gear-oil should be used to replenish, and it is worth noting that the makers sometimes recommend the use of a lighter grade during the winter. If the universal joints are of the mechanical type, they should be refilled with heavy oil or special non-separating grease, according to the design, while fabric joints should be replaced if showing signs of wear.

Attention to the back-axle.

Like the gear-box, the back-axle is best drained and refilled after a run has thinned the lubricant. The filling plate is usually placed in a position such that the casing cannot be overfilled, but it is just as important to see that it *is* filled as far as it appears to be, and the oil should be circulated by jacking up one of the rear wheels and pulling round by hand to make sure that it has reached all parts of the casing. To make pouring easier, the oil may be warmed by leaving the tin half submerged in a bucket of hot water for a few minutes.

If the brakes have been functioning properly, and have been recently re-lined, it should not be necessary to disturb them, but otherwise the brake drums should be removed and the linings examined. With Rudge hubs the drums may sometimes need to be removed with the hub, by slacking off the nut on the axle, and striking the end of the latter with a hammer and a brass punch, taking care not to damage the thread. The hub and the drum may also be tapped with a mallet.

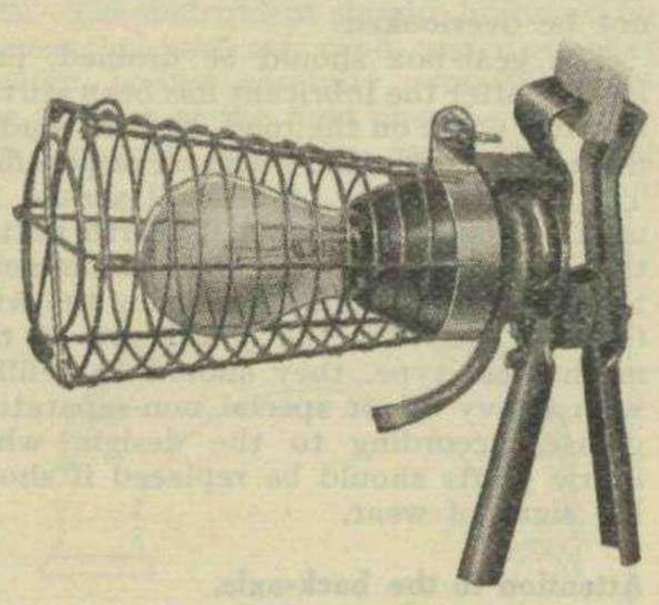


Section through the S.U. fuel pump.

WINTER WORK IN THE GARAGE—continued.

A wheel puller is however the safest resort if a hub of any type has to be removed. Quite often of course the drum is simply bolted to a flang on the hub and can be easily taken off.

If the linings are worn down nearly to the rivets, they should be renewed. In many cases it is possible to get linings die-pressed and ready drilled, in which case they merely have to be secured to the shoes, which is done with aluminium or copper rivets. If the brake is not a stock type, the lining will have to be fitted from a strip of fabric of the right width. It should be secured starting at one end and working to the other, and the holes



The Smith "Gripper" headlamp is ideal for work in the garage.

should be well countersunk to prevent the rivets scoring the drum. The lining should be sloped off with a file at each end to prevent chattering as the brakes are applied.

Glazed linings should be roughed up with a file, while those which are oily may be soaked in petrol which is then lighted. Oil in the brake-drums means either that the brake shafts have received too much oil, or in the case of the rear set, that the back axle has been over-filled, or that the felt washers which retain the oil need renewing. A trace of grease should be used on the brake cams.

If the drums are slightly scored they may be skimmed up in a lathe, but if the cuts are deep, new drums are to be preferred, since brake-drums are already rather thin on many modern cars, and replacements are not expensive. Alternately the old drums may be fitted with Laystall hard steel liners which are practically indistructable.

Springs and Shock Absorbers.

Scoring is usually caused by projecting rivets, or by using racing lining, such as Ferodo MZ on soft low-carbon drums. The remedy in each case is obvious.

Before replacing the wheels the hubs should receive a small quantity of grease to prevent the wheels sticking on the taper, and this will also be a convenient time for going over the wheels for loose spokes. Nothing need be said about adjusting the brakes, but if new linings have been fitted the adjustment may need taking up once or twice before the fabric beds down.

Jacking up the chassis will allow the leaves of the road springs to separate, and graphite grease can be put between them with a putty knife. Spraying with penetrating oil is an easier but less lasting method of dealing with them. Spring gaiters are not used much nowadays, but it is worth while removing them if fitted to see if there any broken leaves. Hartford shock-absorbers may be taken to pieces, the discs cleaned with petrol and slightly greased before re-assembling. If they seize solid they will snap the brackets.

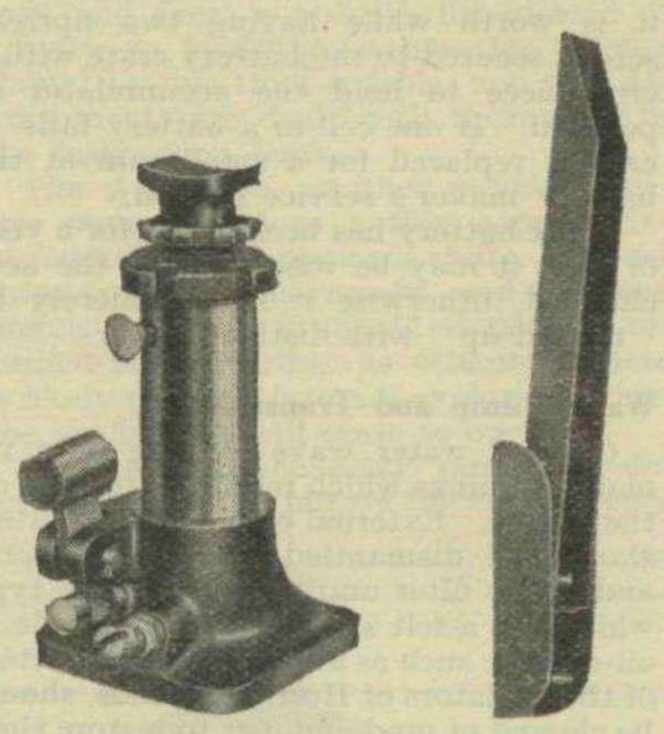
The Lighting System.

All grease or oil points should then be gone over, and if the nipples are blocked, taken off and cleared with a delightful tool called the "Biffit" in which a hammer blow forces lubricant from a miniature grease-gun.

The lamps and their connections should be overhauled, and if any of the bulbs show discolouration, they should be replaced before they fail altogether. The charging rate of the dynamo should exceed by at least one ampere the consumption of the lamps, and if it does not do so, either the rate should be increased by moving the third or regulating brush of the dynamo, or if the latter has reached its maximum rating, bulbs of lower consumption must be used.

If a lamp glass cracks across, it should be replaced at once, otherwise moisture and road dirt will reach the reflectors, which will have to be sent back to the manufacturers for re-polishing.

Some lamp reflectors have a film of transparent varnish and may be cleaned with care using an ordinary soft cloth, but the more expensive ones are usually



Two useful accessories, the Smith "Easy-Lift" Hydraulic jack (left) and door-stop (right).

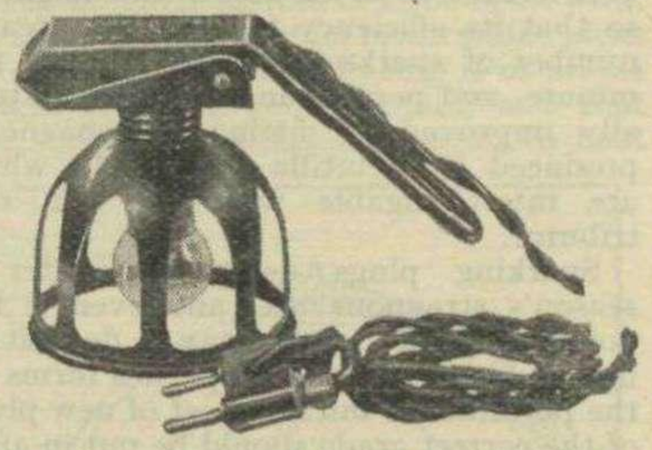
delicate, and only silk may be used for wiping them.

Finishing Off.

Nothing now remains except the instruments and the coachwork. Speedometer cables should be taken off and lubricated with oil or light grease according to the maker's recommendation.

U tube petrol guages such as the Hobson occasionally go wrong, but the very complete instructions which can be obtained will enable any fault to be rectified. Pressure guages can often be perusaded to return to the zero mark by judicious bending of the internal curved tube. Radiator thermometers cease to function when the liquid escapes from the pipe to the radiator, and must then be sent back to the makers. The same applies to clocks and ammeters.

As to the coachwork, prevention is better than cure. If a friend can be obtained to jump up and down on the running boards, the owner can usually trace loose wings and tighten them up, or replace rusted-up bolts. If the front wing assembly is insecure, two upright tubes bolted to the chassis and ending in split lugs to take the cross-tube supporting the lamps will take the place of a



The "Baby Gripper" inspection lamp, is sold by S. Smith & Sons, Ltd, for 5/6.

multitude of wire stays and other fixings, without detracting from the frontal appearance of the car.

Last and not least, a touch of paint supplied to the wings will often prevent the fatal patch of rust which makes replacement necessary.

Any general article dealing with overhauling the car must needs be incomplete, but if the owner can spare the time and trouble to attend to the points mentioned, the chances of an unexpected breakdown or premature wear will be greatly reduced, while his interest in the car will be very greatly increased by a practical knowledge of the details of its mechanism.

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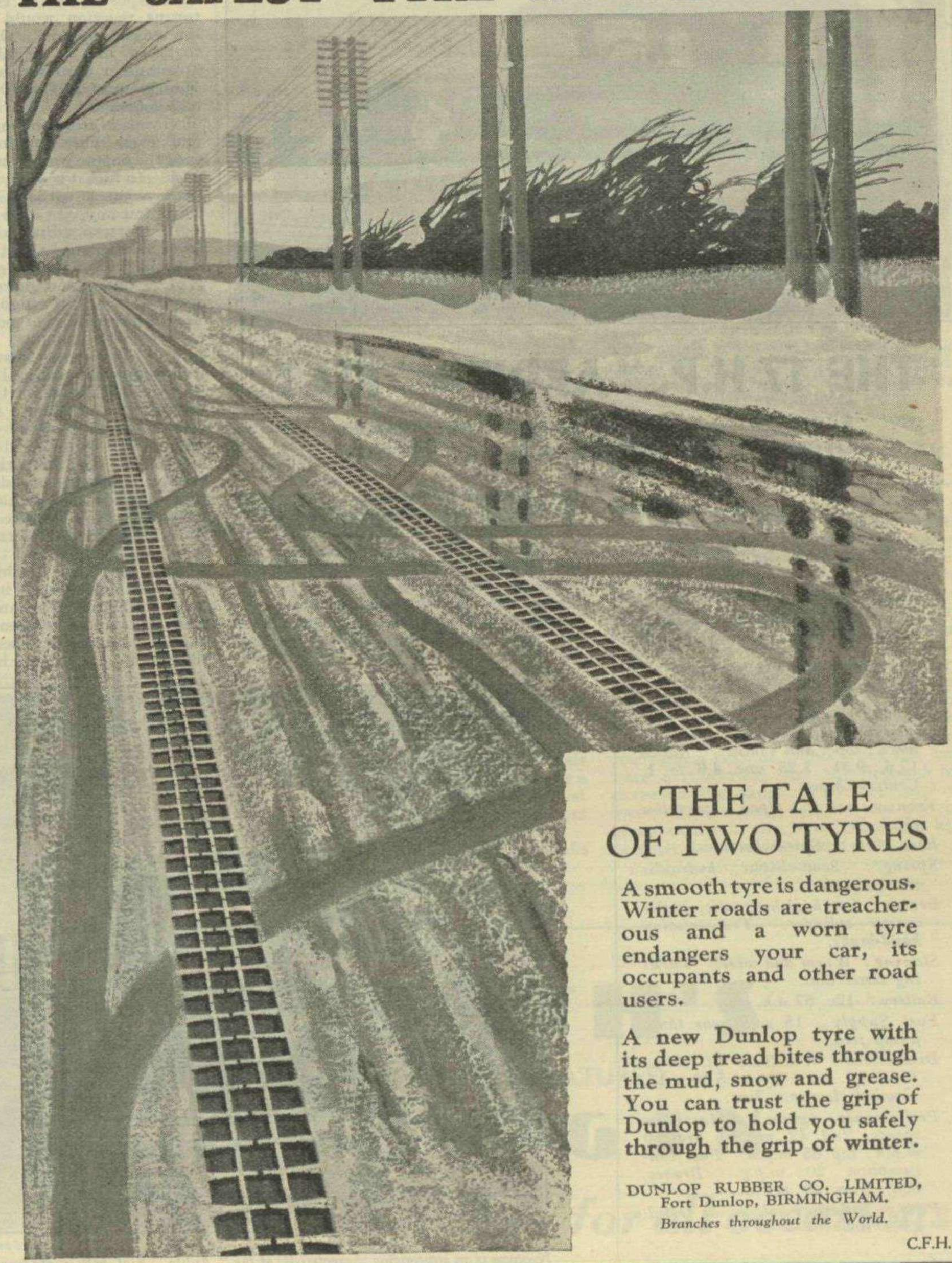
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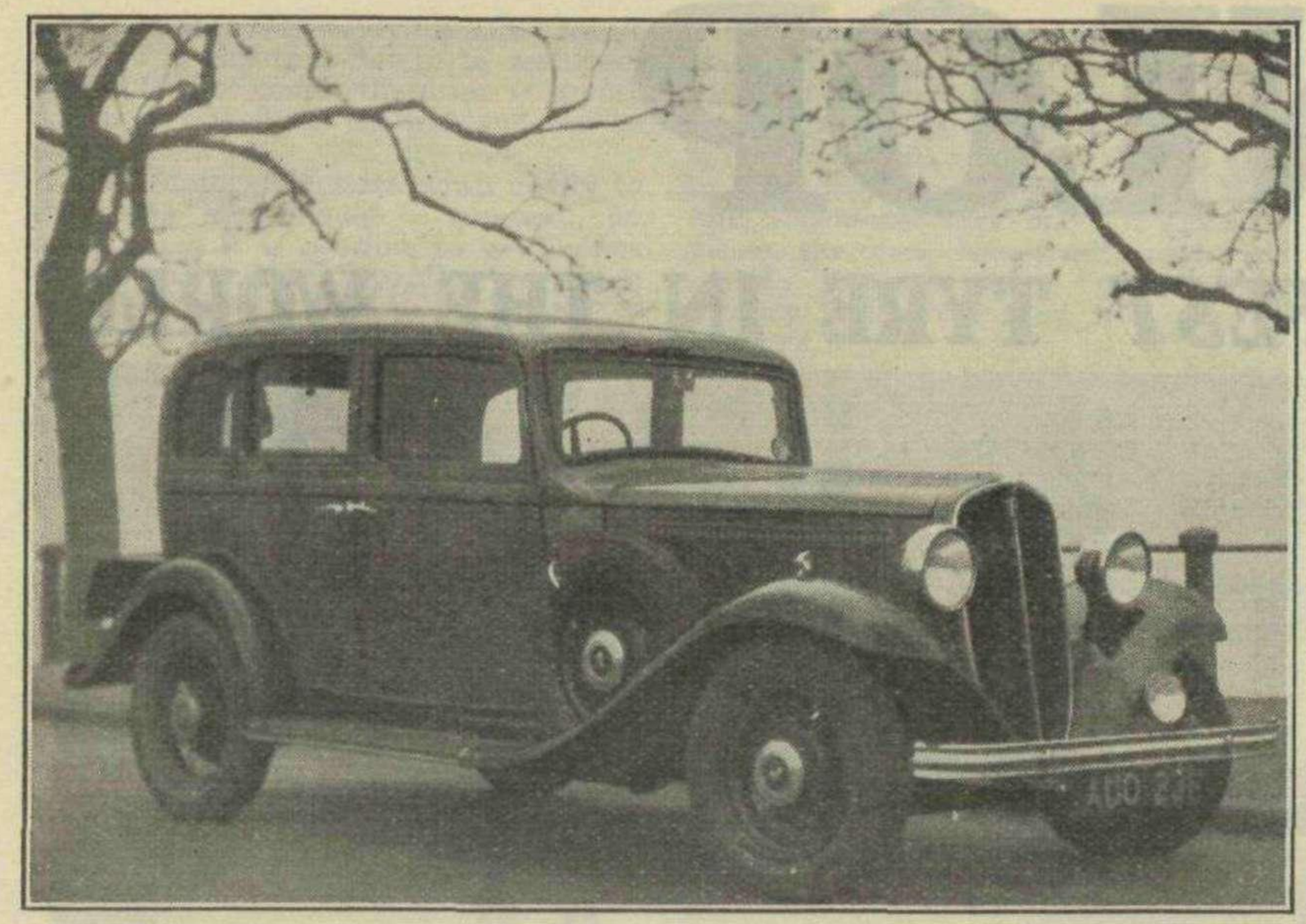
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C.F.H.

4H/102



THE 17 H.P. "ARDITA" FIAT

A DISTINCTIVE 4 CYLINDER MACHINE WHICH CRUISES EFFORTLESSLY AND HANDLES WITH NEAT ACCURACY.

Brief Specification.

Engine : 4 *cyl.* 82 x 92 *mm.*, 1,944 *c.c.*, 16.7 *h.p. Tax* £17. *Side valves.* 3 *bearing crankshaft. Comp. ratio* 6 *to* 1. 45 *b.h.p. at* 3,600 *r.p.m. Zenith down-draught carburetter. Battery and coil ignition.*

Clutch : Single dry plate with flexible hub.

Gearbox : 4 *speed and reverse, unit mounting with engine. Synchromesh top and third. Ratios* 17.6, 9.31, 7.25 *and* 4.6 *to* 1. *Central change.*

Transmission : Open propellor shaft.

Rear Axle : Spiral bevel.

Springs : Semi-elliptic, hydraulic shock-absorbers.

Brakes : Lockheed hydraulic, double master cylinder. Transmission hand-brake.

Steering : Worm and wheel. Turning circle 36*ft.*

Battery : 12*v.* 57 *a.h.*

Fuel Supply : 15 *gall. rear tank, pump feed.*

Dimensions : Wheelbase 9*ft.* 10*ins. Track* 4*ft.* 7*in. Tyres,* 5.50 x 17. *Ground clearance* 7*ins.*

Performance figures : Maximum speeds, 2*nd* 42 *m.p.h.,* 3*rd* 50 *m.p.h., top* 65 *m.p.h. Fuel consumption* 20 *m.p.g. Brakes,* 60*ft. from* 40 *m.p.h.*

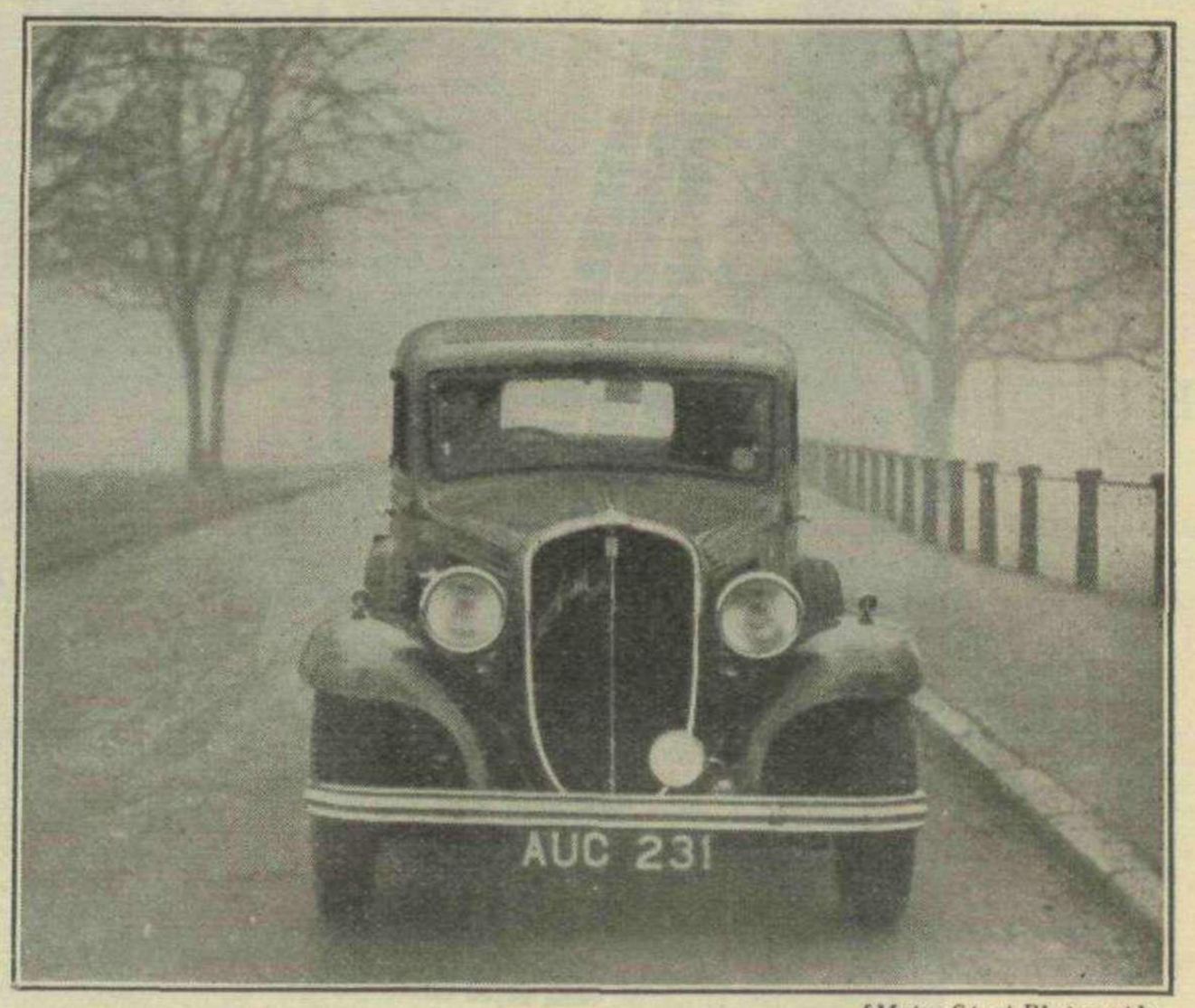
Price : Pillarless saloon, as tested, £382 10s.

THE return to favour of the 4 cylinder engine is gaining strength. Particularly so is this move found in the case of manufacturers whose products of that type were outstandingly popular before the multi-cylinder engine became fashionable. Alvis, Hotchkiss, Fiat, have all declared themselves protagonists of the "four," and anyone who has had any experience of the "12/50," the "15.9" and the "10/15" respectively will testify to the wisdom of their choice.

The "Ardita" Fiat is the largest 4 cylinder car on the market to-day, with a bore of 82 mm. and a stroke of 92 mm., giving a total capacity of just under 2 litres. On taking over the car in Albemarle Street we were reminded by our friend, Mr. Beresford, of Messrs. Fiat (England) Ltd., who placed the car at our disposal, that a certain amount of torque reaction would be noticeable at low engine speeds. This indeed proved to be so, but we found that the adjustable rubber mounting of the power unit absorbs most of the vibration. Once we had got on the move, however, all traces of vibration from the engine disappeared, and even when pulling slowly in top gear the engine was as smooth as one could wish. In fact it is only when pulling away from a check without engaging a lower ratio that any vibration is felt.

The corresponding advantages derived from an engine of this type are, however, extremely valuable. A good power output is given off at slow engine speeds, with the result that a fairly high axle ratio can be used without loss of performance or excessive gear-changing. This in turn results in reduced piston and cylinder wear, and economical running.

By using the gears the "Ardita" can be made to accelerate in a really brisk fashion, as can be seen by the accompanying graph. Some credit is due in this respect to the remarkably fine gear-change. Low to second requires a short pause, but second to third is absolutely instantaneous, likewise third to top. The change is just as rapid as that of a self-changing box, and the surge forward is most gratifying. Third and top are, of course, of the usual synchromesh pattern, enabling downward changes to be made, if required, without speeding up the engine. Maximum speeds obtained on the gears were 42 m.p.h. on second and



[*Motor Sport Photographs.*

Neatness is an outstanding characteristic of the "Ardita" Fiat, both in appearance and control.

THE 17 H.P. "ARDITA" FIAT—continued.

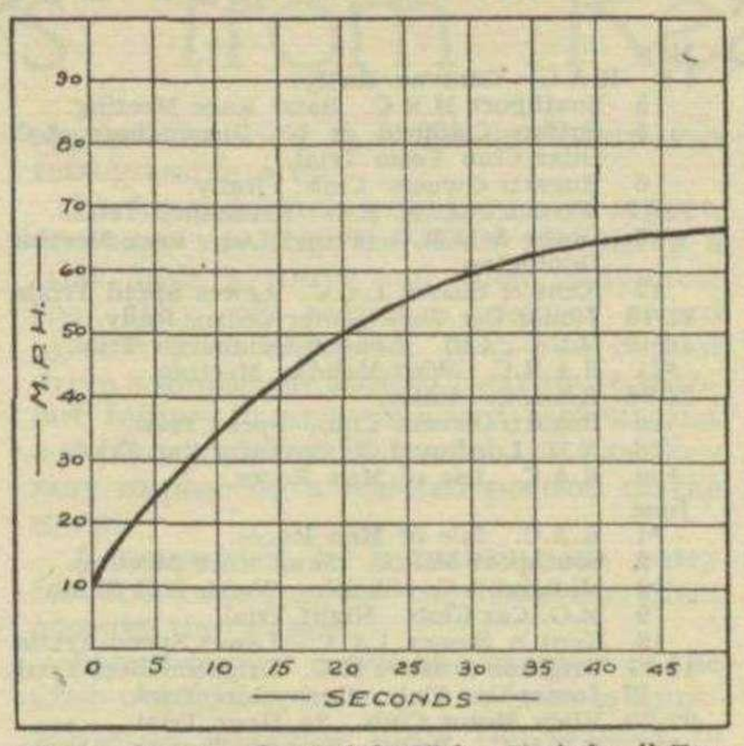
50 m.p.h. on third, while on top gear we reached a timed speed of 65 m.p.h.

The whole point of the car on the road, however, is the delightful high-geared feeling one gets of effortless cruising at 55 m.p.h., at which speed the engine is only turning over at about 2,800 r.p.m. The car is extraordinarily quiet, so that long journeys do not leave the crew with the headaches and deafness resulting from high-revving small "sixes." At its cruising speed the Fiat is every whit as smooth as any "six."

Like all Italian cars, the "Ardita" Fiat is beautifully sprung, over varying road surfaces. At speed the car could be driven without any qualms along the extreme verge of a secondary road.

This brings us to the steering. Here again the typical accuracy and sensitive touch of Italian design is apparent, and results in the driver being neat and polished in all his movements, whether it be passing another vehicle on a narrow road or parking the car in a crowded garage. As befits a car produced in the shadow of the Alps, the "Ardita" has an exceptionally good lock, the turning circle being 38 feet.

Some of this accuracy in control is due to the unusual driving position. The seat is placed very far forward, so that the driver has the wheel close to him, and his face is much nearer the windscreen than usual. Added to this, the seat itself is high, and both front mudguards can be clearly seen. The total result makes for extraordinarily pleasant driving.



The acceleration chart of the 17 h.p. "Ardita" Fiat.

Talking of the body, the "Ardita" carries a very cleverly designed pillarless saloon. With both doors open entry into front and rear seats is accomplished with a minimum amount of contortion. A good point is that it does not matter which door is closed or opened first.

The brakes are of the Lockheed type, with double master cylinders, so that the front and rear sets are independent, although evenly co-ordinated. This is a safety measure which might well be copied by other manufacturers. The braking figures were of a good standard, the car pulling up from4 0 m.p.h. in 60 feet.

Altogether, we derived considerable pleasure from handling the Fiat "Ardita.' It is essentially a "different" car, and in these days of standardisation that is saying a good deal. Points which particularly impressed us were its quiet, low revving engine, positive steering, and accuracy of control. The discerning motorist will derive more pleasure from this lively standard saloon than from many so-called "sports" cars. In point of fact, we are informed that a tuned-up edition of the "Ardita" will shortly be available. This car will have a higher compression ratio, will develop 54 h.p. at 3,800 r.p.m. and will be capable of over 70 m.p.h. The standard "Ardita" is obtainable with either a 15 h.p. or 17 h.p. engine, the model we tested having the latter, and at £382 10s. it is good value, especially when one remembers its exceptional wearing qualities.

A Change of Name.

We are informed by Messrs. Edward Joy & Sons, Ltd., of Leeds, that they have changed the name of one of their grades, of oil, from "Sports Filtrate" to "Super Filtrate."

The reason for this alteration is that the particular oil in question is their super grade, and is therefore ideal for any car whose owner is keen on the very highest quality lubrication, in addition to being a perfect lubricant for sports cars. "Super Filtrate," by the way, has proved to be an excellent oil for cars with heavy oil consumption.

A Racing Booklet.

No feature is more essential to the success of a racing car than its braking system, for the stress on the linings when it is being decelerated from a speed of 130 m.p.h. is tremendous. It is this experience which has largely contributed to the high standard of efficiency of Ferodo brake linings, and to commemorate the many occasions on which their products have played a part in the motor races of 1933, they have produced a most interesting booklet called "Performance!"

This brochure gives the results of many of the races during the season, with pictures of the winners, and a limited number of free copies is available to readers who apply to Ferodo, Ltd., Chapel en le Frith, Cheshire, on mentioning MOTOR SPORT.

"Speed."

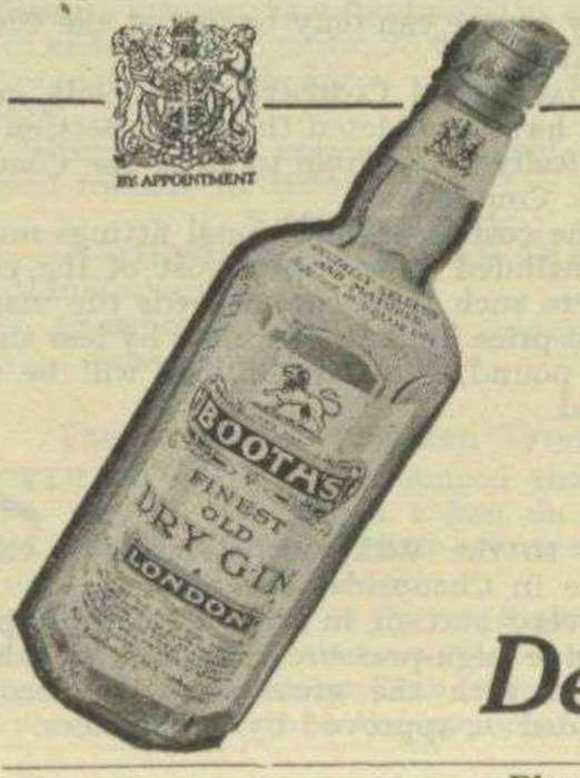
The B.R.D.C. has produced an interesting little handbook with the appropriate title of "Speed." Several well known members of the Club and their machines are briefly described, there is a Foreword by Mr. S. C. H. Davis, and a list of the motor races of 1933 reprinted from MOTOR SPORT.

"Speed" is on sale at the bookstalls of Messrs. W. H. Smith & Sons, Ltd., and is priced at 2d.

Supply and Demand.

It is gratifying to note that the number of people employed in the motor industry increased during the month of November by 2,500. This increase is mainly due to the large number of orders secured, not only in Gt. Britain, but from abroad, by several of the leading motor car manufacturers.

The introduction of the new Bentley 3½-litre has accounted to some extent for the increase. Owing to the demand for this car, extra staff has had to be engaged in order to expedite delivery. There was such a rush of orders when the cars were first shown, that the demand far exceeded the supply. By the employment of more men, delivery can now be given earlier in the New Year than has recently been understood.



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Definitely superior for all occasions

BRITISH MOTORING FIXTURES FOR 1934

IN addition to the International Sporting Calendar circulated by the R.A.C., the Club has now issued a list of the principal British motoring events in 1934. Whilst every endeavour has been made by the R.A.C. to make the list as complete as possible, a certain number of fixtures, of which no notification has yet been received, will require to be added to this list when the dates have been agreed with the promoting clubs. In no case, however, will permits be granted for additional fixtures which clash with events already on the British calendar.

(Meetings inscribed on the International Motoring Fixture List marked *.)

February
17 Riley Motor Club. 12 Hour Trial.
17 Junior Car Club. Brooklands Rally.
24 Sutton Coldfield & N. Birmingham A.C. Colmore Cup Trial.

March
3 B.A.R.C. Opening Meeting.
10 Southport M.R.C. Sand Race Meeting.
10 Singer M.C. Trial and Rally.
13-17 R.A.C. Rally.
18 Brighton & Hove M.C. Spring Cup Trial.
24 Derby & D.M.C. (Prop.) Ltd. Race Meeting Donington.
30-31 M.C.C., Ltd. London-Land's End Trial.

April
1 Bugatti Owners' Club. Rally.
*2 R.A.R.C. Easter Monday Meeting.
7 Southport M.R.C. Sand Race Meeting.
7-8 Brighton & Hove M.C. Team Trial.
14 North-West London M.C. Lawrence Cup Trial.
14-15 Liverpool M.C. Reliability Trial.
21 M.G. Car Club. Reliability Trial.
*28 Junior Car Club. International Trophy Race.
29 Junior Car Club. North Wales Trial.

May
4-5 R.A.C. Caravan Rally.
5 Southport M.R.C. Sand Race Meeting.
5 Sutton Coldfield & N. Birmingham A.C. Inter Club Team Trial.
6 Bugatti Owners' Club. Rally.
11-12 Women's A. & S.A. Reliability Trial.
12 Derby & D.M.C. (Prop.) Ltd. Race Meeting Donington.
12 Kent & Sussex L.C.C. Lewes Speed Trials.
12-13 Junior Car Club. Inter Centre Rally.
18-19 M.C.C., Ltd. London-Edinburgh Trial.
*21 B.A.R.C. Whit-Monday Meeting.
21-25 R.S.A.C. Rally.
26 Bugatti Owners' Club. Speed Trial.
26 N.W. London M.C. Coventry Cup Trial.
*30 R.A.C. Isle of Man Races.

June
*1 R.A.C. Isle of Man Races.
2 Southport M.R.C. Sand Race Meeting.
*9 Midland A.C. Shelsley Walsh Hill Climb.
9 M.G. Car Club. Night Trial.
16 Kent & Sussex L.C.C. Lewes Speed Trials.
16-17 Brighton & Hove M.C. Brighton-Beer Trial.
17 Junior Car Club. Derbyshire Trial.
22-23 Riley Motor Club. 24 Hour Trial.
*23 B.R.D.C. British Empire Trophy Race.
23-24 Liverpool M.C. Reliability Trial.
30 Sutton Coldfield & N. Birmingham A.C. Vesey Trial.
30 Junior Car Club. Members' Day Brooklands.

July
6-7 M.C.C., Ltd. Reliability Trial.
7 B.A.R.C. Inter-Club Meeting.
14 Derby & D.M.C. (Prop.) Ltd. Race Meeting Donington.
14-15 Women's A. & S.A. Reliability Trial.
22 Brighton & Hove M.C. Drewitt Trial.
28 United Hospital & U. of L.M.C. Reliability Trial.

August
3-4 Mid Surrey A.C. London-Barnstaple Trial.
4 Southport M.R.C. Sand Race Meeting.
*6 B.A.R.C. Bank Holiday Meeting.
6 Carmarthen M.C. & L.C.C. Sand Races.
11 United Hospitals and U. of L.M.C. Hill Climb.
18 Derby & D.M.C. (Prop.) Ltd. Race Meeting Donington.
26 Kent & Sussex L.C.C. Lewes Speed Trials.

September
*1 R.A.C. Tourist Trophy Race.
1 Southport M.R.C. Sand Race Meeting.
8 M.C.C., Ltd. Brooklands Meeting.
8 Bugatti Owners 'Club. Lewes Speed Trial.
12 Sutton Coldfield & N. Birmingham A.C. Evening Trial.
15 Brighton & Hove M.C. Speed Trials.
15 Gopsall Park. Race Meeting.
15 Riley Motor Club. Cotswold "6" Trial.
*22 B.R.D.C. 500 Miles Race.
23 Liverpool M.C. Reliability Trial.
*29 Midland A.C. Shelsley Walsh Hill Climb.
29 Southport M.R.C. Sand Race Meeting.
30 Singer Car Club. Bullock Cup Trial.

October.
5-6 Women's A. & S.A. Reliability Trial.
*6 Derby & D.M.C. (Prop.) Ltd. Race Meeting Donington.
6 Junior Car Club. Lynton Trial.
13 B.A.R.C. Race Meeting.
13 M.C.C., Ltd. Sporting Trial.
14 Bugatti Owners' Club. Reliability Trial.
20 United Hospitals & U. of L.M.C. Speed Trials.
20 N.W. London M.C. Team Trial.
28 Brighton & Hove M.C. Chandler Trophy Trial.

November
3 Mid Surrey A.C. Experts Trial.
10 Sutton Coldfield & N. Birmingham A.C. Shell Trial.
17 M.G. Car Club. Chiltern Trial.
24 Bugatti Owners' Club. Night Trial.

December
2 Liverpool M.C. Reliability Trial.
8 North West London M.C. London-Gloucester Trial.
28th—29th M.C.C., Ltd. London-Exeter Trial.

R.A.C. RALLY NEWS

ALTHOUGH entries for the R.A.C. Rally do not close until Monday, 5th February, over one hundred have already been received by the Club. The maximum number that can be accepted is four hundred, and not more than one hundred may start from any control. Fifty-one entrants have already selected London as their starting point.

The arrangements at Bournemouth are progressing well. The final check will be at the Ramp Garage, Westover Road. This is a large modern building with accommodation on nine floors—five of which will be placed at the disposal of the R.A.C. The floors are all connected by ramps, and so simple will be the parking of the cars this year as they arrive, that the R.A.C. proposes to group them in classes. It will then be possible to run off the Eliminating Test in classes instead of as hitherto with all three sizes of car mixed.

The Rally Ball to which the Corporation of Bournemouth is inviting all competitors, will be held on Friday, 16th March, at the New Pavilion, which will also be the venue of the Mayor's Reception on the day of arrival at Bournemouth on Thursday, 15th March.

Numerous other functions are being arranged in the town during the Rally for the benefit of competitors; invitations have been received from golf and other clubs to enjoy their hospitality, and it would appear that Bournemouth is making every attempt to equal if not surpass, the hospitality that competitors have already enjoyed both at Torquay and Hastings.

The R.A.C. is sending to all entrants a complete list of the hotels and garages in Bournemouth, giving particulars of accommodation and prices. All enquiries regarding accommodation however, should be addressed to the Publicity Manager of the Bournemouth Corporation.

A number of queries have been received by the R.A.C. arising out of the Regulations and the following information may be of interest to all entrants.

TEAMS. Entries for the Club Team Prize must be made by Club Secretaries. Only clubs associated with the R.A.C. are eligible to nominate teams. Entries for the Manufacturers' Team Prize must be made by the manufacturer of the make of car entered. As soon as possible after entries close a list will be circulated to enable those eligible to nominate teams.

ELIMINATING TESTS. In no circumstances can any information be disclosed regarding the nature of these tests. They will not be of such a nature or over such surfaces as to involve any risk of damage to competing cars.

ROUTES. The routes given in the Regulations are the shortest distances between the various Controls. Competitors need not necessarily follow these routes providing they check in at each Control during the hours which it is open.

DRIVERS. Two drivers must be carried, additional drivers or passengers up to the capacity of the car may be carried at the option of the entrant. Anybody driving a competing car must be in possession of an Open Competition Licence.

CONTROLS. Competitors may check in at intermediate controls at any time during the hours of opening. Marks for being early or late can only be lost at the Final Control.

COACHWORK COMPETITION. Only cars that have completed the Road Section of the Rally are eligible to enter the Coachwork Competition.

The cost of all additional fittings must be included in the total cost of the car. Where such total cost exceeds the maximum price limit in any class by less than one pound, the odd shillings will be ignored.

2,400 SERVICE STATIONS

By the end of 1933—less than nine months after the first station was opened—no fewer than 2,432 Castrol lubrequipment stations were in operation in Great Britain and Northern Ireland. Of these 2,177 are in England and Wales. Scotland has 139 stations and Northern Ireland 116.

The Wakefield Company are shortly to bring out a new and revised edition of their service gazetteer, which lists all stations by counties and in alphabetical order, and can be obtained free on application to the Wakefield Company's chief office in Cheapside, London.

Every station in the list is equipped to give high-pressure, mechanised lubrication with the grease and oil recommended or approved by the makers.

Letters from Readers.

Kaye Don on Driving Licences.

SIR,—It is fairly generally recognised now that our rules with regard to the issuing of Motor-driving Licences need amending in the direction of excluding persons who are never likely to become capable drivers.

I suggest that in the Application Form which is now required to be submitted, a clause should be added in which the applicant undertakes that, within a period of say three months, he will take steps to secure adequate tuition in driving and will master the Highway Code.

The Post Office should then issue a temporary licence current for a maximum of three months, and only on presentation of a further application, attested by a declaration from a third party, to the effect that the applicant has received the necessary tuition and is now a competent driver, who also understands the Highway Code, would a full licence be granted. The third party testifying to the competency of the applicant might be any licenced driver who has held a licence for a period of not less than one year, whose licence is unendorsed, or by a recognised school of motoring, or by any other body recognised by the authorities as capable of giving such a certificate.

I am, yours, etc.
KAYE DON.

Oak Dene,
Weybridge, Surrey.

From an Owner of "Chitty."

SIR,—May I take this opportunity of correcting Mr. Christian, manager of the Efficiency Garage Co., Ltd., whose letter appears in your issue of last month.

He is mistaken in thinking that he has Chitty-Chitty-Bang-Bang I. at his garage. My brother and I happen to own this famous old car, and as the Editor said in his footnote to Mr. Christian's letter, it is at present in London. The car which Mr. Christian mentions is not Chitty-Bang-Bang II. either, for she happens to be in Dover. It is possible that Mr. Christian's car is one of the smaller Chittys, of which there were two or three built.

Incidentally, my brother and I are prepared to sell Chitty-Bang-Bang I. Apart from its interest as a landmark in motoring history, its gigantic 23,000 c.c. engine should be suitable for a powerful speed-boat.

Wishing your excellent journal every good fortune in 1934,

I am, yours etc.,
DENIS P. S. CONAN DOYLE.

"Windlesham,"
Crowborough,
Sussex.

The Ban on Competition Tyres.

SIR,—I see it is announced that the M.C.C. has placed a ban on Competition tyres in their events subsequent to the London-Exeter.

As Hon. Secretary of the one make Club which supports Trials to a greater extent than any other similar Club in the world, I should like to take the opportunity to express the view that this is definitely a retrogressive step.

Looking at Trials from the broad aspect, one may say that the Club organising a trial finds a route and then announces that they will wager a premier award against your entry fee that you cannot drive a motor car around their route without failing in any observed section and complying with such special tests as they may impose on a selected portion of the route.

A competitor, by forwarding his entry fee and entering for the Trial in effect accepts the wager.

In my view it is not the business of the Club organising an event to impose limitations of any sort upon the manner in which a competitor prepares his car for the event, provided only that, in the interests of the "improvement of the breed" the said competitor uses officially recognised proprietary brands of equipment.

Competition tyres definitely come under this heading, and if the M.C.C. finds it necessary to impose such a ban this must be construed as a tacit admission that Trials have so improved modern sports cars that the organising Club finds itself in the position of losing more wagers (i.e., premier awards!) than it wins.

In any case it seems to me that by banning competition tyres the M.C.C. is only creating another rule which can be circumnavigated, since it is conceivable that competitors and manufacturers will conspire together to this end.

I am, yours etc.,
ALAN C. HESS.

Friars Cottage,
Clive Road,
Esher, Surrey.

A Proposed Correspondence Club.

SIR,—As a result of a passage in a letter of mine which appeared in the September issue of MOTOR SPORT, I have received a large number of letters from readers in all parts of the British Isles. This has prompted me to form a correspondence club, to be called, with your sanction, the M.S.C.C. (Motor Sport Correspondence Club), as it was directly through your journal that it was formed. As I have been in regular correspondence with some half dozen enthusiasts for the last few months, we have a ready made foundation to build upon. All present members have one hobby in common, the collecting of racing photos, and in some cases own motor-cycles and decreptic sports cars. The only conditions of entry are, regular reading of MOTOR SPORT, and sufficient enthusiasm to answer all letters. Any additional members are welcome, especially MOTOR SPORT readers from overseas. Anyone wishing to join should write to the address below, enclosing a stamped addressed envelope, when they will receive a club number and particulars of other members.

I am, yours etc.,
LEWIS E. MILES.

4 High Street,
Fordington,
Dorchester.

Automobile Design.

SIR,—May I put forward a plea for better taste in car design?

In these days when manufacturers pay so much attention to the appearance of their cars, it is a pity they do not show a little more good taste. It is a pity, I think, that American influences are creeping into coachwork and body designs in British cars. They are usurping the positions of clean, efficient design and good workmanship, which used to be, and in some cases still are, one of the chief characteristics of British car design.

I have a suspicion that a certain amount of blame for this change in taste can be put down to the increased number of lady motorists, and motorists who are influenced by their wives and families. They are more likely to be attracted by intricate moulding, and peculiar colour schemes, than the more conservative and experienced motorists.

Admittedly body design has to be ruled by chassis and engine design, but it is noticeable that the more shoddy looking cars, designed in the worst taste, usually have engines that are equally badly designed, and it cannot be argued that money saved in workmanship on the body is spent on the engine.

To come down to more particular details there are several trends in modern design which, I consider, definitely make a car look ugly, and take away all sense of balance, and beauty of line.

First among these trends I would place the practise of pushing the radiator forward over the front axle. Of course I know it gives more body space, and on this account might be pardoned in the cheaper cars; but cars that have quite sufficiently long chassis are tending to follow suit, and ruining the appearance of their cars. A bonnet situated over the front axle, low, with a long horizontal line running to the windscreen, is, in my opinion, a beautiful sight. But as soon as the bonnet is pushed in front of the axle, all that balance is lost.

Another trend, I think is ugly, is the modern design of some mudguards. The mudguard that extends behind the front wheel, does not give very much more protection, and does not improve the appearance of a car, especially an open car. It gives an appearance of heaviness and one thinks, "Lord, another piece of tin!" What design can compare for pure grace with that which sweeps down to the running board in a shallow curve, as beautifully exemplified on the new M.G. Magnas' in the photo of the 4½ litre Lagonda you published last month.

Other ways in which clumsy design can and does ruin the appearance of modern cars, are in hideously curved bumpers, fancy moulding on saloons, fancy wheel hubs, pieces of tin beautifully louvred, supposed to give an appearance of lowness, ornate bonnet louvres and many others.

Think back ten years and compare the forerunners of some of the present day models, with the latest product. In those days efficiency and good workmanship

LETTERS FROM READERS—continued.

were the standard a car's appearance was judged by, and together they gave good taste.

The present day popular cars are tending to become like the toy cars one used to buy " made in America."

Unfortunately the motor industry is unable to educate the public to good taste, so it has to pander to the public's bad taste.

It is fortunate there are cars left that still retain their old standard of worke manship, and we can only hope their influences will do something to stop th-tide of bad taste, that is encroaching on bodywork design in British cars.

I am, yours etc.,
W. EDGEWORTH-JOHNSTONE.
12, Sutherland Road,
West Ealing, W.13.

Fords in the Alpine Trial.

SIR,—The following fact has only recently been brought to my attention, and I must therefore apologize for commenting at so late a date.

In your September issue, however, it is stated that the V-8 Ford team which competed in the Alpine Trial was made up of 1934 models. As you may already know, this is an error.

The cars were standard 1933 models, having neither the double manifold nor the other less important improvements which characterize the 1934 product. Incidentally, these latter were only announced within the past few weeks.

The error arose, I believe, because the 1933 model had not been seen in England, Dagenham having continued to manufacture the 1932 design.

Once again congratulating you on a splendid journal,

I am, yours, etc.,
MILES COLLIER.
Overlook Automobile Racing Club,
Pocantico Nills, N.Y., U.S.A.

World's and Class " A " Records.

SIR,—In your January issue you give a list of World's and International Class Records and in it there are one or two points which I cannot understand.

In the World's records the 1 mile (F), the 1 Kilo (F) and the 5 Kilos (F) are held by Sir M. Campbell at 272.11, 272.46 and 257.30 by the Campbell Special. The Class A (over 8,000 c.c.) are however held by the Napier-Campbell at 253.97, 251.34 and 247.94 m.p.h. respectively. It would appear that the " Campbell Special " being well over 8,000 c.c., should hold the Class A as well as the world's records. The 5 miles and 10 kilos in the World and Class A records are identical although held by different cars, i.e., the Napier-Campbell and the Campbell-Special, which, I believe had a Rolls-Royce engine.

Another point is that the world's 10 miles (F) is held by N. Smith on " Enterprise " at 164.08 m.p.h. but the Class A record by John Cobb on a Delage at 129.29 m.p.h. I believe the " Enterprise " had a Napier engine of well over 8,000 c.c.

Perhaps you would be good enough to explain these points to me.

There is just one other point you can also assist me on. In " Here and There " on page 141 of January's MOTOR SPORT under the heading of " A Coveted Record," you say J. G. Parry-Thomas broke Chassagne's record on his Leyland-Thomas on November 17th, 1924. Was this the Leyland-Thomas as rebuilt by Mr. Thomas or was it the original eight-cylinder Leyland with the high radiator as it was before being altered and called the " Leyland Thomas."

I should like to wish your magazine every success, and I can assure you that I get hours of enjoyment from it every month.

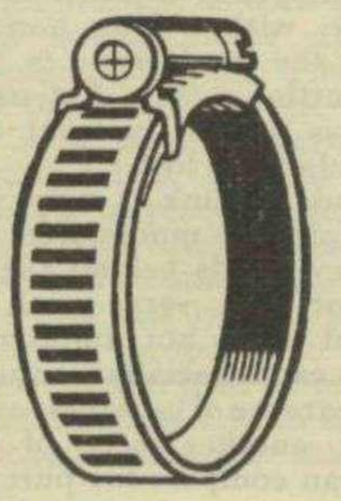
I am, yours, etc.,
LESLIE W. EASTWICK.
9 Marine Terrace,
Folkestone,
Kent.

(When a car breaks a Class record, its engine has to be stripped and measured. For World's records, however, this rule does not apply, and consequently do not trouble to claim the Class distances and put their mechanics to the long job of dismantling the power unit.

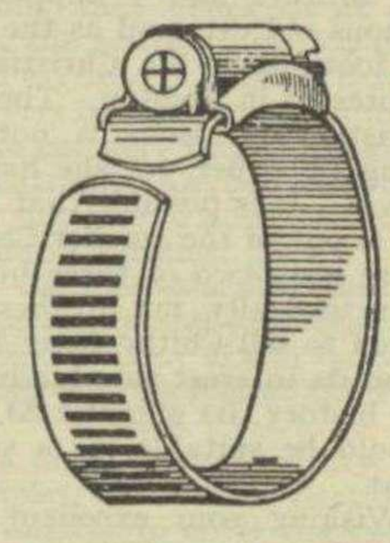
In 1924 Parry-Thomas's car was the original Leyland Eight with the high radiator.—ED.)

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Club News

A.C.U. SOUTH MIDLAND CENTRE.

THE January issue of the 'South Midland Review" is an interesting one, containing articles on "Competition Tyres," "Another Insurance Crash," and the Annual Report for the 1933 season.

The address of the Hon. Secretary is Mr. Alan W. Day, 28, Claremont Park, Finchley, London, N.3.

G.W. MOTOR CLUB.

From the Club's journal "The Exhaust" we learn that everything is set for the first trial to be held by the Club, the "Affiliation Cup" on January 21st, a report of which will appear in the next issue of MOTOR SPORT. The N.W. London, the City and Guilds, and Birbeck College Clubs have accepted the invitation to compete.

The First Annual Dinner and Dance held at the Clarendon Hotel on December 16th was a rousing affair. Some 60 people were present, and the spirit of optimism which prevailed augurs well for the future of the Club. The chair was taken by Mr. J. E. Bardrick, and he was supported by Messrs. H. L. Cox (Toastmaster), C. J. A. Curd (Secretary), P. Hardy (Sports Secretary), C. P. Curd (Treasurer), A. C. W. Leaver (Bank Manager), R. J. G. Rolfe (Solicitor), J. D. Aldons (Auditor), L. L. Schofield, P. Garrett, R. Day, A. Curtis, F. A. Thatcher, R. Jennings, P. Cook, J. Saxby and other members and friends.

KYNASTON CAR CLUB.

A Treasure Hunt, Scavenge Hunt, "manœuvrability" tests, and a dance have already been held in the past two months with considerable success. Several other events are being arranged to which visitors will be welcome.

Those interested should write to the Hon. Secretary, Mr. D. Burnford, Kynaston Court, Box Tree Road, Harrow Weald, Middlesex. The annual subscription for motoring members is 10s. 6d. and for non-motoring members 7s. 6d.

S.E. LONDON C.C.

This Club is in process of formation, and is intended to cater for sporting motorists in the New Cross and Lewisham districts. If sufficient support is forthcoming, a Ladies' Section is to be included.

Anyone who wishes to join should get in touch with Mr. P. E. Rivers, 63, Ommaney Road, New Cross, London, S.E.14, or Mr. K. R. Shachel, 197, High Street, Lewisham.

HORNET CAR CLUB.

Arrangements have now been completed for the amalgamation of the Club with the Light Car Club, and it is intended to form a separate Wolseley Hornet section of the L.C.C. Incidentally, it is possible that other one-make sections will be formed, and owners of Austins and Morgans who agree with the idea should get in touch with the Hon. Secretary, Mr. H. J. Jones, 22, Basinghall Street, London, E.C.2.

"SUNBAC."

Mr. H. J. Manzoni, Deputy Surveyor to the City of Birmingham, was elected president for the year 1934, in place of Mr. T. J. Hutton, who has retired after rendering fine service to the Club. Other officials who were elected were A. E. Sumner (hon. secretary), T. Gibson (hon. trials adviser) and J. G. Orford (car captain). J. A. M. Patrick and W. Vincent were elected to the Committee.

WEST HANTS L.C.C.

With headquarters at the Lansdowne Hotel, Bournemouth, the Club has now been in existence for nearly two years, and in that time has organised many well-supported events, ranging from trials to social affairs.

The aim of the officials is to cater primarily for sports car owners, at the same time giving them ample opportunity for those long yarns about their respective mounts which enthusiasts always enjoy.

The annual subscription is 27s. 6d. for owners of cars up to 10 h.p., 31s. 6d. for cars of over 10 h.p., while a most attractive Car Badge costs 7s. 6d. The Hon. Secretary is Mr. B. Peters, Club Room, Lansdowne Hotel, Bournemouth.

DERBY and D.M.C.

The Annual Dinner of the Club was one of especial significance, for it marked the end of the first year of Donington Park as a racing circuit.

Capt. W. Bemrose, the President, was in the chair, and the "Club" toast was proposed by Mr. C. R. Topping, secretary of the East Midland Centre of the A.C.U. A fitting tribute to Mr. J. G. Shields, J.P., the owner of Donington Park, was given by Mr. Fred Craner, the Secretary. Mr. Craner reviewed the past season's racing, and mentioned that the alterations to give a one-mile straight were well in hand. With R.A.C. approval, the first car meeting would be held on March 24th.

The awards were presented by Mrs. William Bemrose, and dancing and a film show brought a pleasant evening to a close.

MIDLAND A.C.

The annual dinner and dance will be held at the Grand Hotel, Birmingham, on Friday, February 9th, when the cups won at the Shelsley Walsh hill-climbs will be presented.

The Council of the Society of Motor Manufacturers and Traders has decided to approve both the Shelsley Walsh Open Hill Climbs on June 9th and September 29th for trade entries.

ILKLEY & DISTRICT M.C.

The Black Horse Hotel, Otley, was the scene of considerable festivity recently, when the Club held their Annual Dinner. Fred Marshall, the president, was in the chair, ably supported by "Pa" Monkhouse, J. H. Holmes (a previous Secretary) and Herbert Robinson. Songs and speeches were the order of the day, and the cups which were distributed were innumerable.

BERKHAMPSTEAD & D.M.C.C.

Officials for the 1934 season are as follows: President, Prof. A. M. Low; Chairman, S. F. Seyfried; Captain, R. Andrews; Hon. Treasurer, F. Groom; Hon. Secretary, N. C. Lone, 57, Marlowes, Hemel Hempstead.

A new note in club magazines has been struck in the January issue of "The Berkhampstedian," which contains a fine 4 page photogravure supplement.

HARROGATE MOTOR CLUB.

The Annual General Meeting was held at the County Hotel on Monday, January 8th, 1934. There were about 70 members present. The following have been elected:—

President: Mr. T. W. "Pa" Monkhouse.
Hon. Sec.: Mr. W. W. Baxter.
Hon. Treas.: Mr. E. H. McWilliam.
Captain: Mr. J. H. Wood.
Trials Secretary: Mr. T. F. Leake.
Press Secretaries: Messrs. W. K. Hoenes and L. W. Steel.

After the passing of the Hon. Secretary's report, the retiring President spoke in very feeling terms of his successor. "Pa," he said, had been with us since 1908, and this was the first time that he would accept the Presidency. However, he had now promised to do so. We all knew what he had done for the Club, for the A.C.U. and for the sport in general, and that for a man of 75 years his energy was marvellous.

On Friday, January 19th, Mr. A. Sheard once again came forward and gave the Club members another of his popular motor film shows. These are proving to be one of the most pleasant social events of the winter evenings.

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

NEWS FROM THE U.S.A.

LOUIS MEYER AWARDED A.A.A. NATIONAL CHAMPIONSHIP FOR THIRD TIME . . . AL GORDON SEEMS ASSURED OF PACIFIC SOUTH-WEST SECTIONAL TITLE . . . OTHER NEWS

BY

Our American Correspondent

T. MERIWETHER-SMITH

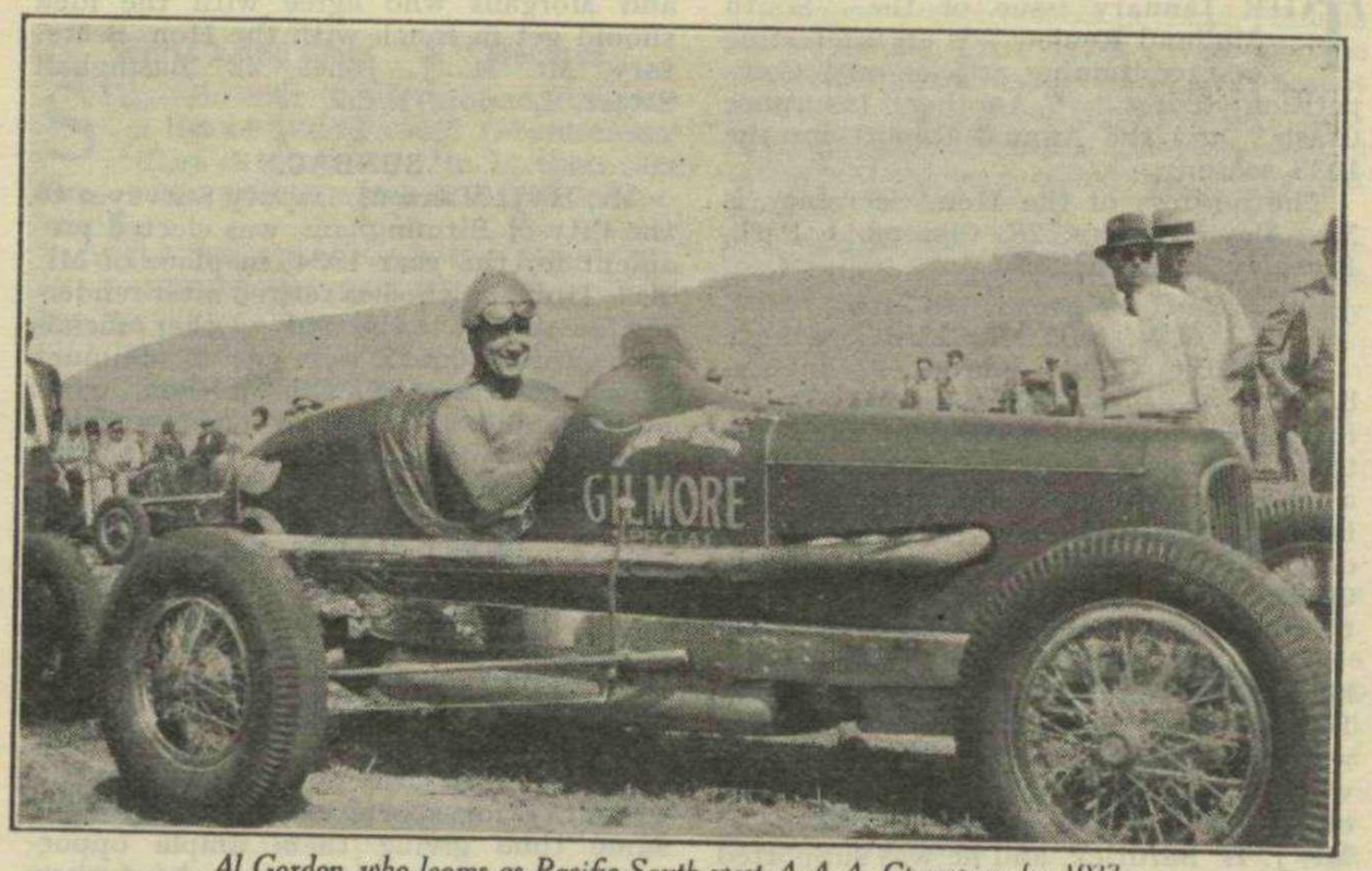
THE postponement to February 22nd of the California road races, originally scheduled for December 10th, automatically gave the 1933 A.A.A. National Championship to Louis Meyer, 29-year old South Gate, California, veteran driver. It marked Meyer's third winning of the greatest annual honour in American racing circles, a feat that has been duplicated only by the great Earl Cooper, who took the Championship in 1913, 1915 and 1917. Meyer's title years were 1928, 1929 and 1933.

The car Meyer used in winning the Championship this year is a straight 8 Miller Special, rear-wheel-drive, called the Tydol Special after a popular brand of petrol in the States. It has a piston displacement of 230-cubic inches, and is independently sprung. The machine is exceptionally fast, being capable of nearly 170 m.p.h., non-supercharged.

Lou Moore, 30-year old Los Angeles crack, finished in second position in the National ratings. Moore is a veteran driver of proved ability, and has been ranked with the front runners for five years. Moore used a 255-cubic inch 4-cylinder Miller engine, mounted in a Duesenberg chassis. Wilbur Shaw, another old-time star, was third in the ratings, also using a 4-cylinder Miller on the Championship circuit.

The smallest number of Championship races in history detracted largely from the interest in the titular contest this year, only three big events being held. Meyer competed in only two, Indianapolis and Detroit, finishing first and tenth respectively, giving him barely enough points to nose out Lou Moore, who was placed in all three races, Indianapolis, Detroit, Syracuse.

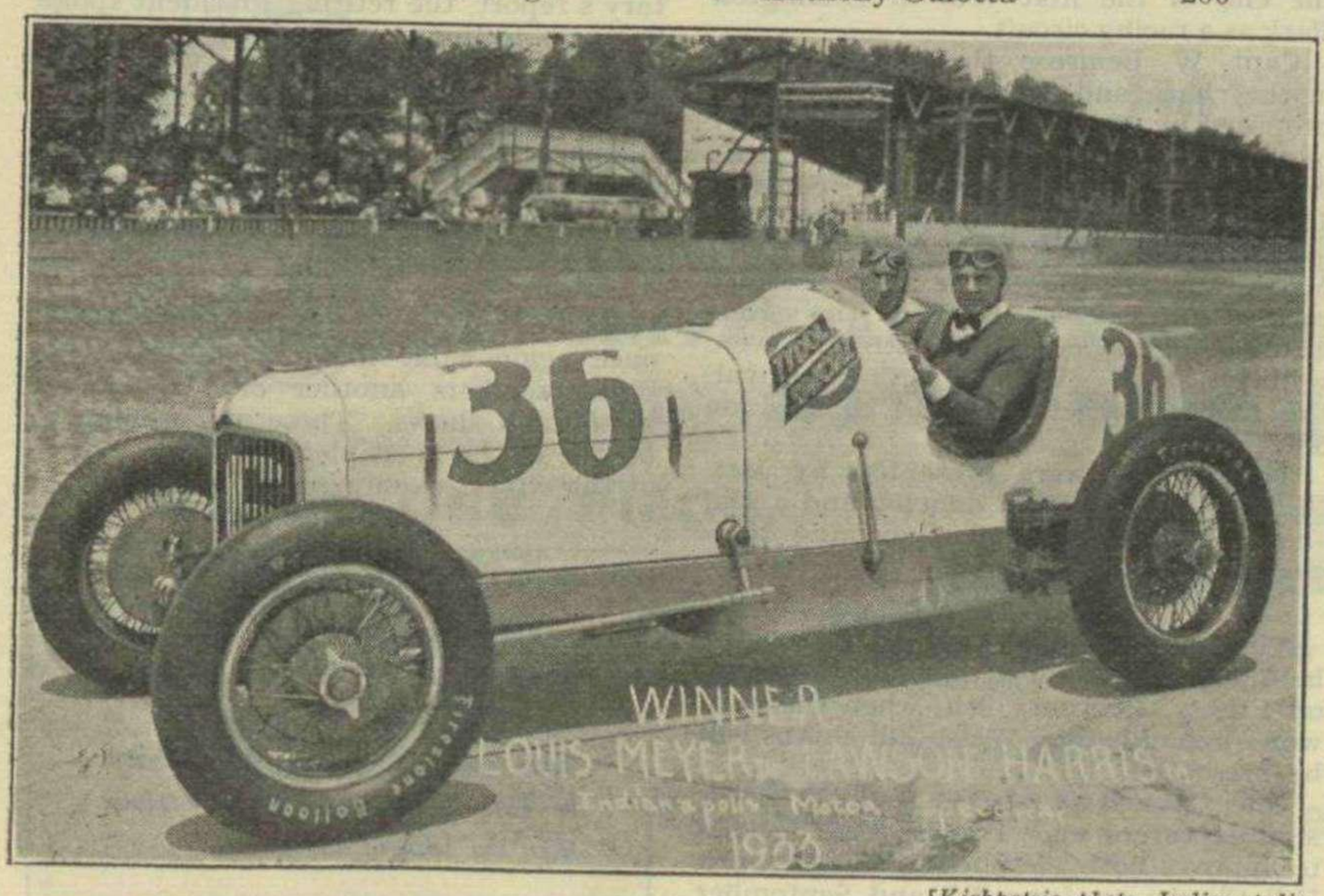
" Wild Bill " Cummings, after failing to place at Indianapolis, won the Syracuse and Detroit 100-mile races, receiving 240 points and finishing seventh in the ratings.



Al Gordon, who looms as Pacific South-west A.A.A. Champion for 1933, poses in his Gilmore Special, a Miller 4-cylinder job.

OFFICIAL 1933 A.A.A. NATIONAL CHAMPIONSHIP RATINGS.

	Driver.	Points.
1	Louis Meyer	610
2	Lou Moore	530
3	Wilbur Shaw	450
4	Chester Gardner	430
5	H. W. Stubblefield	325.2
6	Dave Evans	250
7	William Cummings	240
8	Anthony Gulotta	200
9	Maurice Rose	180
10	Russell Snowberger	122.5
11	A. B. " Deacon " Litz	104.8
12	Zeke Meyer	100
13	William Cantlon	70
14	Joe Russo	60
15	Kelly Petillo	50
16	George Barringer	30
17	Sam Palmer	30
18	Luther Johnson	29
19	Fred Winnai	28.4
20	Al. Miller	20
21	Fred Frame	11.6
22	George Howie	4.5



[*Kirkpatric, photo, Indianapolis*

Louie Meyer, winner of the Indianapolis 500-mile race, and 1933 A.A.A. National Championship, in his Miller motored Tydol Special. The mechanic is Lawson Harris.

The sensational duel for the Pacific Southwest Championship had not been settled at this writing, two more events being on the schedule before the end of the season. Al Gordon, the Jewish star, after scoring three successive triumphs at Ascot and Oakland, in California, wrested the lead from Rex Mays and now seems assured of winning the title for that section of the States. Gordon is using a 220-cubic inch Miller 4-cylinder job, and recently shattered the American record for 100-miles on a dirt track, and also the 150-lap record at the Ascot course. He leads Mays and Ernie Triplett at this time by about 60 points.

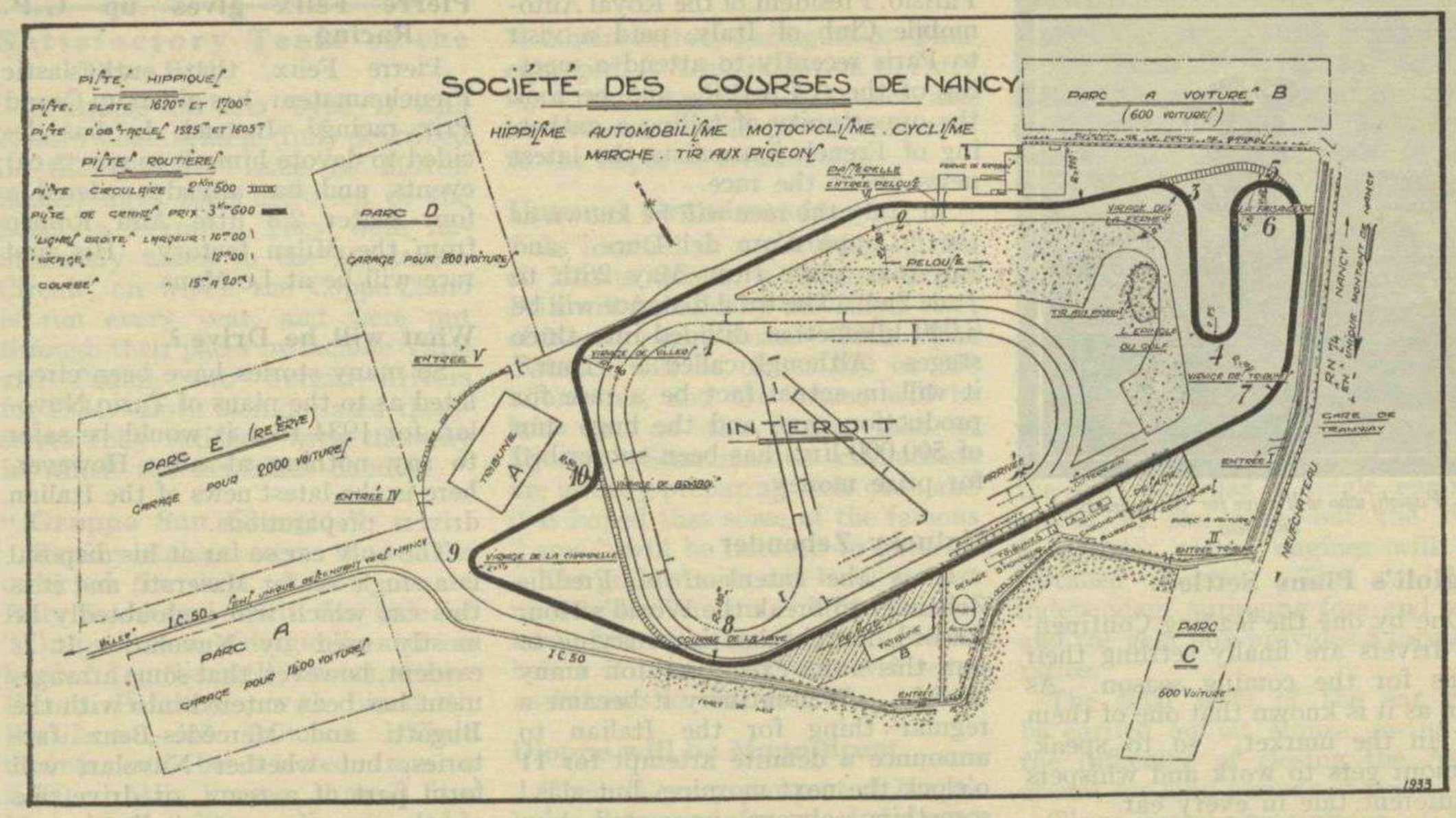
The Eastern sectional Championship has already been awarded to Bob Sall, the expert New Jersey pilot.

* * *

It now seems certain that there will be no American attack on the one mile world record this spring. The rumoured cars at the Harry Miller plant have evidently been mere rumour, for no news of their construction has been given out. Miller is said to be handicapped by financial inability to proceed with the car.

It is reported from reliable sources that a 16-cylinder front-drive car will soon attack 24-hour records on the salt lake beds in Utah, scene of the much-discussed Ab Jenkins' trials.

CONTINENTAL NOTES.



PLANS FOR A PERMANENT CIRCUIT AT NANCY

ALTHOUGH it is legal to hold races on public roads in France, this system presents certain difficulties to the organisers in the way of ensuring that all the spectators contribute towards the expenses of the race. It is this reason which has prompted the Automobile Club Lorrain to combine with the Société des Courses Hippiques in the construction of a permanent circuit on private ground near Nancy.

To be exact, the course will be 3 kilometres from the city, and will provide two alternative circuits. The first of these will be a track with banked corners, and the second a Grand Prix course with corners not so steeply superelevated. Their respective lengths will be 2½ kilometres and 3½ kilometres.

The roadway will vary in width according to the severity of the corners, as will be seen in the accompanying plan, ranging from 10 metres on the straights to 20 metres on the fast curves. The superelevation will vary from 10% to 15%.

Since nine important horse-race meetings are held each year by the Société des Courses, the grand stand accomodation will be first-class. The restaurant, busettes and loud speaker arrangements will be of modern design, and spectators can be assured of the utmost comfort.

We are informed that the work of construction is so far forward that the first meeting on June 24th will definitely take place. The morning of that day will be occupied with motor-cycle races, and at mid-day the start will be given of a race for 1100 c.c. cars, over a distance of 30 laps or 66 miles.

At 1.45 p.m. an unusual event is going to be held, namely, the "Coupe des Aspirants." This race is for cars of over 1100 c.c. capacity piloted by drivers who have not been placed in an important race for the last two years. They will run for 40 laps, or 87 miles. Finally, at 3.30 p.m., the Grand Prix of Nancy will take place. This race, of course, is by invitation only, and it is hoped that some of the best drivers in Europe will take part.

AN ELIMINATION TEST FOR THE BOL D'OR.

IN order to ensure that the field of the race for the Bol d'Or should be evenly matched, the A.C.I.F. has decided this year to hold an eliminating race. This will take place over the Montlhéry road circuit on February 25th. As in the actual Bol d'Or race, the entrant will have to drive single-handed the whole time, but the eliminating race will only last for eighth ours.

At the end of that time the drivers of the two leading cars in the 750 c.c. class, and of the three winning cars in the 1100 c.c. division will have qualified to take part in the 24-hour Bol d'Or race at St. Germain on May 19th.

English drivers who would like to know more about the conditions of entry should get in touch with Monsieur M. Mauve, 87, Boulevard de Reims, Paris (17e).

CONTINENTAL NOTES—continued.



L. Fagioli, who will drive for Mercedes-Benz this year.

Fagioli's Plans Settled.

One by one the leading Continental drivers are finally settling their plans for the coming season. As soon as it is known that one of them is "in the market," so to speak, Rumour gets to work and whispers a different tale in every ear.

A good example of this can be found in that tough Italian driver, Luigi Fagioli, champion of Italy for 1933. First it got round that he had left Ferrari, and this was naturally followed by an announcement that he had joined Maserati. Then it was said that he would handle a new Bugatti, but Molsheim put a stop to this story. Now we hear on good authority that Fagioli has signed up with Mercédès-Benz, and that he will drive his first race under German colours on April 2nd, in the Monaco Grand Prix.

The Spanish Representative.

There is no further news of the Nacional Pescara which Juan Zanelli is supposed to be going to drive during the coming season. Details so far to hand say that the car will have a 16 cylinder, 4 litre engine, weighing in all about 700 kilograms. Its probable maximum speed will be 160 m.p.h.

Two other cars are also reported to be in course of preparation, having four-wheel-drive. June is given as the completion date.

The Tour of Italy.

Plans are well advanced for the great new Italian Race, the Tour of Italy. Signor Arturo Mercanti, the invaluable assistant of Signor M. Parisio, President of the Royal Automobile Club of Italy, paid a visit to Paris recently to attend a meeting of the A.I.A.C.R., and he took the opportunity of telling a gathering of French journalists the latest news about the race.

In Italy the race will be known as the "Coppa d'oro del Duce," and will take place from May 26th to June 2nd. The total distance will be 6,040 kilometres, divided into three stages. Although called a "Tour," it will in actual fact be a race for production cars, and the huge sum of 500,000 liras has been subscribed for prize money.

Unlucky Zehender.

It is the intention of Freddie Zehender to break the World's Hour Record, and he has been trying to put this into execution for many months. At Montlhéry it became a regular thing for the Italian to announce a definite attempt for 11 o'clock the next morning, but alas! something always prevented him from doing so.

At last, after repeated false alarms, owing to snow, ice, and rain he actually set off on December 30th. The Maserati made several preliminary warming-up laps, and then there was a loud explosion, a cloud of black smoke—and another attempt had failed!

Bugatti v. Riley.

Pierre Veyron is now ready to try for the three records in Class F held by the 1½ litre Riley driven by Eyston and McClure. Veyron's Bugatti will take to the Montlhéry track any day now, and he is confident of success.

The Pau G.P. not to be held.

In spite of having received every indication of support from drivers and the Press, the A.C. Basco-Béarnais has decided not to run the Pau Grand Prix. This race was scheduled for February 18th on the International Calendar, and keen disappointment has been felt in France at its cancellation. The reason seems to be that the Club do not feel that they should run the entire risk of running the race at a season of doubtful weather conditions, especially as the town benefit so largely from the influx of visitors drawn to the race.

Pierre Felix gives up G.P. Racing.

Pierre Felix, that enthusiastic French amateur, has given up Grand Prix racing. Instead, he has decided to devote himself to sports car events, and has already ordered a four seater 2.3 litre Alfa Romeo from the Milan factory. His first race will be at Le Mans.

What will he Drive?

So many stories have been circulated as to the plans of Tazio Nuvolari for 1934 that it would be safer to say nothing at all. However, here is the latest news of the Italian drivers preparations.

The only car so far at his disposal is a single seater Maserati, and it is this car which will undoubtedly be mostly used by Nuvolari. It is evident, however, that some arrangement has been entered into with the Bugatti and Mercédès-Benz factories, but whether Nuvolari will form part of a team, or drive one of these cars occasionally in an independent capacity is at present unknown. The latter course seems more probable. In addition, he is definitely engaged to drive an M.G. Magnette at Ulster.

The inevitable Indianapolis rumour has gone the rounds, of course, but Nuvolari has stated that much as he would like to race in America, the only condition on which he would appear at Indianapolis would be if he could handle a car specially suited to American tracks.

There is no truth in the statement that he has been invited to go to Hollywood for a long-term film contract.



T. Nuvolari, about whose plans many stories have been circulated.

CONTINENTAL NOTES.

Satisfactory Tests of the "Tipo B."

A couple of new Type B Alfa Romeo single seaters (fully described in the January issue of MOTOR SPORT) have been delivered to the Scuderia Ferrari. They were immediately taken to the Montenero Circuit, on which the Coppa Ciano is run every year, and were put through their paces by Achille Varzi and Tadini, two Ferrari drivers for 1934. Both men declared themselves fully satisfied with the way in which the machines handled.

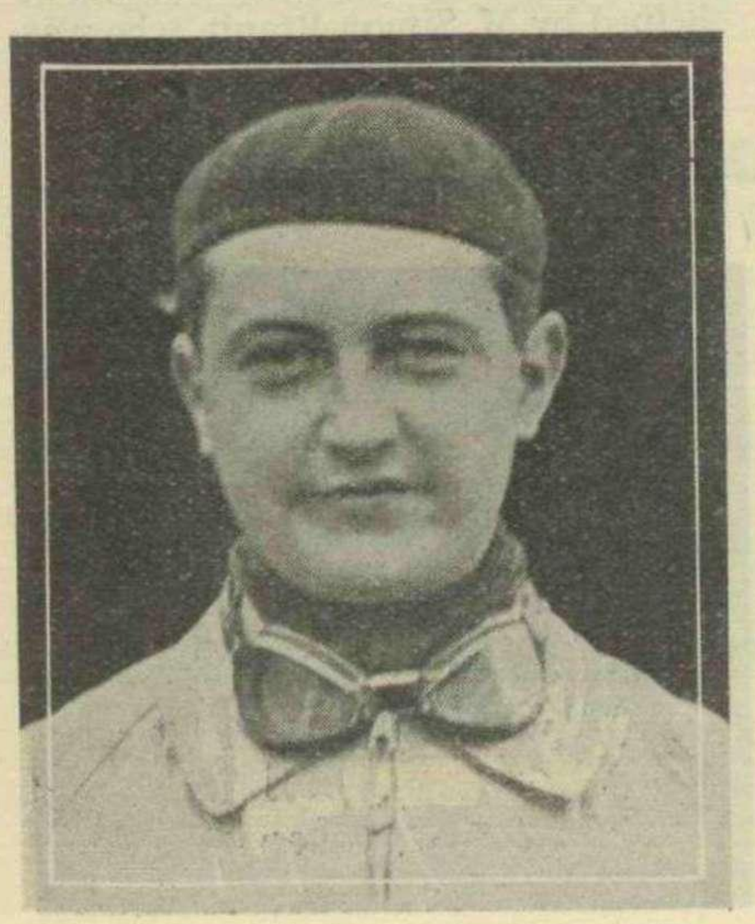
"Gruppo San Giorgio."

Racing stables seem to be the order of the day. A new one in Italy is blessed with the title of "Gruppo San Giorgio," and is headed by the well known driver Renato Balestrero, with Biondetti, Battilana and Palmieri. Their mounts will be selected from a 2,600 c.c. Alfa Romeo, three 3 litre Maseratis, a 2,300 c.c. Bugatti and a 2 litre Bugatti fitted with a single seater body. An extensive raid on French races is planned.

An Ambitious "Independant."

The name of Jean Delorme is familiar to all followers of the sport in France, for this young man has competed regularly in races and hill-climbs at the wheel of a 2-litre Bugatti.

For 1934 Delorme has more extensive plans, and his first step has been to buy one of the actual double-camshaft Bugattis raced by the Molsheim factory during 1933. Thus equipped, it is his intention to enter for a number of races in France, and his presence should prove dangerous to the hopes of rival entries.



Jean Delorme, who has bought one of the 1933 "works" Bugattis.

Unusual Grandstands.

As foretold in a previous edition of MOTOR SPORT, a Winter Grand Prix will be held by the Royal A.C. of Norway on February 25th. The distance will be either 200 or 250 kilometres, and the course will be laid out on the frozen lake of Mjoren. Scandinavian enthusiasts are already preparing their cars, and it is hoped that some of the famous "aces" will be induced to enter.

The grandstands will be of a most unorthodox nature. Huge barges have been anchored in the lake before it froze over, and will serve as *tribunes* for the race.

Dieppe will be Magnificent.

There is every prospect of Dieppe being the scene of some of the most exciting motor-racing of 1934. Up till now, it has been the custom of the organisers to hold a series of motor-cycle races in the morning, and the 3 hours Circuit de Dieppe in the afternoon. This was good value, but the Cômité have decided to improve on this next July, and a totally new programme has been planned.

Only one motor-cycle race will be held, and the Grand Prix has been altered to an event of two heats and a final. The motor cycle Grand Prix will take place immediately before the final car race.

The result will be that spectators will be able to witness a full programme of exciting racing from 10 o'clock in the morning until 5 o'clock in the afternoon. Meanwhile, Monsieur Hamiaux, the able secretary of the Cômité is proceeding apace with his work of bringing the circuit to a state of perfection.

More News of the "Porschewagen."

The new racing car designed by Dr. Porsche made its first appearance at the Nurburg Ring in November. There it was examined by the drivers, but no trials were actually carried out.

The next stage of its development has been to fit an engine of sorts into the chassis for tests of its roadholding qualities, steering and brakes. Nurburg Ring was found to be unusable owing to the icy state of the road surface at this time of the year, and so the "Porschewagen," or "P," was taken to the Avus circuit.

A photograph of the car published in a French newspaper shows it to be of extremely low build. It is about 13 feet in overall length, and has a cowled radiator. The driver sits slightly towards the front of the car, immediately behind the petrol tanks, and his seat is only 15 inches from the ground. At present the car only has a single engine, placed at the rear, but the two 8 cylinder racing engines will be installed shortly. The car has independent springing fore and aft, and the gear box provides 5 forward ratios.

The final tests of the car will be carried out at Monza, owing to the difficulty of closing the Avus circuit for long periods of time.

These early preparations of the "Porschewagen" indicate that the cars will be in concert pitch in plenty of time for the drivers to become thoroughly used to handling them.

A Formidable Combination.

An interesting partnership has been formed between Walter A. Grosch, the Swiss driver, and Siena. The former has driven an Alfa Romeo during the past season, while Siena is of course one of the finest drivers on the Continent. He has performed conspicuously in the Mille Miglia, and won the Kesselburg



Jean P. Wimille will be a member of the 1934 Bugatti team.

CONTINENTAL NOTES—continued.

Hill Climb for the Ferrari stable in 1933. Incidentally Siena has held a responsible post in the tuning department of the Scuderia Ferrari for some time, so that their mounts for 1934 should not give trouble for lack of expert preparation.

The cars so far acquired by Grosch and Siena are a 2,600 c.c. Alfa Romeo, a 3 litre Maserati, a 2,300 c.c. sports type Alfa Romeo and a monoposto 1,100 c.c. Maserati. It is hoped to obtain the use of a 16 cylinder Maserati some time in May.

Advice to Organisers.

The business of organising and running a Grand Prix race over public roads is a very complicated one, and contains any number of difficulties which previous experience can do much to mitigate.

Now that motor racing is booming in France and many new events are being held, the Sporting Commission of the A.C.F. has decided to appoint a sub-committee who will be at the disposal of prospective organisers. Primarily the function of this committee will be to inspect suggested courses, but the full scope of grandstand and "pelouse" accommodation will, of course, be considered, in addition to general advisory work.

Another Ice-Lake Meeting.

The race on the frozen Eibsee is well known in this country, and will take place this year on February 17th. It will form the concluding phase of the Gamisch-Partonkirchen Rally, competitors arriving at Gamisch, in Bavaria, between 2 and 3 o'clock.

Another New Race.

The Vaudoire Section of the A.C. of Switzerland is planning a road-race. Their intention is to hold the race at Montreux, and to invite the leading drivers of the moment, up to the number of 12 or 14.

The Bugatti Campaign.

After many rumours, the personnel of the Bugatti team has been finally settled. Typical of all Ettore's actions, it contains a great surprise, for the first-string will be none other than the famous Robert Benoist. He will be supported by Rene Dreyfus, Antonio Brivio and Jean P. Wimille, with Albert Divo as reserve.

Benoist has been in retirement for many years, and it will be extremely interesting to see whether his long rest has had any effect on his driving. A few years ago, of course, Benoist was the "Nuvolari" of the motor racing world, and his series of wins at the wheel of the 1½ litre Delage earned for him one year the Championship of the World. He graduated on Salmsons, and has appeared at Brooklands both on Salmson and Delage cars.

Antonio Brivio drove for the Ferrari stable last year. He is a fine driver, and won the Targa Florio in 1933, although the opposition was not very strong.

Three of the new 2,800 c.c. Bugattis are ready for the fray, and it is intended to produce in all a dozen machines.

Ruesch to try again.

The young Swiss driver, Hans Rusch, sprang into prominence last year by breaking the World's standing kilometre record at Montlhéry. It will be remembered that he only held the record for a week or so, because John Cobb slightly improved on his time at Brooklands.

In December Rusch decided to have another attempt, so he set off for Tat, near Budapest, only to find that the road was covered with snow. Now he is back in Zurich again, and he has made an application to use the road from Giubiasco to Cadenzzo, which has previously been used for records over a short distance.

Failing permission to make the attempt there, Ruesch intends to try again in February either at Montlhéry or Brooklands.

An Entirely New French Racing Car.

The rumours of a new French racing car, to be manufactured by a private syndicate, have now been transformed into definite news. Details of the car so far to hand state that it will have an 8 cylinder engine arranged in two parallel banks of 4, with dimensions of 68 x 90 mm., a cubic capacity of 2,600 c.c., and a hoped-for power output of 240 h.p. at 6,500 r.p.m.

The drivers will be Raymond Sommer and a new comer, André Parant. The new car will be in normal production, however, and will be obtainable by any French-born racing driver.

The designer's name is being kept secret for the moment, but he is reputed to have had great experience of racing work. He is being helped by M. Simon Brault, who was intimately connected with the Lombard car a few years ago.

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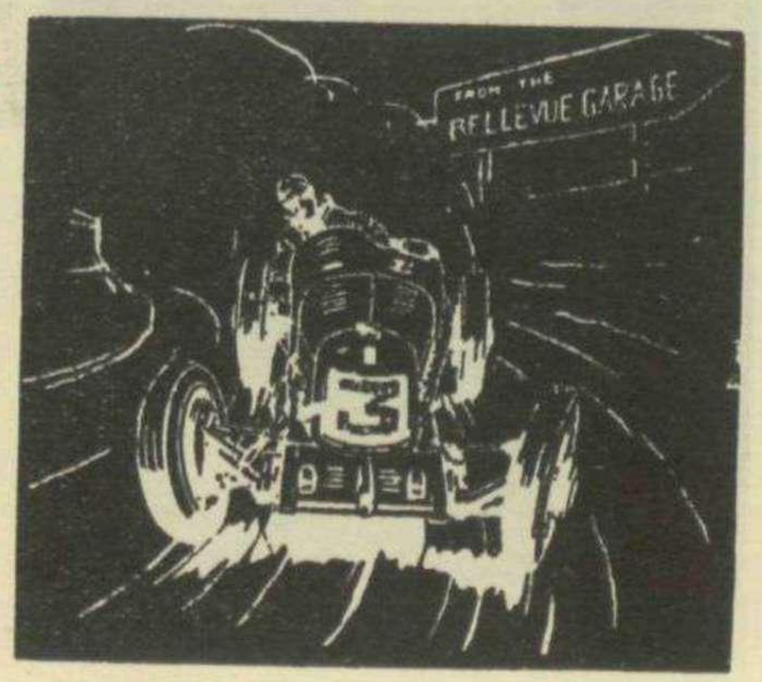
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CONTINENTAL NOTES—continued.

45 ENTRIES FOR LE MANS ALREADY!

THE popularity of the 24 Hours Grand Prix d'Endurance at Le Mans continues unabated and 45 entries have already been received by the A.C. de l'Ouest—six months before the race!

These entries are made up of the following makes: 4 Alfa Romeo, 3 Amilcar, 1 Argo, 4 Aston-Martins, 3 Bugattis, 1 Derby, 1 Lorraine, 4. M.G., 1 Maserati, 5 Riley, 1 Salmson, 3 Singer, 2 Tracta, 11 unspecified. In order of nationality they are grouped as follows: 16 English, 12 French, 6 Italian, 11 undeclared.

There is still time for more entries to be received. January 31st is the first closing date, with a reduction of 30%. A reduction of 15% will be given to entries received before February 28th, while the final closing date at full fees is March 31st.

Here is the list so far to hand, in the order in which they were received:

Raymond Sommer (unspecified).
Roger Labric (unspecified).
Aston-Martin, Ltd. (Aston-Martin 1,500 c.c.).
ditto ditto
ditto ditto
Heldé (Ario and Nime, Alfa-Romeo 2,300 c.c.).
Société Tracta (Tracta 1,000 c.c.).
ditto ditto
M. Collier (M.G. 847 c.c.).
Bayard (unspecified).
"A. Vincent" (Aston Martin 1,500 c.c.).
Roy Eccles (M.G. 1,087 c.c.).
The Singer Co. Ltd. (Singer 972 c.c.).
ditto ditto
F. S. Barnes (unspecified).
Ludoric Ford (M.G. 1,087 c.c.).
T. E. Rose Richards (unspecified).
Gordon Hendy (Singer 972 c.c.).
Riley (Coventry) Ltd. (Riley 1,091 c.c.).
ditto ditto
ditto ditto
ditto ditto
Earl Howe (Alfa Romeo 2,300 c.c.).
Georges Boursin (Amilcar 1,500 c.c.).
Lord de Clifford (unspecified).
Miss Champney (Riley 1,091 c.c.).
A. Ashton Rigby (M.G. 847 c.c.).
Alin brothers (unspecified).
Raymond Gaillard (unspecified).
Louis Chinetti (Alfa Romeo 2,300 c.c.).
Pierre Felix (Alfa Romeo 2,300 c.c.).
J. E. Vernet (Lorraine 3,491 c.c.).
ditto (Salmson 1,100 c.c.).
Mme. Itier (unspecified).
Mrs. G. M. Stewart (Derby 1,992 c.c.).
C. Poiré (Amilcar 1,094 c.c.).
C. A. Martin (Amilcar 1,092 c.c.).
Norbert Mahé (Bugatti 2,300 c.c.).
A. W. Fox (Alfa Romeo 2,300 c.c.).
Louis Villeneuve (unspecified).
Mme. Siko (unspecified).
Ateliers Argo (Argo).
Equipe Braillard (Maserati 2,500 c.c.).
ditto (Bugatti 2,300 c.c.).
Ch. Brunet (Bugatti 2,300 c.c.).

THE SCHOOLBOY'S PARADISE

MANY WELL KNOWN RACING CARS AT THE WHITE CITY. MOTOR RACING FILMS AND MANY OTHER EXHIBITS.

NO one ever loses entirely the enthusiasms of one's boyhood. Rather may it be said that most hobbies are but the actual carrying out of the aspirations of our younger days. The only difference between the crowds of schoolboys who eagerly examined the group of racing cars at the Schoolboys' Own Exhibition, and the owners and drivers of those cars, is that the latter can put into practice the dreams and hopes of the former.

And a very representative show of cars it was too. Earl Howe's Bugatti, Whitney Straight's Maserati, Raymond Mays's Riley, Kaye Don's 4.9 Bugatti, Oliver Bertram's Delage, Widengren's Amilcar, Tommy Wisdom's Leyland Thomas, and E. R. Hall's M.G. Magnette. Added to this the B.R.D.C. showed a specimen pit, fully equipped for a long race with all the gadgets required by the pundits.

Motor racing formed quite a large part of the exhibition, for a most interesting film-show was given two or three times daily. Its most interesting feature was that historical relic of the pre-War Grand Prix races. A running commentary was given by E. R. Hall and Dudley Froy, and on one occasion R. A. Nockolds, the motoring artist, assisted by his brother gave an imitation of racing car exhaust notes at Brooklands, Shelsley and elsewhere. Incidentally, there was a small gallery of Nockold's pictures alongside the actual cars.

Another fine film was called "War in the Air," and showed War-time aicraft in action. Of the exhibits, the Basset-Lowke Underground model was perfect, and the small scale steam locomotives (complete with that heavy panting of express trains and the sprinkling of red-hot ashes underneath) were marvellously realistic.

All tastes were catered for, from stamp-collecting to engineering, and boys of all ages found plenty to interest them in a show which has now become a regular annual event.

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THE DIRTY WORK

THE French sporting paper "*L'Auto*" recently published a most interesting series of articles dealing with the mechanics of various well known racing drivers.

The first to be described was Fred Cann, the 23 year old *mecanicien* of the Mrs. Stewart and Douglas Hawkes team. Cann is the son of a Brooklands gatekeeper, and on leaving school at the age of 13 went to work at the little workshop in the grounds of the Track where Col. and Mrs. Stewart used to manufacture pistons and valves. He became intensely interested in motor-cycles, and used to jump at every opportunity of being a side-car passenger he could—when his father was not looking!

When Mrs. Stewart moved to Paris, she received urgent entreaties from Cann to allow him to join her and Hawkes, and she eventually acceded to his repeated requests in January, 1931. He could not speak a word of French, but as he lived near Montlhéry this did not matter much.

After the great fire at Montlhéry the team moved to the Derby works at Courbevoie, and Cann soon picked up French. He has become completely acclimatised to France, would not hear of returning to England, and has married a French girl he met at Montlhéry.

During record attempts, and on the Derby stand at the Paris salon, Fred Cann guards the Derby Special like a lioness with its cubs. He always wears a spotless white overall, and his ability as a mechanic is proved by the fact that his charge is the holder of the Montlhéry lap record.

Little credit is given, though much is due, to the mechanics who prepare racing and record-breaking cars.

ERNST ZIRN.

The next in the series was Ernst Zirn, Chiron's mechanic. Zirn was born in the Lower Rhine district 29 years ago, and at the age of 14 was apprenticed to the Bugatti factory at Molsheim. In 1921 when he was 16, he had his first ride in the cockpit of a racing car, as Baccoli's mechanic at Brescia. He had found his *métier*, and he took part in the French Grand Prix of 1922 at Strasbourg with Mones-Maure, of 1923 at Tours with Marco, and of 1924 at Lyons with Garnier. A year later he went down to Sicily for the Targa Florio as mechanic to the late Pierre de Viscarya.

Then military service intervened for 18 months, but 1927 saw him again in the Targa Florio, this time with Dubonnet. Next year he had his first ride with Chiron, also in the Targa. Since then he has driven with the Mongasque in the Grand Prix of Rome, San Sebastian, Monza, Monaco, Nurburg-Ring, Belgium, and Czecho-Slovakia.

A delightful story of the 1928 Targa Florio is told in the "*L'Auto*" article. At the end of the first lap Chiron noticed from the scoreboard that he was leading in his first Targa Florio. He turned to Zirn and said: "I haven't tried yet. Now you watch!" With that he trod on the accelerator and began a lurid progress which ended with the Bugatti skidding into the parapet of a bridge. Poor Zirn was in tears. "I shan't finish after all," was his complaint, for on both his previous races in Sicily some misfortune had befallen his car.

A tyre was burst, a wheel broken, and the chassis bent, but they changed the wheel and got going again. The steering was affected, and only the hand brake worked. Zirn implored Chiron to go slower, for he went off the road once on a straight.

On the last lap, when Chiron arrived at the *tribunes* he expected to see a flag waved, although he was eighth, but no one seemed to notice his arrival. He turned to Zirn "This *is* the last lap, isn't it?" But the wretched mechanic was too dejected to reply. Chiron raised his voice, "Damn it all, you have raced here before, what signal *do* they make at the end of the race." Ernst Zirn rolled his eyes, full of tears, in Chiron's direction. "How should I know," he said, "I have never finished!"

EMILE BIDON.

The last man in the series was Emile Bidon, the mechanic of the well known Algerian driver, Marcel Lehoux. Some five years ago Lehoux happened to be a spectator at a Rally in Morocco. There he was drawn towards a car which was giving trouble, and was immediately impressed by the cool, quick, and clever movements of the mechanic who was attending to it.

Now Lehoux wanted a mechanic for his car which he had entered for the Morocco Grand Prix a few days later. He gave Bidon the chance, and the pair have been associated ever since. In the race itself Bidon acted with complete *sang-froid*, although it was his first experience of a racing car, and at the end jumped out of the car like a Jack-in-the-Box.

Bidon can always be distinguished at a Continental road race by his unruly mop of hair—he never wears a hat—and overalls which are incredibly oily, greasy and muddy.

Marcel Lehoux gets very annoyed if he has to retire from a race with mechanical trouble, and fires a usual volley of questions at Bidon. If the latter has neglected something, Lehoux reads him a lengthy sermon on the error of his ways. He is not free with compliments if he wins, but Bidon knows that he is happy. There is a perfect understanding, not to say affection, between master and man which accounts for a good deal of Lehoux's successful racing career in the last few years.

Are you a Photographer?

If so,
turn to page 190
and learn how
you can win a
prize!

TO ATHENS BY ROAD

The Log of a Monte Carlo Rallyist

By
T. G. MOORE

The Car and Its Crew.

AS the highest marked starting point for the Monte Carlo Rally, Athens has continued to attract each year a fair number of competitors, willing to chance the difficulty of appalling roads and badly mapped country for the honour of being the first to win through from Greece. Lord de Clifford, who has competed successfully in a number of journeys to Monte Carlo made a reconnaissance with a 4½ litre Lagonda, and decided as a result of this that provided the car was suitably modified to increase the ground clearance, there would be a good chance of his reaching Monte Carlo.

A standard four-seater open car was chosen, and by fitting cambered springs the ground-clearance was brought up to 9 inches, and all moving parts such as the brake-gear were protected by enclosing them in leather gaiters. Lord de Clifford was accompanied as crew by H. B. Browning, the Secretary of the M.C.R. British Competitors Club and T. G. Moore of MOTOR SPORT.

Lieppe was chosen as the point of departure, and after a hot and rather restless journey from Newhaven, the car and its personnel landed on the shores of France. The gang-plank was coated with ice, while the town was shrouded in mist, both weather conditions later proving typical of those encountered on the journey.

An Early Start.

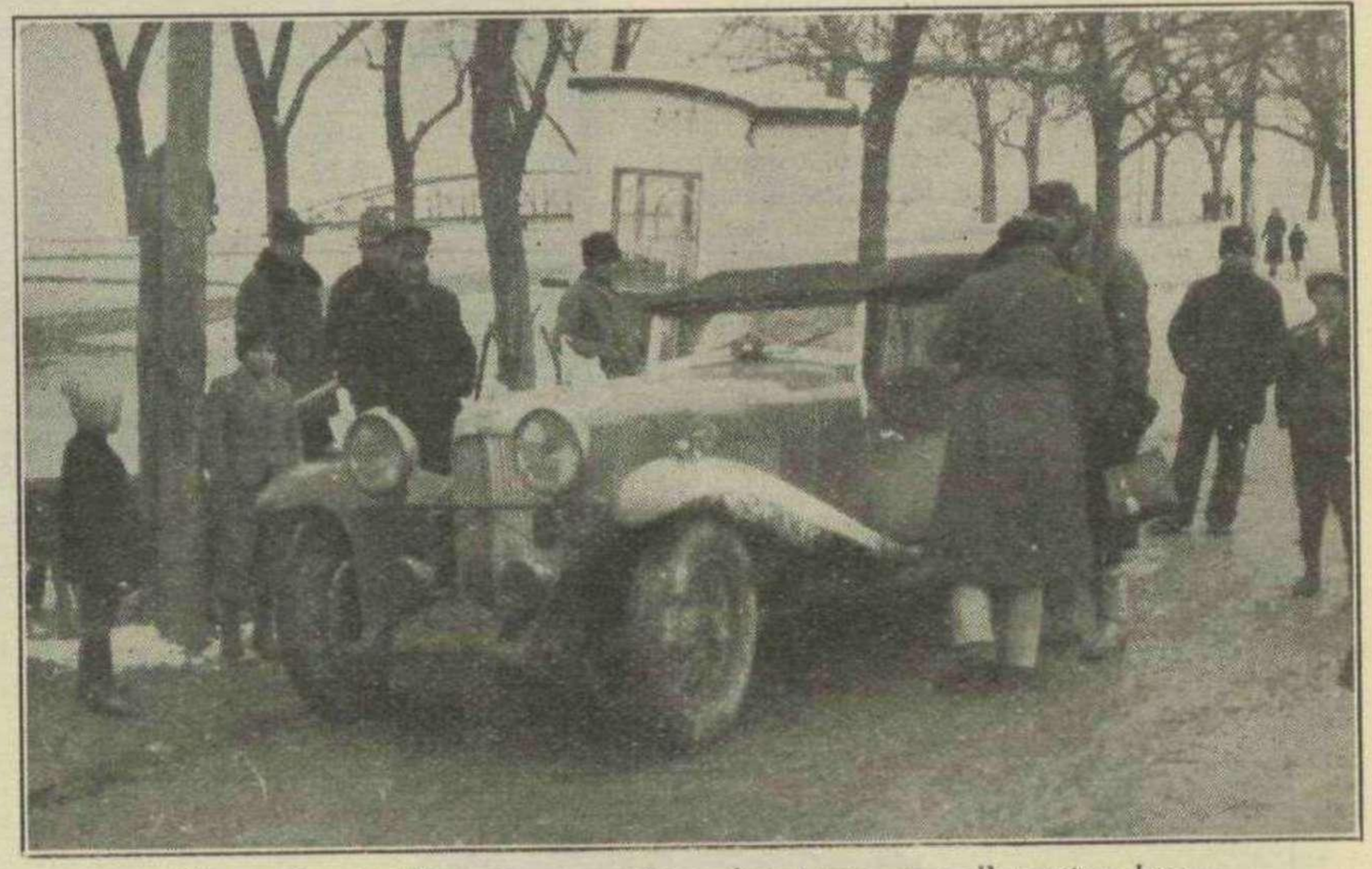
Lieppe was left in company with Whalley on a V-8 Ford and Symons on an Essex Terraplane, at 6.5 a.m., and the two Lucas fog-lamps proved their use in allowing a good average to be maintained. Soon after dawn an ominous creaking was heard from behind, and it was found that the special carrier which had been rigged to support the tool-box had given way under the weight of the Autotraktor and other weighty spares. It was quickly dealt with at Beauvais, and after breakfast the magnificent cathedral and the town gate with its two round towers attracted attention.

The repair was soon made, and the Lagonda continued its swift progress south-eastwards. A fresh outburst of creaking from the rear showed that the welding had not been successful, and after a consultation at Chalons it was decided to scrap the box and to carry spare petrol tins on the running board, while the other articles were distributed through the spacious lockers at the back of the rear seat. All the luggage was now inside the car, so that there was only one seat vacant in the rear of the car, but the return to the normal handling of the Lagonda compensated for any extra discomfort.

Ruins still riddled with shell-holes and war-memorials of the allied forces, were met with near Soissons, and as evening fell fog came on again. A car which had crashed through a level-crossing gate made us thankful for our good lighting, but we were glad to halt that night at Nancy.

Driving on "Slides."

Rising at an early hour, we left the town by nine, to a countryside white with frost. The roads were obviously in an unpleasant condition and this was brought home forcibly to the writer, who was driving, by the children who had made slides along the road. However, the car handled perfectly in spite of the long slippery slopes and ascents, and maintained its Rally average of 25 m.p.h.



The travel-stained Lagonda was an object of great interest at all stopping places.

Conditions improved near Strasbourg, and after a visit to the Automobile Club, the great lattice bridge of the Rhine was crossed and we entered Germany.

The German officials were very cordial and showed us the best road to Munich which passed north almost to Stuttgart, avoiding the snow-covered hills to the east, an extra short-cut they recommended entailed going over a snow-covered and narrow road, but conditions improved as we passed down towards Ulm and Augsburg. The roads were snow-covered of course and the way not too easy to find, so it was decided to stay the night at Munich.

Keep to the left in Austria!

Whalley was at the Club the next morning, but Symons had not turned up. It was decided not to enter Austria through the Salzburg road which was narrow and liable to be blocked with snow, but to go north to Braunau. The roads were narrow and as carts were constantly encountered the horn button was in use most of the time. The German customs official was proud of having visited Manchester, actually as a war prisoner, while the Austrians were less intelligible, but impressed on us the necessity of driving on the left. The Austrian horses proved more lively than their German brothers, and one of them backed his owner into a tree, breaking a shaft and nearly overturning the cart.

The narrow road continued until its junction with the Salzburg highway, but on this a narrow ice-fringed stretch had been cleared, which allowed high speeds. As the sun was setting we entered Melk, on the banks of the Danube, and the yellow palace with its central dome, which dominated the town from the top of its hill was clearly outlined in the setting rays.

A Narrow Shave.

The fine road continued and Browning was setting a good pace, when a horse-cart pulled right across the road in front of him, necessitating a heavy application of brakes. As ill-luck would have it the road was covered with an imperceptible layer of ice, and the wheels locked. The car swung completely round, but Browning shot it between the trees which lined the road, only touching with one wheel. The car was easily driven back on to the road, but the steering was damaged, and the remaining 50 miles to Vienna were covered at a slow speed. The damage was found to be slight, and all was in order for an after lunch start the next day. Vienna itself was disappointing. Entering the city over cobbled streets, one felt at once the despondency of a prosperity which had departed, not lessened by seeing next day the splendour of the Votifkirke with its delicate pierced spire.

The first few miles out of Vienna were rough but before the frontier was reached a long straight road was reached. After passing through Hainburg with its town gate and enormous stone cannon-balls the houses began to take on the typical

TO ATHENS BY ROAD—continued.

Balkan aspect of one story and a wide and dirty street. At the Hungarian frontier we saw one of the huge buses which maintains a 35 m.p.h. average from Vienna to Budapest, and with the good road which followed we felt very optimistic about this section of the rally route. Actually this 165 miles stretch was accomplished in 3 hours.

Gay Budapest.

The road sinks down to the Hungarian capital by a steep descent, and the brilliant lights of Pest were brightly reflected on the face of the river. Buda, the official quarter, which is built on the hill proved a little puzzling, but after nearly disappearing down a train subway due to our ignorance of Hungarian, we crossed the river safely to Pest. The local Automobile Club showed us a little of the town, Hungarian music, Tokay, one of the many "boites" with a marvellous succession of cabaret turns, and altogether ones memories of Budapest were of the most pleasant.

After checking over batteries, wing fittings and the like we left Budapest after lunch en route for Szeged. The road continued over the dead-level Hungarian plain, with nothing to impede our progress except the frequent carts, driven by wild-looking men in sheepskin coats, who refused to give way except after the most furious blowing of horns. Snow was plentiful but all went well, and by overshooting the route supplied by the Club we came on one which was a great improvement on that which had been recommended. On the way to our halting point we overtook Schell, who was driving as usual a car fitted with the "carosserie aerodynamique" and twin rear wheels. The town was not exciting,

A typical Greek market. This one is at Larissa.

but nevertheless it was a struggle to get up at 4.30 next morning to leave it, and one blanched at the Viennese coffee, like beer in appearance, which was to send us on our way.

Can You Read Serbian?

The Hungarian Douane lay up a side road, and both Whalley and ourselves overshot the warning board, which was about 8 inches square. Conditions in Jugo-Slavia continued the same as far as Nowi-Sad, where the snow gave place to slimey mud, with the road running alongside the Danube. For the first time the signposts were in Serbian script, which added to the difficulties of map-reading. After coursing up and down snow-covered roads we reached Semlin, the crossing place to Belgrade, only to find no ferry. After much questioning of a piratical gentleman who spoke German, it was learnt that one had to drive along the bank of the river to a point opposite the town. Cars were compelled to follow a narrow track on the frozen foreshore, then to take to the fields. All went well until De Clifford decided to take a short cut, and the car sank through the frozen slush and bogged itself. The French car was close behind, and with the help of its crew the Lagonda was extricated and restored to the fairly firm road.



Harbour reflections. The brightly-coloured Fishing boats at Salonica.

Belgrade is built on a high cliff at the junction of the Save and Danube, and must have been almost impregnible before the days of long-distance artillery. From the old fort a magnificent view of the Danube, here about half a mile wide, reveals itself, and with a setting sun lighting up the low snow-clad banks and the new suspension bridge half finished there was a powerful sense of the close proximity of the modern and the unchangeable.

When it is safer to be ditched.

The road conditions after Belgrade were said to be bad, but all went well for several miles after the city. Suddenly on a corner the front wheels encountered icy ruts and went straight on towards a drop of 100 feet. The writer, who was driving, just managed to correct it, only to find that the car was sliding bodily into a deep ditch on the safe side of the road. It came to rest at an angle of 45° and only the low build of the Lagonda and the fact of its being fitted with an open body prevented it from turning over. It was extricated with the aid of two horses and a dozen willing natives, and nothing seemed seriously damaged. However it was decided to return to Belgrade to check up for possible damage, and Browning and the writer spent a strenuous morning initiating the natives into the mysteries of wheel-track. The local method was to set them toeing in about half an inch and leave it so.

Next day de Clifford displayed his skill in driving on ice, and undeterred by conditions brought the car safely to Nish. Road marking and maps became more and more vague, and an hour was lost through

TO ATHENS BY ROAD—continued.

missing an obscure turning. It was essential to get to the frontier before 5 o'clock to catch the customs officials, and Browning forced the car in good style up a defile bordered with red rocks and earth, with hairpins worthy of Fingle Bridge and great gullies across the road. We did achieve the frontier in time and were suitably welcomed by the Bulgarians which was just as well, as their territory is marked by a barbed wire entanglement, with fortified posts every half mile, while an ominous rifle-shot rang out as we were waiting. The dreaded Dragoman pass had been repaired, and was simply a long snowy ascent. The customs post was at the top, after which the writer descended through frozen and deeply rutted snow to Sofia.

New Year's Day in Sofia.

It was New Year's Day according to the reckoning of the Greek Orthodox Church, but the town showed no signs of life. Next morning one was a little cheered by the sight of gaily dressed skiing parties setting off to the snow-covered hills which surround the capital, which we left through another snow-filled valley. The road once again was obscure, but de Clifford made surprising time over the snow, and by midday we were well on the way to the Greek frontier. The valley gradually narrowed down, the road was covered with gigantic potholes, and 7,000 foot mountains hemmed us in on both sides. New Year's Day was being celebrated in many of the villages by dancers with blacked faces, grotesque masks or sheepskin head dresses, who were stamping about in the streets to music of drums and brass instruments.

The writer was driving as the car approached Greece, but with snow on the windscreen and a road one car's width mounting and descending the rocky walls of the valley, there was little chance to admire the scenery. Before reaching Greece the cliff sides had approached to within 50 yards of one another for several miles, then the blessed relief of rolling grass-covered hills as we approached the frontier.

The Greek Customs at Kula held us up two hours, so that we lost the precious daylight hours in which we hoped to cross the muddy stretch after Sidero-Castron. The way led along the end of a lake, with water-courses running across the road and a fifty foot drop. We were accompanied by Bryde on a light 16 Austin Sports and together made an onslaught on the first of Greece's "sloughs of despond." After floundering along on slimy and rutted roads, which were very difficult to make out by artificial light, we met our Waterloo in a mud hole a foot deep. The natives again turned too and helped us to a dry spot and we returned with wings scraping the side of the road to Sidero-Castron. De Clifford had stayed there on his former trip to Greece, and mine host of the Inn "Thrake" provided us with clean food and beds, which would have been difficult to find elsewhere in a small Greek village. The local inhabitants enjoyed themselves immensely watching us at dinner, and pressed their noses firmly against the windows until we went to bed.

A Memory of the War.

Next day, led by a local car we passed without trouble by a different road, equally unmarked, over the muddy section and found ourselves on the road built by the Royal Engineers during the War. This took us comfortably across the Struma Valley, which was surrounded each side by snow-clad mountains. A winding ascent brought us to the snow line, and soon we were to see the summit of Mount Olympus, floating mysterious and golden above a sea of clouds and looking impossibly high. The descent to Salonica was over grassy down-like hills, with the town silhouetted against a sparkling sea.

After the savage country through which we had passed, the sailing boats, painted sky blue above and orange on the water line, were a delight to the eye, while their strange rigs added to the interest. Cargoes varied from oranges to coats, shining black olives to firewood, but there was something intensely refreshing about shipping and sunlit craft after being immured in the Balkans. The warm sun had something to do with it, too.



[*Motor Sport Photograph*

Fellow travellers en route to Athens, the cars are F. de Ribeiro Ferreira's Railton Terraplane, K. Bryde's Austin, and Lord de Clifford's Lagonda.

The Crew Depleted.

At Salonica we suffered a heavy loss, for Browning was recalled to London on business. However De Clifford and the writer set off towards the south to see the shocking roads about which so much had been said and read, and after some shattering pot-holes reached Venea, at the foot of the first great pass. The road ascended 4,000 feet, and was slippery with partly thawed snow near the summit, but on the south side all was well, and a long winding descent was begun, down to a plain. Greece as we found was a succession of plains of varying altitudes with mountain ranges in between, and at Servia we again began an ascent, passing a stranded motor bus with difficulty on the way up. Near the summit much snow had fallen, and the car got stuck in a frozen rut, and it was only by strenuous jacking and much filling in of stones under the wheels that the car could be extricated. Mount Olympus, 15 miles away, had meanwhile withdrawn into the clouds as is his wont when humans are in trouble. Once more a winding descent, made more difficult by large boulders left by the carters who chock up the wheels of their vehicles to rest the animals. After this range another run in valleys of lower altitude and then the climb of the Melonna Pass followed by an Alpine descent. Evening was drawing in, and the purple and blue of the plain beneath and the orange of the sunset were magnificent viewed from a height of 3,000 feet.

Into the Sun.

After spending a night at Larissa we set off on the last stage of the journey, troubled more than usual by animals on the road. Small donkeys are the usual beasts of burden and there were several anxious moments when some of these, 200 yards from their owners, turned out into the road. A cart actually refused to give way from the crown of the road and collided heavily with the rear wing, without doing more than buckling it. The weather by now was so warm that we had discarded overcoats and drove along under a cloudless blue sky.

The succession of pass and plain continued, the most notable being the Thermopyloe pass where the road ascends a vertical mountain side 1,500 feet in height through a series of zig-zag roads. De Clifford, who had been sparing the motor so far made full use of the car's acceleration and brakes and climbed at a very rapid pace.

At last after passing through plains red, green and black, according to the soil and cultivation, the last range was

TO ATHENS BY ROAD—continued.

reached, and climbing round grey lichen-clad rocks, a descent was made through pines, the first woods we had seen since reaching Greece, towards Eleusis, and after duly exclaiming "thalassi" on seeing the sea, arrived at the town. Before we reached the good road to Athens the authorities played a final trick on us by by-passing all traffic through a series of back-street with at least a foot of liquid mud, when a first-class tarmac road was taken to Athens and the conclusion of the trip. The good road was built incidently because a former dictator had lived there. After the small places through which we passed, Athens looked big and almost frightening, but the glow of the setting sun on the Acropolis reassured us as we entered the goal of ten days' effort.

Appalling Road Conditions.

To recount adequately the conditions, pot-holes, deep ruts and the rest which the car was subjected in the latter part of its journey would require many pages in itself, and it seems very satisfactory that apart from the damage to the wings caused by the accidents which occurred en route, the Lagonda arrived in Athens quite unaffected by its 1,800 mile trip.

The roads from Central Europe approximate to earth tracks on Cotswold lanes, and a stretch of what in England would be a "C" type road would be hailed with joy on the journey from London to Athens. It is a test of strength and stamina which surpasses any normal test on road or track.

How the others fared.

Of the 25 competitors who chose Athens as their starting place, most of them have had "incidents" en route.

F. de Riberio Ferreira, the Portuguese driver of a Railton Terraplane, crashed on a frozen road between Budapest and Szeged, bending a front axle, but got a new one within 24 hours from England and continued. He left his passports behind at Sofia, and they were sent after him to the frontier, unfortunately sealed, so that they were taken to Greece while the driver was chasing them throughout Bulgaria.

The Aries drivers were rather wild and broke different parts of their car each time they left Salonica. Finally they got as far as Larissa and were towed into Athens.

The Essex entered by Symons and Murray Scott skidded on an icy road near Ulm in Bavaria, rushing backwards into a tree. The petrol tank and rear axle were damaged but the trouble was put right in two days and by great efforts Athens was reached with two days to spare. They also had trouble with hydraulic shockabsorbers, brakes and an axle clip which snapped.

Bryde, the Norwegian, who was driving an Austin 16 sports saloon with tremendous verve, struck his flywheel casing on a rock in Bulgaria and was held up a day in Salonica to repair it.

Whalley on his V-8 Ford had a trouble-free run, but found that his springs had flattened somewhat with the bumping of the bad roads and had a new set fitted. He left the road in Bulgaria.

The Schells (Delahaye) got stuck in a snow drift on one of the passes, and also took to a ditch through using the hand brake on icy roads.

A Citroen with caterpillar track arrived and caused much interest, while Gas-Trevoux on the Hotchkiss had 10 inches clearance under the axle and more elsewhere.

Rupert Riley arrived a fortnight before the start and inspected the course in a local taxi. He remarked on the great efforts which the local authorities had made in the last year to improve roads. Healey and Ridly arrived by sea with their large tyred Triumphs, and profess themselves satisfied with the roads as far north as they have penetrated.

LUXURY IN MINIATURE

The Continental Coupe M.G. Magna Combines the Duties of Town and Open Road Sports Model.

ANYONE who has had much experience of traffic driving in London will not need reminding of the advantage of a small car under such conditions. If one adds fierce acceleration, light but positive steering, superlative cornering ability and powerful brakes, to small overall dimensions, the resulting car forms just about the most rapid form of traffic car it is possible to find.

But for every day work in our variable climate, however, comfortable closed coachwork is essential, and it is a combination of all the above qualities which makes the M.G. Magna Continental Coupé such an extraordinarily attractive little car.

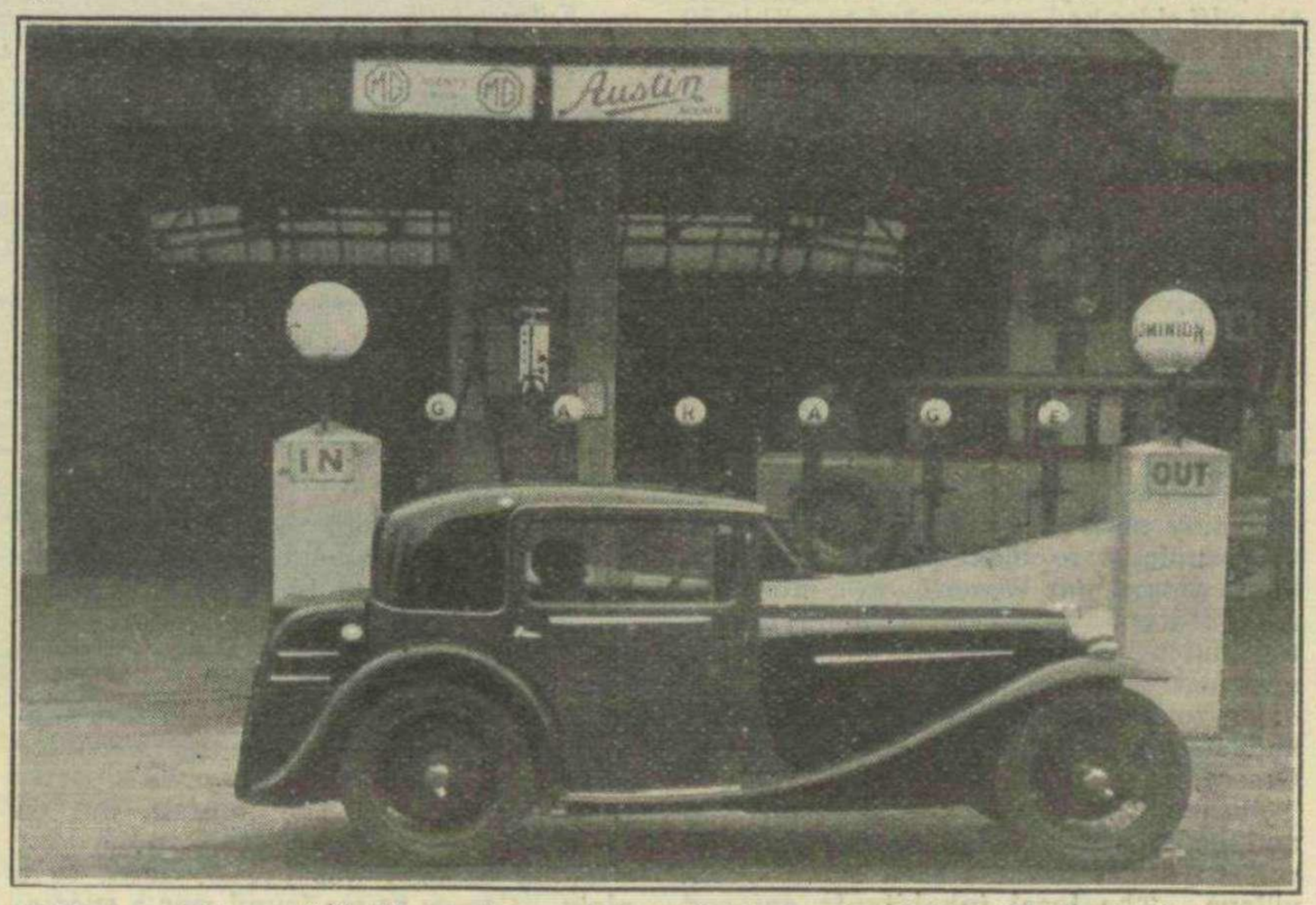
The performance of the L type M.G. Magna chassis on the track and open road has been fully dealt with already in these columns (*vide*. MOTOR SPORT, November, 1933). It is with the Continental Coupé as a town-car that we are concerned with at the moment. The lines of the car, like all current M.G. models, are perfectly balanced, and in complete harmony with the traditions of town-carriage coachwork.

The driver and passenger occupy comfortable bucket seats, and behind them is room for an occasional passenger or alternatively plenty of luggage. Furthermore there is a trunk at the rear which will take baggage in addition to the spare wheel. The sliding roof has large slats of celluloid inserted, so that the interior of the car is pleasantly light.

An arm projecting from the steering column bears controls for the horn, direction indicators, and headlight dipping, and altogether the handling of the car has been reduced to as effortless a process as possible. The direction indicators, by the way, are part of the special illuminated number plate in the rear panel of the trunk.

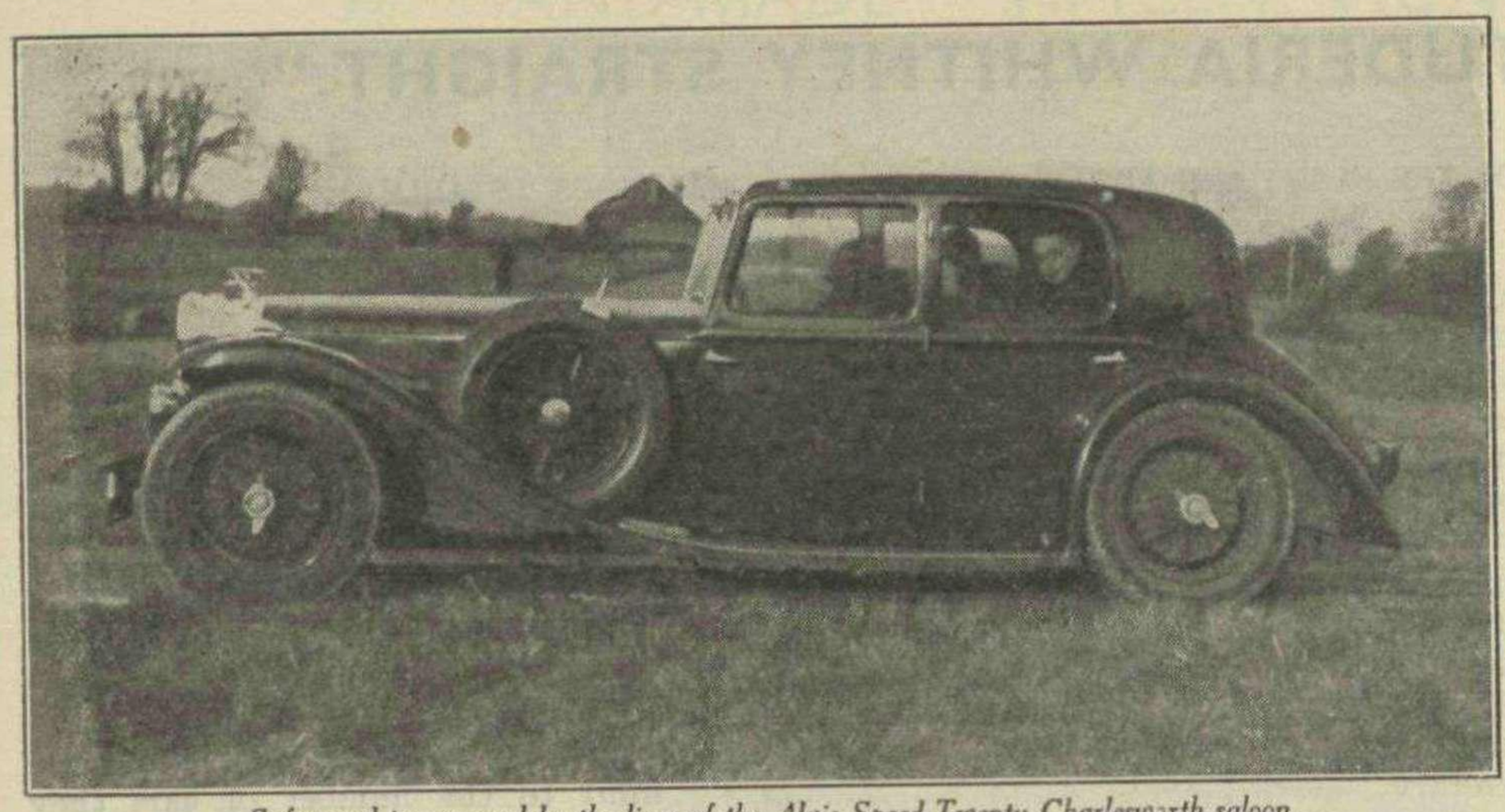
We recently spent a week of very delightful motoring with one of these cars, and were more than pleased with its performance.

The Continental Coupé is an ideal combination of quick town-carriage and fast sports car, and at £325 should be the solution of those who seek a high class duel purpose car. The range of colour schemes available, by the way, is extremely *chic*.



A Continental Coupe M.G. Magna photographed outside the premises of the well-known M.G. Agents, the Bellevue Garage, Wandsworth Common.

THE ALVIS "SPEED TWENTY"—continued.



Safe speed is conveyed by the lines of the Alvis Speed Twenty Charlesworth saloon.

gear was sufficient to get by every vehicle we encountered.

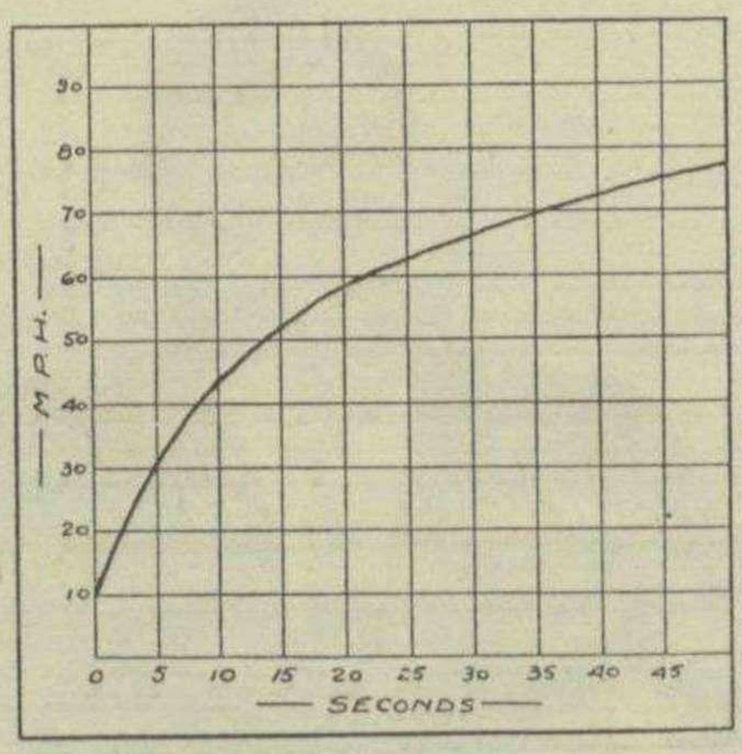
But such driving methods, while amusing for a short time on a strange car, are by no means necessary for the Alvis to be appreciated. It is extremely flexible, providing the ignition is retarded, and will crawl about in top gear in the best town-carriage style. Acceleration on the direct drive is also good, and a depression of the throttle at 50 m.p.h. sends the car forward in an invigorating surge.

With regard to actual figures, the accompanying graph speaks for itself. It must be remembered, however, that the car we tested was fitted with a strongly made saloon body, so that an open car will give even better results.

Acceleration is assisted greatly by the new all-synchromesh gear box, which enables very quick changes to be made absolutely silently right up through the gears. Actually, there is a point at which, after a slight pause, each gear engages with a minimum of effort, but quick changes can be made at all times. Downward changes are deprived of the necessity of accurate speeding-up of the engine, a dab on the accelerator pedal being all that is required to give a silent, shock-less change of ratio. 40 m.p.h. and 60 m.p.h. are useful speeds at which to change up from second and third gears respectively, when fierce acceleration is required.

Timed over a dead-level quarter-mile by stop watch the Alvis Speed Twenty "Charlesworth" saloon registered a speed of 81.3 m.p.h. During the test the speedometer was found to be fairly optimistic, but the actual speed recorded is a very creditable one for a saloon car of 2,511 c.c. capacity and weighing 27 cwt.

On a good main road the Alvis cruised quite happily at a genuine 65 m.p.h. and gave the impression that it would maintain this speed all day if conditions allowed. This speed is restful for drivers and passengers alike. The driver has the benefit of rock steady steering, completely accurate, and without a trace of road shocks, while corners and curves merely give him an opportunity to show up the roadholding of the car at its best. Only on one occasion, when the car was cornered rather violently on a rough road, did the front wheels judder. At all other times, and on wet roads, the tail slid first in the approved manner.



The acceleration chart of the Alvis "Speed Twenty."

As for the passengers, seldom have we encountered a car which gives smoother riding. Hydro-telecontrol friction shock-absorbers are fitted, so that the suspension at the rear can be adjusted to suit varying speeds and road conditions. On an average macadam main road (as distinct from an arterial road), the rear passengers can read a newspaper at 65 m.p.h. Just try this on your own car, and the marvellous suspension of the Alvis will be brought home to you forcibly.

The brakes are fully in keeping with the high speeds of which the car is capable. Especially so is this noticed when braking hard from over 70 m.p.h. A fair amount of effort is required, but this just makes for accuracy, and the car slows down without a trace of pull on the steering, and without affecting the smooth riding of the car.

A word of praise is due to the lighting system. The headlamps are enormous Luvas P100's, and provide adequate illumination at any speed up to the car's maximum. If a reduction in light is required the usual switch on the steering wheel cuts out the headlamps and turns of two Lucas fog-lamps situated immediately below the headlights. These fog-lights are extremely effective, and illuminate the road surface for a long distance ahead without dazzling an oncoming driver. When a mist renders the powerful headlights useless, these fog lamps enable a fairly high speed to be maintained without danger.

The "Charlesworth" saloon body is a beautifully finished example of the coachbuilder's art. It is completely free from draughts, does not rattle, and the windows provide good ventilation without discomfort to the passengers The seats are perfectly comfortable, so that the car is ideal for long distance touring. The rear passengers sit on a slightly higher level than those in front, which increases their vision of the road ahead. The internal fittings are luxurious, and include little cubby holes on each side of the rear panel, which are illuminated and contain a vanity set and a smoking outfit respectively. Finally, there is plenty of room for suit cases and luggage in the locker at the rear.

At £825 the Alvis "Speed Twenty" Charlesworth saloon should have a strong appeal for those who require a roomy, comfortable, fast, and hand made car which will give them years of pleasurable motoring.

DRIVING EDUCATION.

IT is of vital importance to owners of fast cars that they should be able to depend upon other road users doing the right thing. Such criminal faults as "filtering" into a main road without looking each way first could be largely eliminated, however, if new motorists were taught to drive by trained experts, instead of just picking it up from a friend or relation.

It is for this reason that we are particular admirers of the work done by the British School of Motoring, and we attended recently at the opening of a new tuition centre at Manchester. The guiding spirit of the school, Mr. S. C. H. Roberts, outlined their aims at the inaugural luncheon, and speeches were also made by the Chief Constable of Manchester, Major Godfrey, and Mr. Saxon Jefferis, the well known Manchester motor agent.

"LA STUDERIA WHITNEY STRAIGHT."

DETAILS OF THE PLANS AND ARRANGEMENTS OF AN AMBITIOUS "STABLE."

WITH the thoroughness which has characterised all his motor racing activities since he first took up the sport three years ago, Whitney Straight is making careful preparations for his most ambitious season to date.

To begin with he has formed a private limited company with the title of Whitney Straight Limited, his co-directors being the Earl of Brecknock, Mr. Reid Railton and Mr. C. E. Elmhirst. The Secretary is Mr. E. W. Lambert, who for many years acted in that capacity to the late Sir Henry Birkin.

The registered offices of the Company are situated at Bush House, Aldwych, London, and on the invitation of Mr. Lambert I went along one day last month to hear the latest news of their plans and progress. The furnishing and colouring of the offices, by the way, cannot fail to rouse the admiration of all those who appreciate the subtle art of interior decoration.

It will be remembered that Whitney Straight has placed an order with the Maserati factory for four single seater 3,000 c.c. racing cars, all of which are to be fitted with Wilson pre-selective gearboxes. I asked Mr. Lambert when delivery was expected of these machines.

Delivery of the first Maserati.

"One of our travelling garages is now completed," he said, "and will be going over to Bologna at the end of January to collect the first of the monoposto Maseratis. It ought to be back in England by about the 10th of February."

Mr. Lambert told me some interesting facts about the Maserati factory. "It is a good deal bigger than it used to be. At one time it was roughly the same size as the works occupied at Welwyn Garden City by Sir Henry Birkin, but now they have added a good sized machine shop."

With regard to the actual composition of the team of drivers, Mr. Lambert explained to me that a lot of details and formalities had to be attended to before any definite arrangements could be concluded. It was practically certain that Cyril Paul would be a member of the team, but no other driving contracts had been definitely fixed. Unfortunately it was very doubtful whether H. C. Hamilton would be available, as he was now in India convalescing after his serious accident in the Czecho-slovakian Grand Prix. It is possible that there will only be two permanent drivers, Whitney Straight and Cyril Paul. If a third driver is required a temporary arrangement can always be arrived at.

A limiting factor in the engagement of drivers is the possibility of the Maserati factory being unable to deliver the complete team of cars before the season commences. With the ban on foreign purchasers of Alfa-Romeos, a large influx of orders had been received at Bologna, and although the factory could be depended upon to assist and co-operate in every way, there was a definite limit to the number of cars they could turn out with the facilities at their disposal.

Continental Headquarters.

Negotiations have been in progress with Ramponi with a view to his being in charge of the tuning and preparation of the cars, but at the time of writing no contract has yet been arranged. In the same way the Continental headquarters of the team have not yet been settled. They are almost certain to be at Milan. The reason for this choice is that a large part of the scheduled programme of races is composed of Italian events, and, of course, Milan is within fairly easy reach of the factory. Mr. Lambert himself is going over to Italy shortly to fix things up.

It is hoped that two cars may be kept in constant use, i.e., every week-end. The other two will be at Milan being overhauled. When occasion arises, as has already been said, a temporary driver will be engaged to pilot a third car. A small permanent staff will be kept at headquarters, while each of the travelling units will have a full complement of mechanics. All these arrangements, of course, are subject to revision in the light of actual experience.



Whitney Straight, who is putting in trim a complete organisation for running a team of four Maseratis this season.

[Continued on page 188.

A HAND-MADE "FIFTEEN HUNDRED"

A FEW years ago the 1,500 c.c. class provided the widest range of sports cars of any, and this category was always assured of abundant support in competition events. The greatly increased speeds of "eleven-hundreds" and "seven fifties," however, had a natural reaction, and one and a half litre sports cars declined in popularity.

But now there are signs of the type coming into its own again. Many motorists appreciate the extra accommodation provided in a 12 h.p. car, especially if it is desired to carry a complement of four occasionally, to say nothing of the comfort provided by a longer wheelbase.

A most interesting newcomer to the class is the British Salmson, and we recently had the opportunity of inspecting and having a short run in one of the first 12/70 h.p. cars to be completed. Actually there are two models, the standard 12/55 h.p. and the sports 12/70 h.p.It is the latter with which we are concerned in this article.

One's first impression on raising the bonnet is the extraordinarily high degree of finish given to the engine and its components. Wherever possible the parts have been chromium plated, including all the carburetter and ignition control rods, and the whole power unit bears the unmistakeable stamp of its origin in an aero-engine factory.



Some details of the British Salmson, a welcome addition to the one and a half litre field.

Guaranteed Longevity.

The engine is a four-cylinder unit, with a bore of 69 mm. and a stroke of 98 mm., giving a total cubic capacity of 1,470 c.c. The pistons are made of a special aluminium alloy, and are provided with three normal rings and one scraper. Great attention has been paid to the cylinder block and bores, and the combined assembly of pistons and cylinders is guaranteed to give a mileage of at least 40,000 before re-boring and new pistons are required, and at the same time keep the oil consumption down to 2,000 miles per gallon.

The connecting rods are of H section, nickel chrome being used. The main and big end, and also the little end bearings are of white metal. The three bearing crankshaft and all reciprocating parts are statically and dynamically balanced throughout. As in the case of the old Salmson sports cars, the head is hemispherical, so that the maximum efficiency is obtained from the engine. The 18 mm. plugs, one per cylinder, are pocketed. The compression ratio is 6½ to 1.

The overhead valves are set at an angle in the head, and are operated by means of twin overhead camshafts. A vertical drive from the rear of the crankshaft is used, and the camshafts are carried in three phosphor bronze bearings. An interesting feature is that they are provided with vibration dampers in the centre.

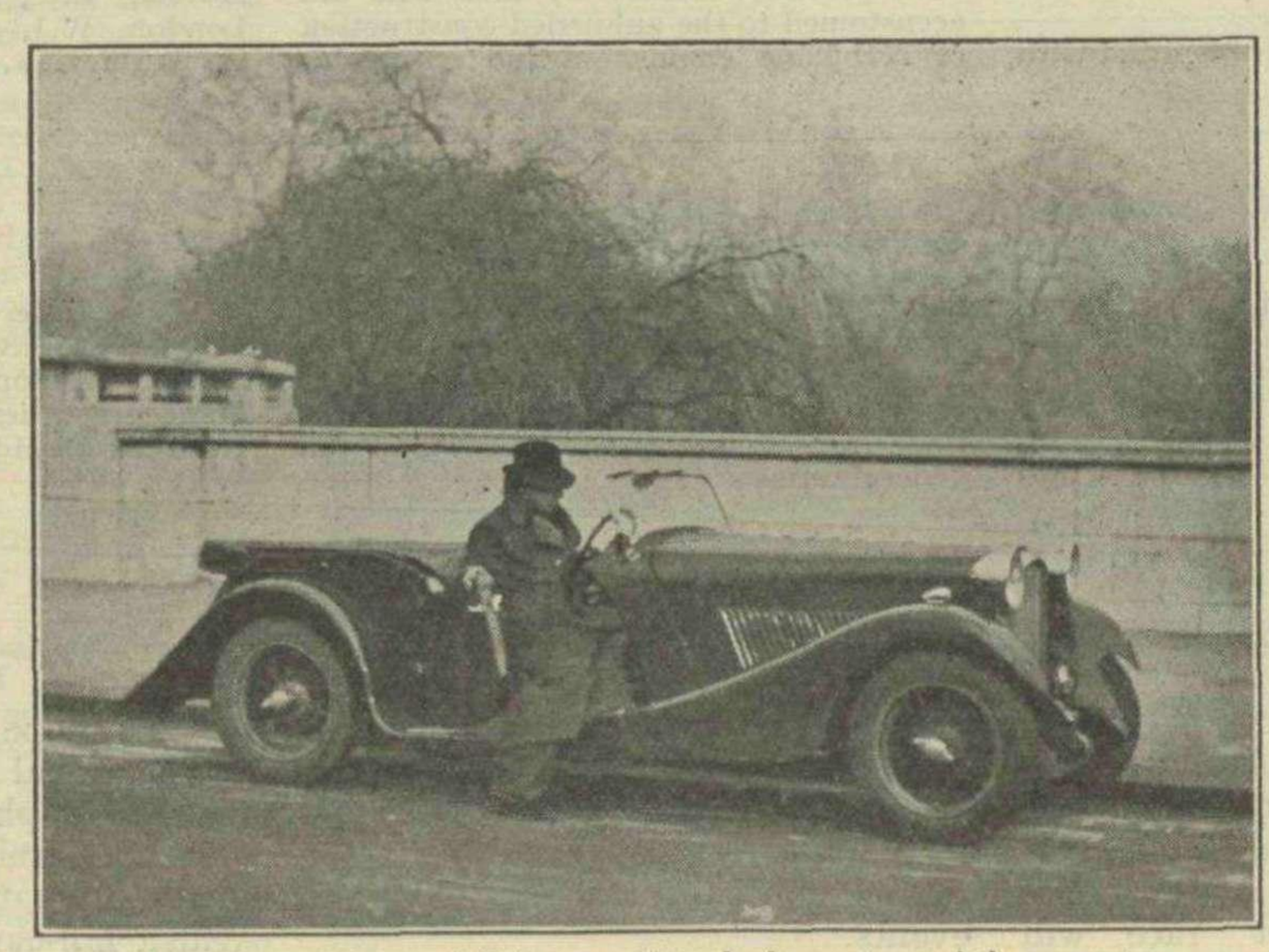
Starting handle lock.

A large dynamotor is driven off the front end of the crankshaft, and projects through the radiator. Ingenuity has been displayed in the socket for the starting handle. This socket is protected from dust and mud by a flap, which, when lifted to its fullest extent, automatically prevents the starting handle slipping out beyond a certain point. There is no danger of forgetting to push the flap right back, for the handle cannot be turned until it is in the locked position.

Two Solex self-starting carburetters are fitted, and the fuel is fed to them from the 10 gallon rear tank by means of an S.U. pressure pump. Ignition is by one of the famous Scintilla magnetos which have been favoured by racing car designers for many years. This instrument is driven from the vertical shaft of the camshaft drive.

The radiator gives a really ample cooling area, and it has not been deemed necessary to fit a water pump. The radiator shutters are operated by an unusual method, namely by oil-pressure. The great advantage of this system over thermostat-control is that the shutters are fully closed in less than a minute after the engine has stopped, thereby maintaining the water temperature as long as possible. The reverse applies when starting from cold, however, for the oil pressure opens the shutters wide immediately, so that the two systems are more or less equal in merit.

The engine is rubber mounted at four points and the clutch is a Borg and Beck single dry plate unit of normal design. The gear box provides four forward speeds, and is synchromesh from second to



Two views of the British Salmson. Note the dynamotor, and the easy entry provided by the body.

A HAND-MADE "FIFTEEN HUNDRED"—continued.

third and from third to top gear. The shift lever is right to the driver's hand, and works by means of a remote-control shaft and gate.

The transmission consists of a torque tube and a Gleason spiral bevel final drive. The rear axle ratio is 4.5 to 1.

The chassis.

The chassis is a well-braced frame of normal design. Suspension is effected by means of semi-elliptic springs in front and quarter-elliptics at the rear, and it is typical of the thorough equipment of the car that their action is controlled by Andre Hydro-telecontrol shock absorbers operated from the dash board. Spring gaiters are fitted as standard.

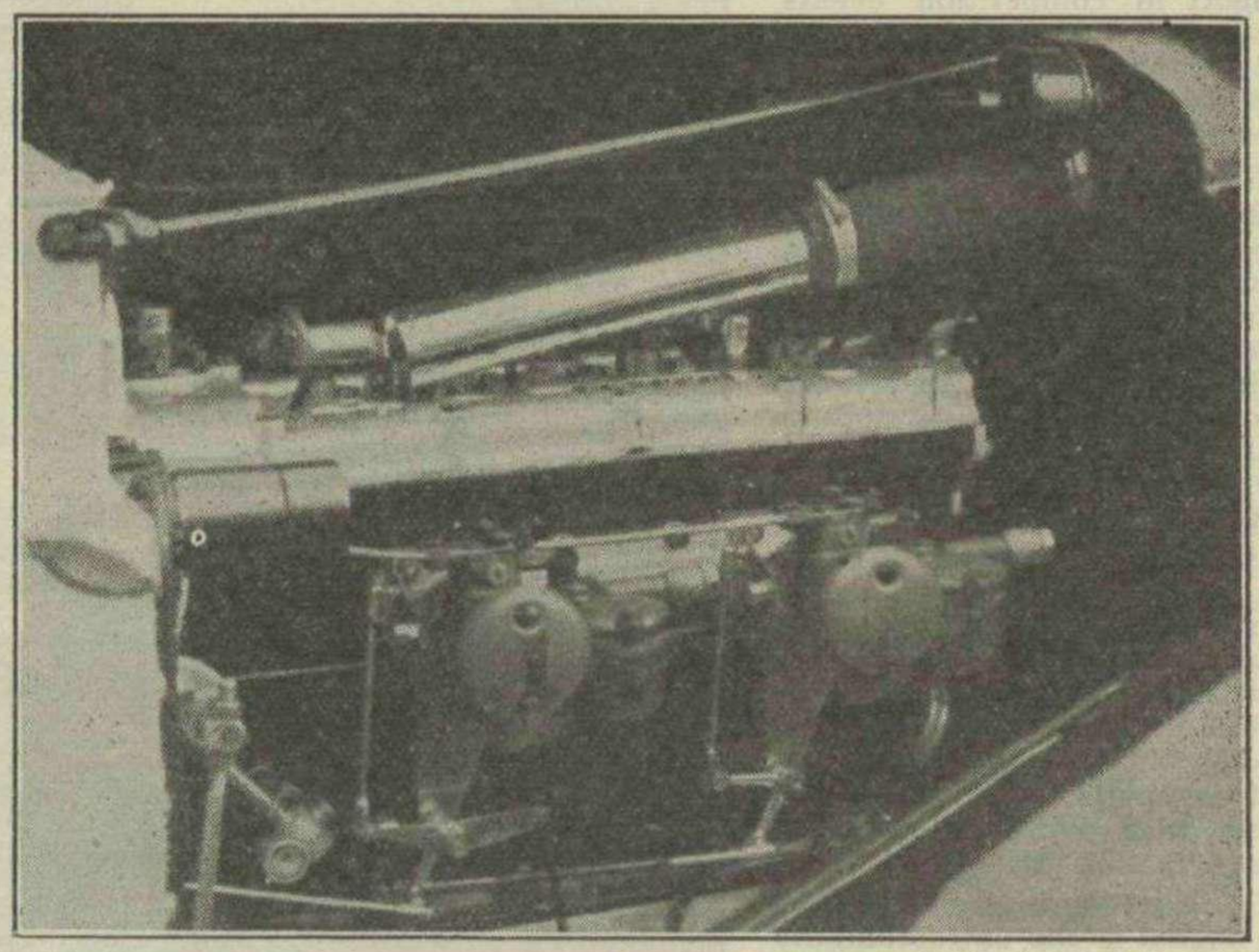
The steering is of the Marles-Weller pattern, and the wheel is raked at exactly the right angle. The brakes, in a cursory examination of the car, strike one as being inadequate owing to the small size of the drums. In practice, however, this has been found correct for the weight and size of the car, and at slow speeds at any rate, the car pulls up with great suddenness, as we can personally testify. They are of the Bendix self-energising two-shoe type.

The chassis lubrication nipples are grouped, four under the bonnet and two on the back axle, and easy maintenance is assisted by D.W.S. four-wheel permanent jacks, which are a standard fitment.

The electrical equipment of the British Salmson has been carefully designed to ensure unfailing reliability. The battery is 12 volts 70 amperes, and all the wiring is heavily armoured. In addition, separate fuses for all electrical accessories are fitted in a box on the scuttle bulkhead, and no trouble should be experienced from this part of the car's equipment for many years. A master switch is provided in an accessible but unlikely position.

The whole chassis has been designed with the single aim of perfection, and every nut and bolt used in its construction is made of high tensile steel.

The model we inspected was fitted with an open 4 seater sports body, and was equipped with the usual folding windscreen, large dial revolution counter incorporating a clock, large-dial speedometer, petrol gauge, ammeter, oil gauge and water thermometer. The dimensions of the car are as follow:



[*Motor Sport photographs*

An engineering job. The off-side of the British Salmson engine, showing the twin solex carburetters.

Wheelbase, 9′ 2¼″.
Track, 4′ 2⅜″.
Ground clearance, 7″.
Turning circle, 35″.
Weight of chassis, 12 cwt.
Weight of 4 seater sports, 16 cwt.

The price of the chassis is £365 and of the sports tourer £445, for which sum one receives a motor car which has been designed with great care and assembled with precise accuracy by men who are accustomed to the unhurried construction of aeroplane engines—a job where inaccuracy or bad workmanship can easily spell death.

In the course of a brief run through the West End on a car which had only travelled 300 miles we gained a favourable impression of the new British Salmson. It accelerated briskly, although being held down to 2,500 r.p.m., and had that taut feel which characterises the hand-made sports car. When run in, a maximum speed of 80 m.p.h. is obtainable, and we are looking forward to a full road test of the car at an early date.

The address of the manufacturers is British Salmson Aero-Engines Ltd., Raynes Park, London, S.W.20. The London Distributors are Shrimpton Motors, Ltd., 38/39, Berkeley Street, London, W.1, at whose showrooms the car is on view.

Petrol—Its Origin and Use.

THE origin of petrol and lubricating oil, and their application to the automobile is an extraordinarily interesting story, and we have seldom seen it told in a more attractive form than in the booklet "Gasoline and Oil" produced by the Cities Service Company. This is a 72 pp. book, profusely illustrated in colour, and although it is the work of the manufacturers of "Koolmotor" spirit, the authors have been content to tell their story in general terms of petrol and oil.

A few free copies of this excellent booklet are available to MOTOR SPORT readers on application to the Publicity Manager, Cities Service Oil Co., Ltd., New Oxford House, Hart Street, London, W.C.1.

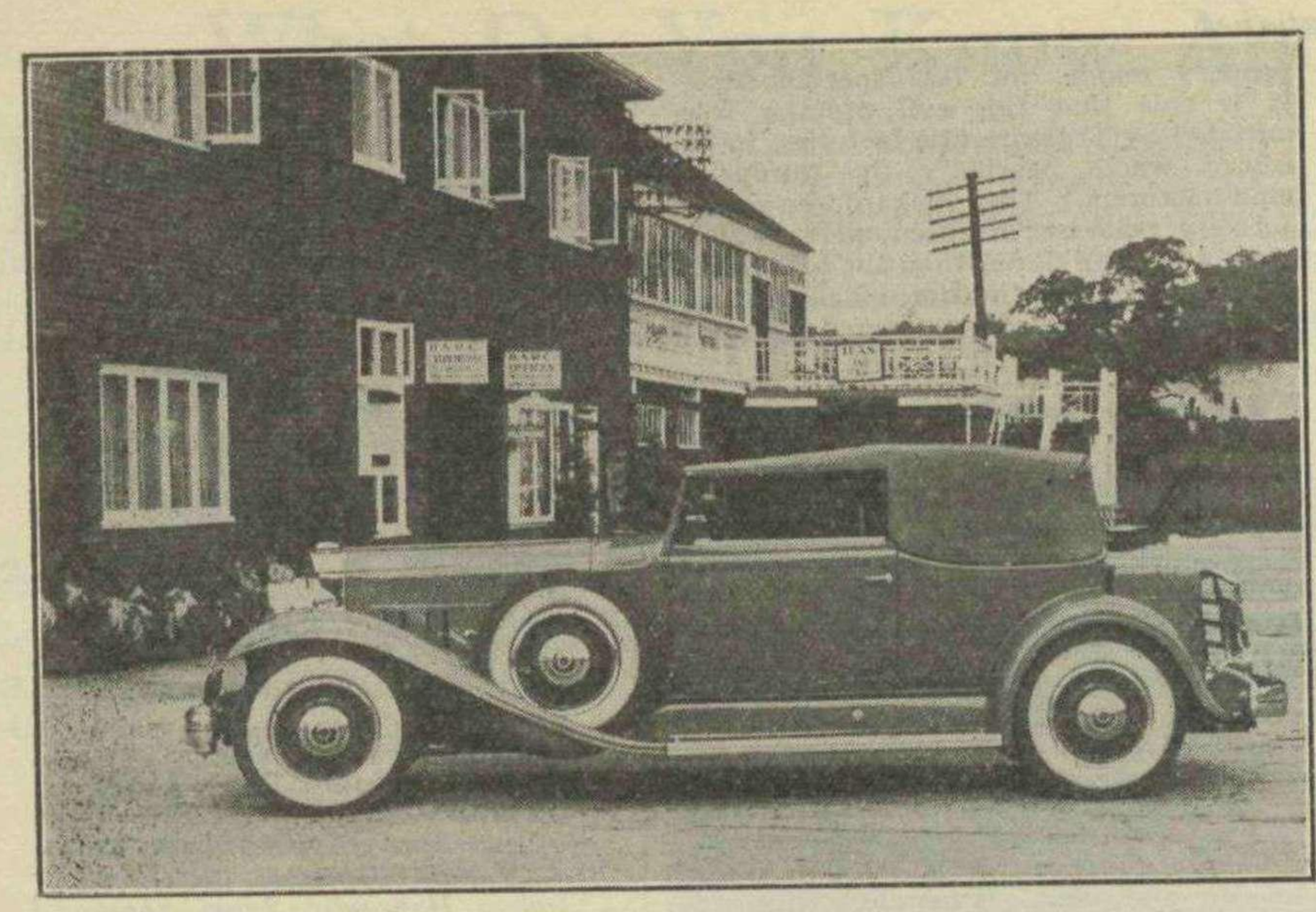
"LA STUDERIA WHITNEY STRAIGHT"—continued from page 186.

An extraordinarily complete programme of races has been planned for the six months of the racing season. Whitney Straight himself will probably be in action every weekend. The first race will be the Monaco G.P. Germany, France, and Italy will naturally form the chief theatre of activity, and an M.G. Magnette is to be included in the "stable" for participation in Italian 1,100 c.c. events.

"And England?" I queried.

"We hope to run in both the International Trophy and British Empire Trophy races at Brooklands, and Mr. Straight is anxious to run in at any rate one of the Shelsley Walsh hill-climbs."

H. N.



THE PACKARD TWIN SIX

A TWELVE CYLINDER AUTOMOBILE POSSESSING EXCEPTIONAL SMOOTHNESS, ACCELERATION, AND QUIET SPEED.

THE name of Packard has for many years been linked in the minds of European motoring enthusiasts with all that is finest in Transatlantic design and workmanship. For this reason we were especially glad to avail ourselves of the opportunity of putting one of the latest Twin-Six models through the usual MOTOR SPORT tests with regard to acceleration, braking, and maximum speed, in addition to its behaviour on main and secondary roads.

The particular car in question was the property of an American reader of MOTOR SPORT, Mr. Cunningham, who visited this country in the autumn and brought his Packard Twin-Six with him for the purpose of touring the British Isles.

On leaving our offices in Victoria Street we took things fairly quietly, for the car was fitted with left-hand drive, and the necessary vision to pass a large vehicle ahead had to be supplied by the passenger. As it was, we were greatly impressed by the quiet engine, which was well-nigh inaudible, and the smooth clutch with which it was impossible to make a bad getaway, even when starting in top gear. A lazy driver could stay in top gear all day with the Packard, driving right through Central London. Second is the usual gear for starting, the only purpose of low being for getting away on steep mountain gradients.

The business of starting reminds us of the ingenious method of "choking" the engine when cold. The accelerator pedal is fully depressed, thereby closing the choke. As soon as the engine fires the pedal can be released, leaving the choke in operation. Then, by means of a thermostat, it is gradually opened as the engine warms up. A minimum amount of "choking" is therefore used, so that the cylinder walls do not get washed with petrol as is so often the case with a hand-strangler, causing piston and cylinder wear.

Brooklands was our destination, and the Kingston By-Pass gave us an opportunity of discovering the wonderful top-gear acceleration of the Packard. Corners taken fast revealed the need for shock absorbers, which were tightened as we drove by means of a lever on the dashboard.

And so we arrived at the Track. Our first procedure was to time the car over a standing half mile, and this was carried out in 35.2 secs. Then followed the usual acceleration figures from a steady 10 m.p.h. and the excellence of the Packard in this respect can be judged by a close examination of the accompanying graph.

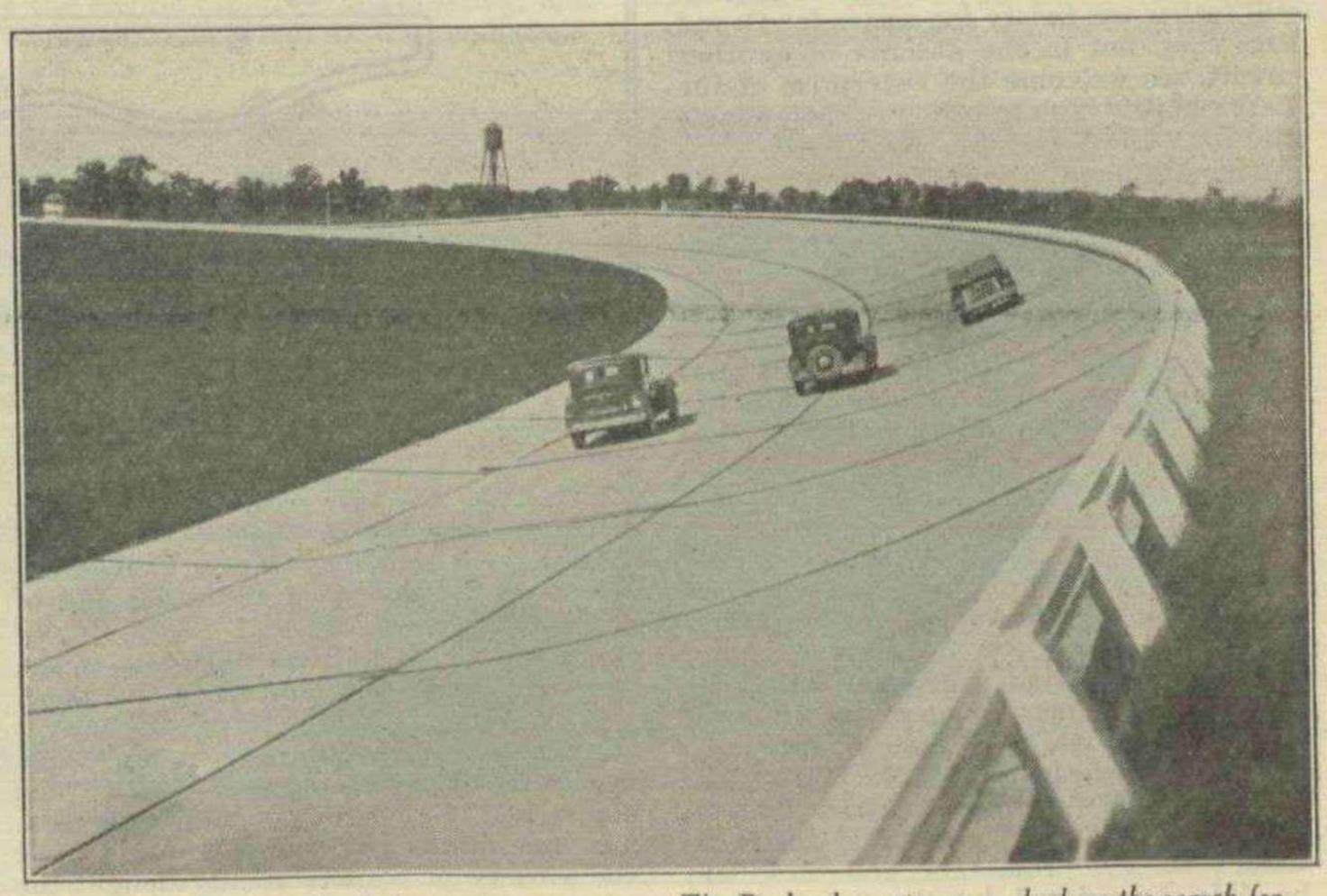
The accelerator pedal was then fully depressed, the windows were wound up in order to improve the streamlining of the car, and we set off to see what she would do over a flying half mile. We were then at the Aeroplane Sheds, so the car hardly had a chance to get to its maximum before the long up-grade of the Members' Banking was reached. Our speed on this occasion was 85, which did not satisfy Mr. Cunningham, so without lifting our foot we continued for another whole lap, and this time the speed for the half mile worked out at 87.3 m.p.h.

"Carry on," said Mr. Cunningham, and so we obeyed, although not without a certain amount of diffidence, for we knew that he had to be at Southampton at 3 o'clock that afternoon in order to catch the "Aquitania." Round we went again, and "87.3" said the stop-watch man in the back, which had to satisfy even the hard-hearted Mr. Cunningham, who expected a slightly higher maximum.

In actual fact, however, we were doing 91 m.p.h. past the Fork, which was near enough to the stated maximum of 93 m.p.h.—especially as the car had not been touched after a three months tour of Great Britain.

In spite of the appalling surface of Brooklands Track, the Packard was as steady as a rock, even on the stretch from the Members' Banking to the Railway Straight. The steering had been criticised on the way down owing to its low ratio, but no trouble at all was experienced at high speed. A low booming sound was all that could be heard from the engine when flat-out and the impression was given that the car would run at its maximum all day without overheating or showing signs of distress.

The reason for this can be found in the accompanying photograph of the Packard Proving ground, where stock cars are made to run at their maximum indefinitely, until something cracks under the

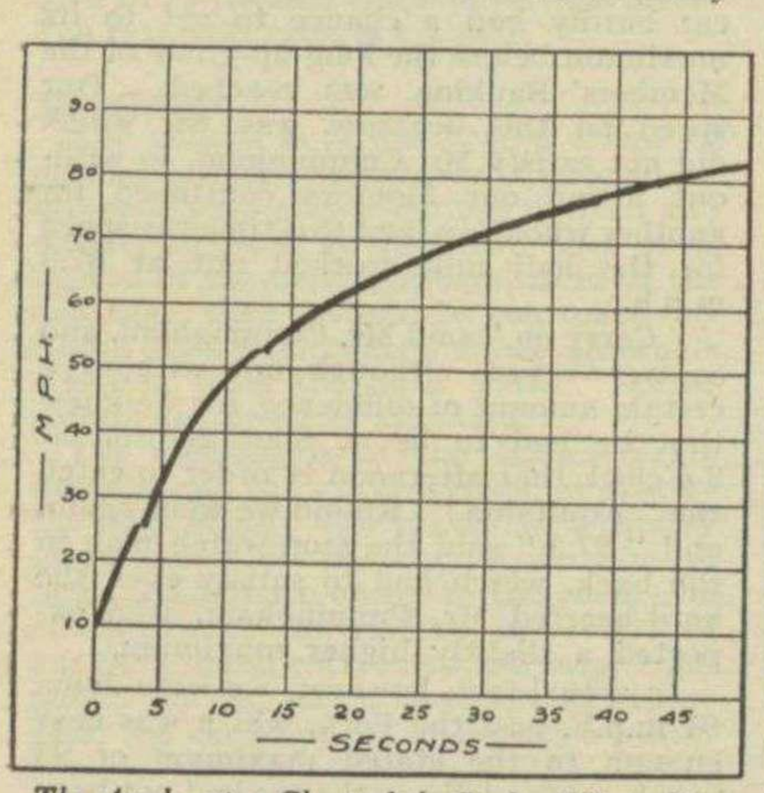


A remarkable example of American enterprise. The Packard proving-ground where the search for reliability is carried out to distinction-pitch.

THE PACKARD TWIN SIX—continued.

strain. This part is then strengthened, and the process is repeated. The fact that aeroplane engines are also made at the factory accounts for a good deal of the Packard's proverbial reliability.

One point cannot be stressed too much. American cars are notorious, in many people's minds, for fast speedometers. It is true that this evil practise was initiated by Transatlantic factories, to be copied whole heartedly by European manufacturers. The Packard, however, actually possesses a speedometer which gives a reading slower than the real speed of the car. Over the timed half mile at 87.3 m.p.h. the needle registered a steady 84 m.p.h. !



The Acceleration Chart of the Parkard Twin Six.

The brakes pulled the car up from 40 m.p.h. in 65 feet, without a trace of deviation. Our only criticisms of the car were firstly, that the steering is too low geared. Sharp corners can be taken quite quickly providing one is ready to wind the wheel several times, but wet roads and a skid would probably cause considerable difficulty. The second criticism is that the car rolled when cornered fast, even with the ride control in operation, but this could be remedied by additional shock absorbers.

Altogether the Packard Twin Six is a most interesting car. It is fast, amazingly smooth, and silent. It handles easily and positively. A finer car for really long journeys or extensive tours would be difficult to find.

The concessionaires for the Packard in England are Messrs. Leonard Williams, Ltd., Berkeley Street, London, W.1, who have a full range of models on view both at their showroom and at the service works on the Great West Road.

Brief Specification.

Engine : 12 cyl. 87.27 x 101.56 m.m. 7297.29 c.c. 56.7 h.p. Tax £57. Side valves. Double down-draught carburetter built as one. Max. revs. 3200. Comp. ratios, 6 to 1 or 6.33 to 1. Coil ignition.

Transmission : Single plate clutch. 3 speed gearbox, synchromesh. Choice of ratios, 4.44, 6.74, 10.86 to 1, or 4 69, 7.15, 11.53 to 1. Open prop. shaft. Hypoid back-axle.

Steering : Worm and roller.

Brakes : Mechanical. Vacuum boosted pedal.

Springs : Semi-elliptics. Front 42" x 2¼", rear 60½" x 2½". Ride control. Hydraulic 2-way shock-absorbers.

Price : On application.

ROAD RACING IN ENGLAND

IN view of the greatly increased enthusiasm for motor-racing which is sweeping the motoring public of Europe, it is comforting to remember that plans are still progressing for the construction of a genuine road racing circuit in England.

At present Donington Park is, of course, the only venue available. With the improvements outlined in the last issue of MOTOR SPORT, it will be possible to run much more ambitious races than last year, and it is interesting to note that a fixture has been booked on the International Calendar for October 6th. Even with the straightening of the course to give a one mile stretch, 1 onington is still rather too twisty for a race for Grand Prix cars, but in the absence of another circuit, we welcome the enterprise of the Derby Motor Club in bringing their course into the finest possible condition.

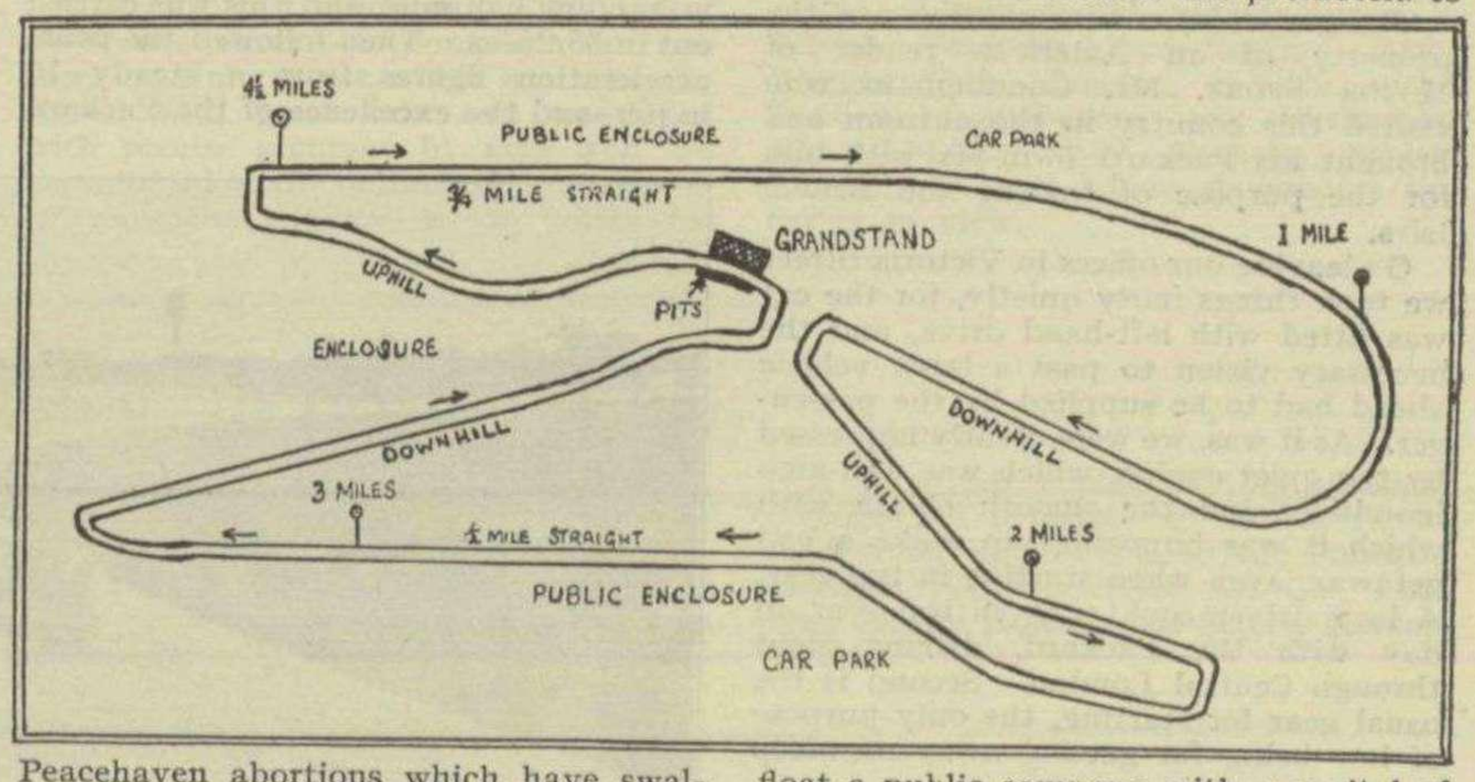
The proposed circuits at Ivinghoe and Gopsall Park have not yet materialised. Gopsall has booked a date on the Calendar, and we are informed that preliminary work is still being carried out by the promoters of both these circuits.

The proposed Brighton circuit has received a great deal of publicity lately in the 1 aily Press, unfortunately most of it dealing with the objections raised by local residents and societies—notably the Sussex 1 ownsmen.

However, Mr. Laurence Clayton, the prime mover in the affair, has not been daunted by this shower of protests which have rained on him for several weeks. As already reported in MOTOR SPORT, he has secured the permission of the Brighton Corporation to take a lease of 400 acres of downland near Portslade.

The Portslade Urban 1 istrict Council is now awaiting full plans and specifications from the promoters, and these will be duly considered by the 1 own Planning Committee, under whose jurisdiction the district lies.

In point of actual, unbiassed fact, there has seldom been a plan for a race-course of any kind less likely to offend the eye of the most sensitively minded aesthete. The road itself will be macadamised, and therefore no more hideous than the thousands of first and second-class public roads which already are taken for granted. The only permanent building will be a club-house built in the style of a Sussex tithe-barn—not, be it noted, in the glorious architecture of the Peacehaven abortions which have swallowed up the downs at the other end of Brighton.



As will be seen from the plan of the proposed circuit reproduced on this page, two circuits are allowed for, the longer of the two measuring 4½ miles. The ground is by no means level, so that the course will be a real test of competing cars. 1 he maximum gradient is 1 in 14, and the variety of corners should delight the most ardent specialist in this branch of racing technique. 1 he grandstand will be a temporary construction, which can be demolished quickly at the end of the season, and the same principle will be applied to the pits, tuning sheds, and paddock buildings.

The downs themselves, with slopes running down to the road, will provide ample accommodation at a low charge for thousands of spectators, and splendid vantage points will be available all round the circuit. The road itself, by the way, will be 30 feet in width.

It is the intention of the promoters to float a public company with a capital of £150,000, and construction will be commenced as soon as this has been done. It is hoped to complete the track towards the end of the summer.

With these three courses, Brighton, Ivinghoe and Gopsall, all being developed by their respective sponsors, it does seem that there is reason to hope that England will shortly be on more or less equal terms with other countries in the provision of a Grand Prix racing course.

We wish all concerned the very best of luck in their efforts.

What Do You Know About Cars?

In response to the many requests from readers to continue our Competition, we are publishing on this page No. 8 of the series.

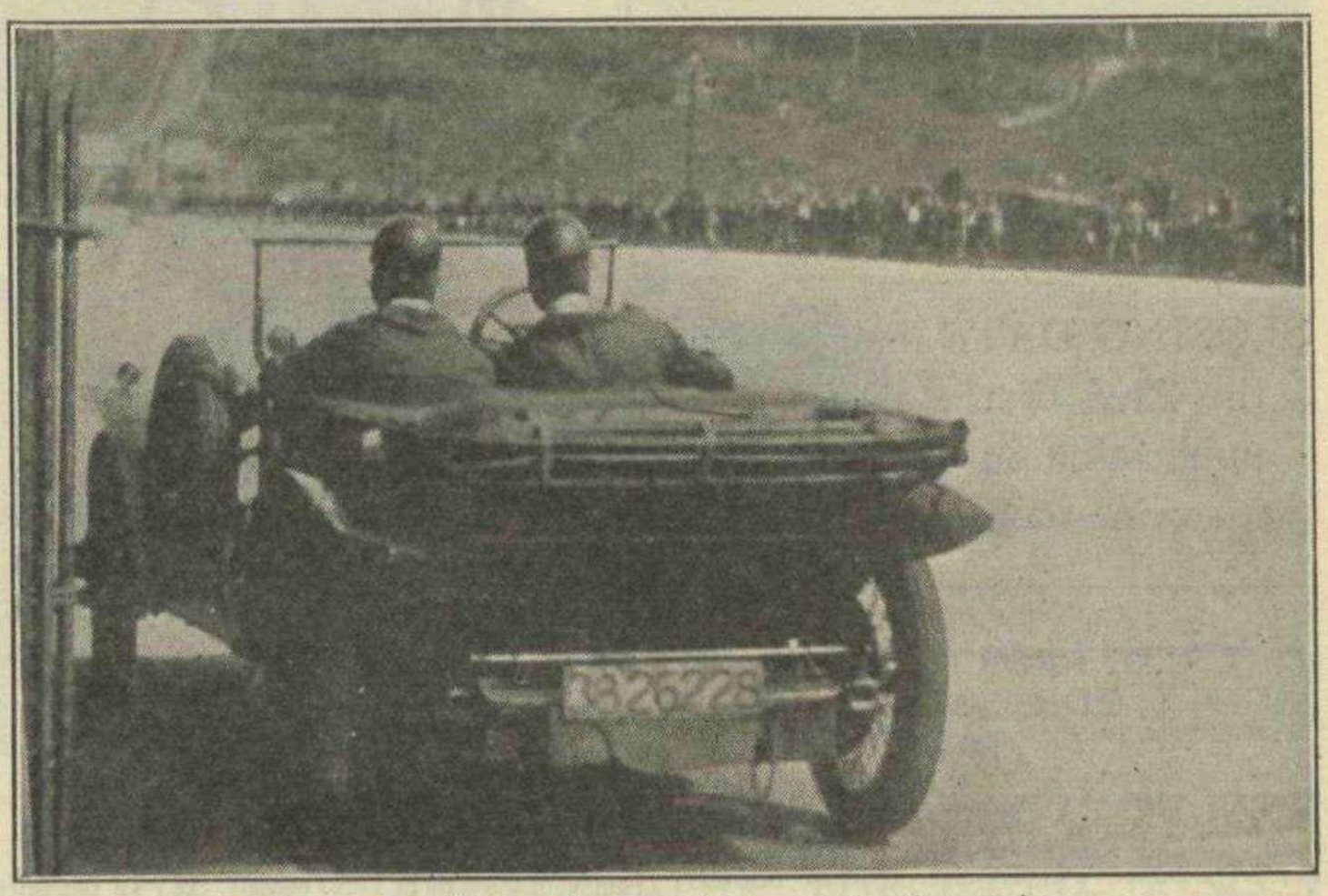
All you have to do is as follows:

1. Cut out the coupon on the inside back cover, fill in your name and address and solution in block letters, and send it to us in a sealed envelope, marked "Competition."
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4. Entries must reach this office, 39, Victoria Street, London, S.W.1 not later than the first post February 15th, and a prize of one guinea will be given to the sender of the first correct solution opened on that day.
5. More than one coupon may be included in one envelope.
6. No letter must be sent with the coupon.
7. The result will be published in our March issue.

A New Offer to our Readers.

Most followers of motor-racing are keen photographers, and have a collection of photographs they have taken at various events. Look through your collection, and if you think you have any pictures that would puzzle other readers, send them along. A cheque for 10s. 6d. will be sent to the owner of every photograph used. The only condition is that the photograph must be the handwork of the sender. All those not used will be returned if a stamped addressed envelope is included.

Get that album out now, and send your photographs to The Editor, Motor Sport, 39, Victoria Street, London, S.W.1.



Problem 8. What is the make of the car in this photograph?

TRYING A SECOND-HANDER—A 1933 S.S.1

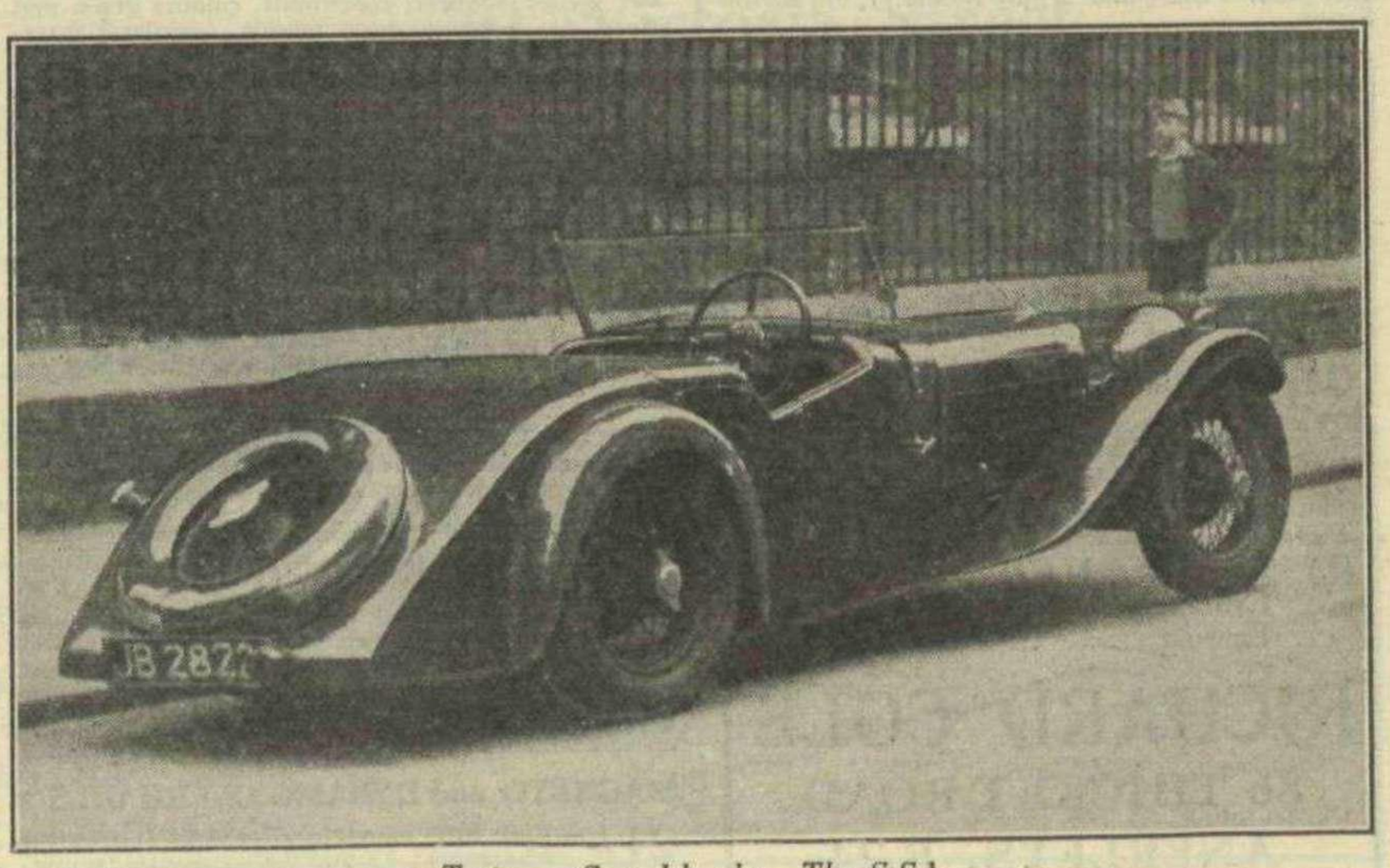
THE S.S. has gained a well-deserved popularity during the last few years, and this demand has had the natural reaction of maintaining the price level of second-hand models.

The car under review was borrowed from the stock of the Golden Arrow Garage, Colnbrook By-Pass, London, and was marked at £200. It was an unusual motor-car, for it consisted of a 1933 chassis as constructed by the Standard and Swallow Companies, fitted with a two-seater body made by the Golden Arrow Garage.

On the road the car handled with a solid feel. The steering was free from excessive slack, and it cornered with a complete absence of rolling. The brakes were powerful, but tended to pull slightly on the steering when applied harshly. The suspension was a fair compromise for rough and smooth surfaces, and slow and high speeds. The speedometer was not working, but the maximum speed, we should say, was between 70 and 75 m.p.h. A comfortable maximum on 3rd gear seemed to be about 50 m.p.h., and at this speed the car cruised on top gear without effort. The petrol consumption worked out at 18 m.p.g., and the oil level showed no drop in a run of about 100 miles.

The total mileage of the car was 18,000, and the cylinders had been rebored and new pistons fitted. The tyres were worn, but would provide a good mileage yet. The battery was in good condition, turning the engine rapidly when starting, and giving plenty of current for the headlamps.

As will be seen from the photograph, the car is primarily a two-seater, but two passengers can be accommodated in the wide dickey seat. The coachwork was painted black, and was in a fair condition.



Trying a Second-hander—The S.S.1.

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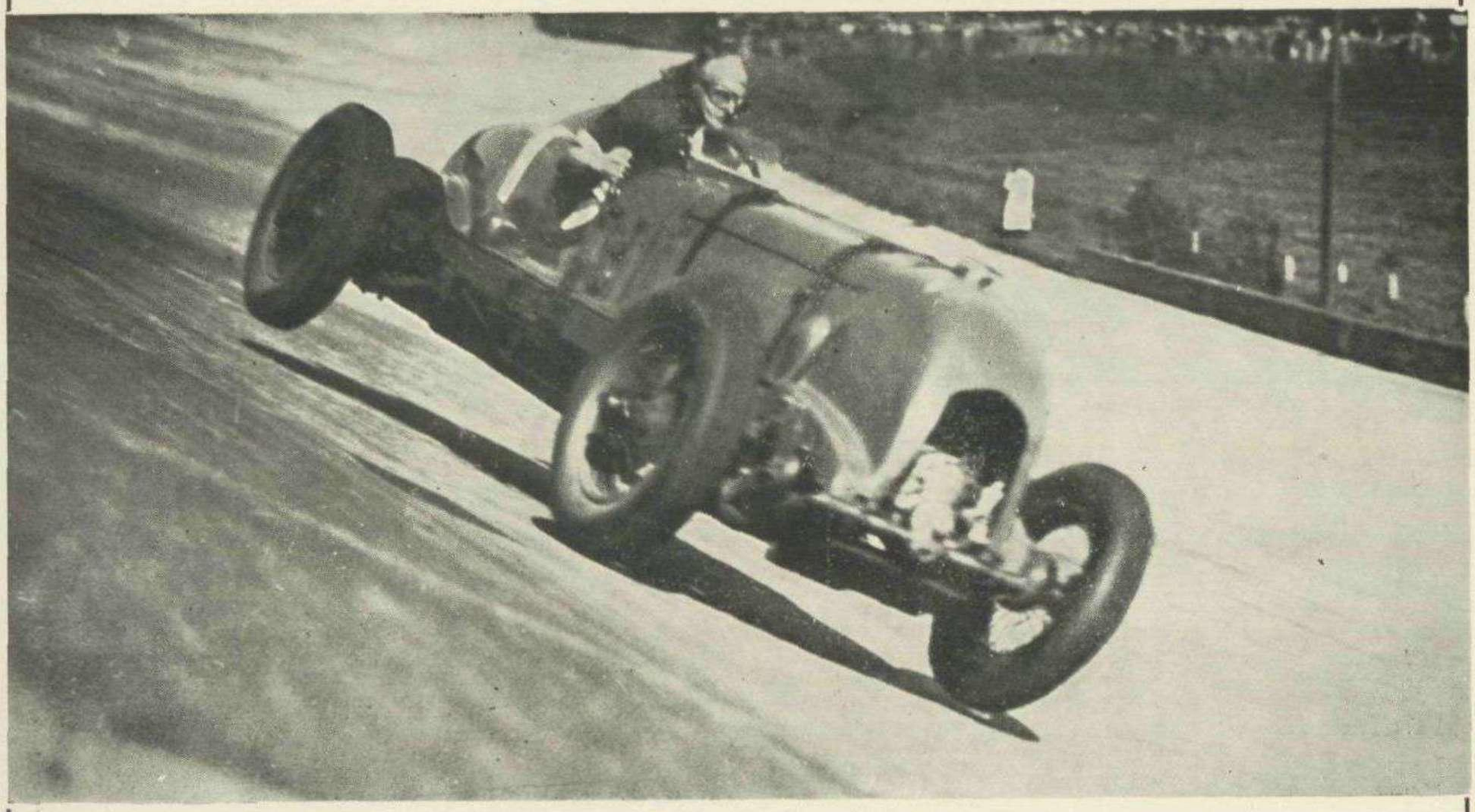
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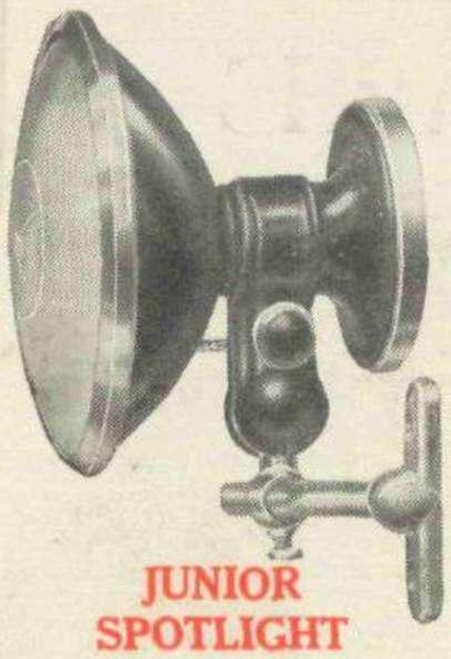
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INDEX TO ADVERTISERS

	Page		Page		Page
Acheson, E. G., Ltd.	145	Booth's Dry Gin	169	Robinson L. & Co., Ltd. ...	172
Ashby, F. & Son, Ltd.	179	Dunlop Rubber Co., Ltd. ...	167	Singer Motor Co., Ltd. ...	inside front cover
Aston Martin, Ltd.	153	Ferodo, Ltd. ...	front cover	Smith, S. & Sons, Ltd. ...	back cover
Bellevue Garage Service Station	178	Frazer Nash Cars	151	Wakefield, C. C. & Co., Ltd. ...	163
Bentley Motors (1931) Ltd. ...	146	M.G. Car Co., Ltd.	157	Winter Garden Garages ...	153



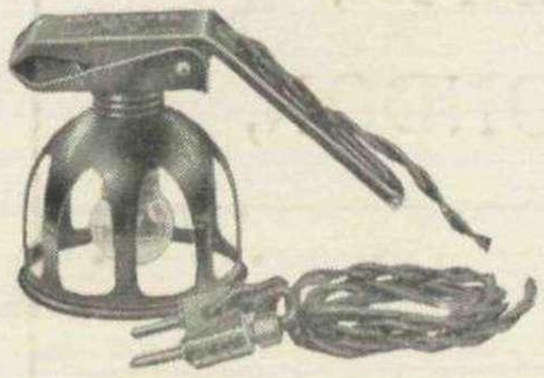
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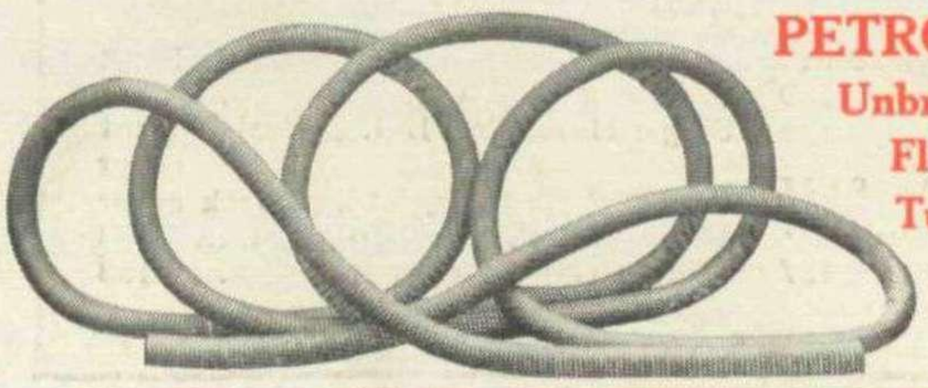
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