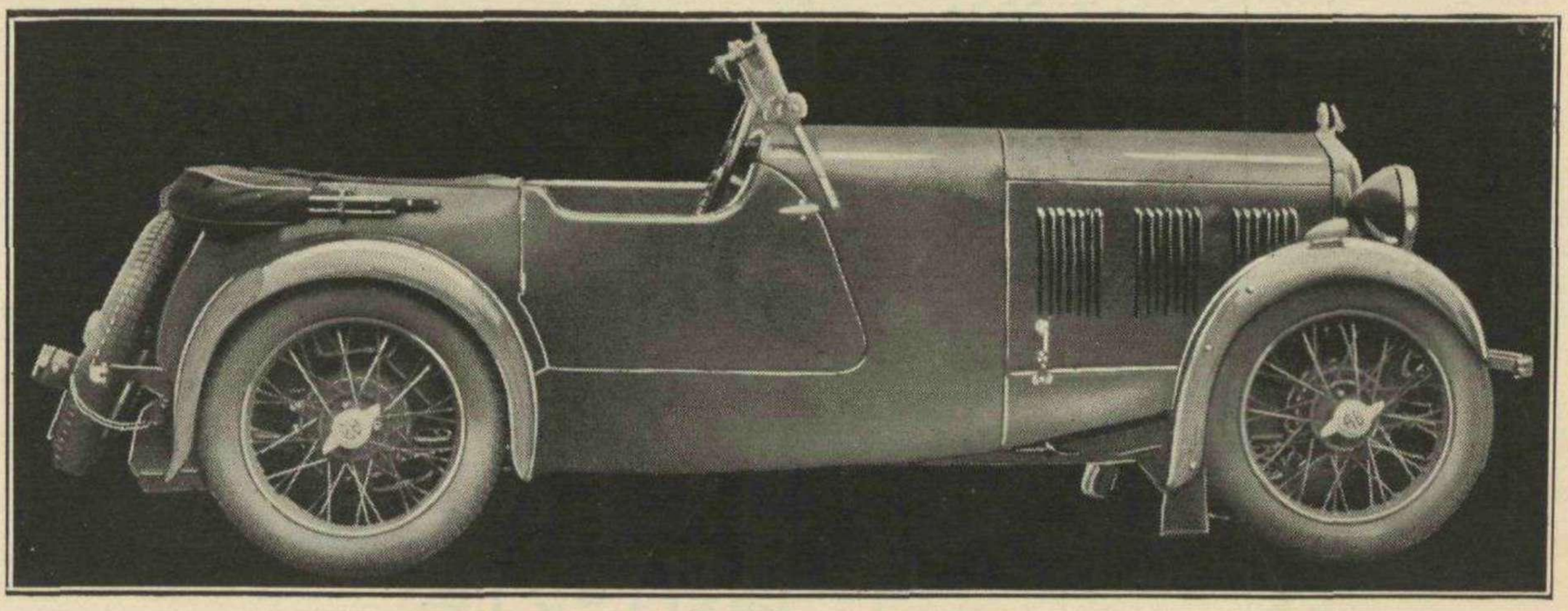
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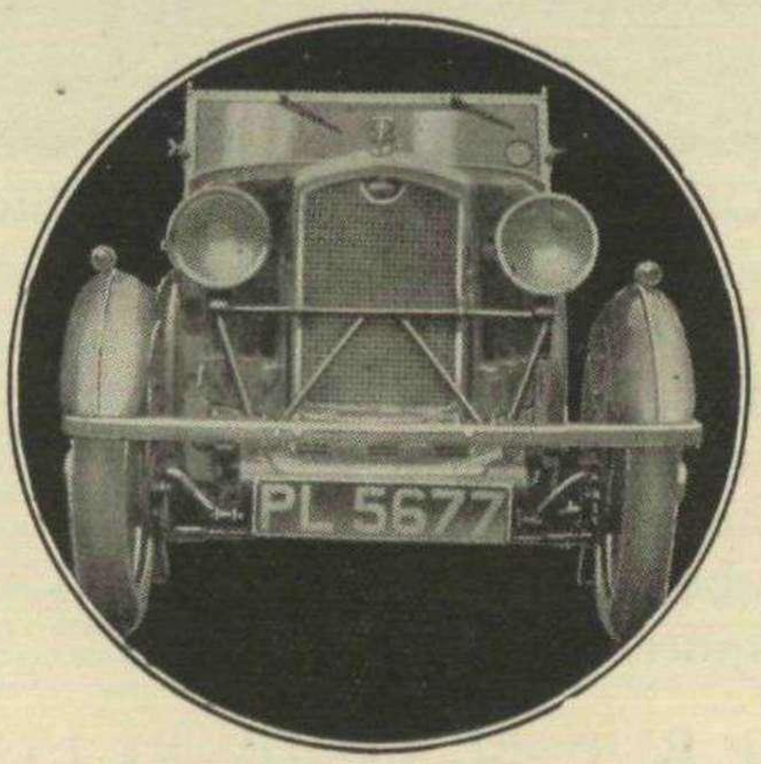
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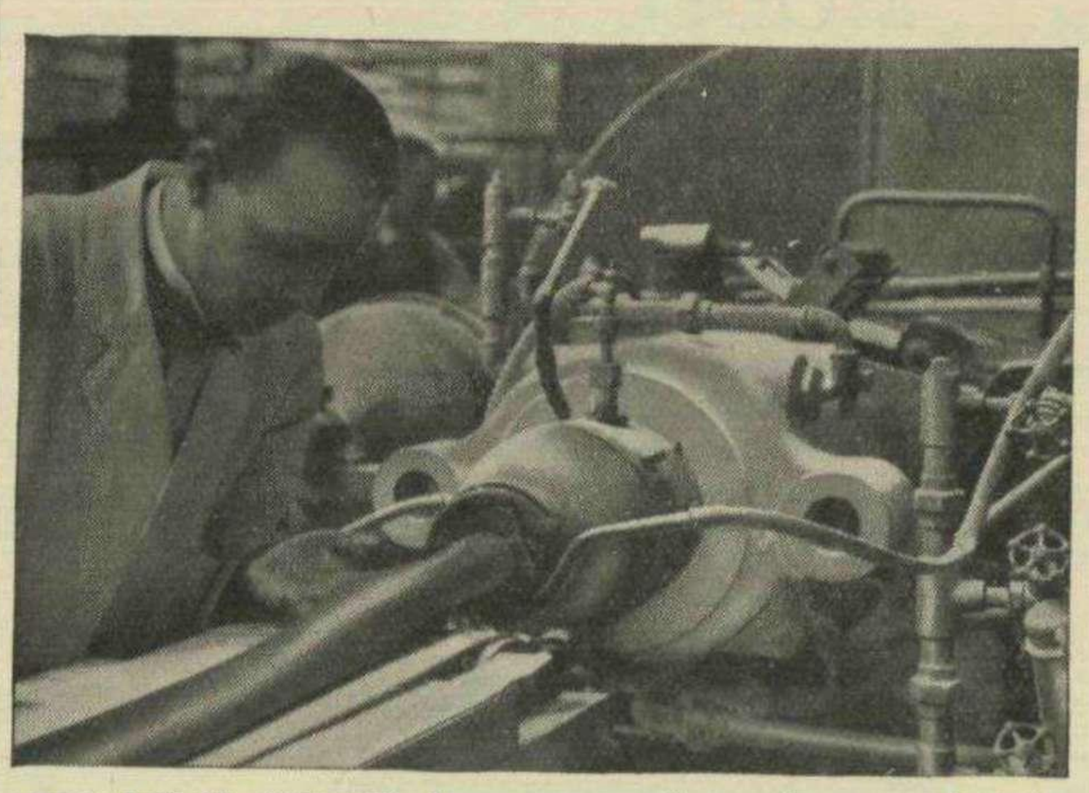
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INCORPORATING THE BROOKLANDS GAZETTE

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The Way of Things

ONE of the most important factors contributing to success in road-racing is constant practice, and it is in this particular that our rivals on the Continent have a very great advantage. There is always a good choice of road races, all held over difficult circuits, and all run off with an entry of well matched and expert drivers on cars really suitable for the work.

In this country we have no road races, or any races which do more than vaguely approximate to road-racing conditions. It is true that the amount of fuss and regulations covering the few events that we run at Brooklands would be ample if distributed over all the races in Europe, but this does not make them any more important, and we have to look to Ireland and the Isle of Man to provide conditions equal to the Continent.

To the Isle of Man and the A.C.U. Tourist Trophy we owe the supremacy of British motorcycles in road racing, as this provides the first great road race of the year and gives designers and riders a chance to prepare fully for the Continental races of the year.

In the car world the state of affairs is entirely different. Italy, France and Germany have been hard at it from the beginning of the season, and by the time our big races arrive they have a complete season's experience of their new models, as well as a fund of driving experience which we cannot hope to equal except by competing in all their events. This is at present impossible, and although a few of our more enterprising drivers represent us abroad, they are compelled to drive foreign cars to stand a chance, because we have no real road-racing cars made in this country suitable for a really difficult circuit.

The British Grand Prix run at Brooklands a few years ago, and the old J.C.C. 200-miles races with artificial turns showed that even with our limited facilities we could nearly approach a real race. To-day, however, we are confined to the Mountain races at B.A.R.C. meetings—better than nothing, but nothing to what might be done, while the Double-Twelve has one corner only.

Until a race on similar lines to these is revived we are steadily depriving this country of any chance of supremacy in road-racing, and are making our foreign rivals laugh at us for playing at motoring.

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Mr. S. C. H. DAVIS.

We are glad to be able to state that the condition of Mr. S. C. H. Davis, who met with a serious accident during the last Brooklands meeting, is now stated to be satisfactory. Readers will join with us in wishing him a speedy recovery.

DOUBLE-TWELVE PROSPECTS

Formidable numbers of entries in 750 c.c. Class—Meagre support of big car classes and stringent regulations may mar next week's big event.

ON May 8th and 9th of this month occurs practically the only long distance race held in this country. As such, every one will wish it every success, but at the same time it is evident enough that this year's event, while interesting to the keen follower of motor racing, will be sadly lacking in many of the points which go to make up a real motor race.

A glance at the entry list shows that the bulk of the entries are supplied by the 750 c.c. class, which consists of 10 Austins and 14 M.G. Midgets. As no other country goes in for racing cars of this size we are freed from foreign competition in this class, which is in fact the one class in which we are at the present time really supreme. This is quite apart from the lack of foreign cars of this size, as the performances put up by British "750"s have put them in a genuinely unassailable position.

Unfortunately the same cannot be said of some of the other classes in the race. In the 1100 c.c. class there is an official team of Rileys and three private Riley entries against one Maserati and one Amilcar, the latter a fairly old model

The 1½-litre class has a team of Aston-Martins and a team of Frazer-Nashes, two privately entered Alfa-Romeo's, two Lea-Francis and one Alvis. On last year's form an Aston-Martin should win this class and be well up in the general results, with a Frazer-Nash another good finisher.

The 2-litre class provides a solitary supercharged Lagonda in the hands of W. M. Couper, which in spite of its dull prospect as far as its class is concerned, may be relied upon to put up a good show.

A Bright Spot.

In the 3000 c.c. class we come on one of the brighter aspects of the race in the shape of a Talbot team and two of the famous 2½-litre Maseratis. Unfortunately it seems at the moment of writing that the Maseratis are doubtful starters owing to the difficulty of getting them properly prepared in time. They should be faster than the Talbots, but whether they can show the same stamina remains to be seen.

Apart from Cairne's Invicta in the 5000 c.c. we are only left with Earl Howe's Mercédès and Sir Henry Birkin in charge of Jack Barclay's big Bentley.

Any sort of forecast of a race so bound up with formulas and schedules is always hard to make with any confidence, but it is usual to make some attempt so the following is our choice. If the Maseratis are ready and have a clear run they should win outright, with Talbot and Aston-Martin as the next two in that order.

Given trouble among the leaders Rileys should be ready to step into the picture.

From the general point of view it seems that the race will be poor as a spectacle, being more of a long-distance reliability trial than a race. This is more especially so as the solitary corner is to be so hedged about with regulations, coloured lines, etc., that even this part of the circuit will be robbed of most of its interest.

When one considers the cars that might be entered, such as Bugatti, Delage, works Alfa-Romeos, O.M., Renault, Austro-Daimler, and official Mercédès, one asks what is wrong. The answer is simply that Continentalcrack drivers and makers, are not likely to spend time and money in entering for a race at a track so obstructed by red tape, when they can enter for a real race at their very doors almost any week of the season.

The J.C.C. are to be congratulated on their energy and enterprise in staging the only big race in this country, and it is not their fault that they are not able to employ a free hand in its arrangement.

CARS, ENTRANTS AND DRIVERS FOR THE J.C.C. DOUBLE-TWELVE.

Car	Entrant	Driver (1)	Driver (2)	Bore/Stroke in m.m.	No. of Cyls.	C.C.
Class B (Over 5,000 c.c. and up to 8,000 c.c.)						
Mercedes (S)	The Earl Howe	The Earl Howe	?	100/150	6	7068
Bentley	Jack Barclay (Jack Barclay, Ltd.)	Sir Henry R. S. Birkin, Bt.	B. O. Davies	100/140	6	6597
Class C (Over 3,000 c.c. and up to 5,000 c.c.)						
Invicta	F. H. Cairnes	G. Field	D. Froy	88.5/120.5	6	4467
Class D (Over 2,000 c.c. and up to 3,000 c.c.)						
Maserati (S)	M. C. Morris	G. E. T. Eyston	G. Ramponi	65/94	8	2494
Maserati (S)	M. C. Morris	E. Fronteras	R. S. Outlaw	65/94	8	2494
Talbot 1	A. W. Fox (Fox & Nicholl)	B. E. Lewis	J. S. Hindmarsh	75/112	6	2970
Talbot 2		T. E. Rose Richards	John R. Cobb	75/112	6	2970
Talbot 3		A. O. Saunders-Davies	?	75/112	6	2970
Talbot	E. Burt	E. Burt	S. J. Burt	69.5/100	6	2276
Class E (Over 1,500 c.c. and up to 2,000 c.c.)						
Lagonda (S)	W. M. Couper (Henry Birkin & Couper, Ltd.)	W. M. Couper	A. Bevan	72/120	4	1954
Class F (Over 1,100 c.c. and up to 1,500 c.c.)						
Lea Francis (S)	G. C. Dugdale	G. C. Dugdale	C. T. Delany	69/100	4	1496
Lea Francis (S)	E. N. Oetzmann	E. N. Oetzmann	F. Ivins	69/100	4	1496
Alvis (S)	E. Farley	E. Farley	?	68/102	4	1482
Alfa Romeo (S)	A. Methley	A. Methley	G. W. Olive	62/82	6	1487
Alfa Romeo (S)	J. R. Jeffress	J. R. Jeffress	C. Paul	62/82	6	1487
Frazer Nash 1 (S)	H. J. Aldington (A.F.N., Ltd.)	T. G. Moore	W. S. Braidwood	69/100	4	1496
Frazer Nash 2		C. M. Harvey	H. J. Aldington	69/100	4	1496
Frazer Nash 3		D. A. Aldington	Mrs. T. Wisdom	69/100	4	1496
Aston Martin 1	H. J. Aldington (A.F.N., Ltd.)	A. C. Bertelli	J. Bezzant	69/99	4	1493
Aston Martin 2		L. Cushman	?	69/99	4	1493
Aston Martin 3		H. W. Cook	J. D. Benjafield	69/99	4	1493

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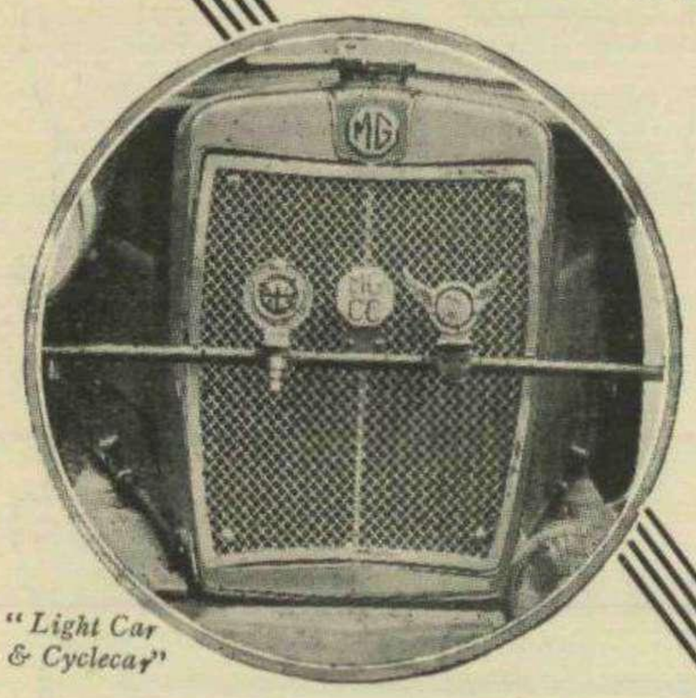
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DOUBLE-TWELVE PROSPECTS.—continued.

Car	Entrant	Driver (1)	Driver (2)	Bore/Stroke in m.m.	No. of Cyls.	C.C.
Class G (Over 750 c.c. and up to 1,100 c.c.)						
Amilcar (S)	B. L. Byrom	B. L. Byrom	J. C. Byrom	56/74	6	1097
Maserati (S)	H. Widengren	H. Widengren	R. F. Oats	51/66	8	1078
Riley	W. G. Iliffe			60/95	4	1089
Riley	R. S. Outlaw			60/95	4	1089
Riley 1	A. F. Ashby	A. F. Ashby	R. Pauling	60/95	4	1089
Riley 2	E. Martin	E. Martin	"R. M. Meredith"	60/95	4	1089
Riley 3	C. R. Whitcroft	C. R. Whitcroft	W. B. Scott	60/95	4	1089
Riley	W. A. Cuthbert	W. A. Cuthbert	?	60/95	4	1089
M.G. Midget	C. Balme	E. A. Pott	F. Macdonald	57/83	4	847
Class H (Up to 750 c.c.)						
Austin 1 (S)	Sir Herbert Austin	A. Frazer Nash	L. P. Driscoll	56/76	4	747
Austin 2 (S)	Sir Herbert Austin	G. Poppe	J. D. Barnes	56/76	4	747
Austin 3 (S)	Sir Herbert Austin	W. H. Green	S. F. Barnes	56/76	4	747
Austin (S)	V. S. Balls	V. S. Balls	A. B. Gilbert	56/76	4	747
Austin 4	G. H. R. Chaplin	A. D'Arcy Browne	G. H. R. Chaplin	56/76	4	747
Austin 5	G. H. R. Chaplin	E. C. H. Randall	H. H. B. Beacon	56/76	4	747
Austin 6	G. H. R. Chaplin	P. W. Marriage	H. J. Searle	56/76	4	747
Austin 7	Miss V. Worsley	Miss V. Worsley	R. Latham Boote	56/76	4	747
Austin 8	M. C. Lewns	M. C. Lewns	G. N. Torry	56/76	4	747
Austin 9	G. H. R. Chaplin	J. Reeves	W. E. Harker	56/76	4	747
M.G. Midget 1	The Earl of March (Kevill-Davies & March, Ltd.)	The Earl of March	C. S. Staniland	57/73	4	746
M.G. Midget 2	The Earl of March (Kevill-Davies & March, Ltd.)	H. D. Parker	G. K. Cox	57/73	4	746
M.G. Midget 3	The Earl of March (Kevill-Davies & March, Ltd.)	N. Black	C. W. Fiennes	57/73	4	746
M.G. Midget 4	C. J. Randall	T. V. G. Selby	G. Hendy	57/73	4	746
M.G. Midget 5	C. J. Randall	F. M. Montgomery	R. Hebeler	57/73	4	746
M.G. Midget 6	C. J. Randall	R. Gibson	L. Fell	57/73	4	746
M.G. Midget 7	A. T. G. Gardner	A. T. G. Gardner	R. C. Murton-Neale	57/73	4	746
M.G. Midget 8	A. T. G. Gardner	R. T. Horton	W. E. Humphreys	57/73	4	746
M.G. Midget 9	A. T. G. Gardner	R. R. Jackson	F. H. B. Samuelson	57/73	4	746
M.G. Midget 10	Hon. Mrs. Chetwynd	Hon. Mrs. Chetwynd	A. M. C. Jameson	57/73	4	746
M.G. Midget 11	H. H. Stisted	H. H. Stisted	J. Kindell	57/73	4	746
M.G. Midget 12	D. Higgin	D. Higgin	J. F. Field	57/73	4	746
M.G. Midget	G. Bradstock	H. C. Hamilton	S. V. Holbrook	57/73	4	746
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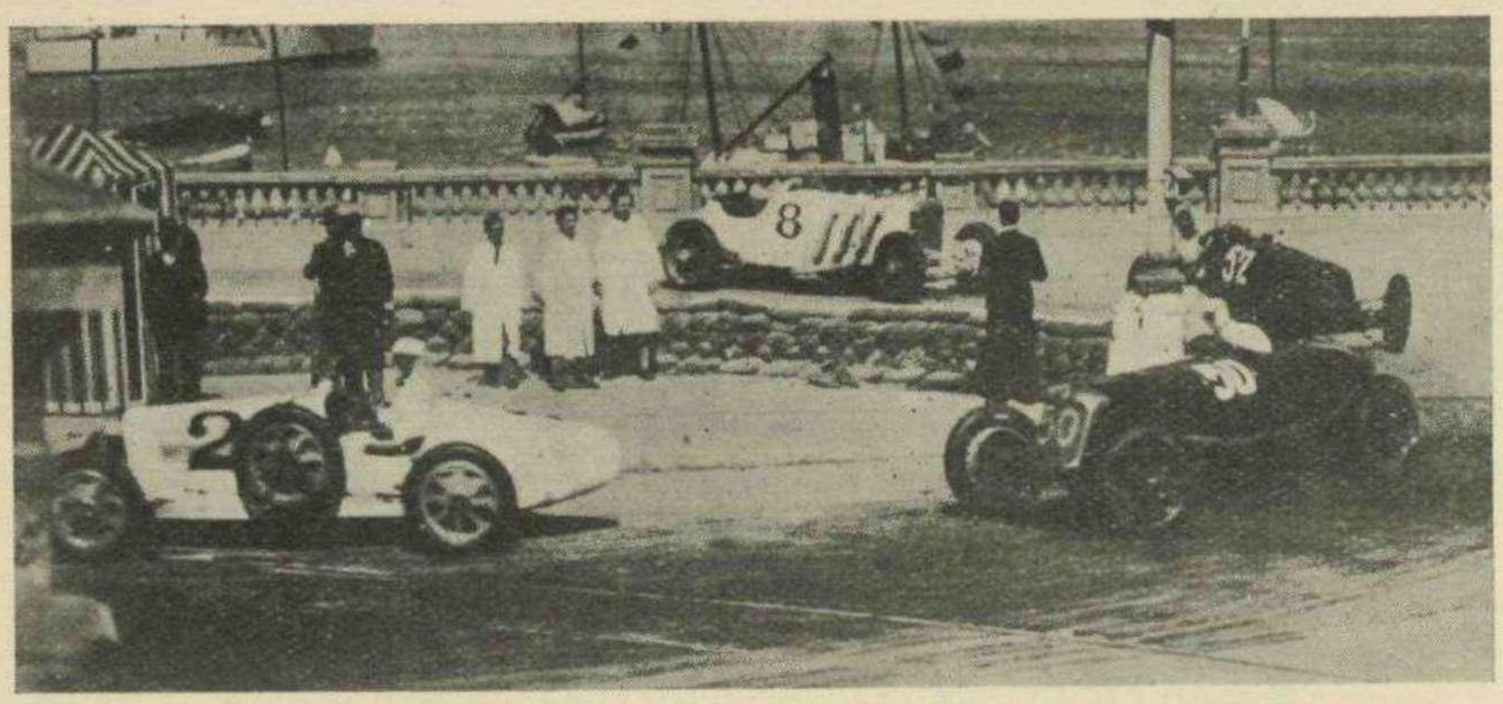
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The Grand Prix of Monaco



Scrrapping at close quarters. Burrgaller's Bug leading Dreyfus and Fagioli with Caracciola bringing up the rear, at the hairpin near the sea wall.

TWENTY - THREE : DASHING DRIVERS STRUGGLE FOR PREMIER PLACE IN TORTUOUS TOWN CIRCUIT : :

LOUIS CHIRON, driving one of the new 2,300 c.c. Bugatti racers with two overhead camshafts, won the third Grand Prix of Monaco, on Sunday, 19th April, covering the 198¾ miles course in 3 hours, 39 minutes, 9⅕ seconds, at an average speed of 54.1 m.p.h. Less than four minutes behind him came the Italian Fagioli on a 2½-litre Maserati, and another Italian "ace," Achille Varzi, on another of the new Bugattis was third. Of the twenty-three starters only nine finished the course, and the race was throughout a gruelling test to destruction.

Five Withdrawals.

The original twenty-eight entries which had been selected by the organisers of the race were reduced to twenty-three when the actual start was given. In the first place the team of three Alfa-Romeos which were to have been driven by the Italian champions, Nuvolari, Arcangeli and Borzacchini, was withdrawn as the firm was under contract to race only on a certain make of tyres which had proved unsatisfactory in the recent Italian 1,000 Miles Race. Then Sir Henry Birkin, one of the English entrants, was unable to start owing to the fact that his Maserati had blown its cylinder head joint, and Ivanowski, who was to have driven a big Mercédès was not allowed to take part in the race by the stewards as he had put in no practice laps on the circuit and had actually arrived late for the weighing in. The actual starters therefore consisted of Stuber, Ackerl, Williams, Albert Divo, Marcel Lehoux, Achille Varzi, Louis Chiron, von Morgen, Penn-Hughes, Philippe Etancelin, Lord Howe, Burggaller, Zanelli, Guy Bourriat, Count Czaikowski and Prince Leiningen on Bugattis; Réné Dreyfus, Biondetti, Fagioli and Pedrazzini on Maseratis; Rudolf Caracciola on his giant Mercédès; Zehender on an Alfa-Romeo, and André Boillot, running under the nom de guerre of Dribus on his veteran Peugeot racer. This machine which has existed more or less in its present form since 1922 and consits of a sports 4-litre cuff-valve engine in a pre-war 3-litre class racing chassis, had taken part in several Targa Florios.

At 1.30 on the Sunday afternoon these twenty-three competitors were drawn up on the starting line arranged in threes, with Dreyfus, Williams and Stuber in the front rank and Ackerl, Lehoux and Canavviola directly behind them. A stiff mistral was blowing the blue smoke from their exhausts across the course, but the sun shone brightly on the waiting line of red, white and blue racers. Then suddenly the flag dropped and with a deafening roar the whole pack shot away up the long hill towards the casino in a tightly packed mass. Two minutes and they were round again, the deafening noise of the exhausts echoing from the houses being almost drowned by the applause of the thousands of spectators packed into every available corner. Réné Dreyfus on the red Maserati was in the lead, but Williams on the Bugatti was hard on his heels with Lehoux just behind and then the rest of the field in a confused mass. Two more laps and another terrific burst of applause came from the crowd for Williams had passed Dreyfus and taken the lead, while Caracciola, after a terrific tussle with Varzi had leapt into fourth place. But Williams' lead was to last for only one lap, for the next time round it was again Dreyfus' red Maserati which led, and Williams who had fallen far back came into the pits to retire with a broken valve spring. Lehoux was now running second, but Varzi was coming up terribly fast to pass him and on the seventh lap amid wild excitement, he got past Dreyfus also, and took the lead. The order after ten laps was as follows:—

1. Varzi (Bugatti), 22m. 17s.
2. Dreyfus (Maserati), 22m. 21s.
3. Chiron (Bugatti), 22m. 26s.
4. Caracciola (Mercédès), 22m. 29s.
5. Miondetti (Maserati), 22m. 44s.
6. Bouriat (Bugatti), 22m. 48s.

The times of the leaders at this point give some idea of the severity of the struggle. From the spectators point of view the chief impression of the race was of a deafening din and a confused mass of cars shooting past so close together that it was difficult to distinguish their exact order. The competitors frequently racing almost

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regret to inform Lagonda Owners that, in view of the B.A.R.C.'s refusal to let the Brooklands Track for the purpose of Private Meetings, they are unable to repeat the highly successful Rallies which have been organised by the Lagonda Company during the past three years.

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THE GRAND PRIX OF MONACO—continued.

wheel to wheel, breathing each other's exhaust fumes and negotiating ten difficult corners each lap had a hard task indeed. Lehoux had already retired down by the sea-wall with a stripped crown-wheel in his back axle, and shortly afterwards he was followed by Etancelin whose Bugatti broke a piston.

Chiron's Progress.

Chiron had by now begun to go really fast and a few laps later he passed Dreyfus and gained second place. Divo also was moving up and Biondetti dropped back. The order after twenty laps was as follows:

1. Varzi (Bugatti), 44m. 4s.
2. Chiron (Bugatti), 44m. 25s.
3. Dreyfus (Bugatti), 44m. 41s.
4. Caracciola (Mercédes), 44m. 50s.
5. Bouriat (Bugatti), 44m. 51s.
6. Divo (Bugatti), 45m. 10s.

The Bugatti position thus looked fairly secure as the cars from Molsheim now occupied five out of the first six places. Chiron meanwhile was gradually creeping up on Varzi, and on the twenty-fourth lap Bouriat managed to pass Caracciola and gain fourth place. Then on the next lap Dreyfus drew into his pit and worked for nearly eight minutes repairing a broken oil pipe. He got going again, but of course he was now far behind the leaders. Then on the 27th lap Varzi came into the pits with a smashed front wheel and burst tyre and Louis Chiron took the lead which he was not to lose again throughout the race. The public excitement was terrific for Chiron is a native of Monaco and a great favourite. At the end of 30 laps the positions were as follows:—

1. Chiron (Bugatti), 1h. 6m. 24s.
2. Bouriat (Bugatti), 1h. 7m. 7s.
3. Caracciola (Mercédès), 1h. 7m. 9s.
4. Divo (Bugatti), 1h. 7m. 18s.
5. Varzi (Bugatti), 1h. 8m. 23s.
6. Biondetti (Maserati), 1h. 8m. 26s.

Fagioli on the second Maserati who was then in seventh place suddenly seemed to find his form at this point, and with a tremendous burst of speed he came right up on the 31st lap into second place behind Chiron. A few laps later Divo managed to get past Caracciola and gained fourth place, but Burgaller and von Morgen had now both retired from the race. On the 39th lap Divo came into his pit, his trouble being apparently a slipping clutch, and although he got going again he had to stop twice more and was passed by both Caracciola and Varzi who was driving desperately to try and make up for lost time. At the end of 40 laps the order was as follows:

1. Chiron (Bugatti), 1h. 28m. 18s.
2. Bouriat (Bugatti), 1h. 29m. 6s.
3. Caracciola (Mercédes), 1h. 29m. 25s.
4. Varzi (Bugatti), 1h. 30m. 15s.
5. Divo (Bugatti), 1h. 30m. 28s.
6. Fagioli (Maserati), 1h. 30m. 51s.

Divo continued to fall back as a result of pit stops and was passed by both Fagioli and Lord Howe who thus gained sixth place but otherwise the order remained practically unchanged until 50 laps, half distance, had been covered. Then soon afterwards Caracciola was seen coming very slowly out of the tunnel and returned to his pit to retire after working for some time to try and cure a slipping clutch. This withdrawal robbed the race of a great feature of interest, and shortly afterwards Zanelli fell out with a broken piston to be quickly followed by Prince Leiningen, with a broken selector mechanism. Fagioli, however, put on another spurt and regained second place, the order after 60 being as follows:—

1. Chiron (Bugatti), 2h. 11m. 55s.
2. Fagioli (Maserati), 2h. 13m. 8s.
3. Bouriat (Bugatti), 2h. 13m. 31s.
4. Varzi (Bugatti), 2h. 14m. 28s.
5. Divo (Bugatti), 2h. 18m. 17s.
6. Lord Howe (Bugatti), 2h. 18m. 24s.
7. André Boillot (Peugeot), 2h. 20m. 9s.
8. Zehender (Alfa-Romeo), 2h. 21m. 0s.
9. Biondetti (Maserati), 2h. 21m. 26s.

Among the slower cars, André Boillot's old Peugeot was running with amazing regularity and was followed by Zehender's 1,750 c.c. Alfa-Romeo which was also a Targa Florio car consisting of a bonnet and two bucket seats on the chassis. A few laps later Bouriat managed to pass Fagioli and gained second place, but Chiron was still nearly a lap ahead. Divo however, drew up at his pit and retired with a broken ball-race in the engine, and he was shortly afterwards followed by Lord Howe, whose Bugatti's engine seized as a result of the fracture of an oil pipe. After 80 laps had been covered the order was as follows:—

1. Chiron (Bugatti), 2h. 55m. 35s.
2. Bouriat (Bugatti), 2h. 57m. 33s.
3. Fagioli (Maserati), 2h. 57m. 55s.
4. Varzi (Bugatti), 2h. 59m. 7s.
5. Zehender (Alfa-Romeo) 3h. 4m. 55s.
6. Dreyfus (Maserati), 3h. 4m. 59s.
7. Boillot (Peugeot), 3h. 6m. 45s.

In spite of the number of withdrawals the competition among the leaders showed no sign of slackening, and Chiron covered the 80th lap in 2 minutes 8 seconds which is equal to the record set up by Dreyfus last year. This performance was repeated by Fagioli four laps later, and Bouriat having stopped to change his plugs, the former regained second place. In the meantime Pedrazzini had retired from the race, his Maserati suffering from ignition troubles. The end was now approaching, and finally soon after five o'clock, Chiron crossed the finishing line, winner of the third Grand Prix of Monaco.

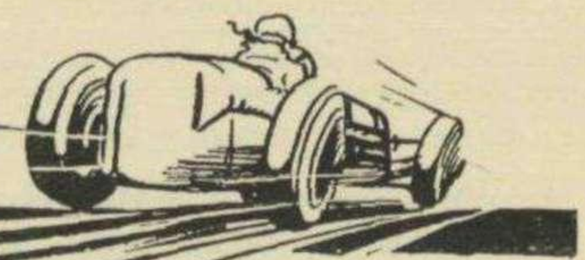
A Car to Watch.

Thus the new Bugatti racer has already proved its outstanding performance and will be watched with great interest in future races. The Maserati has given a good account of itself as usual, and Fagioli has proved himself a brilliant driver. The final result was as follows:—

1. Chiron (Bugatti), 3h. 39m. 9$\frac{1}{5}$s'
2. Fagioli (Maserati), 3h. 43m. 4$\frac{3}{5}$s.
3. Varzi (Bugatti), 3h. 43m. 13$\frac{1}{5}$s.
4. Bouriat (Bugatti), having covered 98 laps.
5. Zehender (Alfa-Romeo), having covered 97 laps.
6. Boillot (Peugeot), having covered 96 laps.
7. Biondetti (Maserati), having covered 93 laps.
8. Penn-Hughes (Bugatti), having covered 89 laps.
9. Czaikowski (Bugatti), having covered 85 laps.

Rumblings

BOANERGES



IT has become rather the fashion in recent years to make a terrific fuss about any achievement in which the fair sex has taken a hand, and with the help of the "stunt" press this has been carried a bit far on some occasions. There are exceptions to most rules, however, and Mrs. Stewart's latest efforts at Monthlery have hardly received the publicity they deserve. Her recent records at over 140 m.p.h. are one of the finest bits of fast motoring that have been performed for a long time, and when it is realised that she has come within 4/5th of a second of the lap record for this track, and that the fastest track in Europe, no praise can be too high.

* * *

TALKING of lap records, I gather there is likely to be a certain amount of activity in this direction at Brooklands before very long, as Birkin is fully determined to knock something off Kaye Don's record, and if he does so Kaye Don, provided he is not dashing about in Miss England II at the far ends of the earth, is pretty certain to come and have another stab at it, so that 140 m.p.h. for this track may not be so far off after all. It is not yet settled what motor he is likely to use (Birkin I mean), but it will probably be a big Maserati; either that or the single seater Bentley with a little more blow in the blower. When I was up at Welwyn recently I saw an ever so enormous Powerplus blower which Eyston had sent along, and it would seem that this plus the Bentley might equal one lap record. It would, of course, be nice for old times' sake, and British prestige, and all that sort of thing, if the Bentley did its stuff once more, but I can't get away from the feeling that a foreign car doing something rather drastic at Brooklands would be a good idea, as it might at least wake this country up to the fact that it has no pukka racing cars in the faster classes, other than jobs many years old and a trifle out of date. If we tried to think of a British car which would stand a real chance in say, the Targa Florio—well, we should have to think pretty hard, that's all!

* * *

THERE is still somewhere, I believe, the big Maserati of some 4 litres or so, which was built for attacking the record for the highest speed ever attained on a road. Such a record is not, I fear, included in the official list of word's records, but it is a sporting proposition all the same, and the story of the building of the said car is quite amusing. Maserati, as you know, goes in for building any sort of racing car of any size for any purpose, and if you go to him with enough money and think of a good number in m.p.h. (or more properly k.p.h.), he will build you a motor to do that number. Complete satisfaction or money back, sort of touch. Well, the yarn goes that someone with the right amount of money went and said, "What about a motor car for the fastest speed ever on a road?"

So they superimposed or otherwise amalgamated two or three of the smaller Maserati engines and the answer was so many B.H.P. that the originator of the idea thought better of it, and said to Signor Maserati, "After you," or words to that effect, so that the great man stepped into the vehicle himself, and the answer to *that* was about 175 m.p.h., or so one is led to believe. Of course, none of this is particularly official, and as the city editor of my daily paper says, in his remarks on what I should do with my money if I had any, "advice to readers is only given on the understanding that no legal or other liability is incurred"! Still it would be rather fun if something like that did come over here.

* * *

IT does not seem too likely at the moment that the Maseratis will be over in time for the Double Twelve, and in any case they will be very "last-minute." However, they will not be the only last minute cars for this race, as the M.G. Midgets have still a good way to go, as it is a big job fulfilling orders for such a big entry. Thompson and Taylors have been preparing one or two of these engines and they are giving very good results, not that this is any surprise from T. and T's. When I was down there the other day they were just putting through a big batch of special quick-filler caps, similar to the Bentley ones of last year, but smaller, to suit small racers. Anybody who is stuck for a proper quick-acting filler cap, and wants a real genuine article, should apply as above. Incidentally they are a great convenience on any sports car, and easy enough to get fitted.

* * *

SAW one of the Double-Twelve Frazer-Nashes in their body shop the other day, and a very nice looking motor-car it is. They are all being built as very normal sports cars, as two of them are privately owned, and not being built only for the race will require to be useful vehicles for long distance road work afterwards. Hence they are not ridiculous "just-within-the-rules one-purpose-only," cars, but something to carry crew *and* luggage in comfort in their subsequent careers. There is still a certain amount of vagueness about who is driving what as I write, but this will soon clear itself up. It appears, however, that the Merc is likely to have a competitor in the form of one of last year's big Six Bentleys, so there may be a race in the big class after all. What a pity there are not three of each instead of only one. Then things would happen.

* * *

AS a result of a terrific cyclone in March, Sicily has suffered from extensive landslides, which among other things have carried away part of the Madonie Circuit over which the famous Targa Florio was to be run on 12th May. As a result it has been found impossible to repair the road in time for the race, as for about 10 miles near Polizzi it has almost entirely disappeared. Vincenzo Florio has, therefore, decided that this year's race shall be run over the Long Madonie Circuit, which passes through Petralia, Geraei and Castelbono, and measures some 91 miles to the lap. The cars are to cover this circuit four times, making a total distance of 365 miles.

This circuit was used for all the races from 1906 to 1911, the highest average over it being set up by Trucio on an Isotta-Fraschini in 1908, who covered three laps (or 277.26 miles exactly), at 35.5 m.p.h. In spite of the change in the course it is expected that the race will witness a terrific duel between the Alfa-Romeo, Bugatti and Maserati teams.

* * *

THE days are now past when the sight of any catalogue dealing with motor cars made my imagination run riot while gloating over the models depicted therein, but even now one occasionally comes across something out of the ordinary in this line. Such a production is the book (one could hardly be so rude as to call it a catalogue) which I recently received from University Motors dealing with the makes for which they are agents.

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Sports Model with supercharger £225. Without supercharger

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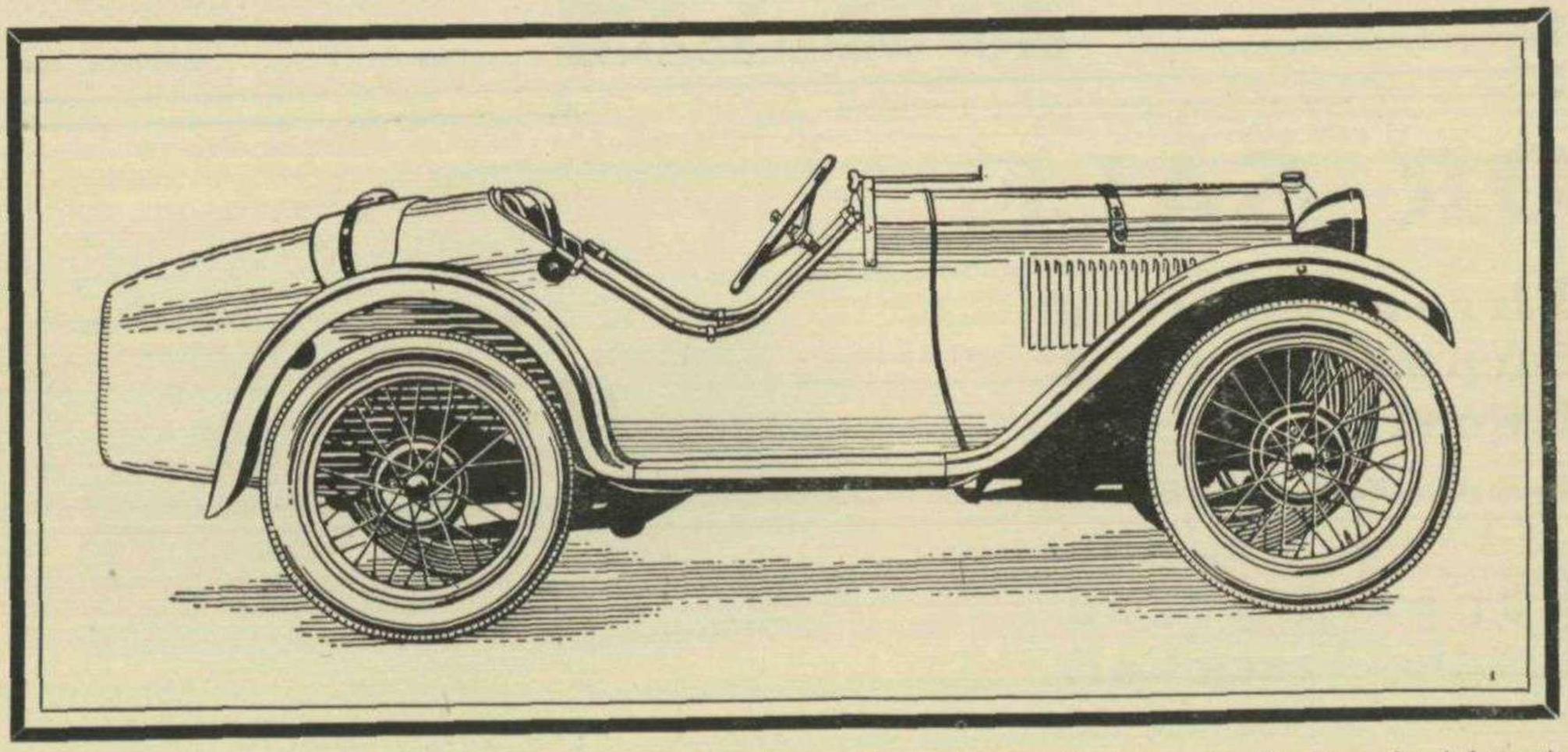
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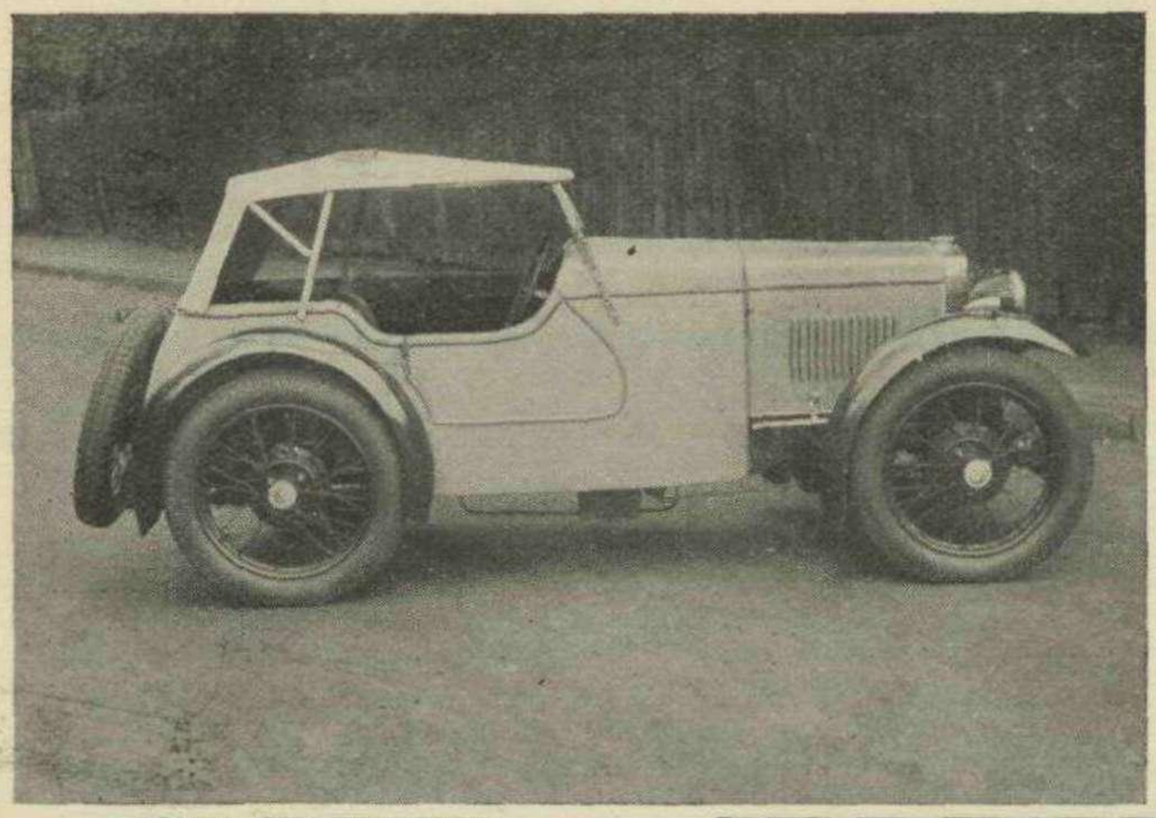
Overall length 10 ft. Wheelbase 6ft. 3ins. Weight (approx) 8½ cwt. Engine bore 2.2 ins. (56 m.m.). Stroke 3.0 ins. (76 m.m.) 747 c.c. R.A.C. rating 7.8 h.p. Ignition by coil. On supercharged model, by magneto. Single-plate clutch. Three forward speeds and reverse. Ratios 4.9 to 1 ; 7 to 1 ; and 12.5 to 1 ; reverse 16.5 to 1. Three-quarter floating rear-axle, with final drive by shaft and helical bevel. Semi-elliptic front spring, quarter elliptics at rear. Worm and wheel steering. 5¾ gallon fuel tank with reserve tap. Also an air pump and pressure gauge for petrol feed on supercharged model.

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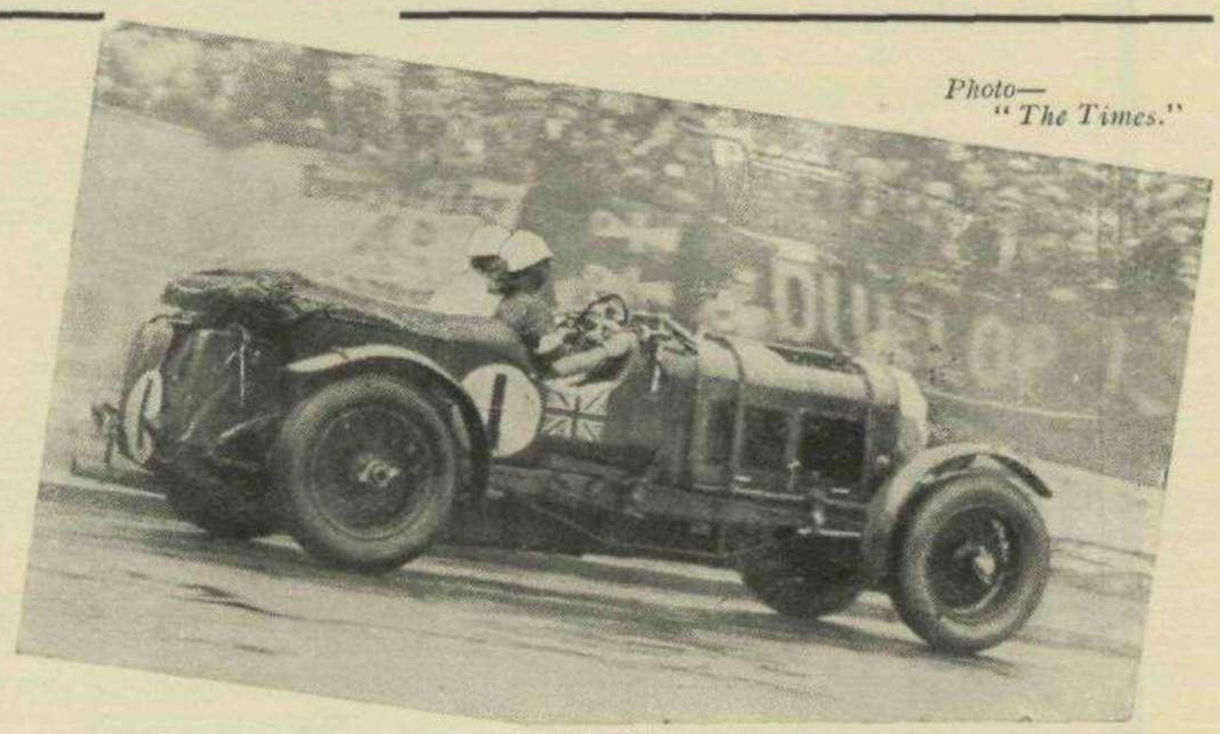
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1930 PERFORMANCES.

JULY. IRISH GRAND PRIX, DUBLIN
4th Place. Winner, Class C.
Average Speed, 78.85 m.p.h.

AUG. TOURIST TROPHY RACE,
Winner, Class C. BELFAST.
Average Speed, 68.78 m.p.h.

SEPT. FRENCH GRAND PRIX, PAU.
2nd Place.
Fastest Speed, 142.449 k.p.h.

OCT. 500-MILES RACE, Brooklands.
2nd Place.
Fastest Lap. 122.97 m.p.h.
Winner, Class C. Team Prize.
Average Speed, 112.12 m.p.h.

TRACK CAR—Brooklands EASTER MEETING
Lap Record 135.33 m.p.h.
and
Bedford Short Handicap 117.81 m.p.h.
Kent Open Meeting Long Handicap 119.13 m.p.h.

Mercédès Wins "1,000 Miles"

Caracciola's Great Victory —Alfa-Romeo Second— O.M. Third.

WHEN on the morning of Sunday, 12th April, Rudolf Caracciola and Sebastian roared into Brescia on their giant white Mercédès-Benz, travel-stained with all the dust of Italy, they had succeeded for the first time in the history of the event in winning the great Italian 1,000 Miles Race on a foreign car. Italy had fought hard, but she had to be content with second place, for Campari and Marinoni on a 1,750 c.c. 6-cylinder Alfa-Romeo arrived in Brescia eleven minutes after the German car, and seven minutes later came a 2½-litre side-valve 6-cylinder O.M. driver by Morandi and Rosa. The new 8-cylinder 2½-litre Alfa-Romeos had failed, and the first of them driven by Tazio Nuvolari and Guidotti, could only finish ninth. The 5-litre double-overhead camshaft Bugatti, driven by Achille Varzi, the champion driver of Italy, had fallen by the wayside, and the official team of 12 supercharged Fiat sports models had never started in the race as it had proved impossible to get them ready in time.

As soon as the entry list closed it became obvious that the fifth 1,000 Miles Race was going to prove every whit as popular and as interesting as its predecessors. In the first place it was evident that this year more foreign competition had materialised. As well as Caracciola's big white Mercédès, which it was known had been very carefully prepared this year, following its owner's capture of sixth place in 1930, there was another which Strazza, whose scheme to put a Dilambda Lancia engine into his old racing Lambda chassis apparently never materialised, had agreed to drive in company with its owner, Signor Maino. Three more big Mercéd s had also been entered, and what promised to be one of the most dangerous foreign cars in the race was one of the new 5-litre Bugattis with two overhead camshafts, driven by Achille Varzi.

Against this foreign competition was ranged a formidable number of Italian cars. Alfa-Romeo had succeeded in getting two of the new 2,300 c.c. 8-cylinder cars ready in time for the race, and these were to be driven by Tazio Nuvolari, last year's winner, with Guidotti, and Luigi Arcangeli with Guatta. They were backed up by the rest of the official team consisting of Guiseppe Campari and Marinoni and Bozacchini and Siena on 1,150 c.c. 6-cylinder cars, and as well no fewer than twenty-four more Alfas of the same type and half a dozen 1,500 c.c. machines had been entered. In spite of the absence of the official team, some seven amateurs had entered new 1,500 c.c Fiats, but after the Alfas, the most dangerous competitors seemed likely to be the 2½-litre 6-cylinder O.M. cars which included among their drivers Morandi, Rosa, and Zaccarini. There were also several Italas, Bianchis, Lancias of both the Dilambda and Lambda types, and Maseritis driven by amateurs.

In the 1,100 c.c. division there figured the only British entry, a 750 c.c. Austin, driven by an Englishman, Goodacre, who could speak no word of Italian, and Trevisan, an Italian who could speak no English. Against it were matched a couple of 1,100 c.c. Maseratis, a number of Model 509 Fiats, and some Salmsons and Amilcars.

Continental Keenness.

The town of Brescia on the morning of Saturday, 11th April, closely resembled an inferno. Of the 150 entries, no less than 98 had actually come to the starting point, and as well as them, some thousands of touring cars had poured into the town. Everywhere competitors and others were opening out engines wide or dashing about with unsilenced exhausts blowing "pip-squeak" horns. Italy, in fact, was preparing for a great motor race. From Brescia these 98 competing cars were going to be sent by Cremona, Parma, Bologna, Florence, Poggebonzi, Sienna and Viterbo to Rome; then doubling back they would cross the peninsula by Terni Perugia and Macerata to the Adriatic at Ancona; and thence they would strike North again by Pesaro and Foili back to Bologna, to turn East again to Rovigo, Padua, Treviso and Feltre before returning West again by Primolano and Vicenza back to Brescia. A great figure of eight course over half Italy—racing for one thousand miles over ordinary roads more or less unguarded except in the towns and villages!

As the hour of one o'clock in the afternoon approached the excitement in Brescia grew more and more intense, until at last the first car, a Fiat driven by Dilitto, which was running in the "Utility" class, was sent away on its long journey. The others followed at two minute intervals, and so the long line of cars gradually moved up to the starter and were despatched in what is the greatest road race since Paris-Madrid. The "Utility" cars consisting chiefly of Fiats and Bianchis went first, and then came the 1,100 c.c. machines, including the little Austin, which was painted yellow and carried a G.B. plaque on its tail. Finally came the big cars, and the excitement reached a crescendo of intensity. We watched the burly Campari shoot off on his little red Alfa, and then with a shrill whine Rudolf Caracciola's giant white Mercéd s was despatched hot on his heels. Immediately afterwards came Arcangeli on one of the new 2,300 c.c. Alfas, and shortly afterwards Morandi and Rosa on the fastest of the O.M.'s. Nuvolari on the second big Alfa was followed away from the start by the big Mercédès driven by Maino with Strazza by his side, and behind them came Borzacchini on the second official 1,750 c.c. Alfa. Finally towards the end Achille Varzi was despatched on his big Bugatti, amid considerable excitement. The day before the race the camshaft drive of his new racer had broken and Varzi had spent the night before the race fitting a new engine. Worn out he had then gone to sleep in a café and had been awakened only just before he was due to be sent away. Then on the very starting line, the engine refused to start, until the mechanic had leapt out and done something beneath the bonnet, and at last the big French car got away. Twelve miles from Brescia it had broken down by the roadside with a broken water pump drive.

The Merc's Getaway.

From Brescia to Bologna the road runs dead level over the plains of Northern Italy, for the most part dead straight, and it was on this section that the fastest speeds in the race were expected to be made. Caracciola's great white Mercédès started off like the wind, and it was soon apparent that in the matter of sheer speed it had the measure of all its competitors. The car was a special light edition of the famous 38/250 h.p. model, developed its full power at 3,400 r.p.m. and was capable of nearly 130 m.p.h. At Cremona, some thirty miles from Brescia, Caracciola led, at Parma he was still in the lead and had covered 115 kilometres at over 95 m.p.h., Reggio still saw him ahead, and finally he roared into Bologna, having covered the first 128 miles of the race in 1 hour 21 minutes, or at an average of 95.7 m.p.h., and had beaten last year's record set up by Arcangeli on a Maserati by eight minutes. The Italians had evidently got to fight hard, and already their chief hope, the new Alfa Romeos, had begun to suffer from tyre troubles. Arcangeli's car had cast two treads on the way to Bologna, and it was Morandi and Rosa on the 6-cylinder side-valve O.M. who were second seven minutes behind the Mercéd s, with Campari third on the 1,750 c.c. Alfa in 1 hour 29 minutes, Nuvolari on the first of the straight-eights fourth in 1 hour 30 minutes with Borzacchini and Arcangeli fifth and sixth.

Almost as soon as Bologna is left the road enters to Apennines, and in some thirty miles climbs to the wild summit of the Raticosa Pass, and then drops down before climbing again to the Futa Pass whence starts the descent into Florence. It was on this section that the smaller cars hoped to catch the big Mercéd s, but at Florence Caracciola still led, and Nuvolari on the big Alfa had moved up into second place. The order at this point, after some 200 miles was as follows:—

1. Caracciola (Mercédès), 2h. 45m.
2. Nuvolari (Alfa-Romeo), 2h. 50m.
3. Morandi (O.M.), 2h. 51m.
4. Campari (Alfa-Romeo), 2h. 52m.
5. Arcangeli (Alfa-Romeo), 2h. 58m.

MERCEDES WINS "1000 MILES."—continued

In the 1,100 cc. class Tufanelli on the Maserati was leading, but the little Austin was running second and arousing universal admiration.

From Florence to Rome the road is again mountainous, but as far as Sienna, Caracciola still held the lead, and Nuvolari was still some five minutes behind. As they were sent away again, darkness was falling, and its effect on the race was immediate. There was no doubt that Caracciola was happier in the light, but the Italians did not seem to mind the darkness in the least and on the winding roads leading into Rome, Nuvolari passed the German and took the lead. The order when the capital was reached after 372 miles was thus as follows :—

1. Nuvolari (2,300 c.c. Alfa-Romeo), 6h. 1m. 49s. (Average speed 62.5 m.p.h.).
2. Caracciola (Mercédes), 6h. 3m.
3. Campari (1,750 c.c. Alfa-Romeo), 6h. 6m.
4. Borzacchini (1,750 c.c. Alfa-Romeo), 6h. 8m.
5. Arcangeli (2,300 c.c. Alfa-Romeo), 6h. 11m.
6. Morandi (O.M.).

Between Brescia and Rome, Arcangeli and his mechanic had changed nine tyres and in the capital it was decided to change over to Dunlops. Then in the darkness the cars were despatched once more for the second crossing of the Apennines, this time from West to East. In this night-time crossing of the mountains the particular ability of Borzacchini began to be shown, and he worked his way up until he had passed Nuvolari, who like Arcangeli had begun to suffer from tyre troubles. At Terni, some 440 miles from Brescia, he held the lead and Caracciola was falling steadily back at Spoleto ; some 455 miles from the start the order was as follows :—

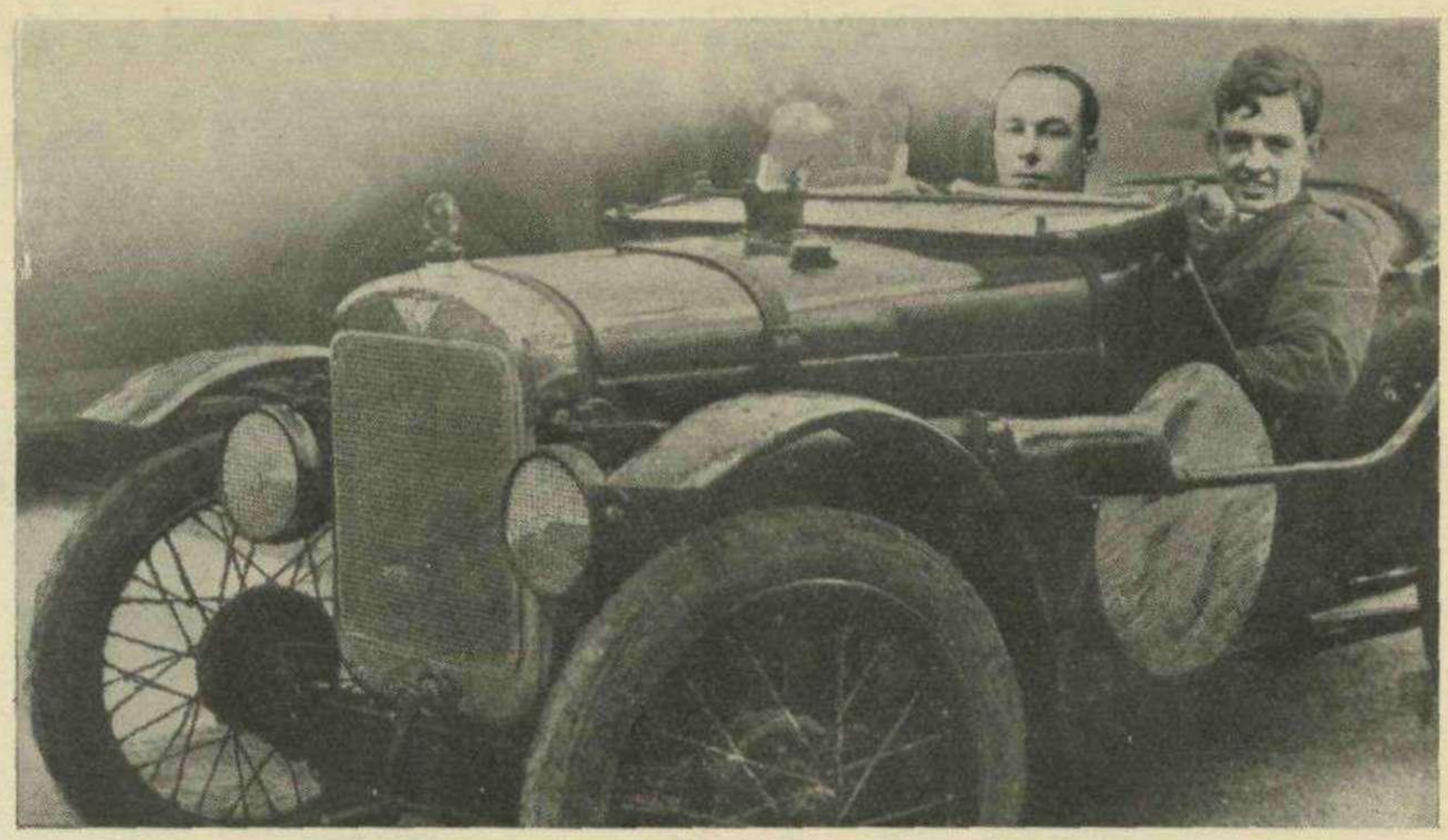
1. Borzacchini (1,750 c.c. Alfa-Romeo).
2. Campari (1,750 c.c. Alfa-Romeo).
3. Arcangeli (2,300 c.c. Alfa-Romeo).
4. Morandi (O.M.).
5. Nuvolari (2,300 c.c. Alfa-Romeo).
6. Caracciola (Mercédès).

Now it was Campari's turn, and on the next stage he passed Borzacchini to take the lead, the latter continued to fall back and Caracciola was working his way up again. At Ancona on the Adriatic, after 583 miles of the race had been covered, the order was as follows :—

1. Campari (Alfa-Romeo).
2. Arcangeli (Alfa-Romeo).
3. Caracciola (Mercédès).
4. Borzacchini (Alfa-Romeo).
5. Nuvolari (Alfa-Romeo).
6. Morandi (O.M.).

From Ancona the road runs Northwards, dead straight along the shores of the Adriatic, and it was here that Arcangeli began to use the full power of his straight-eight Alfa. He passed Campari to take the lead in the race, and when Bologna was reached for the second time, after 752 miles of the race had been covered, the order was as follows :—

1. Arcangeli (Alfa-Romeo), 12h. 7m. (Average speed 62.1 m.p.h.).
2. Campari (Alfa-Romeo), 12h. 12m.
3. Caracciola (Mercédès), 12h. 15m.



The solitary British entrant in the great Italian race. The Austin Seven which averaged 46.8 m.p.h. and secured second place in the 1,100 c.c. class.

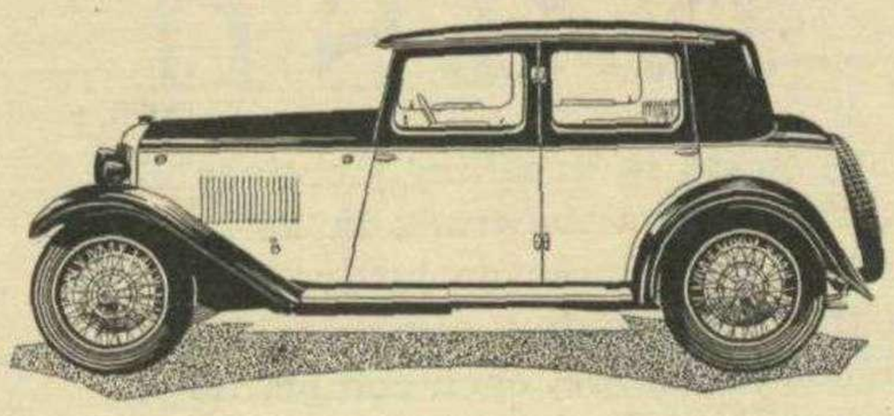
4. Borzacchini (Alfa-Romeo), 12h. 20m.
5. Morandi (O.M.), 12h. 27m.
6. Nuvolari (Alfa-Romeo), 12h. 29m.

Three quarters of the race gone, and the Alfas seemed to have the matter well in hand ; but as the cars were sent away from Brescia one major factor in the race was changed, for dawn was breaking. Immediately Caracciola seemed to come to life again : a low mist hung over the plains across which the road runs to Terni, but the German driver seemed to disregard it and his great white car roared past both Campari and Arcangeli to recapture the lead which it had lost when darkness fell. At Padua, 774 miles from the start he was leading, having averaged 61.9 m.p.h. At Treviso, at Vicenza and at Verona he was still ahead, and first on time he was despatched on the last stage to Brescia. In vain the Italians tried to reply, but both Arcangeli and Borzacchini skidded on the wet streets of Verona and wrecked their Alfa-Romeos, and Nuvolari's car had been held up with clutch troubles. Alone Campari was left to chase the Mercédès, and in the daylight his little Alfa could not live with the big German car. As Caracciola roared into Brescia he had won the fifth 1,000 Miles Race, having covered the distance in 16 hours 10 minutes, 10 seconds, or 8 minutes 49 seconds faster than last year's record, and having averaged 62.85 m.p.h. Campari on his little red Alfa was second, and Morandi on the O.M. third. Of the 98 starters, 57 finished, and the final order was as follows :—

1. Caracciola and Sebastian (Mercédès), 16h. 10m. 10s.
2. Campari and Marinoni (Alfa-Romeo), 16h. 21m. 17s.
3. Morandi and Rosa (O.M.), 16h. 28m. 35s.
4. Klinger and Saccomandi (1,750 c.c. Alfa-Romeo), 17h. 7m. 57s.
5. Gerardi Brothers (1,750 c.c. Alfa-Romeo), 17h. 8m. 6s.
6. Scarfiotti and Bucci (1,750 c.c. Alfa-Romeo), 17h. 27m. 36s.
7. Tadini and Siena (1,750 c.c. Alfa-Romeo), 17h. 39m. 50s.
8. Gazzabini (1,750 c.c. Alfa-Romeo saloon), 17h. 47m. 8s.
9. Nuvolari and Guidotti (2,300 c.c. Alfa-Romeo), 17h. 48m. 25s.
10. Cornaggia and Premoli (1,750 c.c. Alfa-Romeo), 17h. 48m. 50s.
11. Boni and Severi (1,750 c.c. Alfa-Romeo), 17h. 49m. 50s.
12. Cortese (1,750 c.c. Alfa-Romeo saloon), 17h. 59m. 1s.
13. Rusca (1,750 c.c. Alfa-Romeo), 17h 59m. 29s.
14. Caniato and Sozzi (1,500 c.c. Alfa-Romeo), 18h. 30m. 34s.
15. Facchetti and Maffezzoni (2½-litre Itala), 19h. 2n. 23s.
16. Zaccarini and Cicognani (2½-litre O.M.), 19h. 14m. 44s.
17. Cobianehi and Pagani (1,750 c.c. Alfa-Romeo). 19h. 27m. 47s.
18. Gilera and Manzoni (5-litre Fiat), 19h. 28m. 29s.
19. Gatti and Crivelli (Alfa-Romeo), 19h. 32m. 2s.
20. Faccioni (5,000 c.c. Fiat), 19h 40m. 22s.
21. Giavosa (Lancia Dilambda), 19h. 42m. 51s.
22. Tuffanelli and Bertocchi (1,100 c.c. Maserati), 19h. 48m. 40s). (Winner 1,100 class. Average 51.4 m.p.h.).
23. di Liddo and Rucceri (1,500 c.c. Fiat), 20h. 12m. 10s. (Winner Utility class. Average 50.3 m.p.h.).
24. Restelli and Sieri (1,500 c.c. Alfa-Romeo), 20. 15m. 50s
25 Pelizzari and Adorno (5-litre Fiat), 20h. 33m. 52s.
26. Bruno and Rabbi (1,750 c.c. Alfa-Romeo), 20h. 35m. 46
27. Cromi (Fiat), 20h. 37m. 50s.
28. Ferrari and Bertosio (1,500 c.c. Fiat), 20h. 41m. 7s.
29. Biagioni Brothers (1,500 c.c. Fiat), 20h. 43m. 37s.
30. Kehler and Raggeri (1,750 c.c. Alfa-Romeo), 20h. 46m. 50s.
31. Mignini and Manzonani (1,500 c.c. Fiat), 20h. 46m. 55s.

Continued on page 321

THE RILEY EXPERTS



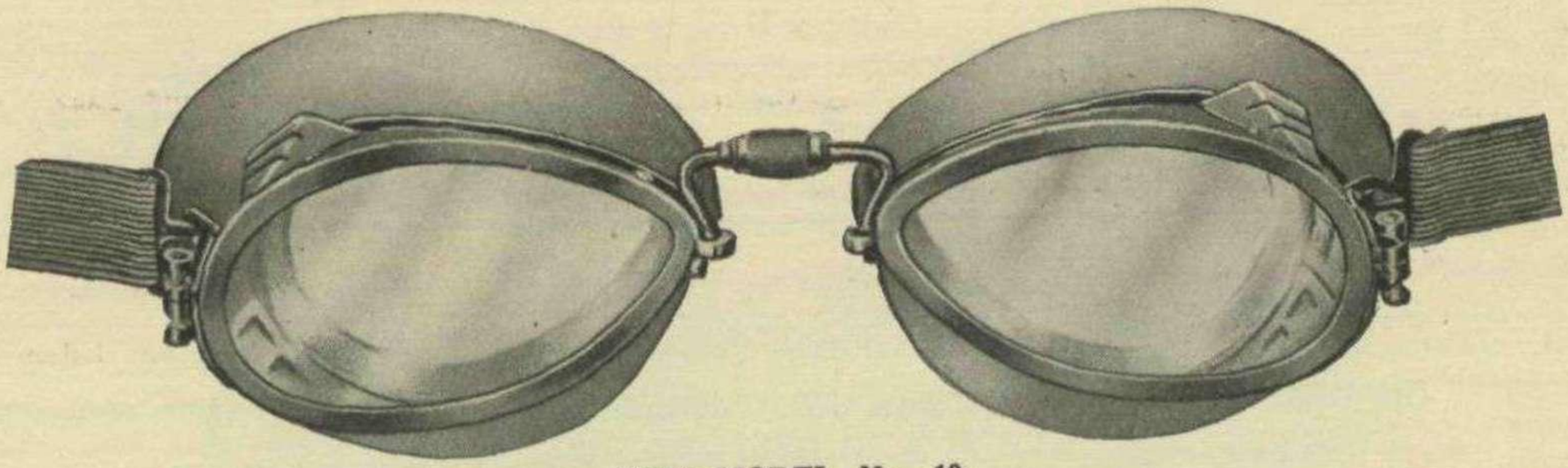
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* *These Representative Successes are Convincing Proof*

BOULOGNE, Grand Prix des Voitures Legeres, 1925. Won by Captain Clive Gallop on a Frazer Nash, and record for the course.

BOULOGNE Meetings, 1925 and 1926. Team Prize, "the Pickett Cup," won by the Frazer Nash entry both years.

BROOKLANDS, Double Twelve Hour Race, 1930. Two cars entered, two finished—100% success.

B.A.R.C. Meeting, BROOKLANDS, March, 1930. "Ladies' Race" won at average speed of 90.04 m.p.h. Flying lap 95.05 m.p.h. (driver, Mrs. T. H. Wisdom).

B.A.R.C. Meeting, BROOKLANDS, 1930. Short Handicap won at an average speed of 91.44 m.p.h. Fastest lap 99.21 m.p.h.

BROOKLANDS, Mountain Handicap, Easter Monday, 1930. FIRST.

BROOKLANDS, Mountain Handicap, Whitsun Meeting, 1930. SECOND from SCRATCH, and fastest lap.

BROOKLANDS, Mountain Handicap, Easter Monday, 1930. THIRD.

BROOKLANDS, Light Car Grand Prix Handicap. THIRD from SCRATCH.

SHELSLEY WALSH. Record for the hill 1,500 c.c. Sports and 1,500 c.c. Racing Classes. 1st (1,500 c.c. Racing) 1st and 2nd (1,500 c.c. Sports). "Ladies' Cup" for fastest climb of the day, Open and Closed Meetings, 1930. 1st, 2nd and 3rd (Racing Class).

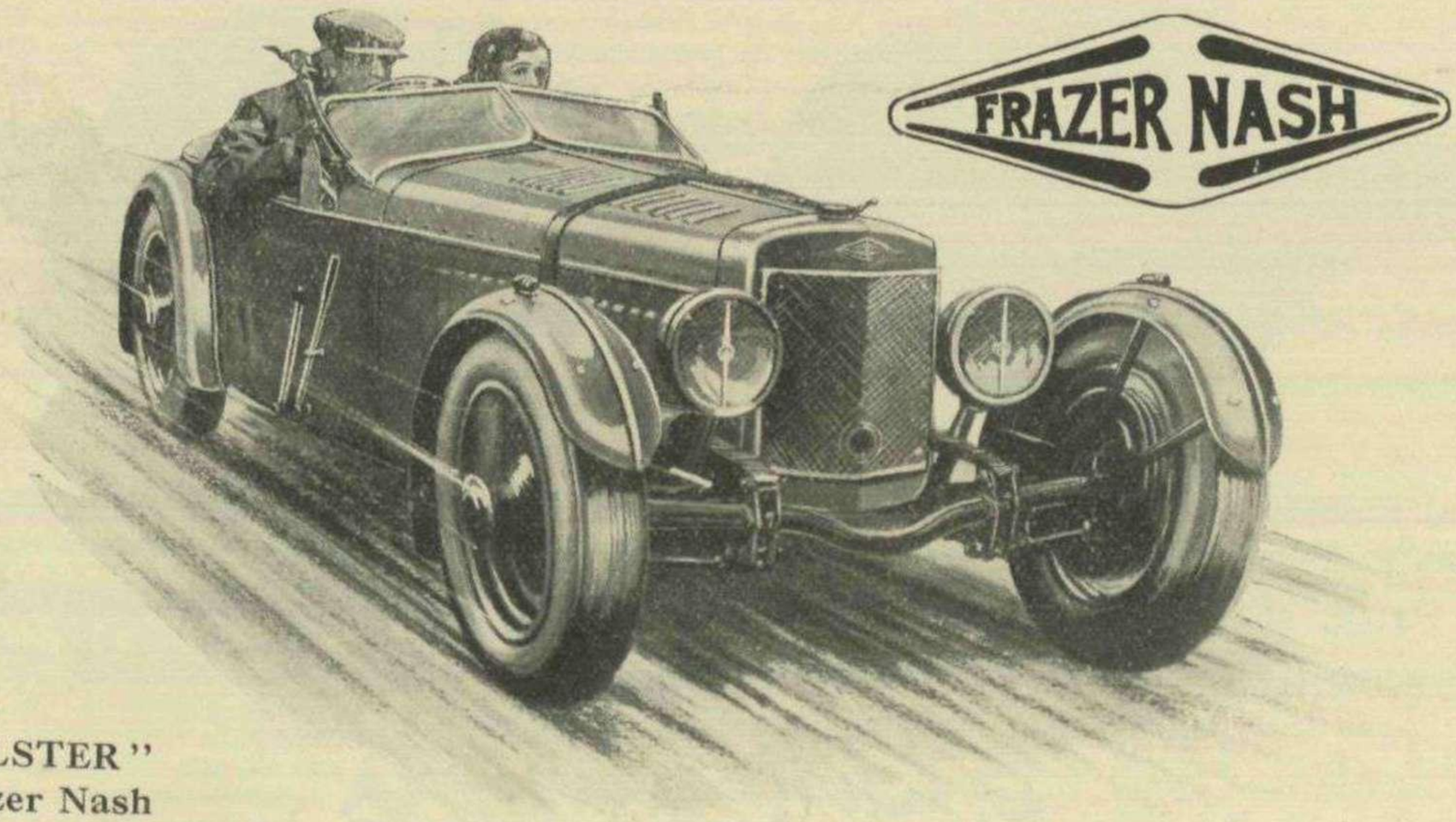
M.C.C. LONDON-EXETER Trial, 1930. Five Gold Medals. Special Prize Acceleration Test on Black Hill against 183 cars.

M.C.C. LONDON-LAND'S END Trial, 1930. Eight Gold Medals.

M.C.C. LONDON-LAND'S END Trial, 1931. Nine Gold Medals.

M.C.C. One-Day SPORTING TRIAL, 1930. Only car to climb successfully all the hills, and only car to gain a PREMIER AWARD out of 72 entries.

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MERCEDES WINS "1,000 MILES"—continued.

32. Lamperti and Bartoli (1,500 c.c. Fiat), 21h. 22m. 16s.
33. Rognoni (Graham), 21h. 43m. 18s.
34. Goodacre and Trevisan (750 c.c. Austin), 21h. 40m. 34s.
35. Moalli (Fiat), 21h. 49m. 36s.
36. Gagna (Fiat), 21h 54m. 42s.
37. Zamorani and Colla (2½-litre O.M.), 21h. 57m. 3s.
38. Ramella and Cantini (1,500 c.c. Fiat), 21h. 57m. 45s.
39. Brambilla (1,500 c.c. Alfa-Romeo), 22h. 31m. 11s.
40. Coda and Caligaris (Lancia Lambda), 22h. 34m. 16s.
41. Apinzzi and Marino (1,500 c.c. Fiat), 22h. 36m. 24s.
42. Romoli (Fiat), 22h. 43m. 6s.
43. Olimpico and Calderato (Bianchi), 22h. 44m. 6s.
44. Brughera and Cipelli (2-litre Itala), 22h. 47m. 0s.
45. Mosti and Pellerano (1,750 c.c. Alfa-Romeo), 22h. 53m. 50s.
46. Carnervalli and Conconi (1,100 c.c. Rally), 23h. 7m. 2s.
47. Forni and Crosti (1,500 c.c. Fiat), 23h. 8m. 32s.
48. Prini and Lufani (Bianchi), 23h. 33m. 24s.
49. Mazza (Fiat), 23h. 55m. 27s.
50. Spallanzani (Fiat), 23h. 56m. 18s.

1,000 MILES JOTTINGS

AS an interesting comparison with this year's result, the winners of previous Thousand Mile Races, with their times, have been as follows:—

1927.

1. Minoia and Morandi (2-litre O.M.), 21h. 4m. 48s.
2. I. Danieli and Balestrero (2-litre O.M.), 21h. 20m. 53s.
3. M. Danieli and Rosa (2-litre O.M.), 21h. 28m. 2s.

1928.

1. Campari and Ramponi 1500 c.c. Alfa-Romeo), 19h. 14m. 5s.
2. Mazotti and Rosa (2-litre O.M.), 19h. 22m. 27s.
3. Strazza and Varallo (2½-litre Lancia), 19h. 37m. 37s.

1929.

1. Campari and Ramponi (1,750 c.c. Alfa-Romeo), 18h. 4m. 23s.
2. Morandi and Rosa (2-litre O.M.) 18h. 14m. 14s.
3. Varzi and Colombo (1,750 c.c. Alfa-Romeo), 18h. 16m. 12s.

1930.

1. Nuvolari and Guidotti (1,750 c.c. Alfa-Romeo), 16h. 18m. 59s.
2. Varzi and Canavesi (1,750 c.c. Alfa-Romeo), 16h. 29m. 51s.
3. Campari and Marinoni (1,750 c.c. Alfa-Romeo), 16h. 59m. 53s.

Thus during a period of five years the winners' time over this course has been cut down by nearly five hours! Few things could demonstrate more clearly the intensive development of the automobile through racing.

* * *

The same men have figured at the head of affairs in the "Thousand Miles" with striking regularity. Caracciola, this year's winner, took part in it for the first time last year and finished sixth. Campari who was second this year was victorious in 1928 and 1929 and ran third with Marinoni, his companion of this year, in 1930. Morandi, who has been faithful to O.M. throughout, won the first Thousand Miles with the veteran Minoia, and was second in 1929 with his team-mate of this year, Rosa, who was also second in 1928 and third in 1927.

* * *

Strazza, who was third on a Lancia Lambda in 1928 did not get a drive at all in the end this year. He had agreed to drive a big Mercédès belonging to Signor Maino, a wealthy amateur, who was going to accompany him and drive himself for the first few miles. Ten miles out of Brescia, however, the car blew its gasket and was withdrawn.

* * *

Before this year's race there was some talk of its being the last of the series owing to the expense of its organisation. Modern Italy, however, cannot for a moment sit down under a foreign victory, and as a result of the Mercédès win, it seems certain that the race will be run next year in order that the Italian defeat may be avenged.

* * *

However, that is no good reason why a team of English cars should not be sent over to compete. The little Austin which ran this year did remarkably well and only took some 40 minutes more for the course than the winner in 1927.

* * *

Cars which aroused universal admiration were the new 1,750 c.c. unsupercharged Alfa-Romeos with ultra-light streamlined saloon bodies, weighing less than 3 cwt. One of these cars finished eighth in the whole race and was an easy winner of the saloon class.

Another model which gave a good account of itself was the new 1,500 c.c. sports Fiat with high compression engine, many examples of which ran in the "Utility" Class, and secured the team prize.

* * *

An interesting entry was a team of blue Bianchis entered by no less an organisation than the Italian "Flying Squad." This is a new idea for the intensive training of the new English mobile police.

* * *

Although there were nearly 100 starters in the race and the roads were only guarded in the towns and villages, there were no serious accidents. An Alfa-Romeo, however, driven by de Laurentis, crashed into a bridge, and Foresti, who was acting as reserve driver sustained a broken rib. Otherwise the worst effects of crashes were a few cuts.

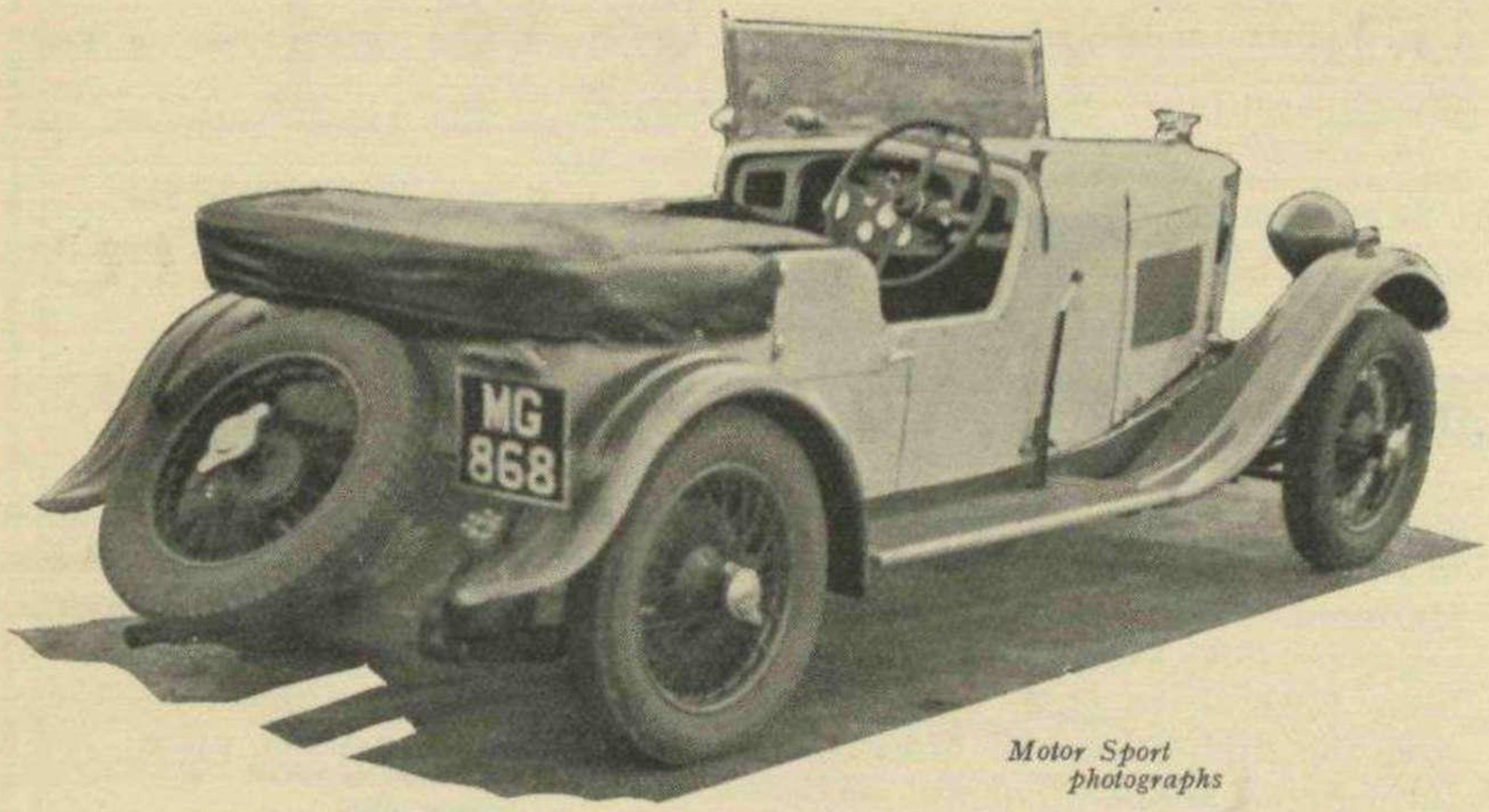
* * *

The new Alfa-Romeos were deprived of all chance of victory by the failure of their tyres to stand up to the test. Nuvolari is believed to have changed eighteen tyres and Arcangeli ten. Caracciola on the other hand with his heavier and faster Mercédes only changed one tyre throughout. This is a great tribute not only to Dunlops but also to the weight distribution and road-holding of the Mercédès, which we have noticed before, as for instance at le Mans last year.

* * *

His lack of tyre troubles was lucky for Caracciola as he went through the whole race with practically no pit organisation, depending on wayside petrol stations for his fuel. During his second crossing of the Apennines, however, he very nearly ran out of petrol, but his only other trouble was when his car's exhaust pipe came adrift shortly before the finish.

THE M.G. SIX (Mark I.) SPEED MODEL

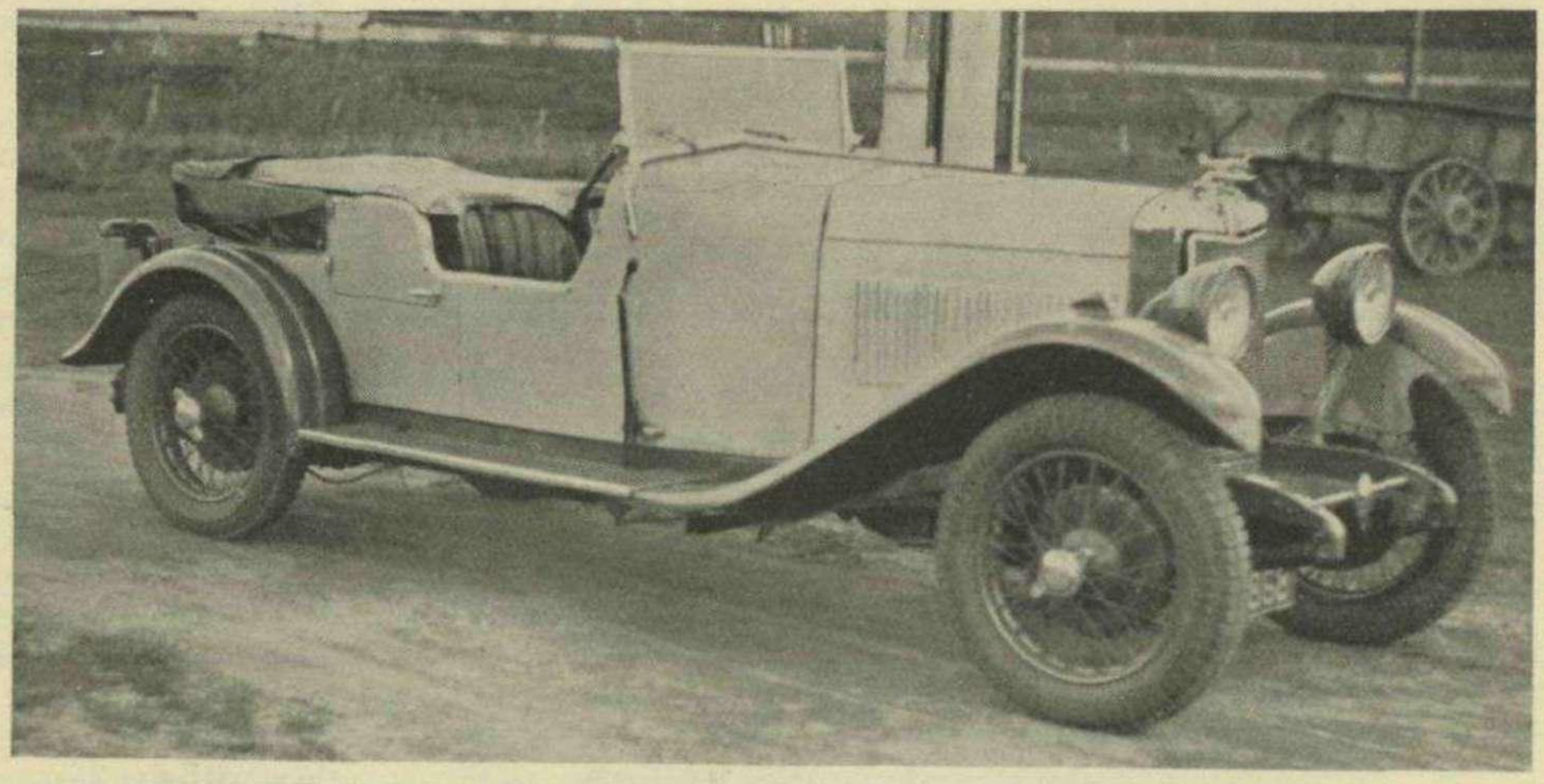


Motor Sport photographs

A SMOOTH AND SILENT CAR ADMIRABLY SUITED FOR FAST LONG DISTANCE WORK

THE remarkable recent achievements of the famous M.G. Midget in trials and races, as well as the enormous number of these models on the road, seems to have obscured to some extent the M.G. Six, which is quite as remarkable a car in its own class as its smaller brother. Thanks to University Motors Ltd., of Brick Street, Piccadilly, we recently had the opportunity of seeing for ourselves, not only how the M.G. Six performed on the road, but also, by taking out a much used car with many thousands of miles behind it, how this model stands up to hard driving.

The model tested was the Mark I Speed model, this being the lowest priced range of sixes. The engine is a six-cylinder of 69 mm. x 110 mm. bore and stroke, giving a capacity of 2,468 c.c. A fully balanced 4-bearing crankshaft is fitted, while the inclined overhead valves are operated by an overhead camshaft. Mixture is supplied by two S.U. carburettors. A three speed gear box is fitted in contrast to the 4-speed box on the Mark II chassis, but the remarkable flexibility of the engine and a good choice of gear ratios makes it possible to use the gear box to the best advantage.



Good appearance, combined with comfort and utility, are characteristics of all M.G. models. With the Mark I Six these qualities are particularly noticeable.

The most noticeable characteristic of the car's performance is silence and smoothness. There is no trace of period or drumming at any engine speed, and the behaviour of the car is entirely free from effort or fuss. It is not, of course, a racing car, nor is it intended in any way as such, but rather for fast travel over long distances.

It is an extremely comfortable car to drive for long distances, and we could not help wishing during the test, that we could have the chance of taking this car on a continental tour, where its qualities of comfort and effortless speed on hills or level would show up to great advantage. The acceleration is good for the type of car, the time taken from 10-30 m.p.h. on second gear being 7 secs. When comparing this with other and more fierce "10-30" figures it must be remembered that second gear is fairly high—6.58 to 1, and the maximum speed on this gear is nearly 50 m.p.h. 40 m.p.h. from 10 m.p.h. takes just over 10 secs.

At 60 m.p.h. the car gives the impression of being able to run all day without tiring and only a small throttle opening is required for this speed. The speedometer on this particular car was slightly fast, but the actual maximum on the level we found to be 74 m.p.h.

[*Continued on page 324.*

Motor Salesmanship as a Career . . . . .



"A Step in the Right Direction!"

17th *April*, 1931.

Mr. Broad,
The Institute of Motor Salesmanship,
16 17, *Little Portland Street,*
*LONDON, W.*1.

My dear Broad,

I should like to thank you very much indeed for the very courteous reception you gave me yesterday. I should like to say straight away, I was very impressed indeed with your Institute. I am satisfied in my own mind that it is a very definite step in the right direction of ultimately improving the status of the selling side of the Motor Industry, in proof of which statement I shall be sending one of my sales staff up to start your evening course on Monday next, and I only hope that it will be possible for me to so organize matters, that I can at a later date, send further members of my staff.

My reason for doing this, is simply that I fully realize the impossibility of finding time to impart the necessary educational knowledge covering the phases of the selling side of my business, owing to pressure of work and appointments upon my own time; furthermore, you have summarised down the main facts, and you have the necessary machinery for imparting these to your students. In other words, the efficient training of salesmen for the Motor Trade is a specialist's job, and in your Institute you are offering to the trade and the public alike for the first time, the full facilities for this specialized training.

As you know, I have very sincerely at heart the welfare of the Motor Trade as a whole, and I therefore cannot but congratulate you upon the facilities which you are now giving towards definitely improving, what has probably been, and probably still is, the weakest link, viz., sales organization.

Having arrived at this conclusion, I shall be only too happy to do anything I can towards furthering the interests of your undertaking, and I hope you will not hestitate to let me know if I can prove to be of any service or help in this direction.

I am,
Yours very truly,
For WEYBRIDGE AUTOMOBILES LTD.
G. I. ALLDAY, F.I.M.T., M.I.B.E.,
Managing Director.

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THE M.G. SIX SPEED MODEL—continued.

under none too favourable conditions, and there is no doubt that 80 m.p.h. could be more closely approached on occasion. It must also be noted that the whole test was carried out on a car which as well as being old in service, had received no attention as regards the engine for a considerable period.

It is this feature of being able to give consistent performance over a long period without adjustment or overhaul that is of particular importance to the owner of such a car, who will put in a very big mileage in the year, and has not much spare time to spend on working on the car. With such a quiet engine, great care is required to see that no minor noises occur to spoil the effect, and the silence of the body and chassis were remarkable.

The Marles steering was very light indeed, and made for really effortless control. It is, however, rather low geared and this requires a certain amount of getting used to when driving fast on twisty roads. We should also have preferred a slightly increased self-centring action. The steering is as a whole very much above the average, however, and the car is absolutely steady at speed on all kinds of surface, and gives a great feeling of confidence to the driver. This steadiness is achieved without harshness of springing, and the brakes are smooth and well up to their work. Owing to a slight temporary defect in the servo motor, the pressure required on the brakes was rather higher than normal, but even so was not too high, and when correctly adjusted a light pressure is ample for all needs.

Many points show that much thought has been put into the lay-out of this car. The hand brake for instance, is of the racing type on which the ratchet is only brought into action when required for parking the car, and acts on all wheels. A reserve oil tank, holding a gallon, and connected direct to the sump, is another good point for long distance touring, while a separate 2-gallon petrol tank in the dash, feeding by gravity, ensures reliability in the event of the supply from the 10-gallon rear tank either failing or running out.

The price of the model tested is £525, while a complete range of all M.G. cars to say nothing of other makes, can be inspected at the Showrooms of University Motors Ltd., who are the main London distributors for this make.

THE ARGENTINE AUTUMN GRAND PRIX.

ONLY a month after his victory in the Argentine National Grand Prix, Carlos Zatuszeck has again proved victorious with his Mercédès in a big race in the South American Republic, this time in the Autumn Grand Prix. The race was run on Sunday, 12th April, and competitors had to cover a total distance of 250 miles. The race was unfortunately marred by an accident as two cars collided and ran into the crowd, one person being killed and nine injured. The final result of the race was as follows :—

1. Carlos Zatuszeck (Mercédès), 2h. 54m. 32⅕.
2. Ernesto Blanco (Reo).
3. Florencio Fernandez (Marmon).

BROOKLANDS EASTER MEETING RESULTS

(*See Report on page 334*).

THE FIRST EASTER MOUNTAIN SPEED HANDICAP.
Distance : About 12 miles.

1. J. C. Elwes (749 c.c. Austin), 1 min. 55 secs.
2. I. M. C. Hepburn (847 c.c. M.G. Midget), 2 mins. 30 secs.
3. D. A. Aldington (1,496 c.c. Frazer-Nash), 1 min. 4 secs.

THE WARWICK JUNIOR SHORT HANDICAP.
Distance : About 6½ miles.

1. E. Phillips (749 c.c. B.C. Special), 1 min. 6 secs.
2. H. T. H. Clayton (1,093 c.c. Amilcar), 19 secs.
3. D. S. E. Herrtage (1,083 c.c. Riley), 22 secs.

THE WARWICK SENIOR SHORT HANDICAP.
Distance : About 6½ miles.

1. H. W. Purdy (1,990 c.c. Bugatti), 6 secs.
2. T. V. G. Selby (1,990 c.c. Bugatti), 6 secs.
3. E. L. Meeson (4,526 c.c. Vauxhall), 28 secs.

THE WARWICK SENIOR LONG HANDICAP.
Distance : About 9 miles.

1. A. N. Spottiswoode (1,990 c.c. Bugatti), 34 secs.
2. E. R. Hall (4,398 c.c. Bentley), 29 secs.
3. C. Penn Hughes (1,990 c.c. Bugatti), 29 secs.

THE EASTER MOUNTAIN RACING HANDICAP.
Distance : About 12 miles.

1. A. F. P. Agabeg (1,090 c.c. Salmson), 1 min. 30 secs.
2. J. A. Robinson (1,496 c.c. Bugatti), 2 mins.
3. R. T. Horton (1,083 c.c. Riley), 1 min. 40 secs.

THE WARWICK JUNIOR LONG HANDICAP.
Distance : About 9 miles.

1. C. Brackenbury (1,496 c.c. Bugatti), 31 secs.
2. E. Phillips (749 B.C. Special), 1 min. 10 secs.
3. G. Gield (4,467 c.c. Invicta), 3 secs.

THE SECOND EASTER MOUNTAIN SPEED HANDICAP.
Distance : About 12 miles.

1. V. S. Balls (749 c.c. Austin), 2 mins.
2. E. C. Randell (749 c.c. Austin), 3 mins.
3. H. J. Searle (749 c.c. Austin), 3 mins.

RACE FOR THE FOUNDERS' GOLD CUP (9 miles).

	H'cap. m.	s.
1. W. Y. Craig (Bugatti S, 1,496 c.c.)	0	49
2. J. R. Cobb (Delage, 10,868 c.c.)	scr.	
3. B. E. Lewis (Talbot, 2,276 c.c.)	0	58

WARWICK LIGHTNING SHORT HANDICAP. (6½ miles).

1. T. V. G. Selby (Bugatti, 1,990 c.c.)	0	38
2. E. R. Hall (Bentley, 4,398 c.c.)	0	41
3. W. B. Scott (Delage S, 1,484 c.c.)	0	19

A NEW FUEL.

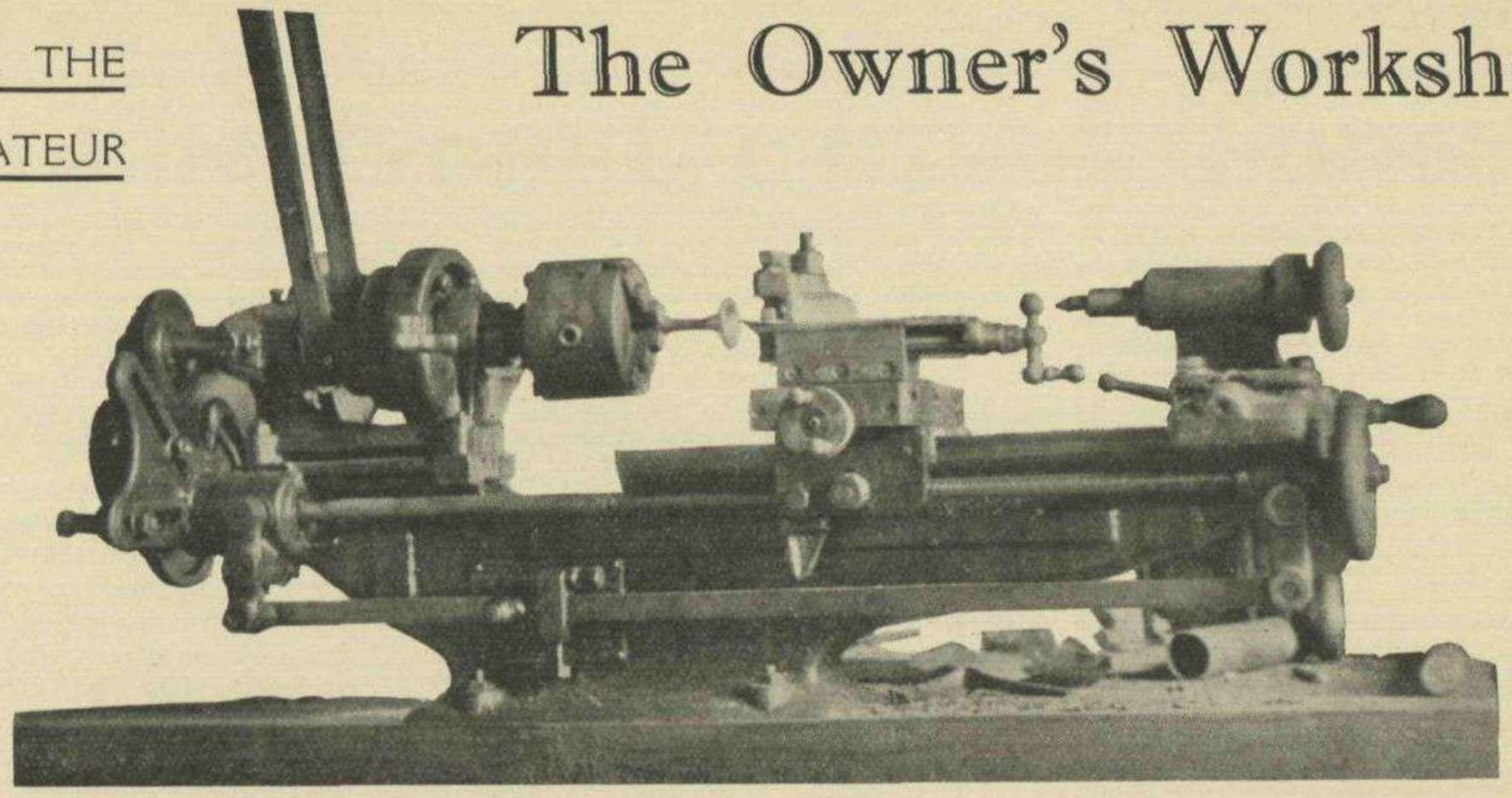
A BLUE tinted petrol is being put on the market by the British Petroleum Co., Ltd., which, while having characteristics that meet with the exacting needs of the modern high compression engine will sell at the normal price.

The new fuel is known as " B.P." Plus and it contains the only known material produced commercially that can adequately cope with the highest of compression ratios—a compound of lead.

" B.P." Plus will shortly be obtainable from all " B.P." pumps, and motorists, especially those whose engines are inclined to pink are advised to give it a trial.

FOR THE AMATEUR

The Owner's Workshop



Success in tuning an engine for increased power and speed entails care and attention to every detail. In this article some of the more obscure points are dealt with.

HAVING got the crankshaft properly fitted in its bearings, the shaft, rods, and pistons balanced, and the whole ready to refit, attention must then be paid to the other details of the engine. The operations described in the last article of this series are essential as a basis for the more subtle tuning operations which follow, and it is quite useless spending time and trouble on the details of a "top overhaul" if the essentials of the engine are not in perfect condition.

Before coming to the questions of valve and piston treatment there is work to be done in the way of seeing that other portions of the mechanism are perfectly free to function correctly. The crankshaft, having just being refitted, will naturally be stiff until fully run in, but before finally assembling it, the camshaft and all auxiliary drives should be examined. The opening and closing of an engine's valves requires quite enough power without any additional load due to auxiliary drive losses. Therefore when the valves and drive are disconnected it is possible to check the camshaft for freedom and lack of play.

In camshaft bearings there is no great uniformity of design, but whatever type is fitted (ball, roller, bronze, or white-metal), they must be perfect. The removal of the camshaft is harder on some designs than others, but if there is ever to be a good chance of removing it easily, it will be when the whole engine is out of the frame and dismantled. It will be easy enough to see if the bearings are free by spinning the shaft, and it may be possible to see if there is any play in the end bearings. As the camshaft is likely, if of any reasonable length, to be carried on 3 or more bearings it is often impossible to see whether all bearings are O.K. without removing the shaft.

The loads on a camshaft are of course radial, are very high (a point which is often lost sight of) and of an uneven and hammering nature. It is therefore quite possible for one bearing, say, of a 3-bearing camshaft to develop excessive play, due to failure of metal or breaking up of a ball race, and yet to appear rigidly supported when tested by hand in position, especially if a centre bearing has gone.

Under load the unsupported portion is bound to flex and the immediate result will be a loss of valve lift and consequently of power, while further results may be failure of the shaft itself through fatigue, and if a bearing has gone at the driven end, the drive itself may suffer.

Naturally in a good engine all these occurrences are rare, and in fact the camshaft bearings and drive are usually taken for granted by amateur tuners, but they should not be. Nothing in tuning an engine should ever be taken for granted, and if success is desired in racing and competitions a great deal of this sort of work will have to be done. It does not require a great deal of experience of tuning engines for racing to turn one into a mechanical pessimist, but this is a very essential state of mind as "hoping for the best" is precious little value as a means of securing reliability.

Many people would regard it as wasted labour if, for instance, they spent some time in removing and checking up a camshaft, its bearings and oilways, only to find that they were in perfect order. This is completely wrong, as they now know for certain that every part of that assembly has settled down correctly and is in perfect order, and this knowledge is worth much work and time. The more logical way to look at such work is this. If nothing is required after the parts have been dismantled, one is actually saving the extra time that would be needed to put right any faults.

Having tested the camshaft bearings, and replaced any necessary parts, the same procedure must be applied to any other drives such as magneto, water pump, oil pump, etc. If any bronze bearings have to be replaced there must be carefully fitted by scraping or by use of reamer, according to the size of the bearing. Expanding reamers are very useful, but somewhat costly, and if a slightly increased quantity of metal is required to be shifted, a strip of brass foil laid alongside the reamer will have the desired effect. Bronze bushes must be fitted free, however, as the extra hardness of the metal will not allow it to bed down like white metal, and there is a danger of seizure if it is not perfectly free. There must not be any play, however.

The next thing to do will be to decide if any alterations are to be made in the piston department, and this will depend chiefly on the type of engine being dealt with. If it is a racing engine to start with, and the standard pistons are satisfactory, they should be left alone, apart from examination for possible flaws. If there are any signs of tightness on the bearing surface these spots can be eased off carefully with a smooth file. The clearance of the piston in the cylinder should be carefully measured to see that they are correct. The makers will supply information as to the correct clearance, but if the engine is to be used for speed work this may be increased slightly with advantage. Increased clearance may mean a slightly noisy engine, and will also mean that special care must be taken to see that the rings are in perfect condition.

[*Continued overleaf*

THE OWNER'S WORKSHOP—continued.

There are many common fallacies with regard to piston rings, so that an explanation of some of the chief requirements will not be out of place. One of the commonest troubles in a highly tuned and not too new engine is oiling up, due to excessive oil getting past the rings, and many people imagine that the oil gets past the gap in the piston ring. Actually the oil gets past the back of the ring, and this can only be prevented by the rings being a perfect fit in their grooves. Otherwise the rings move up and down relative to the piston and act as a pump in transferring the oil to the upper side of the ring. If the ring grooves are really badly worn the pistons will probably be generally worn and new ones are indicated. If an attempt is being made to increase the performance of the engine considerably above standard, special racing pistons will be required, either from the makers of the engine if they supply them, or from someone who specialised in the production of racing types in special alloys.

The whole business of piston design and manufacture is sufficiently complicated and important to warrant special treatment on its own, and this is shown by the number of firms who make pistons alone. Among the smaller firms who specialise in racing pistons to the exclusion of commercial types may be mentioned the Brooklands Engineering Co., of Weybridge who make the Martlet piston. These have been well known to racing men for a long time and are fitted, incidentally, to George Eyston's record breaking M.G. Midget. If special pistons are being obtained, the opportunity may be taken, in cases where there is room or necessity, to raise the compression ratio.

This is, of course, one of the commonest methods of increasing the power and maximum revs. of any engine, but it must never be done in a haphazard manner. A very high compression ratio is apt to introduce many snags, as the loads on all working parts will be increased, the engine will be made rougher at low speeds increased temperatures may lead to special requirements in the way of plugs, and therefore the purposes for which the engine is required should be carefully considered. Whatever is being done, one of the first things to ascertain is the compression ratio of the engine as it was before alteration. The makers usually state the compression ratio in their catalogue, but this is not always correct, sometimes very far from it, and the only way is to measure it. This is simplest when the engine is complete, but if it is not it will have to be built up temporarily so that at any rate one combustion chamber and piston are functioning. If the connecting rods are all out (as they will be if new pistons are being considered) one rod and piston should be fitted, the cylinder head bolted down with the valves in that particular cylinder fitted, and that cylinder can then be measured. The compression ratio is the ratio of the volume of the combustion space at bottom dead centre to that at top dead centre.

It is reasonable to suppose that the bore and stroke of the engine are what the makers state them to be, so that all that need be measured is the volume at T.D.C. This is achieved most simply by running in suitable fluid—thin oil, or oil and paraffin mixed—from a burette, into the sparking plug hole, and reading off the volume required to fill the head. This operation may require a certain amount of tipping the engine about to get the plug at the highest point. A burette, incidentally, is a long glass tube accurately graduated in C.C.s., and having a tap at the bottom. The actual trial of volume should be repeated to make sure there is no error, and from this the compression ratio can be worked out as follows :—The swept volume of each cylinder being known, the ratio is the sum of this and the cylinder head volume measured, divided by the latter volume.

Let us take for example a 1500 c.c. 4-cylinder in which the T.D.C. volume is found to be 75 c.c.s. As the swept volume of each cylinder is 375 c.c. the compression ratio will be

$$\frac{375 + 75}{75}, \text{ i.e., } 6 \text{ to } 1.$$

If the compression ratio is to be raised the increased height of the piston above the gudgeon can be worked out, or if the ratio is to be altered by milling a certain amount off the head or block, this amount can be calculated.

Let us suppose that the same engine mentioned above, has a bore and stroke of 69 mm. x 100 mm., and that it is required to increase the compression ratio to 7 to 1. The T.D.C. volume of the combustion space must be reduced, and the new volume $\sqrt{}_1$ such that—

$$\frac{375 + \sqrt{}_1}{\sqrt{}_1} = 7$$

$$\text{or } 6\sqrt{}_1 = 375$$

$$\therefore \sqrt{}_1 = 62.5 \text{ c.c.s.}$$

The change of volume $(\sqrt{} - \sqrt{}_1) = 12.5$ c.c.s. Therefore, the depth to be removed from the block can be found. The stroke is 100 mm. giving a volume of 3.75 c.c.s. per mm. of stroke.

12.5 c.c.s are equivalent to $\frac{12.5}{3.75}$ or 3.4 mm. of cylinder barrel.

If this amount is removed from the block (or added to the height of the new pistons, if any) this will produce the desired effect.

The above figures have, of course, been taken merely as an example, so that other alterations may be worked out according to requirements.

The actual fitting of the rings should be completed by lapping them into the barrel with jewellers' rouge, using an old piston and a made-up wooden handle for the purpose.

The engine is now finished in its essentials and requires only the grinding in and refitting of the valves, and final details of assembly and tuning, which we will deal with in a subsequent issue.—W.S.B.

"Drain—Flush—Re-Fill."

THE motorist to-day has been so well educated as to the desirability of draining the used oil from his crankcase and replenishing with fresh oil that the phrase "Drain, Flush and Re-Fill" has almost passed into everyday use.

In many cases, however, the benefit derived from the insertion of fresh oil is to a large degree marred by inefficient flushing. At one time it was believed that the best way of flushing was to swill paraffin through the engine, in order to remove sludge and dirt from the oil-passages and interior of the crankcase.

It is now known, however, that although it may remove foreign matter, paraffin itself has a detrimental effect on the engine. For one thing, it actually rusts the metal ; for another, it tends to clog the small oil-ways, etc., and to prevent the new oil from entering them. The resulting damage, of course, is incalculable.

The failure of paraffin to perform the work has led to the introduction of a fluid known as flushing oil. Various makes of this are available, and most garages keep it in bulk for use on customers' cars ; one firm, also, for the convenience of owner drivers, is retailing it in tins.

To use a flushing oil, drain the crankcase—when the engine is warm so that the oil flows more readily—and re-place the plug. Pour in the necessary quantity of flushing oil and start up the engine, allowing it to idle for a short time ; this will do no harm for the flushing oil is a lubricant as well as a cleanser. Then drain the sump once more and the engine will be spotlessly clean and ready for the new lubricant.

The Importance of Spring Strength.

SOME manufacturers make one type of chassis which is fitted, exactly as it stands, with a two-seater, four-seater, or saloon body as the case may be. The very widely differing weights of these bodies, and of the human freight likely to be carried, are not taken into consideration.

The makers of Rolls-Royce cars go to the other extreme, for not only do they spring the chassis according to the weight of the body—they also carry out chassis tests with a weight equivalent to that of the actual body which is to be fitted.

When a chassis is nearing completion, the coach-builders who are making the body are called upon to declare its finished weight. Springs varying from light to heavy, according to the weight of the body, are then fitted, and the chassis goes through its prolonged tests. After it has passed a veritable army of inspectors, it is delivered to the coach-builders.

If the estimated weight of the body is found to have been inaccurate, the chassis is re-sprung—and the coach-builder is charged with the work. So extensive is the company's organization indeed, that inspectors are sent almost anywhere in the world to make these final tests.

THE SPORT ABROAD.

The Grand Prix of Tunis.

Victory for the new Bugatti Racer in the First Grand Prix of the Season.

THE Grand Prix of Tunis, which was run on Sunday, 29th March, and which was thus the first racing car event of the season, resulted in a victory for the Italian driver, Achille Varzi, at the wheel of one of the new 2,300 c.c. Bugatti racers (with the double overhead camshaft engine), after a terrific struggle with the Maserati team. Fagioli on a 2½-litre 8-cylinder car of this make was second, Marcel Lehoux on a 2-litre Bugatti third and Biondetti on the 4-litre 16-cylinder Maserati fourth. The French champion, Réné Dreyfus, who was driving for the first time as one of the Maserati team, at one time looked a possible winner, but was put out of the race after leaving the road at a corner.

The race, which on previous occasions has been run over the circuit of Bardo, was this year held on a road circuit near Carthage, which measured just under 8 miles to a lap, and which had to be covered 37 times, making a total distance of 294 miles. The course was in excellent condition, and the race was thoroughly well organised and was favoured by perfect weather.

The cars were divided into two classes, under and over 1,500 c.c. and as soon as the entry lists closed it was clear that the race was going to provide a first-class opening to the season. In the bigger class, Achille Varzi alone represented the official Bugatti team with one of the new type racers, but he was supported by Marcel Lehoux, winner of the race in 1928 and second in 1929, Etancelin, winner of the French Grand Prix last year, Miguel, Czaikowski, Count d'Arnoux, and von Morgen all on Bugattis. Against them were ranged the official Maserati team consisting of Biondetti on the 16-cylinder car and Réné Dreyfus and Fagioli on 8-cylinder racers, with the amateur driver Klinger, also on a Maserati. In the 1,500 c.c. division Ernesto Maserati drove one of the cars bearing his name, Castelbarco had one of the old Grand Prix Talbots, Scaron and Dourel drove Amilcars, Marret a Salmson, and Jacquin and Giraud-Cabantons cars of their own construction, while the Bugatti contingent consisted of Madame Itier, Eberhardt, Martin, Veyron, Gaupillat, Angwerd, Vagniez and Roux.

A Hectic Start.

Just before one o'clock the twenty-six competitors were all drawn up on the road opposite the grandstand, and the start was given by Madame Manceron, wife of the Resident Superior. The whole pack got away down the road in a confused mass, but at the end of the first lap Fagioli had worked his way to the front, hotly pursued by Varzi on the Bugatti and Dreyfus on the 8-cylinder Maserati, Lehoux on the fastest of the 2-litre Bugattis and Biondetti on the big Maserati. By the end of the second lap, however, Varzi had passed Fagioli and taken the lead.

Among the smaller cars, in the meantime, retirements came early. Jacquin fell out with a stripped magneto drive, and Marret and Martin evidently started off too quickly as the first put a connecting rod through the crankcase and the second broke a piston, while Gaupillat and Augwerd both fell out early on. Madame Itier's car was apparently suffering from carburettor trouble as the engine spat back viciously, but she kept going.

Dreyfus Crashes.

The order of the leaders, however, remained unchanged until at the end of the ninth lap, Réné Dreyfus, who was then in third place behind Varzi and Fagioli, stopped at his pit with a broken oil-pipe. But the damage was quickly repaired, and the French champion roared off to make up for lost time, after a delay of 3 minutes 45 seconds. A slight *excès de zèle* on a corner, however, and his Maserati left the road and was hopelessly crashed, the driver being fortunately unhurt. Dreyfus, however, was now out of it, and Biondetti moved up to take his place. The order of the leaders at the end of ten laps was therefore as follows :—

1. Varzi (Bugatti), 53m. 0s.
2. Fagioli (Maserati), 53m. 54s.
3. Lehoux (Bugatti), 54m. 45s.
4. Biondetti (Maserati), 55m. 20s.
5. von Morgen (Bugatti), 55m. 28s.
6. Etancelin (Bugatti), 56m. 51s.
7. Klinger (Maserati), 59m. 18s.

On the twelfth lap Fagioli stopped to change his plugs, but without losing his position, and then on the fourteenth lap Varzi burst a tyre. This gave Fagioli his chance, and he immediately leapt into the lead, only to lose it again to Varzi after another stop to change plugs, which also allowed Lehoux to get past him and into second place. The Maserati fortunes indeed now seemed to be on the wane, for soon afterwards Biondetti burst a tyre and, as a result of the delay, was passed by both von Morgen and Etancelin. The latter though, was not destined to be lucky for soon afterwards he was forced to retire with gear-box trouble. The same trouble in the meantime had also overtaken Castelbarco, who, however, had fallen far back with the Talbot, and his withdrawal was quickly followed by that of Eberhardt with a broken valve.

The Maserati team nevertheless, made one more effort, and on the 27th lap Biondetti passed von Morgen, and shortly before the end Fagioli managed to get past Lehoux. But there was no catching Varzi, and he finally crossed the line winner of the third Grand Prix of Tunis, with Ernesto Maserati an easy winner in the 1,500 c.c class. The final results were as follows :—

[*continued overleaf*]

THE GRAND PRIX OF TUNIS—continued.

1. Achille Varzi (Bugatti), 3h. 23m. 39s. (Average speed 86.6 m.p.h.)
2. Luigi Fagioli (Maserati), 3h. 25m. 26s.
3. Marcel Lehoux (Bugatti), 3h. 25m. 41s.
4. Biondetti (Maserati), 3h. 28m. 29s.
5. von Morgen (Bugatti), 3h. 30m. 21s.
6. Czaikowski (Bugatti), 3h. 38m. 18s.
7. Klinger (Maserati), 3h. 38m. 27s.
8. Miquel (Bugatti), 3h. 55m. 43s.

1,500 c.c. CLASS.

1. Ernesto Maserati (Maserati), 3h. 40m. 2s. (Average speed 80.14 m.p.h.)
2. Veyron (Bugatti), 3h. 51m. 20s.
3. Scaron (Amilcar), 3h. 53m. 38s.
4. Giraud-Cabantons (Caban), 4h. 1m. 20s.
5. Roux (Bugatti), 4h. 2m. 38s.
6. Vagniez (Bugatti).
7. Madame Itier (Bugatti).
8. Dourel (Amilcar).

THE TUNISIAN SIX-HOUR RACE

ON the day before the Grand Prix of Tunis, the 28th March, there was run off over the new circuit of Carthage a 6-hour race for "touring" cars, which proved a highly successful event. The "touring" cars, as a matter of fact were even further removed from the average person's idea of a motor car of this type than usual, and the elaborate rules which had been drawn up with regard to coach-work, wings, exhaust systems, ballast, etc., seemed to have been entirely disregarded by many of the competitors. However, perhaps as a result a good entry list was secured, and twenty-five cars finally started, divided into three classes as follows :—

CLASS I. Castelbarco and Dreyfus (Maserati) ; Czaikowski (Bugatti) ; Eysermann (Buick) ; Rey (Bugatti) ; Moll (Lorraine-Dietrich) ; Corsini and Bellincioni (Alfa-Romeo) ; Gallay (Bugatti).

CLASS II. Golay and Eberhardt (Bugatti) ; Joly and Vella (Bugatti) ; Fischer and Fuchs (Bugatti) ; Pietrangeli (Alfa-Romeo) ; Vincenti and Brand (Bugatti) ; Cutlaia (Bugatti).

CLASS III. Pouppar and Wassylenko (B.N.C.) ; Germain (Rosengart) ; Batta (Chenard-Walcker) ; Rallo and d'Aietti (Chenard-Walcker) ; Gaillard (Chenard-Walcker) ; Piontirollo (Bugatti) ; Chandelon and Puna (Bugatti) ; Satlepoulos (Amilcar) ; Gueganff (Amilcar) ; Costa (Fiat) ; Marret (Salmson) ; Giraud-Cabantons (Salmson).

The start was given in the manner customary in races of this type, the cars being drawn up at the side of the road, and the drivers on being given the signal having to run to their cars, start the engine and get away. The first to move off was a magnificent 5-litre Bugatti, but at the end of the first round the first car to appear was the Maserati, which was in fact a 2½-litre straight-eight supercharged racer equipped with mudguards. It stopped however, to change plugs both at the end of the first and second rounds, but nevertheless it was so much the fastest car in the race that it did not lose the lead. Behind it a terrific battle was being waged between Corsini on the Alfa-Romeo and the Bugattis driven by Czaikowski, Joly and Gallay, while Marret on the Salmson led in the smallest class. There seemed however to be no catching the Maserati, and at the end of three hours (half-time), the order of the leaders, with the distances covered was as follows :—

1. Castelbarco (Maserati), 358 km. 900 ; 2. Joly (Bugatti), 340 km. 500 (leading Class II) ; 3, Czaikowski (Bugatti), 337 km. 400 ; 4, Corsini (Alfa-Romeo), 336 km. 500 ; 5, Gallay (Bugatti), 326 km. 900 ; 6, Pietrangeli (Alfa-Romeo), 308 km. 800 ; 7, Marret (Salmson), 305 km. 100 (leading Class III) ; 8, Golay (Bugatti), 302 km. 400 ; 9, Moll (Lorraine), 301 km. 200 ; 10, Fischer (Bugatti), 293 km. 700.

During the fourth hour Joly (Bugatti) retired, and Corsini, having passed Czaikowski moved up into second place. Joly suffered extremely bad luck as his withdrawal was due to his exhaust pipe coming adrift, and the car, although mechanically quite fit to continue, was forced to retire by the rules. Soon afterwards Czaikowski's Bugatti caught fire and was also withdrawn, but on the whole the number of retirements was extremely small as the course was not really fast enough to put an extreme strain on engines. The class winners with the distances covered at the end of six hours were as follows :—

CLASS I.

1. Castelbarco and Dreyfus (Maserati), 707 km. 200. (Average speed 73.7 m.p.h.).
2. Corsini and Bellinciono (Alfa-Romeo) 679 km. 395.
3. Moll (Lorraine-Dietrich), 595 km. 015.
4. Eydermann (Bugatti), 572 km. 586.

CLASS II.

1. Pietrangeli (Alfa-Romeo), 622 km. 492.
2. Golay and Eberhardt (Bugatti), 621 km. 252.

CLASS III.

1. Marret (Salmson), 584 km. 720.
2. Gaillard (Chenard-Walcker), 570 km. 666.
3. Rallo and d'Aielti (Chenard-Walcker) 567 km. 966.
4. Batta (Chenard-Walcker), 561 km. 766.
5. Piontirollo (Bugatti), 537 km. 288.
6. Costa (Fiat), 530 km. 725.
7. Germain (Rosengart), 439 km. 660.

CURRENT AND FORTHCOMING EVENTS

INTERNATIONAL FIXTURES—1931

MAY.

3rd. *Italy—Tour de Sicily.*
8-9th. *Great Britain—J.C.C. Open Meeting at Brooklands.*
9-14th. *Germany—Wiesbaden Automobile Tourney.*
10th. *Italy—Targa Florio.*
17th. *Italy—Coupe Messina.*
17th. *France—Algerian Grand Prix.*
17th. *Spain—la Rabassada Hill Climb.*
22nd May-4th June. *Germany—10,000 kilometres de l'A.v.d.*
25th May. *Great Britain—B.A.R.C. Open Meeting.*
30th. *United States—Indianapolis 500 Miles Race.*
31st. *Italy—Royal Prix de Rome.*
31st. *Czecho-Slovakia—Zbraslav-Jiloviste Hill Climb.*

JUNE.

1-8th. *Roumania—International Touring Race Meeting.*
5-6th. *Ireland—Irish Grand Prix.*
7th. *Poland—Circuit de Lwow.*
7th. *France—Colonial Exhibition Grand Prix.*
7th. *Italy—Circuit de Mugello.*
7th. *Belgium—Malchamps Hill Climb.*

Veteran Types

VII.—A 1914 TOURIST TROPHY HUMBER, WITH 3-LITRE TWIN-CAMSHAFT ENGINE



A memory of pre-War days. The Humber with Sam Wright at the wheel, during a practice lap in the Isle of Man.

THE name of Humber is not one that one usually associates with racing cars, and I should not be surprised to hear that there are a good many present-day followers of the sport who would be unaware that anything in the way of a real Humber racer had ever existed. The War, however, may well have been responsible for this firm not having figured prominently in latter day speed events; for on the eve of the outbreak of hostilities the Humber company was apparently preparing to add the construction of racing cars to their seasoned policy of producing high-grade touring machines.

The event towards which the new policy of the firm was directed was in fact the 1914 Tourist Trophy race in the Isle of Man, and for it a team of three cars were built. Designed by Mr. F. T. Burgess, these cars had 4-cylinder engines, with a bore and stroke of 82 x 156 mm., giving a capacity of 3,295 c.c., there being four overhead valves per cylinder operated by two overhead camshafts, and the camshaft being driven by a train of pinions. These engines developed some 100 h.p. at 3,200 r.p.m., and were mounted in the chassis on a horseshoe-shaped sub-frame. The flywheel was ribbed externally, until it looks almost like a transmission brake, in order to cool the leather cone clutch, which transmitted power through a clutch-shaft with two sliding universal joints to the gearbox. The latter was made extremely short, its overall length being barely 9 inches, and the gear shafts were, therefore, extremely stiff. Behind it was mounted a large transmission brake with a convenient hand-wheel adjustment which projected through the floorboards, and an open propeller shaft with two universal joints transmitted power to the back axle. Suspension was by ½-elliptic springs all round and the cars were fitted with detachable wire wheels.

Three of these cars started in the race, their drivers being Burgess, their designer, Tuck and Wright. But like so large a proportion of the starters in that gruelling two-day race, they were not destined to be fortunate, and the outbreak of war coming but a few months afterwards, they were not given another chance to show their paces. I was, therefore, particularly interested when I heard that Humber II, which had been driven in the race by Wright, was still running and was to be found in the neighbourhood of Basingstoke. The present owner having kindly consented to let me have a run on the car and record my impressions in MOTOR SPORT, I set off convinced that I was going to spend a highly interesting afternoon.

A Brooklands Performer.

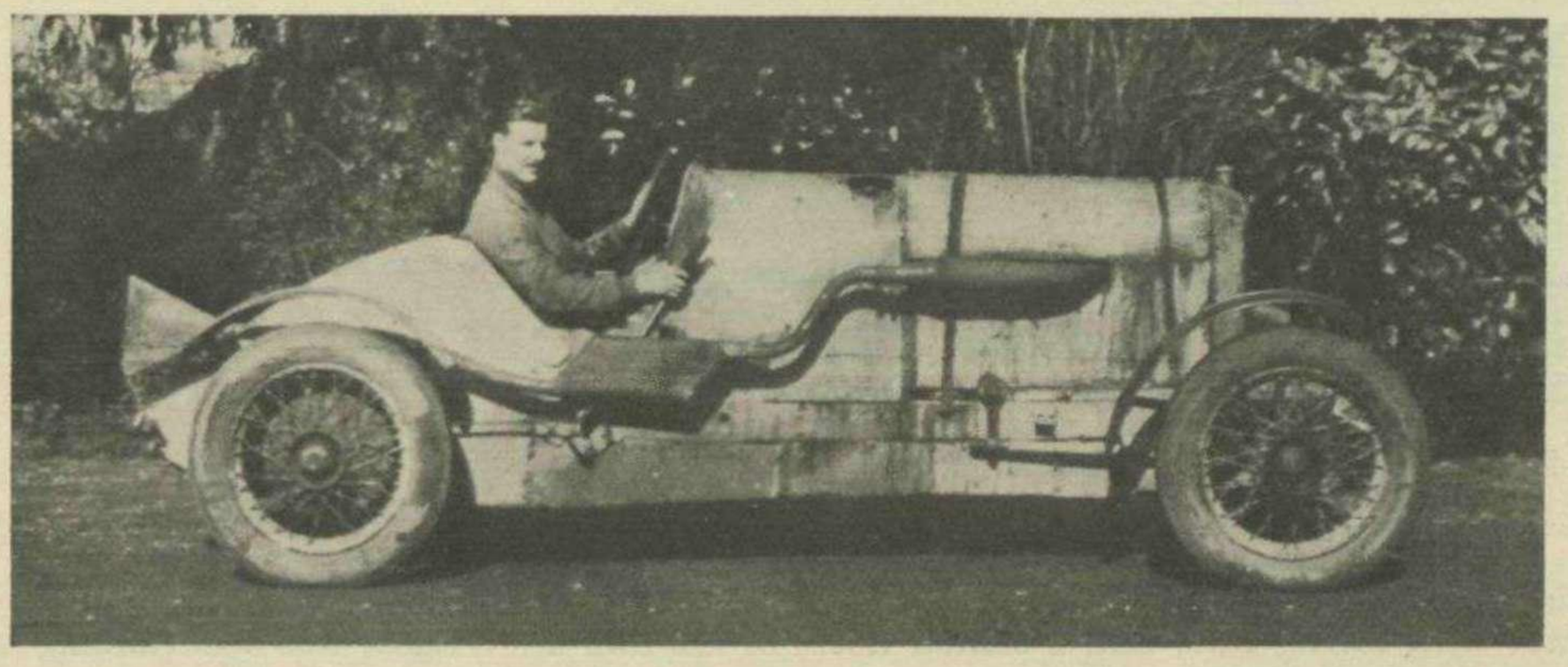
Arrived at the appointed meeting place we found the car ready and waiting for us, conveniently placed at the top of a slope with a stick passed through the steering wheel and in front of the hand brake to hold it on. Since the war the T.T. Humber has been a Brooklands car, and until about two years ago it was to be seen at the track where I believe it lapped at 96 m.p.h. During its time there its outward appearance was changed to a certain extent, a sloping tail having been built over the original bolster petrol tank, considerably larger tyres fitted, and the car given a distinctly Brooklands appearance by the regulation silencer and fish-tail. Internally, also, some modifications have been made, among the more important being that the cylinders have apparently been bored out to increase the diameter by 1 millimetre, making the capacity now 3,381 c.c., while presumably, new pistons have also been fitted. The present owner also has discarded the one large carburettor and rather long branched induction pipe, which was supposed to be heated by the cooling water, owing to the fact that the latter refused to get hot enough satisfactorily to fulfil this function, in spite of part of the radiator being blanked off. His redesigned induction system consists of two carburettors bolted direct up to two short pipes leading each to a pair of cylinders, and the arrangement certainly seems successful.

The general appearance of the car gives one a very pleasant thrill, and an impression that its designer meant business. The car is fairly high judged by modern standards, which gives it a most attractive air of shortness and compactness, and it is interesting to note how much bigger generally it looks compared to a present day racer of approximately similar engine capacity.

VETERAN TYPES—continued.

All the levers and controls have a most solid appearance, and one feels that here is something like a motor car.

"It's all push starting with this motor," remarked the owner, but having collected an assistant, he and I only had to push the Humber a few yards down the convenient slope mentioned before, when the engine, in spite of being cold, fired and soon was running evenly. Removing ourselves from the close proximity of the fish tail which was now barking cheerfully, we scrambled into the passenger's seat and just had time to adjust our goggles before first speed was in and the car shot away. Our duties consisted only in operating the hand pump for the petrol tank pressure and in watching the gauge.



The 1914 Humber as she appears to-day.

The two carburettors, in spite of their short induction pipes, spat a little as we started, but soon settled down to supplying a mixture with which the engine seemed satisfied. We traversed a rather narrow winding drive, which gave us opportunities to notice the correct style of pre-war cornering, and then we got out onto the open road, and were soon accelerating away. The gear change is rather unusual as one pushes the lever forward from first to second speed, and then comes back, through the gate and forward again for third, which suggests that the change from top to second was one which had frequently to be made on the Isle of Man course.

In the years just before the War, at the time when this car was built, there was a great deal of argument as to whether the racing cars of the day would ever influence the touring car, as overhead valves operated by overhead camshafts were so noisy that their use would never be tolerated by ordinary motorists. The futility of this argument is obvious to anyone who has ever tried to detect any valve gear noise in a modern overhead camshaft touring engine, even of the type fitted to quite moderate priced cars, as long as it is in sound condition: but certainly at fairly high engine speeds, the 1914 T.T. Humber does make a fairly loud mechanical noise from its valve gear. The noise, however, which might be rather trying in an everyday touring car is distinctly attractive in what one feels is a real racing car, getting as one does the full benefit of the type with no rubbish such as wind-screens and with a good deal of one's person projecting above the level of the scuttle.

While the car does not give one that feeling of being glued to the road and going round corners "as if on rails," which one gets from the modern low-built speed car, the impression one receives is definitely that the weight is well distributed and that when she skids she will do so in a thoroughly lady-like and controllable manner. Presumably at Brooklands, she was fitted with a set of Hartfords instead of the old pre-war shock absorbers, and the suspension is distinctly good if stiff enough to throw one about a bit on rough roads and make one glad of a pneumatic cushion.

The car's maximum speed is supposed to be in the neighbourhood of 100 m.p.h. at which speed the engine is doing a modest 3,000 r.p.m., but during the course of our run we did not get an opportunity to let the car all out. Nevertheless we were able to indulge in several bursts of satisfactorily high speed which were made possible by the fact that the brakes, although only operating on the back wheels, are extremely powerful, and indeed a good deal better than many four-wheel braking systems, at any rate on dry roads.

When travelling quickly it is amusing to look backwards and listen to the beat of the engine heard from the large fish-tail, and feel as one does with a stub-tailed car that one is right at the back of the machine. The Humber is, in fact, about as typical of a pre-war racer as any that one is likely to find, and to those who like a 4-cylinder engine of about the 3-litre size, it is a distinctly pleasant type.—E.K.H.K.

THE ARGENTINE NATIONAL GRAND PRIX

MERCEDES VICTORY AT 60 M.P.H.

THE Argentine National Grand Prix was run off during March, and took the form of a town-to-town race, the course being from Buenos Aires by Rosario to Cordoba and back. The race was won by Carlos Zatuszech on a giant Mercédès, who covered the distance of 937½ miles at nearly 60 m.p.h. The final result was as follows:—

1. Carlos Zatuszech (Mercédès), 15h. 44m. 40 1/5s.
2. Alberto Ansaldo (Hudson), 17h. 58m. 58 1/5s.
3. Ernesto H. Blanco (Reo), 18h. 20m. 26 4/5s.

THE "LAND'S END"

245 STARTERS IN M.C.C. CLASSIC TRIAL : : :

NEW HILLS TAKE HEAVY TOLL

78 Premier Awards—58 Silver and 66 Bronze Medal Winners : : :



H. J. Aldington (Frazer-Nash) on Beggar's Roost.

THIS year's trial was certainly the hardest of the series that the M.C.C. has ever run, though if it had not been for unforeseen delays towards the end it would have been no more than a fair test.

As it was, however, the earlier competitors had a good run for their money and voted it a great success. The less fortunate, who were held up till all hours of the night, can only hope that it will not happen again, and anyone who knows the efficiency of the M.C.C. organisation will be sure that it will not.

The start was from Virginia Water, and this was a great improvement on the cheerless wastes of the Slough Trading Estate, now fortunately no longer available for such events. The weather at the close of Good Friday was enough to depress the most cheerful driver, but conditions steadily improved, and the run down to the West was favoured by excellent weather at the last moment.

The first portion of the run was merely a main road tour to breakfast at Dellers Café at Taunton, from which the course followed a more devious and less comfortable route to the first observed hill.

Grabhurst was in good condition, the surface being dry, and to those whose discretion restrained their enthusiasm on the bend, caused little trouble. The small cars led the way and the M.G.'s and Austins put up a good show with rare failures, while Hill, on a Triumph Scorpion was also good.

W. M. B. May's veteran Aston-Martin failed unexpectedly as did Beare's Bugatti, the latter as a result of rushing things too much, but he restarted easily enough. The bank seemed to be causing considerable trouble, and the numerous misguided efforts to remove the same accounted for nearly all the failures. The Frazer-Nashes were good and fast, and Symons in one of the racing "90" Talbots of last year was speedy and quiet. Other good climbs were made by Manns and Boyd (Lagondas) and J. V. Hay's old Morris-Cowley.

Dunkery Beacon followed, and there was a feeling of strangeness in the omission of our old friend Porlock, whose ability to stop the modern motor car is now considered insufficient. Actually, we cannot help feeling that this terror of bygone days could still take a heavy toll if the climb were observed right to the very top at a minimum average speed. It is 3 miles before level road is reached again, and Dunkery Beacon showed us that 2 miles of good hill is a sore trial for the cooling system of most cars. Many of us hope to put in a bit of continental touring in the course of our motoring existence, and the Alps are much higher than the hills of Somerset, and water is not obtainable *all* the way up! However, we digress from the subject of Dunkery Beacon, where, apart from the fact that nearly everything boiled furiously, little happened and there were few failures. Another mile or so however, and things might have been very different.

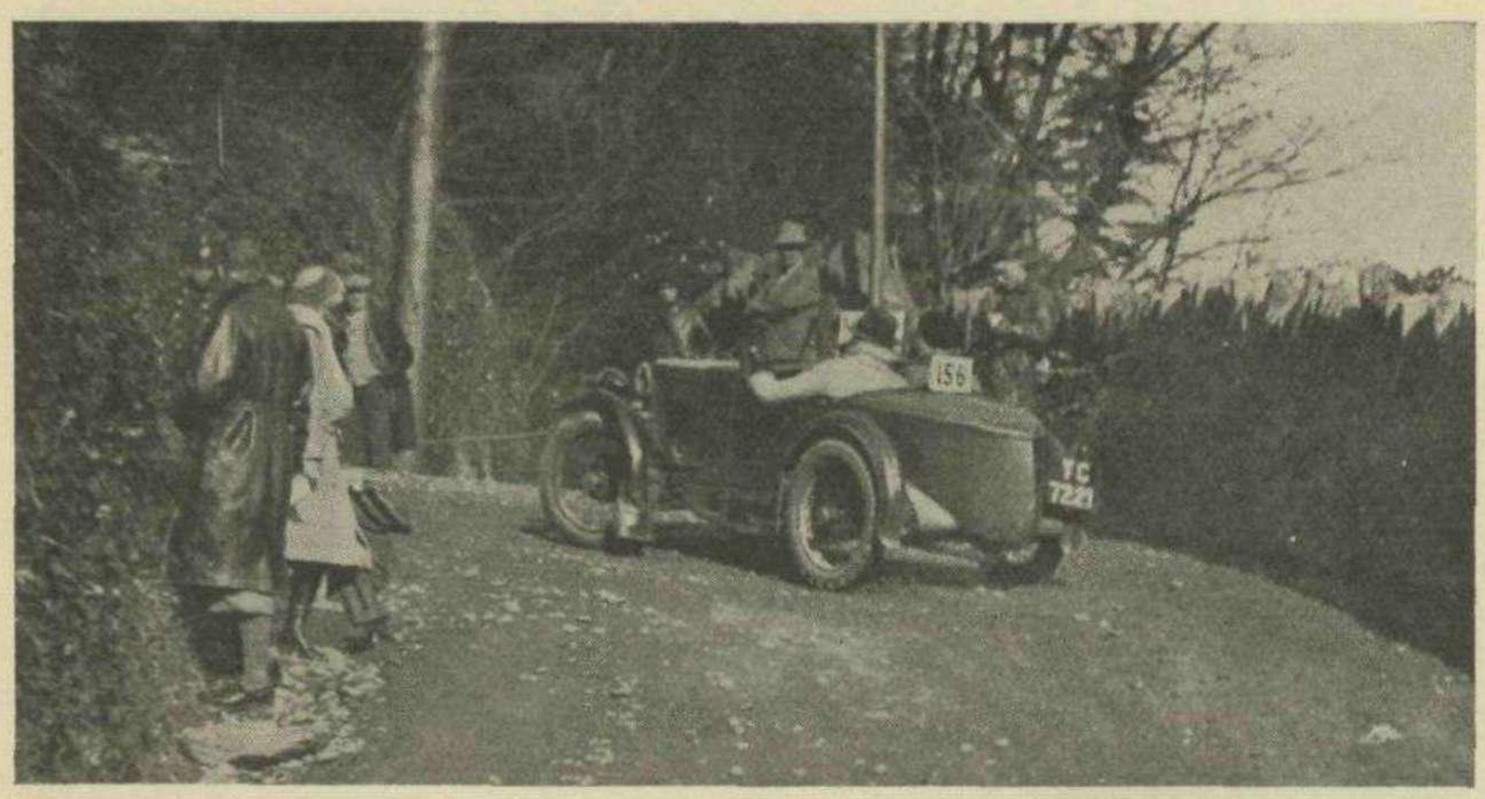
The next hill, Wellshead, was reached by a road which made sure that those who were late would remain late for the present. The worst part of a somewhat twisty climb is a left hand hairpin with an inside boundary of a step of solid rock, anxiety to give this an extra wide berth causing sundry drivers to clout the outer bank. The majority, however, took advantage of the dry state of the hill to make good climbs and passed on, via the check at County Gate, down Countisbury, and up Lynton Hill.

This was dry and in good condition, in fact it is distinctly a normal highway for this part of the country. Many cars, however, after getting really hot on the first hills of the trial, can be trusted to augment that tired feeling by oiling up a plug or so in descending Countisbury, with the result that Lynton usually accounts for a bigger proportion of failures in the Lands End, than it does among those who ascend it in the normal way of business or pleasure.

Roberts in an Austin, was among those who started the climb with at least one cylinder not functioning, and more than once descended again to the foot of the hill to try and rectify matters, and eventually conquered the hill at about the third attempt. The small cars were good on the whole however, though one of the Ulster Austins complained violently of its high bottom gear on the upper slopes, and had to be assisted, but naturally this model is not intended for this class of work.

Beggar's Roost attracted the usual crowd, who got all over the road in the

THE LAND'S END—continued.



J. E. S. Jones (M.G. Midget) on Lynmouth, (and below) the new and rakish Alta at Beggar's Roost.

usual way, and thus made the ascent considerably harder for competitors than it need be. The majority of the failures, and there were plenty of them, were devoid of mystery. Weak motors and bad drivers were the chief providers of work for the towing gang, and it looks as if there are plenty of people who make the occasion of their first excursion from the boulevards of their home town into the lanes of the West Country, to coincide with their first entry in the Lands End. Many of the cars that failed were certainly much more suitable for the former than the latter.

We were cheered, however, by examples of the opposite trend of thought, and though Scrogg's Trojan is hardly the vehicle one would choose for cutting a dash among the beret-clad gang who obstruct many a High Street at week-ends, or yet again for impressing the management of some imposing hotel, it is always sure of a hearty reception and rousing cheers as it purrs its relentless way up the Roost. This time he was as sure as ever, and his day's good deed consisted of pushing the crowd back against the left-hand bank, and so clearing a space far larger than was visible since the start of the climb, or, for that matter until the finish of it.

Among the smaller cars the Wolseley Hornets stood out as far the most convincing, with H. B. Browning as the best of them.

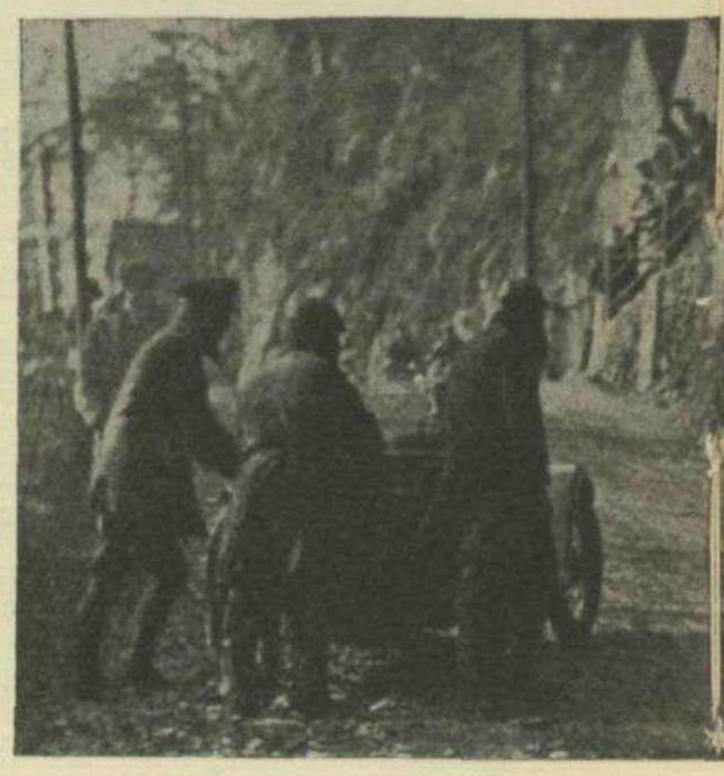
The earlier Rileys were disappointing, but the later ones made up for this with some excellent ascents, with L. E. Fillmore's probably the fastest.

The Frazer-Nashes were very fast indeed and treated the affair more as a speed event than a trial, with H. J. Aldington the fastest. Hopkins was, however, almost as fast on another Nash, while Berry on the car he ran on the following Monday at Brooklands, was also very good. A tendency to try and economise fuel proved the undoing of Bellamy's





A Beggar's Roost victim—J. D. Nelson (Riley).



C. W. M. Wicket's M.G. Midget watch

and Miller's Frazer-Nashes, which essayed the climb with nearly empty tanks.

The Talbot "90," and the "75" saloons were excellent and quiet, while fast, if noisy climbs were registered by Evans and Beare on Bugattis and Mitchell's Vauxhall. The Lagondas were good especially E. J. Boyd's, while the old Morris Cowleys made some of the beautiful new sports cars look distinctly foolish! The Fords made the hill look easy, but Giedt's old 3-litre Bentley proved to be hopelessly overgeared and was towed up. May's Aston Martin, the B. and P. special, and the very neat little Alta were all fast.



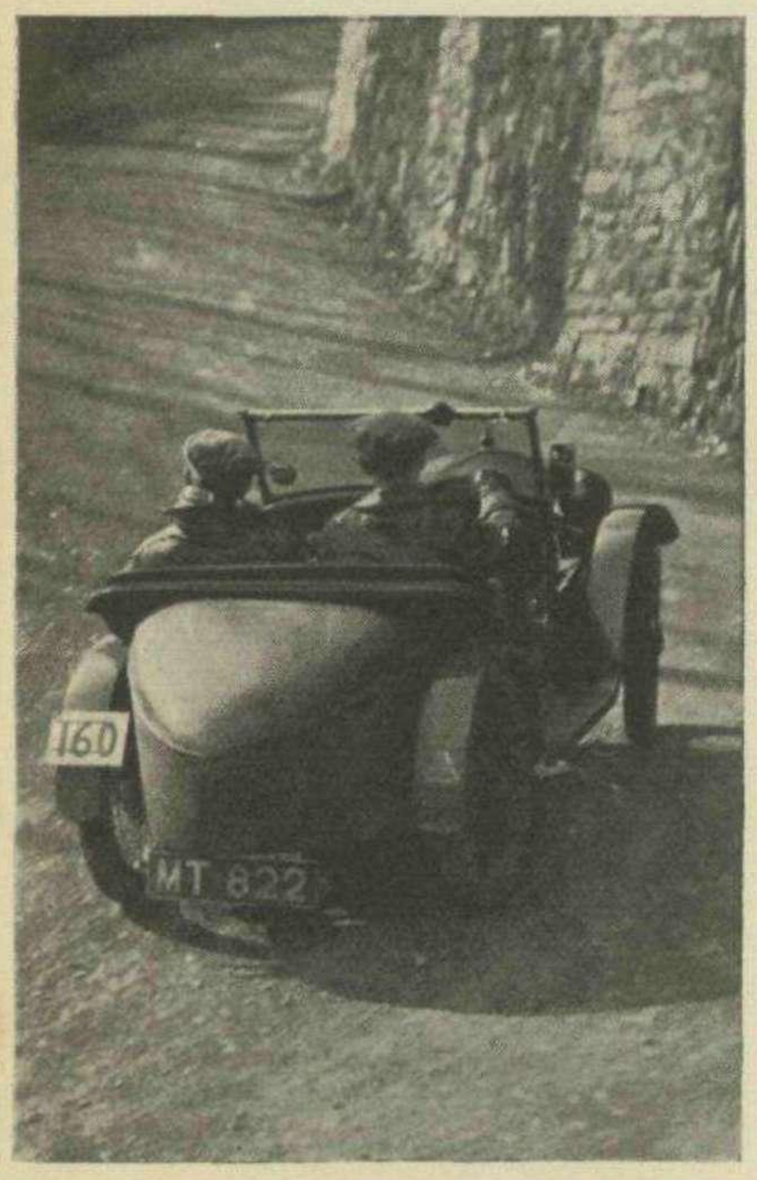
A. Heal (Frazer-Nash) makes a good show on Beggar's Roost.

From there to lunch at Launceston was little incident, except for the upsetting, for no apparent reason, of J. N. Berry's M.G. Midget.

Ruses Mill provided little difficulty and there were few failures. The Frazer-Nashes were fast as usual, and some of the "specials" entered by various enthusiasts were also good.

The next hill was the cause of all the trouble and Hustyn will long be remembered by the unfortunate late numbers who had to wait while the leading cars proceeded to distribute the watersplash over the whole surface of the hill and so made it extremely difficult. Failures grew more frequent, and the teams of horses requisitioned to deal with the situation had to work hard, and even so were unable to avoid the long delay which followed. Eventually darkness came to add to the trouble, and some of the waiting drivers considered they had had trial enough, and decamped in search of food and comfort. The last climbs, made three hours late in the dark, were mostly failures, but special mention is due of Strong (Standard), Sexton and Midgeley (Fords), Gennell (Lagonda) and Hay (Morris-Cowley) who made clean climbs in the dark.

Bluehills Mine is now beginning, in spite of its remote position, to attract almost as much crowd as the Roost, and competitors, revived by tea supplied by Mrs. D. M. Healey at Perranporth, arrived to find the hairpin rougher than ever. It was this hairpin which caused all the trouble as usual, not through lack of power, which was rare, but insufficient luck. The Austins, Midgets, and Triumphs were good on the whole, as were the Wolseley Hornets with the exception of Payne's and Foster's, which hit the bank. The Frazer-Nashes were very fast and slid neatly round the corner with ample power in hand. Later the gaps grew bigger owing to the previous delays, and the large cars had to tackle the climb in the darkness. By the time the last finisher had clocked in the officials were thoroughly mystified by the erratic arrivals, and considerable investigation has been necessary to work out the results.

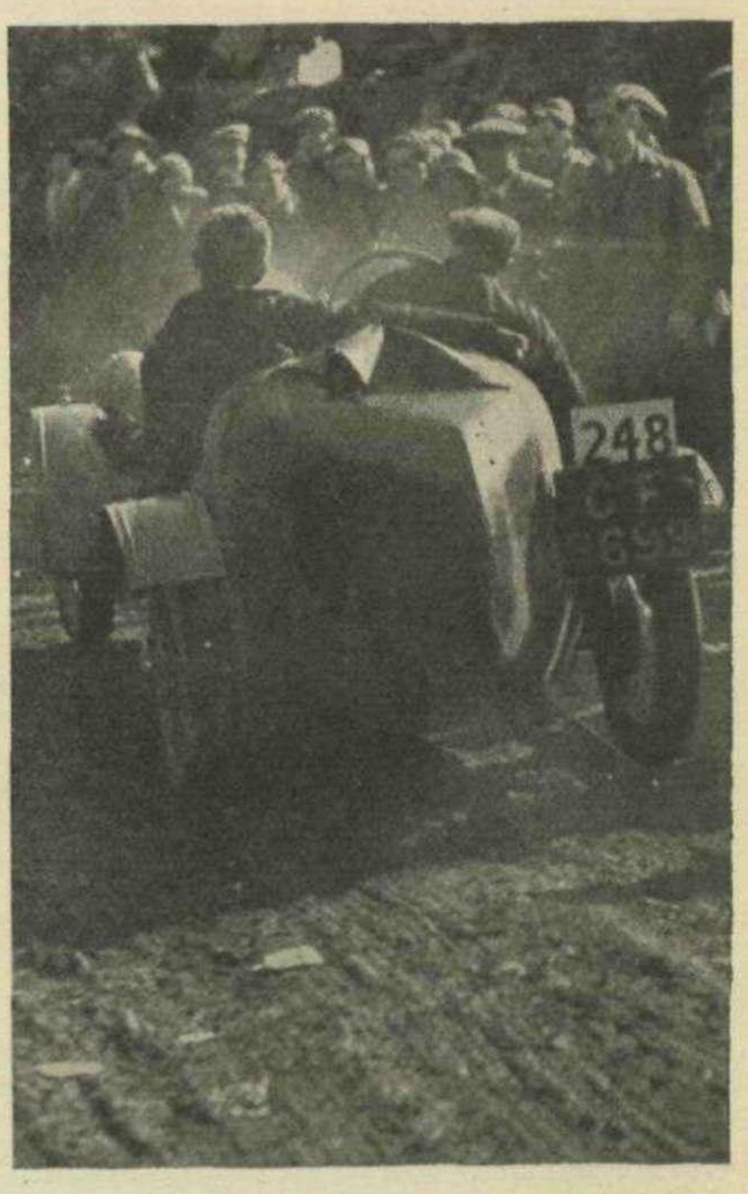


A Lynmouth snap—D. C. Roberts' Austin "7."



[*Motor Sport photographs*]

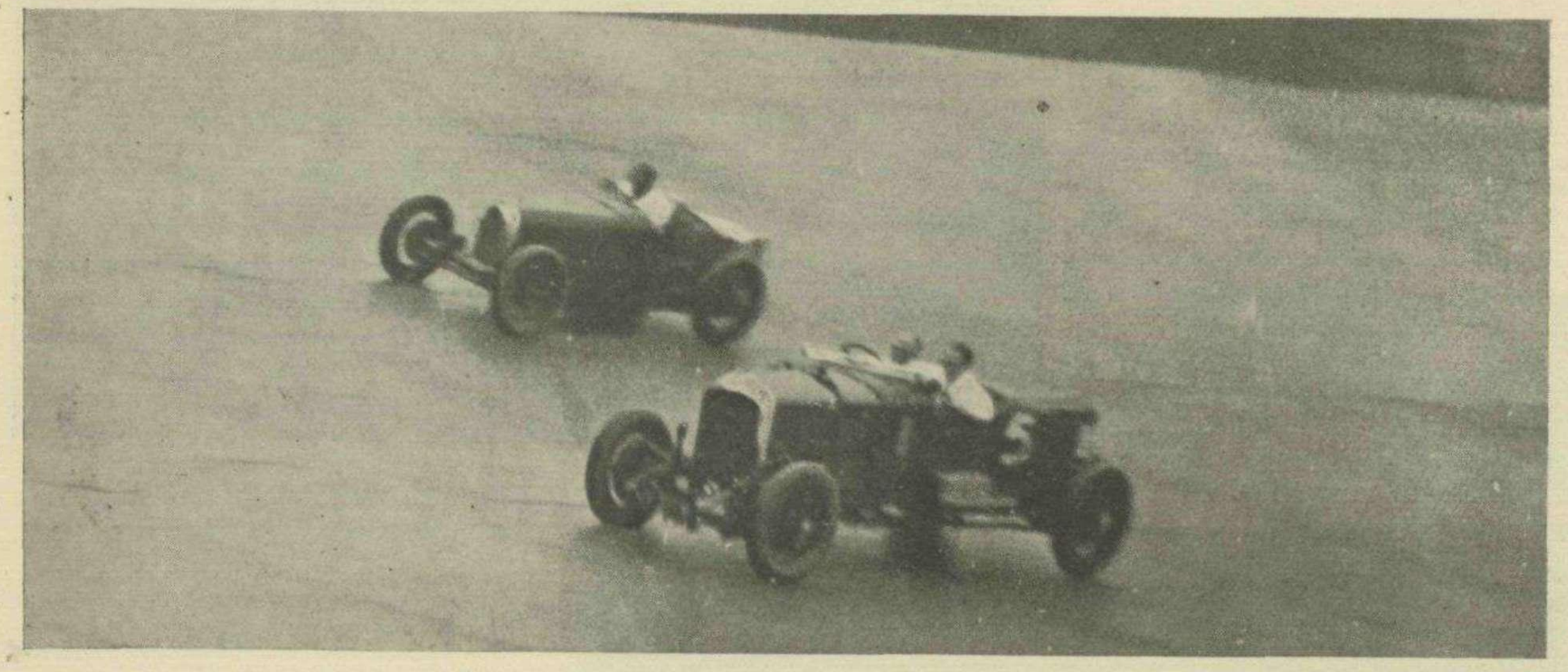
ed enviously by the crew of a Baby Austin.



J. Driskell passing the "gallery" on Beggar's Roost.

Brooklands Easter Meeting

HOLIDAY FIXTURE RUN IN THE RAIN



[Motor Sport photograph]

Spottiswoode's Bugatti passing E. R. Hall's Bentley in the Warwick Senior Long Handicaps. The former won in a close finish.

IT is a good thing that all meetings are not run in weather like that of Easter Monday. Apart, however, from the accident to S. C. H. Davis, in which he had the misfortune to break a leg, the conditions were welcome for the insight which they gave us into the respective degrees of controllability of various cars on a slippery surface.

The Mountain races provided plenty of excitement for spectators, and though some of the unnatural gyrations were the result of drivers failing to take note of the fact that corners cannot be taken as fast on the wet as they can on the dry, it was obvious that some makes were naturally steadier than others. These races give plenty of opportunity for demonstrating good handling, and the safest and snappiest makes were undoubtedly Frazer-Nash and Bugatti. A particularly worthy performance was that of N. A. Berry (Frazer-Nash) who drove his car through the Lands End trial, climbed all hills and claimed a gold medal, then raced back from Lands End to Brooklands and drove his car, absolutely untouched, in a mountain race and finished 5th. Surely as good a test of an all round sports car as one could well imagine.

The order of this meeting was slightly unusual in that it started with one of the Mountain Speed handicaps, in which the full 15 starters allowed duly got off the mark.

Already the track was in a soaking condition and early evidence of lack of adhesion was provided by W. G. Iliffe (Riley), who skidded round at the fork, as did Pauling on another Riley almost immediately afterwards, thereby giving S. C. H. Davis difficulty in avoiding the sliding car. Hepburn's M.G. Midget and Elwes' Austin Seven were putting up a great race in the small class while D. A. Aldington, on an Interceptor model Frazer-Nash, was coming fast through the field from 10th place.

Davis' Bad Luck.

S. C. H. Davis (Invicta), starting scratch was travelling well, but on the fast corner under the Members' Bridge his car appeared none too easy to handle. On the fourth lap it got out of control when well round the corner, and sliding to the bottom of the track struck the stay of a telegraph pole and overturned, breaking the driver's leg in two places. Driscoll, whose Lea-Francis was travelling extremely well, very sportingly stopped to assist, and so sacrificed his excellent chance of winning the race.

Elwes took the lead at half distance and was chased home by Hepburn, with D. A. Aldington, who had worked his way well through the field, in third place.

The first of the straightforward spring races was the Warwick Junior Short Handicap, with Munday's 30-98 Vauxhall on scratch. Philips, on a B.C. Austin Seven caught the limit car (V. F. Horsman's Triumph) in the first lap. J. A. Robinson and his Bugatti seemed to have fully recovered from his little upset at Ewelme Downs, and was going very well, while Clayton's Amilcar was very fast and soon came up to second place to run home a close second to the B.C. Austin. Herrtage (Riley) was third.

The Senior Short Handicap proved to be a Bugatti race. The B.C. Austin was this time driven by Willis, but having been rehandicapped 20 secs. was unable to hold its lead and gave place to Meeson's Vauxhall, with Purdy's and Selby's Bugattis in pursuit. Between the fork and the finish on the last lap, however, the two "Bugs" slipped past Meeson, and a very close race with Purdy in first place was the result.

Owing to the wet state of the track it was wisely decided to postpone the big stuff for the moment, and the events were put on in such order as the organisers thought fit.

Therefore the next race was the Warwick Senior Long, and this provided the spectacle of a magnificent scrap between Spottiswoode's Bugatti and Hall's Bentley. The "Bug" had 5 secs. start on the Bentley and gradually lost this till Hall actually passed him near the fork. Spottiswoode, however, managed to get a little more speed, and using the home banking well-passed Hall in the run off to score a very close win. E. R. Hall's driving was worthy of comment for the skilful and sporting way in which he kept his Bentley well down the banking in spite of the wet track, and so gave Spottiswoode plenty of room.

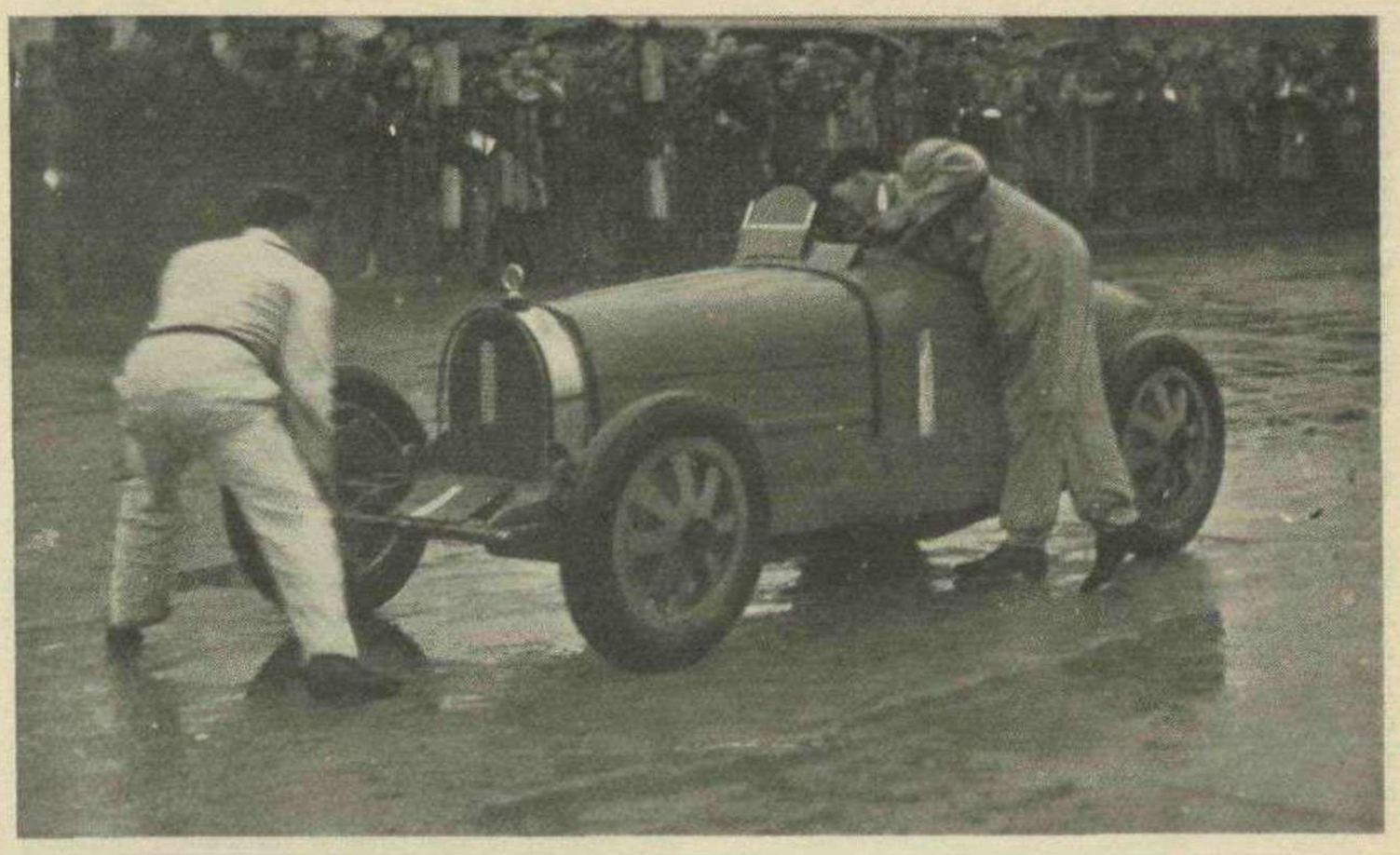
Another Mountain Race followed, this time for racing cars, and Sir Malcolm Campbell, on his 1500 c.c. supercharged straight eight Bugatti, on the scratch mark. He came to grief on the very first lap, however, as the track rod broke approaching the Fork hairpin. On releasing the brakes, however, the near side wheel, which had flown round at right angles, came straight again, and in spite of a sickening wobble, enabled him to carry straight on past the corner and pull up in safety.

BROOKLANDS EASTER MEETING—continued.

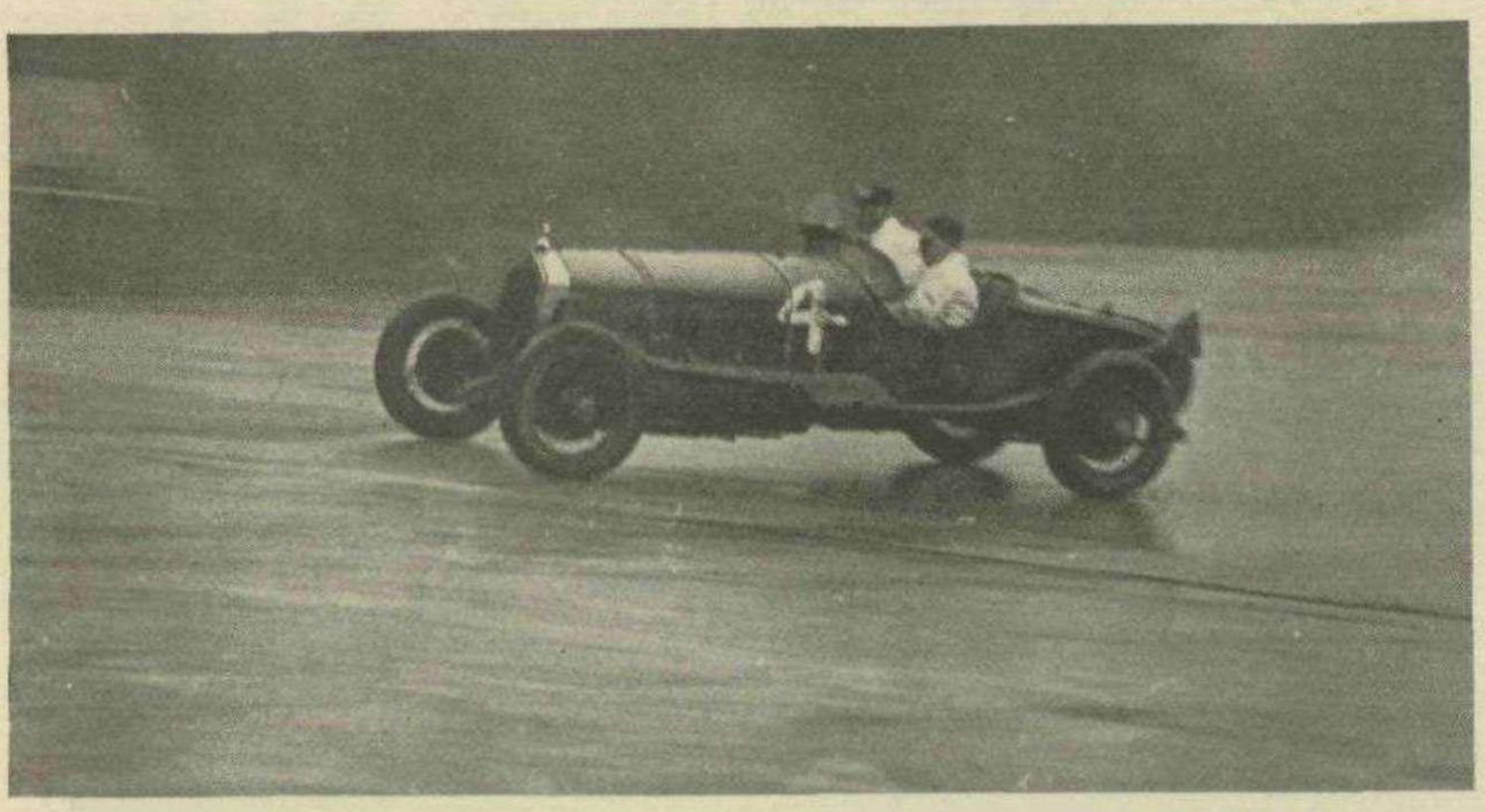
Among the other drivers the neatest and steadiest were B. C. Lewis, on the single seater Talbot, Agabeg on a Salmson, and Purdy (Bugatti), while Robinson's old Brescia " Bug " was in excellent form. Willis (B.C. Special) was fast but rather wild on the corners, while Black turned his Salmson right round on the wet track, as did Bartlett on a car of the same make. The race developed into a great duel between B. E. Lewis and Agabeg, the latter eventually winning an excellent race. The third man home was Horton (Riley).

The Junior Long Handicap, which followed, saw Purdy once more rehandicapped and the B.C. Special was similarly treated. This gave Brackenbury an opportunity which he was quick to take, and he brought his unsupercharged 4-cylinder Bugatti home at 92 odd m.p.h.—a very stout performance indeed. Willis was second and an Invicta, driven by G. Field, was third.

As the two fastest races were now definitely postponed to the following Saturday,



Sir Malcolm Campbell manhandling his " Bug " after the steering had failed.

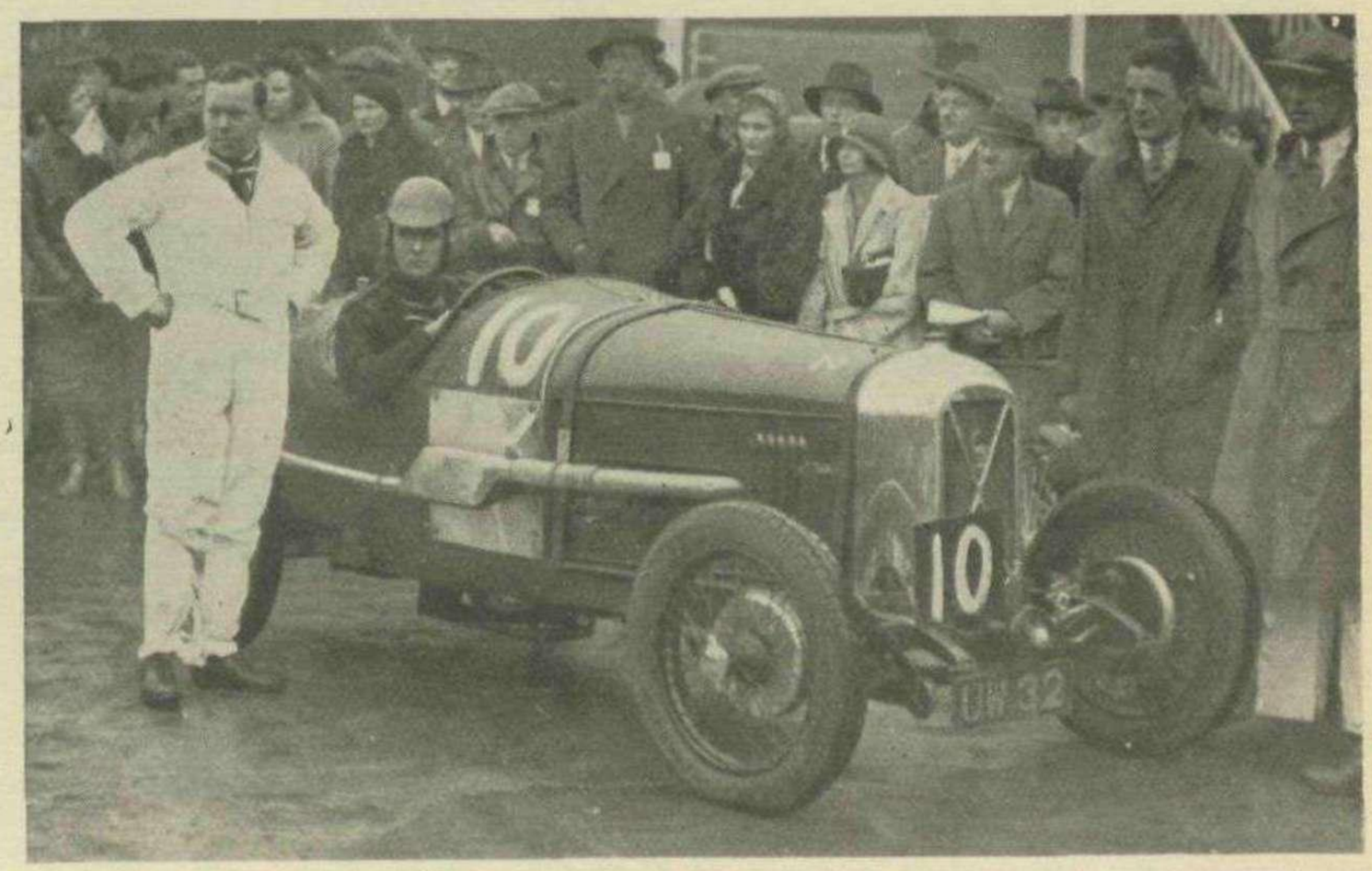


R. S. Outlaw's Alfa-Romeo motoring well through the rain.

the day's motoring concluded with another Mountain Speed Handicap. This was chiefly notable for the remarkable exhibition of completely uncontrolled skidding given by E. L. Roberts, on W. G. Iliffe's Riley. On the first lap at the Members' Bridge bend, he entered the corner too fast and turned completely round, losing his engine and getting generally in the way. Instead of profiting by this experience to take it more soberly next time, he did exactly the same, only more so, and did his best to get run into by Berry's Frazer-Nash, which was, however, far too steady and well-driven to have any trouble in avoiding him.

On the next lap at the same spot Roberts surpassed even his previous efforts, while at the Fork hairpin on his first two laps he gyrated considerably. On his second lap he actually came into sight *backwards*, and would probably have continued in this strain indefinitely, had the Stewards not decided that this nuisance must now cease, and he was flagged off.

Aldington, on the Ulster Frazer-Nash—on scratch as usual—had a spot of trouble in the motor in the third lap and pulled out of the race. He must be getting a little tired of going fast without a chance of winning, and perhaps his handicap might receive attention. In this race he would have had to have averaged a higher speed than the present lap record, to win, and this on a wet track. Rather a stiff proposition! The race proved an easy thing for the small cars and Vernon Balls brought his Austin into first place after a good race, with Randall and Searle, also on Austins, second and third. The afternoon was concluded with an exhibition of towed gliding by Mr. Lowe-Wylde, who acted up to his name, and furnished the spectators with an example of hair-



Winner of the Easter Mountain Racing Handicap—A. F. P. Agabeg who averaged 60·06 m.p.h. with his Salmson. [*Motor Sport photographs*]

BROOKLANDS EASTER MEETING—continued.

raising aviation by diving his machine under the bridge across the finishing straight. Reasons given—(a) the track was not clear beyond it, or (b) he had insufficient height to clear it. Whatever the reason it was a good effort, as in spite of removing a portion of wing in his passage under the arch, he made a perfectly good landing, and with hardly a glance at the damage took off again. What would the Air Ministry say if this sort of thing was done with normal aircraft ?

The two races held over from the Bank Holiday were run off on Saturday, April 11th, when perfect weather attracted a surprisingly large crowd to see them. Another attraction which was almost equally powerful and should not be lost sight of, is the very much reduced fee allowed for this particular occasion.

The first race was for the Founder's Gold Cup, with J. R. Cobb and the big Delage on the Scratch mark. Sir Malcolm Campbell's Bugatti, Grant's Bugatti, and Field's Talbot were non-starters, while Bout's Sunbeam gave trouble on the line. After one lap B. E. Lewis (Talbot) was caught by Craig (Bugatti), while Cobb was coming up very fast from scratch and closing up on Lewis, who was just holding off Selby's Bugatti. On the last lap Cobb dropped down from the banking just behind the Talbot and swept past to gain a fine second place. Craig got into trouble with the Stewards for failing to observe the line at the fork correctly, and was required to swell the official coffers to the extent of £8. The win was allowed to stand however.



Two Talbot exponents, Brian Lewis and George Day, of the Test Dept. of Talbot's, both in serious mood.

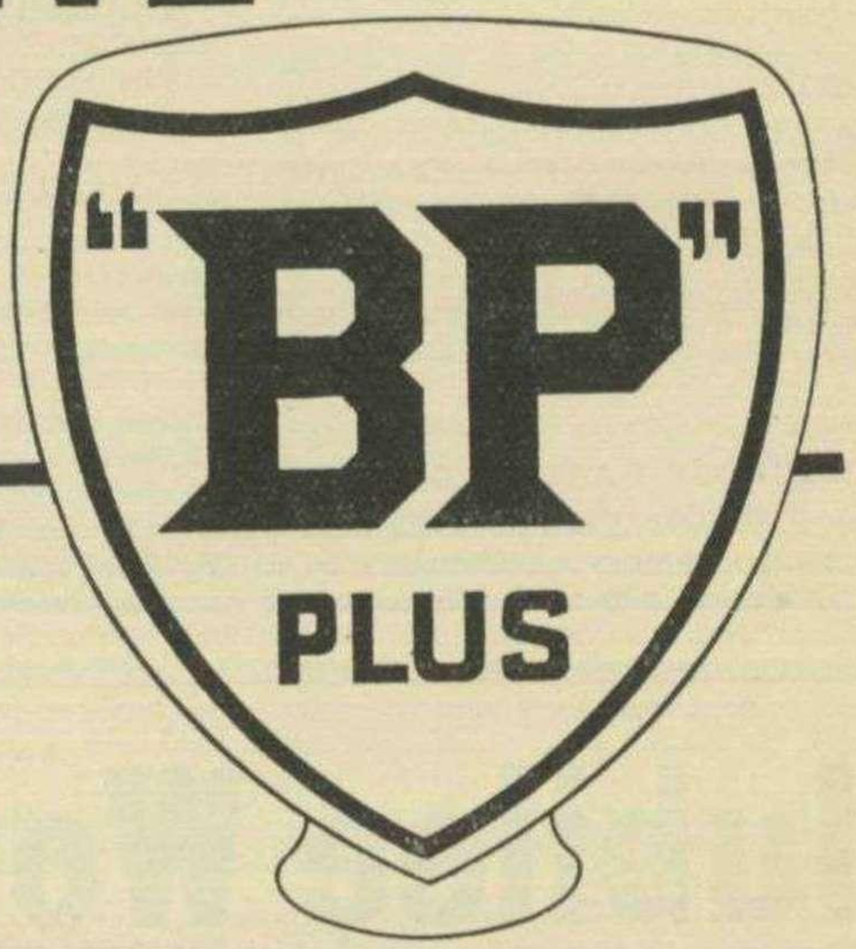
The Warwick Lightning Short Handicap followed with Craig and Selby (Bugattis), Hall (Bentley) and Cobb, all re-handicapped on account of previous wins. Selby set off after the Bentley and after a good race caught him and held the lead to the end. Scott on the G.P. 1½-litre Delage was 3rd. And so the meeting begun in rain was finished five days after in sunshine.

[Results of this meeting are given elsewhere in this issue.]



Fast cornering under difficulties. B. Lewis (Talbot) and Agabeg (Salmson) taking the fork hairpin in close company, while another competitor is not so clever.

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—THIS IS A DEVELOPMENT OF SUPREME IMPORTANCE TO MOTORISTS

Club News

JUNIOR CAR CLUB.

RESULTS of the half-day trial, which was held by the J.C.C. recently, have now been published.

The winner of the premier award was C. Athony (Senechal). Silver medals were secured by twenty competitors, these being as follows :—

R. L. Bellamy (Frazer-Nash), P. B. C. King (Frazer-Nash), D. E. Calder (M.G. Midget), P. B. Simpson (M.G. Midget), Alan H. Carnt (Riley), F. A. Thatcher (Triumph), H. C. Hunter (Riley), H. J. Turner (Riley), W. K. Silk (Austin), A. Negal (Morris Major), D. G. Evans (Bugatti), N. Joseph (Wolseley), K. W. Bear (Bugatti), T. C. Mann (Lagonda), A. L. Baker (Ford), G. W. Olive (Standard), J. E. Ives (Standard), R. M. Mere (M.G.), R. J. P. Morley (A.C.) and G. E. Mawer (Sunbeam).

There were sixty-two entrants, of which four were non-starters. Two drivers retired.

LONDON EAGLE M.C.

In the Passenger Machine Trial held a short time ago, the best performance by a three-wheeler was put up by W. Gowlett (B.S.A.), of the Standard M.C. The Car Cup was won by J. F. Cooknell (Jowett), of the Berkhamsted and D. M.C., and silver medals were won by J. A. Berry (M.G. Midget), London Eagle M.C.; N. C. Lone (M.G. Midget), Berkhamsted and D. M.C.; and R. M. Mere (M.G.), Oxford University M.C. Bronze medals were won by H. Wheble (M.G. Midget), London Eagle M.C.); W. T. Cope (B.S.A.), London Eagle M.C.; K. F. Walker (Riley), Berkhamsted and D. M.C.; and E. Sexton (Ford), Oxford University M.C.

The team prize was won by the London Eagle M.C.

The Salisbury Trial will take place on June 14th.

ILKLEY and DISTRICT M.C.

The opening reliability trial took place on March 29th, and was a fairly easy run over secondary roads to a lunch stop at Morecambe.

Of the thirty-five entrants, twenty-three reached the finish, novices being allowed the benefit of an extra time margin at checks. Provisional results: Fattorini Trophy for the best performance was won by C. P. Kilburn, riding an A.J.S. (42 marks error). A. Chambers (Rudge) was second with 54 marks error, and L. Rimington third.

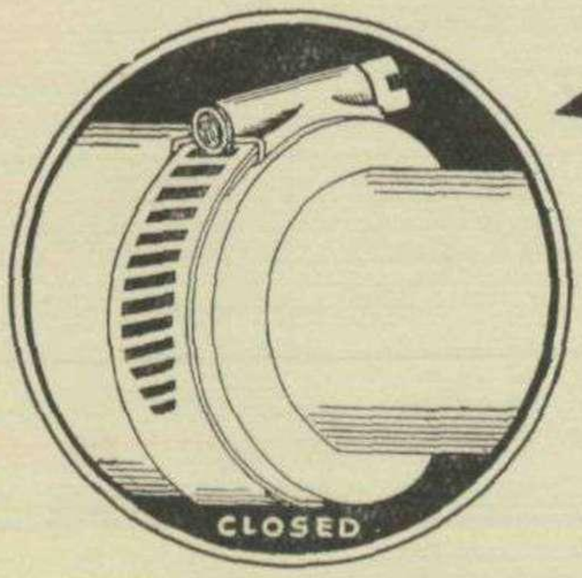
NEWPORT and GWENT M.C.

At the annual general meeting it was decided to reorganise the club and to cater for the social as well as the sporting side. The membership fee has been reduced to 5s.

The following officers were elected: Chairman, Mr. J. O. Evans; vice-chairman, Mr. G. Pritchard; president, Mr. W. Henry; vice-president, Mr. H. Uzzel; secretary, Mr. R. C. Brown; treasurer, Mr. A. S. Truman; social organisers, Mr. and Mrs. G. Bouchier; sports organizer, Mr. R. S. Bond; Press secretary, Mr. A. G. Evans; committee, Messrs. D. Price, Eley, A. Rudge, H. Jones, I Jones, H. Goulding.

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

Jubilee Worm-Drive Clips



THE BEST POSSIBLE TO GET. MAKE SURE YOU HAVE THEM FITTED ON YOUR RADIATOR JOINTS, LEATHER COVERS, ON UNIVERSAL JOINTS, AIR, OIL AND WATER HOSE JOINTS.

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ITEMS OF INTEREST

FROM VARIOUS SOURCES

Mrs. Stewart's Record.

THE fastest woman motorist in the world to-day is the British lady driver, Mrs. G. M. Stewart, who has now attained the remarkable speed of over 140 m.p.h. in a record breaking run at Montlhéry.

During the Easter week-end Mrs. Stewart broke no fewer than four international records in class "E" (1,500 c.c. to 2,000 c.c.), viz., 5 kilometres, 140.47 m.p.h.; 5 miles, 139.48 m.p.h.; 10 kilometres, 139.80 m.p.h.; 10 miles, 134.26 m.p.h.

Her car was a Derby-Miller Special, the property of Mr. W. D. Hawkes.

Last December, it will be remembered, Mrs. Stewart established two new world's records, the 10 miles record and the 100 kilometre record. She is, in fact, the only woman to hold any of the recognised world's records and is one of the few women to have established international class records.

She also has the honour of being the fastest British track racing motorist for distances over 1 kilometre.

Motor Wheels at the Science Museum.

THREE additions have been made to the motor car wheel exhibit at the Science Museum, South Kensington. They have been supplied by the Dunlop Company and are a section of the Dunlop pressed steel artillery wheel, showing construction, the original B.D. wire wheel, Neales Patent, 1920 and the "Magna" wire wheel.

The exhibit illustrates the development of the car wheel from its earliest stages and examples of new developments are added from time to time.

Wanderlust—1931.

ANOTHER world tour started a short time ago, when Messrs. W. Johnson and E. Farrell set off on an Ariel motorcycle and box sidecar to encircle the globe.

They aim to work their passages on the boats on which they will have to travel and, both being good shots, they hope to replenish the larder with a minimum of expense. They are taking full camping kit with them and to save money will use it every night. They will never see the inside of an hotel—except at the hospitality of local enthusiasts.

Apart from the route their plans are delightfully nebulous. After France they will make for Constantinople, Alexandria, Cairo, across the desert to Lake Victoria and over the veldt to Cape Town. They will there board a cargo boat to Colombo, and later go through India and Malay to Australia. There, for the time being, the definite route ceases.

Their machine is capable of carrying large quantities of petrol, and this they hope to obtain on the old army principle —that of the "scrounge"!

Humbers for R.A.F.

THE Royal Air Force personnel are familiar with "Snipes," for at the end of the war, and for some years afterwards several squadrons were equipped with Sopwith scout machines having that designation.

Now they are to use "Snipes" again (though this time they will be cars and not 'planes), for the Air Ministry has recently placed an order with Humber Ltd., for some of these cars for use in Palestine.

New Goggles.

MESSRS. E. B. MEYROWITZ, creators of the universally-known Luxor goggles, have just placed on the market a new model to be known as "Number Ten," the special features being extra long flat safety glass lenses, and a new type of ventilation which was experimented with and approved by the late Sir Henry Segrave. He wore the first of these goggles during his successful attempt on the world's land speed record. Another feature of this new model is the large flat cushions which form perfectly to the contour of the face, ensuring a high degree of comfort to the wearer. The lenses and cushions are detachable, and can, if necessary, be replaced in less than one minute. The price of this new model, including leather case, is 45/-. They can be seen at either of the London Branches of E. B. Meyrowitz Ltd., or any of their agents.

Meyrowitz goggles, in the past few years, have attained phenomenal popularity, and are now used by practically every racing motorist as well as being chosen by flying men extensively.

Branded Motor Spirit.

THE public realise the value of purchasing branded goods. They know that products bearing a brand name have the makers' guarantee of quality behind them, and that no matter in which part of the country purchases are made the same quality can be relied upon. Indeed, to the purchaser, consistency of good quality is one of the chief attributes of the branded article.

The principle applies to motor spirit as well as to other commodities, yet many motorists are still under the impression that by buying a No. 1 spirit they are getting a first grade product.

There was a time when the term No. 1 was generally employed by the petrol marketing companies to designate their premier grades, but owing to the term being loosely used, and so frequently applied to inferior spirits, it was dropped some years ago in the interests of motorists.

To-day the only way to ensure that first grade spirits are obtained is for the public to confine their patronage to those leading makers, who have nothing to gain and much to lose by putting out inferior spirits under their well known and well advertised brand names.

A "Wonder-Bar" on Wheels.

THE builders of luxury coachwork are responsible for the inception of many of the refinements now fitted as standard to moderate-priced production cars, but it is problematical whether manufacturers of popular priced models will ever provide so beautiful a fitting as one recently seen in a West End showroom.

This was in a luxurious limousine body built by Thrupp & Maberly, Ltd., for an 8-litre Bentley chassis and consisted of a tastefully designed cabinet housing a complete cocktail set and ice container. Spirit decanters and beakers were neatly let into the woodwork, the whole comprising a miniature bar.

This fashion of carrying suitable liquid refreshment is a direct outcome of the great increase in summer and winter touring, and is further fostered by the irksome and ever inconvenient licensing restrictions.

Motorists' Remedy for Bad Roads.

A HINT to motorists has been given by a motorcyclist who was thrown from his machine on a bad patch of road in the Carshalton area and seriously injured. He sued the local Urban District Council at Kingston Assizes and was awarded damages.

Now many motorists who have skidded to disaster or whose springs have been badly jolted on some of our worst roads may follow his lead and get the local authority concerned to pay for the damage to the car.

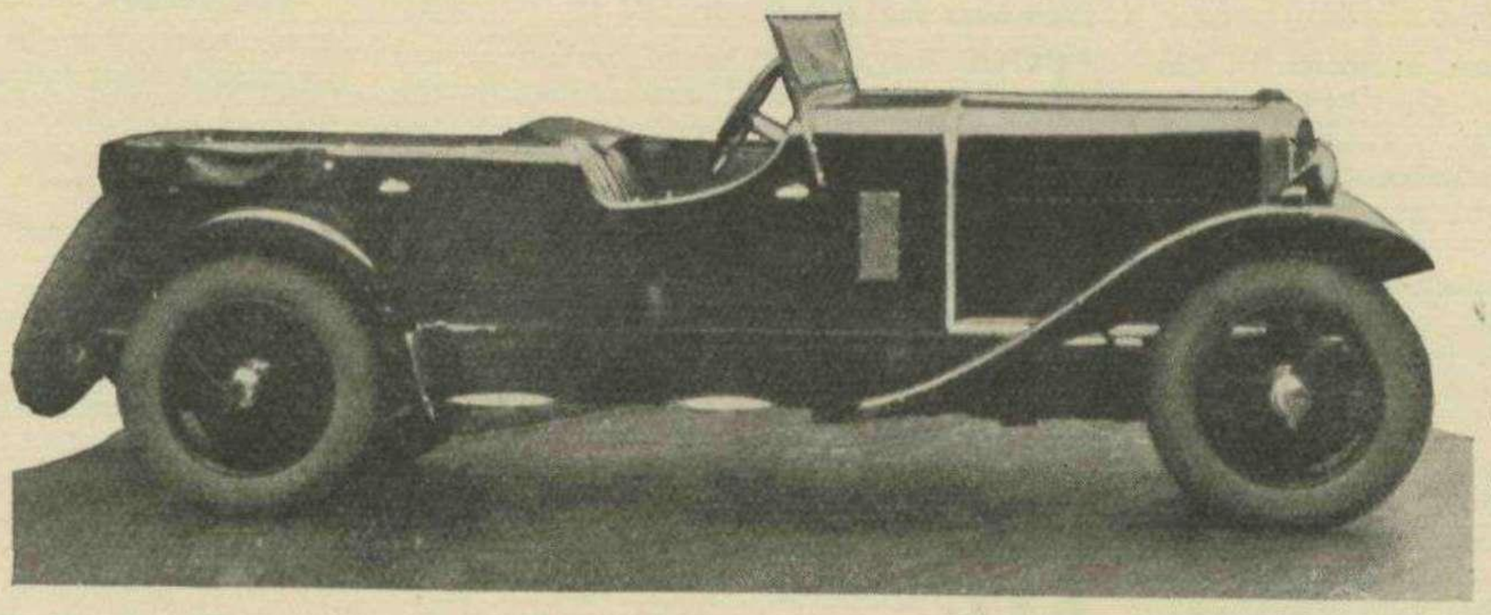
"An action would be successful if the motorist could prove that the accident was due to the misfeasance of the council in laying the road," said an authority on county council law. "If the surface was unduly slippery or broken, no matter how much money the road had cost, the council might be deemed guilty of negligence and have to pay."

It would be no excuse, he added, for the council to plead that it had spent a great deal of money on the road. In fact it would merely be an aggravation, for most motorists know that accidents occur most commonly on the new roads—the Kingston By-pass for example—made from the most expensive imported materials, and that the roads made from inexpensive local materials are usually perfectly safe.

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TEL: WELWYN GARDEN 662

Land's End Trial Results.

ACEDES.
Landucci, F. A. ... ... B

ALFA-ROMEO.
Hamilton, H. C. ... ... G
Evans, K.D. ... ... S

ALTA.
Taylor, G. ... ... S

AMILCAR.
Urlwin-Smith, E. ... ... G
Powell, H. P. ... ... G

ALVIS.
Lester-Williams, R. ... ... B
Rake, L. C. ... ... S
Bass, E. W. ... ... S
Williams, F. T. ... ... R
Holmes, H. ... ... B
Grimsdell, D. ... ... B
Grimsdell, E. H. ... ... S
Budd, E. C. ... ... G
Moss-Blundell, C. B. ... ... R

ASTON-MARTIN.
Morris-Goodall, M. H. ... ... R
May, M. W. B. ... ... G

AUSTIN.
Jacobs, H. C. ... ... G
Massey, R. H. ... ... G
Allott, F. ... ... R
Milton, W. J. ... ... S
Davis, C. M. ... ... G
McGowran, A. P. ... ... G
Cunningham Knowles, F. W. ... B
Roberts, D. C. C. ... ... B
Jackson, A. F. ... ... NS
Reeves, J. ... ... R
Orford, J. G. ... ... G
Kentish, A. J. ... ... R
Hole, R. P. ... ... B
Patrick, F. F. ... ... B
Kelleher, J. F. ... ... S
Sebag-Montefiore, A. ... ... NS
Williman, K. H. ... ... B
Tenbosh, M. P. ... ... B
Torrome, J. ... ... B

BALLOT.
Hollinghurst, C. S. ... ... S

BAYLISS-THOMAS.
Haward, W. J. ... ... R
Stafford, A. ... ... S

BENTLEY.
Geidt, D. W. ... ... R

B.P.
Porter, R. C. ... ... G

BUGATTI.
Evans, D. G. ... ... B
Bear, K. W. ... ... B
Gormly, K. E. ... ... S

CHRYSLER.
Mond, S. B. ... ... G

CROSSLEY.
Stroud, H. J. ... ... S

DARRACQ.
Nash, H. A. ... ... R

DELAGE.
Steele, J. S. ... ...S B

DE SOTO.
Lester, G. A. ... ... R

DRISKELL.
Driskell, J. A. ... ... B

ESSEX.
Varley, R. ... ... S

FIAT.
Poulton, H. B. ... ... S
Tuson, V. H. ... ... B

FORD.
Needham, C. M. ... ... S
Midgley, E. A. L. ... ... G
Sexton, E. H. L. ... ... G
Denton, G. M. ... ... R
Harrison, J. ... ... S
Thompson, J. B. ... ... R
Grain, F. H. ... ... R
Austin, J. W. ... ... G
Stone, D. J. ... ... NS

FRAZER-NASH.
Roberts, K. M. ... ... G
Lees, P. ... ... S
Robinson, F. B. ... ... B
Heal, A. ... ... S
Wright, R. E. ... ... G
Cundey, S. H. H. ... ... NS
Aldington, H. J. ... ... G
Berry, N. A. ... ... G
Bellamy, R. L. ... ... B
King, P. B. C. ... ... S
Nimmo, W. R. ... ... G
Hutchison, K. N. ... ... B
Miller, D. R. ... ... S
Siday, E. A. ... ... B
Fisher, T. S. ... ... G
Ponting, W. A. ... ... G
Blaw, H. W. ... ... R
Hopkins, D. G. ... ... S
Scott, D. ... ... G
Inderwick, H. W. ... ... G

FRY SPECIAL.
Fry, F. S. ... ... B

G.N.
Brooks, G. H. S. ... ... G

HILLMAN.
Vicars, A. H. ... ... R

HOTCHKISS.
Kipling, A. U. ... ... S

HUMBER.
Harvey, G. ... ... R

INVICTA.
Pigé-Leschallas, J. G. ... ... G

JOWETT.
Garland, A. H. ... ... B

LAGONDA.
Tom, W. H. G. ... ... B
Boyd, E. J. ... ... G
Hathaway, J. S. ... ... S
Gemmell, G. W. ... ... G
Baker, J. R. H. ... ... S
Mann, T. C. ... ... R
Reid, D. M. ... ... R
Mann, C. H. ... ... R

LANCIA.
Martin, H. G. ... ... R

LEA-FRANCIS.
Flower, W. T. ... ... B
Addis, J. J. J. ... ... B
Roberts, J. B. H. ... ... S
Brown, E. C. ... ... G
Burman, H. W. ... ... B

M.G.
Shelbourne, C. A. ... ... G
Armstrong, C. F. ... ... G
Hewlett, R. M. ... ... R
Berry, J. A. ... ... R
Littlewood-Clarke, R. ... ... G
Calder, D. E. ... ... G
Haward, V. F. ... ... S
Dyball, L. B. ... ... B
Erith, E. J. ... ... S
Heard, N. E. ... ... S
Emerson, R. ... ... B
Tunstall, G. ... ... G
Easonsmith, J. R. ... ... B
Thomas, G. A. ... ... G
Whitnall, W. W. ... ... G
Crips, A. E. ... ... S
Linfield, H. S ... ... R
Locke, C. F. ... ... G
Jones, J. E. S. ... ... G
Ellis, W. R. ... ... G
Worthington, T. H. C. ... ... G
Hobbins, G. A. ... ... G
Murdoch, A. G. ... ... S
Bowen-Colthurst, C. P. R. ... NS
Sharp, N. C. ... ... G
Comerford, A. E. ... ... B
Taylor, G. E. ... ... G
Harris, F. R. ... ... G
Toulmin, J. M. ... ... G
Linzell, C. J. ... ... G
Wickett, C. W. M. ... ... G
Gardner, L. ... ... B
Denton, E. A. ... ... G
Short, D. C. ... ... G
Illingworth, J. H. ... ... G
Newbold, A. A. ... ... G
Bastock, J. A. ... ... R
Pether, A. H. ... ... G
Day-Dewdney, R. H. ... ... S
Seyd, V. L. ... ... NA
Robinson, C. I. ... ... B
Kendrick, W. E. ... ... G
Langley, A. ... ... G
Taylor, C. J. ... ... B
Mere, R. M. ... ... B
Watkinson, J. S. ... ... S
Price, C. S. ... ... R
Percival, R. G. ... ... S

MORRIS.
Thyne, J. C. ... ... S
Riley, J. D. ... ... B
Madsen, L. C. ... ... G
Mason, A. L. ... ... B
Allen, R. D. ... ... R
Bolton, F. W. J. ... ... S
Philpot, R. G. ... ... S
Barker, R. J. ... ... G
Nottage, W. G. ... ... B
Kestle, J. T. ... ... B
Negal, A. ... ... B
Hay, J. V. ... ... G
Wickham, J. R. S. ... ... R

REYNARD.
Raynell, P. ... ... R

RILEY.
Dicks, E. A. ... ... R
Broomfield, F. ... ... G
Rye, A. R. ... ... B
Lawford, C. H. ... ... G
Low, J. G. C. ... ... B
Walker, K. F. A. ... ... B
Uglow, W. P. ... ... B
Hunter, H. C. ... ... B
Nelson, J. D. ... ... B
Simpson, L. I. ... ... B
Appleton, R. J. W. ... ... G
Littlewood, R. A. ... ... G
Gripper, A. G. ... ... S
Bear, R. G. T. ... ... G
Harter, R. J. ... ... G
Vaughan, G. E. ... ... B
Woolley, C. J. ... ... G
Mullins, E. S. ... ... S
Leapman, L. J. ... ... G
Frye, E. V. ... ... NS
Greenleaf, W. E. C. ... ... G
Fillmore, L. E. ... ... S
Richardson, W. J. B. ... ... B
Macassey, B. L. ... ... NS
Brymer, F. J. ... ... B
Ripley, H. J. ... ... G
Montague-Johnstone, C. J. S. ... S
Roe, S. H. ... ... R
King-Smith, S. ... ... G
Franey, R. ... ... S
Keep, N. H. ... ... B
Baily, J. A. H. ... ... NS

ROVER.
Morgan, C. B. E. ... ... S
Marks, E. A. ... ... B
Way, R. ... ... B

SALMSON.
Symon, C. L. ... ... G
Huxham, E. P. ... ... B
Lowe, S. T. ... ... B
Harte, L. P. ... ... R
Ivey, A. K. P. ... ... B
Smith, V. H. ... ... R

STANDARD.
Reekie, C. W. M. ... ... B
Sesemann, R. E. ... ... R
Olive, G. W. ... ... S
Sabourin, C. E. G. ... ... S
Strong, G. H. ... ... G

STUDEBAKER.
Clarke, J. P. T. ... ... R

SWIFT.
Smeaton, J. F. ... ... R
Fillmore, L. W. ... ... B
Windle, J. D. ... ... B

TALBOT.
Symons, H. E. ... ... G
Brown, A. H. ... ... B
Armitage, L. R. ... ... B
Walker, P. D. ... ... R
Chancellor, R. W. H. ... ... R
Maxwell, L. ... ... S
Edwards, J. F. ... ... S
Brynildsen, E. L. ... ... S

TRIUMPH.
Ebbutt, H. J. ... ... B
Bradnack, B. E. ... ... NS
Symonds, G. H. ... ... B
Sidney, D. L. ... ... G
Hyams, G. F. ... ... G
Widmann, C. F. ... ... B
Thatcher, F. A. ... ... S
Wallis, J. ... ... S
Roy, B. A. ... ... R
Arber, J. A. ... ... G
Hill, F. M. ... ... S
Wells, H. W. ... ... S

TROJAN.
Scroggs, A. F. ... ... S
Gaskell, G. E. ... ... S
Robins, G. H. ... ... B
Hasting, C. A. ... ... B

VAUXHALL.
Urlwin-Smith, P. J. ... ... NS
Barker, C. L. W. ... ... B
Mitchell, S. R. ... ... R
Simmons-Hodge, W. J. ... S
May, A. ... ... S

VERNON-DERBY.
Smith, W. G. ... ... S

VETERAN.
Rogers, W. H. ... ... R

WOLSELEY.
Arnold, A. ... ... S
Browning, H. B. ... ... G
Twigg, J. H. B. ... ... S
Foster, F. N. ... ... G
Payne, D. B. ... ... S
Gamble, D. J. ... ... R
Payne, A. S. R. ... ... S
Jefferys, C. R. ... ... G
Douglas-Morris, D. E. M. ... G

ABBREVIATIONS. **G**—Gold Medal. **S**—Silver Medal. **B**—Bronze Medal. **N.A.**—No Award. **N.S.**—Non-starter. **R**—Retired.

CERTIFIED "SECOND-HANDERS."

A DEVELOPMENT that was, perhaps, long overdue in the motor trade has been adopted by the firm of F. G. Smith (Motors), Ltd., Goodmayes, Essex.

They have now embarked upon a policy of selling a specially prepared grade of used cars, passing them through their own conditioning works and giving each one on completion a "re-conditioned" certificate.

Too long has the secondhand car trade been left in a dark and mysterious condition, and it is refreshing, therefore, to find a firm come forward who are prepared to identify their name with a standardised used car product.

Readers who desire further information regarding this scheme, together with conditions of sale, etc., should write to Messrs. Smith for their booklet.

Letters from Readers.

Lockhart's Stutz—And Others

AS *one who has followed the progress* of streamlining of racing cars for the past few years I was very interested in your article on the subject.

Probably the best streamlined car ever constructed was Frank Lockhart's 3-litre Stutz, the detail work on which was very carefully thought out. The radiators on the top of the bonnet were for cooling the mixture on its passage from the super-chargers to the engine, not for cooling the water as stated, as this car was the first to make use of an ice tank for that purpose. It was also the first to have the steel disc wheels which are now fitted to world's record cars.

Another very well-streamlined car was "Djelmo," the car designed by Mr. Moglia, which in the hands of Foresti made an unsuccessful attempt upon the world's record at Pendine in 1927.

One of the most interesting of the articles which have appeared recently in MOTOR SPORT was that which gave the history of the Mont Ventoux Hill Climb. Similar articles on the other classic hill climbs, such as La Turbie, Klausen, and Gaillon climbs would be of great interest to enthusiasts, particularly as the record for the two latter has been held at one time or another by Sunbeam cars.

"Vitesse."

Dewsbury.

Lewes Speed Trials

I WISH to run a home-made small car, with rather good acceleration, in speed events.

Would you let me know how to enter for the Lewes Speed Trials, and if there are any other events which I could enter cheaply?

At present I have no f.w.b., which debars me from the B.A.R.C. "Mountain" races—not to mention the entrance fees.

J. V. B.

Meopham, Kent.

[The Lewes Speed Trials are run by the Kent and Sussex Light Car Club, whose Secretary is:—H. V. Warren, Esq., 51, Ringwood Road, Eastbourne.—ED.]

Wanted—An Old G.N.

I HAVE read in MOTOR SPORT about the conversion of an old G.N. and I have decided to try the same sort of thing. But never seeing any advertisements of G.N.'s for sale, I do not know where to get one. I wonder if you can help me in this matter. Perhaps some of your readers know someone or some garage which has one to sell.

Wishing your paper the very best of luck as the best motor journal going.

B. Abdy-Collins.

Harrow-on-the-Hill, Middlesex.

[Can any of our readers assist the writer of the above in his search for a G.N.?—ED.]

Venues for Hill Climbs

WITH reference to the article in the April number of MOTOR SPORT, in which your correspondent draws attention to the lack of venues for speed hill climbs and trials, would you be kind enough to draw attention, in your next issue, to the fact that the Berkhamsted Club have run a speed hill climb on private property for the last two years, and are doing so again this year on the 28th June?

Our hill (the use of which is confined to this club for one day of the year only), is situated at Dancers End near Tring, Herts, and is of good surface, with one bend, and has a gradient of about 1 in 10. To encourage amateurs the entry fee is kept at 2s. 6d., a class for all classes of cars, and the meeting is to be open to ten clubs in the South Midland Centre A.C.U. I shall be pleased to supply fuller details on request from your readers.

L. JENNINGS (Hon. Press Secretary).

West Hendon, N.W.9.

Letters on any subject of interest to readers of "Motor Sport" are always welcome, but correspondents are asked to be as brief as possible. Personalities and recapitulation must be avoided, and it must be understood that the Editor is not responsible for the views expressed.

Increased Two-stroke popularity

IN the never-ending war between two-strokes and four-strokes, the latter type undoubtedly leads so far as sheer numbers are concerned. Four-stroke enthusiasts have repeatedly averred that the two-stroke is "dead," but the fallacy of this statement has been proved most definitely during the past four months.

At the last Motor Cycle Show, the Dunelt company, whose name has been associated with two-strokes for many years, announced that they had dropped their well-known two-stroke model, and were concentrating on four-strokes. Agents and private owners were at once up in arms and an unexpected demand for a two-stroke machine was created.

The result is that the manufacturers, working in conjunction with the Villiers company, have now produced a 350 c.c. two-stroke which sells, fully equipped with a 6-volt lighting set, for £38. It is interesting to note that the two firms' combined experience of two-strokes extends over a period of more than 30 years.

An attractive and up-to-date specification is offered, but the most interesting point about the machine, perhaps, is that despite its full equipment it weighs less than 224 lbs. and is thus taxed at 30s. per annum only.

Some Safety-Glass Secrets

SOME interesting figures have been issued by the Triplex Co., showing the amount of materials used in the manufacture of their safety-glass.

12,000 tons of special sand, 4,000 tons of soda ash, 3,000 tons of limestone, 800 tons of salt-cake, 3,000 tons of cullet, 35 tons of charcoal and 70 tons of arsenic—these materials would probably be sufficient to lay out an artificial beach, built a row of houses or poison a regiment. Actually they are all needed every year to make safety-glass for one make of car alone.

To polish and grind the glass a further 50,000 tons of sand, 3,000 tons of stucco, 1,100 tons of garnet and 300 tons of rouge are required. It is one of the minor miracles of motoring that this queer mixture should result in clear sheets of Triplex glass.

Motorcycles for the G.P.O.

THE general public, a large percentage of which still maintains an unreasonable dislike for motorcycles, little realises the part these machines play in the delivery of its letters and parcels.

Actually it is nearly 30 years ago since motorcycles were first considered by the postal authorities, for in 1902 a number of sidecar machines was hired for experimental purposes. Apparently these early models proved unsatisfactory for it was not until 1914 that the G.P.O. made its first purchase of 20 combinations.

Additions to the sidecar postal service have been made from time to time, the latest order being for a large batch of combinations which has just been received by the Triumph Company. In all, the G.P.O. now has over 2,000 machines operating in all parts of Great Britain and Northern Ireland. They are employed mainly in country districts and, in addition to delivering letters and parcels, are used for patrol inspection of telephone and telegraph routes.

Further Extensions at Triumphs.

RECENTLY it was stated that the branch works of the Triumph Company at Stoke, near Coventry, were seven times as large as they were a few years ago, and that they were being used for the manufacture of bodies and for test purposes only.

Now comes news of further extensions, the Company having just taken over another factory near the Stoke works. It will be used as a test shop, and the removal of this department from the Stoke branch will, of course, allow increased production of car bodies. The new factory makes the sixth of the Triumph group in Coventry.

The SMITH-CONDITIONED SPORTS *has arrived*

DEFERRED TERMS.

EXCHANGES CONSIDERED.

WHAT is the SMITH-CONDITIONED car? Briefly, a Used Car which has been brought up to our own self-imposed standard of excellence—so good indeed, that we give with it our "Same-as-Makers" Guarantee.

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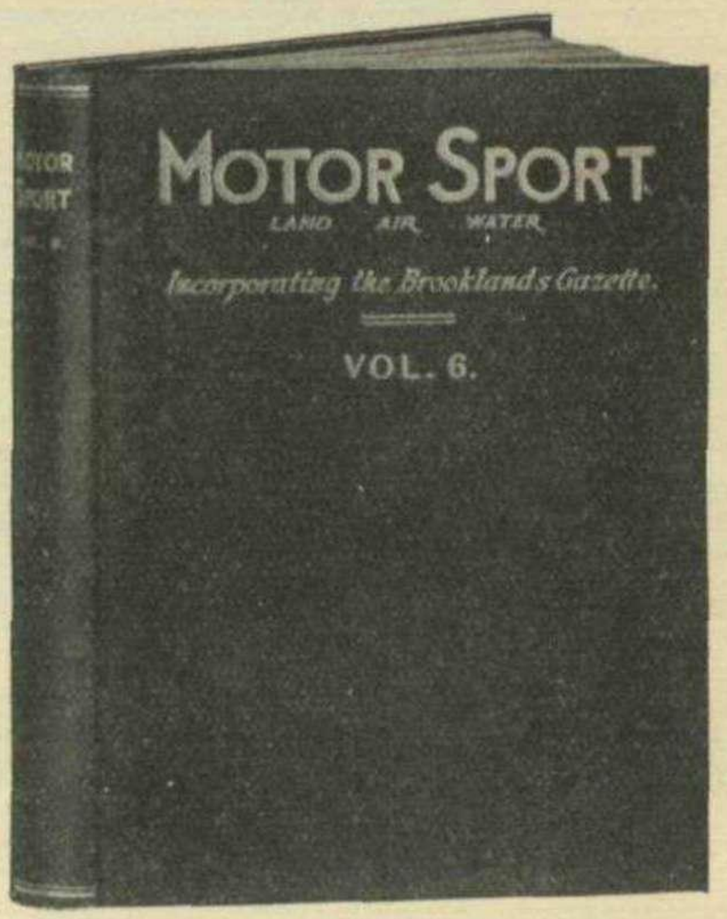
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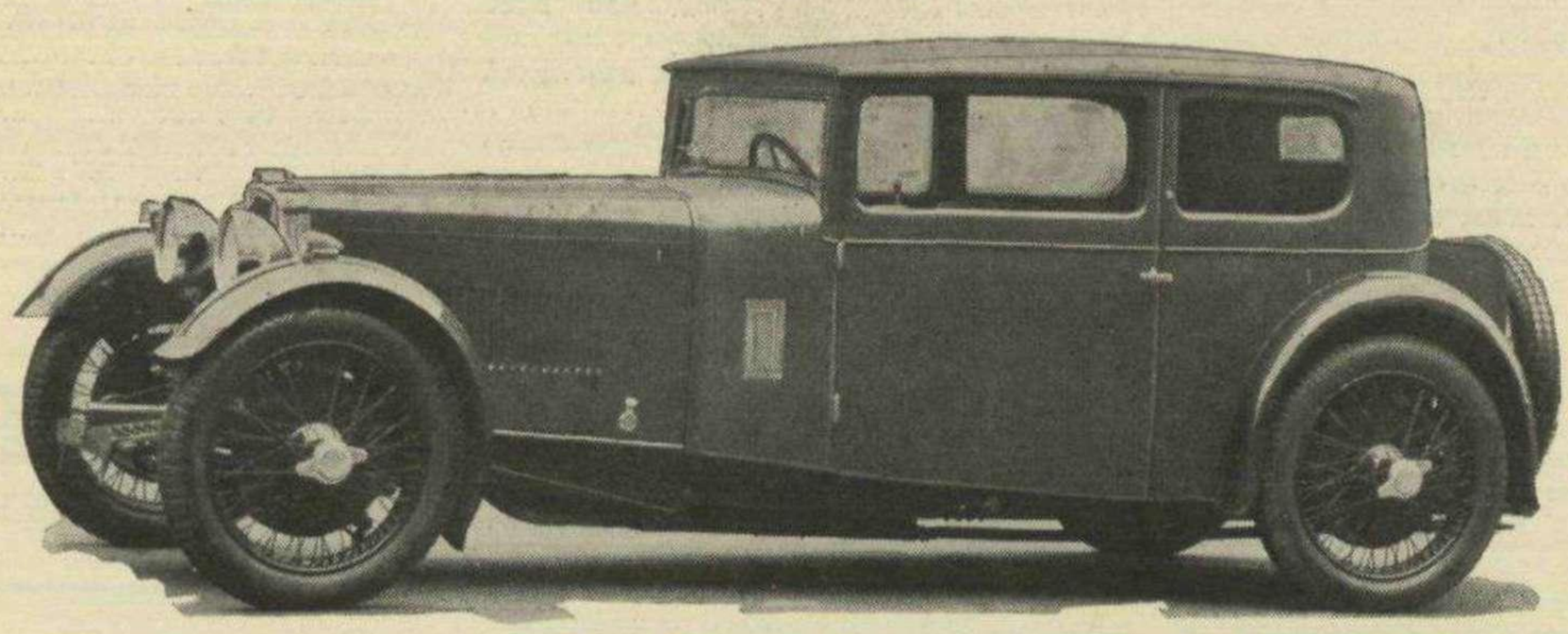
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A RACING WORKSHOP



Mechanics getting down to it in a corner of Birkin and Couper's works. (Motor Sport photographs)

ON entering the spotless and spacious workshops of Messrs Birkin and Couper the first objects that caught my eye were a tattered racing cover and a buckled wheel, which occupied the place of honour. Mr. W. M. Couper who was taking me round remarked, "Le Mans and Ulster." The wheel was the result of the little argument between Birkin's Bentley and a wall in last year's Ulster T.T., while the forlorn and ragged cover is a reminder of the never-to-be-forgotten struggle between the Bentleys and Carraciola's Mercédès in the 1930 Le Mans race. It was one of many which gave up under the stress of Birkin's terrific driving in the struggle which finally accounted for both cars, and left the way open for the Bentley team to score a convincing victory.

To all followers of motor racing "Tim", now Sir Henry Birkin, and his partner, W. M. Couper, are well known figures. The latter has done a great deal of motorcycle racing and tuning which is a highly individual game, while latterly he has been a consistent performer at the wheel of Lagonda cars. Birkin's early exploits with a D.F.P. at the track soon led to great things, and require no description here. It is often forgotten, however, that he has many other qualifications besides actual driving experience, and I was particularly interested in the 2-litre overhead camshaft racing engine which he designed in conjunction with Comery some time ago, and of which one is now at his works, together with an ample stock of parts. It is hoped to find time to get one ready for racing in the near future, but with a full racing programme in view this may not be easy.

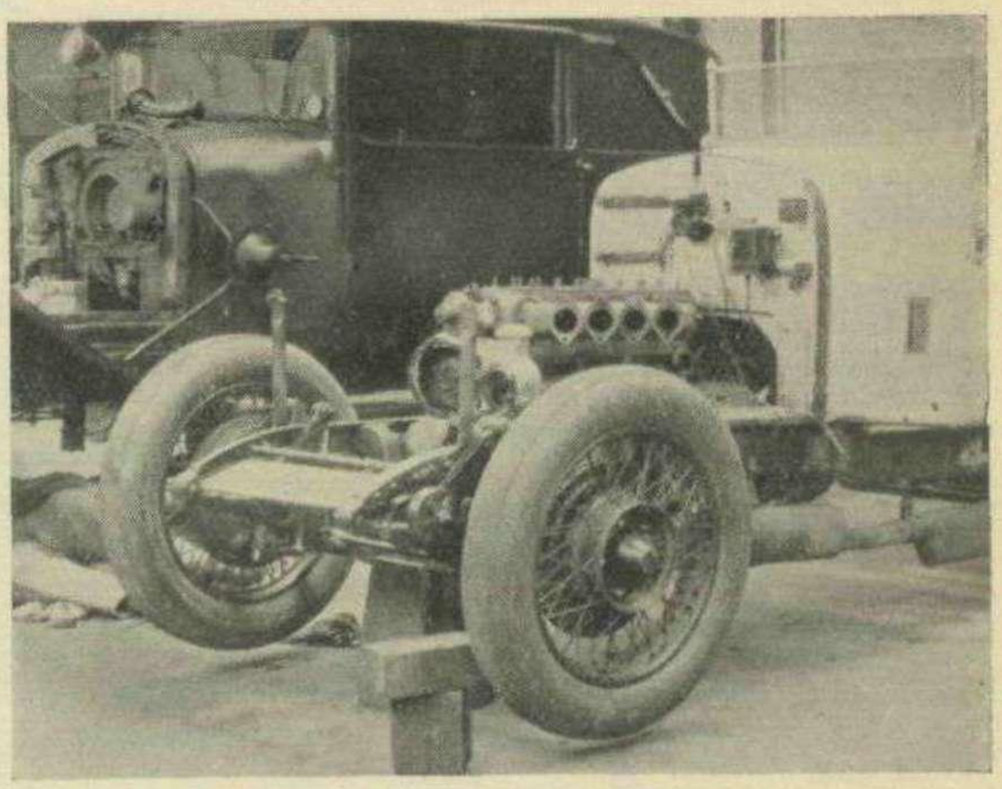
The chief work specialised in by this firm is, of course, tuning sports and racing cars for events and also the fitting of superchargers to cars. This is work requiring great experience and knowledge, but if done by people who know how, the results on a normal sports car are most gratifying.

Various interesting preparations for this season are in progress, among them being a very thorough reconstruction of one of the T.T. Arrol-Asters of 1929, which will be running in this year's race in Ulster, and an inspection of this work shows the amazing amount of detail which has to be gone into in such a case.

The works, in addition to the latest machine shop equipment, has a drawing office where plots are hatched and amateurs' desires and ideas turned into workable form.

It is often imagined that such a tuning shop is not interested in small jobs of ordinary routine overhaul. In actual fact nothing is further from the truth, and they are only too pleased to do any job from a simple "de-coke" to the most elaborate overhaul, and skilled mechanics and full equipment not only make it possible to do the job better, but also to keep the price down.

The works at Broadwater Road, Welwyn Garden City, are within easy reach of London, and there is no doubt that an increasing number of enthusiasts will avail themselves of racing drivers' experience in the coming season.—B.



An Arrol-Aster in process of reconstruction. This car will run in the forthcoming Ulster Race.

I.O.M.—Cradle of British Road Racing.

BY "MANNIN."

IN the days of Elizabeth, England was sufficiently gay to merit the title of "merry," but since that time there has been a great decline of this agreeable feature, and the arrival and precept of Albert the Good completed the cycle and filled the land with overpowering gloom, but happily there have always been men willing to fight against the damping decrees of officialdom. The arrival of the automobile coincided with a particularly heavy period in the country's history, and the new pastime was weighed down by all possible hindrances. Fortunately there existed in the Isle of Man a place not yet overwhelmed with the kill-joy spirit and governed by an independent legislature, which came forward with offers to close roads and permit racing. Without this, the English industry would have been deprived of the vast fund of experience which it accumulated in that territory, and how much the Island has been used for that purpose may be realised from the fact that in its area of 30 by 10 miles no fewer than four different circuits have been used, and about 200 cars and 3,000 motor cycles have taken part in the various events.

When England Lagged.

While the English manufacturers were struggling with the prejudice and vested interest which was doing its best to crush the growing industry, motor racing on the Continent was firmly established, and cars capable of a mile a minute had been built. Intense national rivalry sprang up, and as a result of a dispute as to the merits of French and American cars, Mr. Gordon Bennett, an American newspaper proprietor, gave an international trophy. Each nation competing had to select a team of three cars which were to be made entirely in its own territory. The first races did not arouse great interest in England, but in 1902 a challenge was sent in, and a Napier and a Wolseley car took part in the race. Edge on the Napier completed the course, and also brought the Trophy to Great Britain.

The holders of the Trophy were entitled to have the next year's race in their own country, but the Law did not allow road-racing in England. The Irish authorities with characteristic enthusiasm got a private Bill through Parliament, allowing the race to be held in Irish territory, and the 1903 race was run near Dublin. England was represented by Edge, Stocks, and Jarrott, all on Napiers, but all our champions met with disaster, and the Trophy was won by Jenatzy on a Mercédès.

Next year the question of choosing a team again came up, but the Automobile Club were once more up against the difficulty of finding a course. Here the Manx authorities stepped in and offered to close the roads for the eliminating trials, thus commencing the intimate connection with motor racing which the Island has maintained ever since.

The trials were not run on a simple "first man home" footing; the members of the team were to be chosen on the result of three separate events. The first was a high-speed reliability trial, and bore a certain resemblance to the reliability trial of to-day, in that timed and acceleration tests were included, while control stops limited the speed when passing through towns and narrow places. The start of the race was on the Castletown road just outside the Quarter Bridge Hotel, whence it ran to Ballasalla, where there was a control, through the outskirts of Castletown, north to Ballacraine, where it joined the present motor-cycle course. It followed the same route as far as Ballaugh, turned off to the left through Old Ballaugh, and then north through Sandygate to Ramsey. The Mountain road to Snaefell was then taken, and the track then ran down past Hillberry to Douglas, but instead of turning to the left at Cronk-ny-Mona to Governor's Bridge, went straight on to Willaston and joined the present course at the top of Bray Hill.

On the following day there was to be a hill-climb at Port-e-Vullen, near Ramsey, and after that a speed trial along Douglas Promenade. The Club apparently tried to disguise the fact that there was any element of racing about the first day's events by saying that they were at liberty to choose whoever they liked for the team irrespective of his performance, but this polite fiction did not discourage the competitors.

The race took place on 14th May, with eleven starters. As was usual in the early competitions, a certain weight limit was imposed, in this case 1,000 kgs., or about one ton, and it says much for the cars of those days that motors developing a hundred horse-power could be brought within the limit.

Assorted H.P.

Another rather remarkable thing was the number of different types of the same make which appeared in the one race, Napiers for instance being represented by an 80 horse car driven by Edge, Mayhew one rated at 100, while the other three were rated at 65 and 55. Three Darracqs were entered, and it shows the remarkable keenness of those days that in order to make them eligible for inclusion in the English team all the parts for the cars were sent over from France to Glasgow to be machined and assembled, while the Michelin Tyre Company sent a complete plant to England for the same reason.

On the race day the cars drove down to Quarter Bridge and at 9 a.m. the first man, Stocks, on a Napier, was sent off. The acceleration of the cars from a standing start was measured by the fall of a flag held by an official stationed 200 yards from the start; all went well for the first few times until it came to the turn of Henri, the first member of the Darracq team. Not knowing much English and deafened by the noise of his motor, he mistook the summons to take his place at the starting line for the signal to go, and before anyone could stop him shot off the mark at great speed and continued on to Ballasalla, where he drove through the control without slowing down, and was at Castletown before the officials had really made up their minds what to do.

A Wolseley Winner.

The trial was run over six laps of the course, making a total of 300 miles, and was won by Earp on a Wolseley in 8h. 40m.; second and third were Girling and Edge on Napiers.

The next day the hill-climb was held at Maughold and this time Edge was the winner, the others in the same order. The final test was a speed trial along Douglas Promenade, and an accident which occurred in these altered the personnel of the English team. Earp, who was likely to be chosen as the third member, contrived to get a back wheel locked when returning from a practice run, and crashed into a wall. He was too badly injured to allow him to take part in the Gordon Bennett races that year, and Charles Jarrott on a Wolseley took his place. The English team was not successful at Homberg and Jarrott was the only member to finish.

Next year the Manx Government repeated its invitation to the Automobile Club, and the Eliminating Trial was again held in the Island. This time selection was based entirely on the result of the road-race, which was held over the same course, and was again won by Earp, this time on a Wolseley. This race saw the appearance of some new faces in the Island, the Goodwins on Stars, A. L. Guinness on a Darracq, who quickly became a favourite, and the Hon. C. S. Rolls on a Wolseley, who later appeared on the cars bearing his own name.

The trial was won by Earp, this year on a Napier, in 7 h. 48m., an average speed of 41 m.p.h. The Hon. C. S. Rolls was second, and Bianchi, formerly Jarrott's mechanic, third. Some of the cars were capable of surprising speeds, Macdonald's Napier being timed to do 89 m.p.h., and other cars were little slower.

The Autocycle Club a day later ran a similar event over the long course to select a team to represent England in the International Motor Cycle Cup race at Dourdan. It began at the barbarous hour of 3 a.m., with the same system of control as in the car races. These races are interesting only as showing how early was the connection of the racing motor-cycle with the Island, but the weight limitation of 110 lbs. is also worth noticing when one

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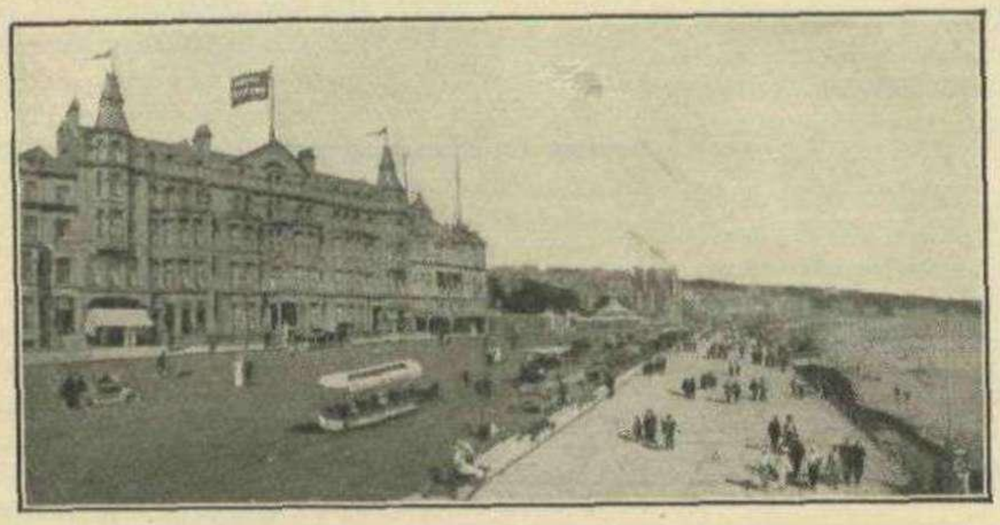
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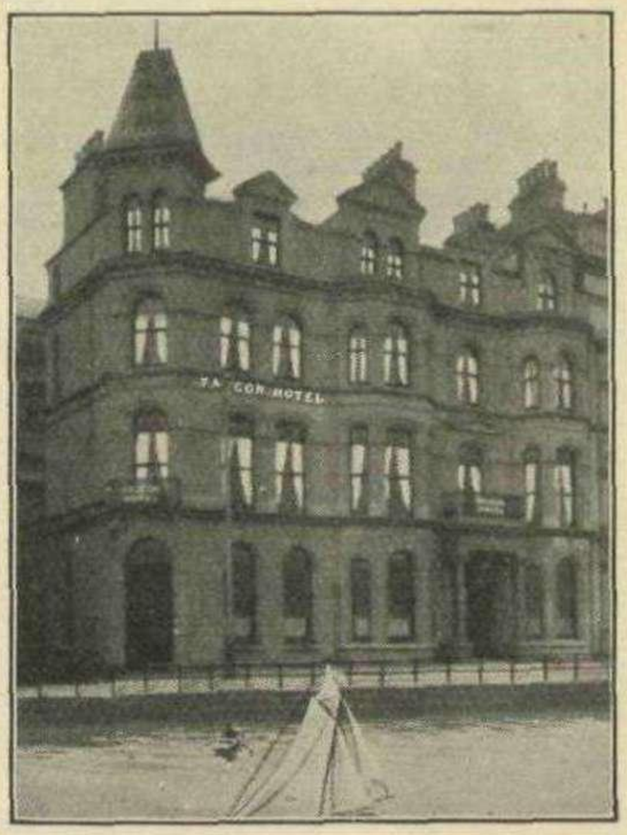
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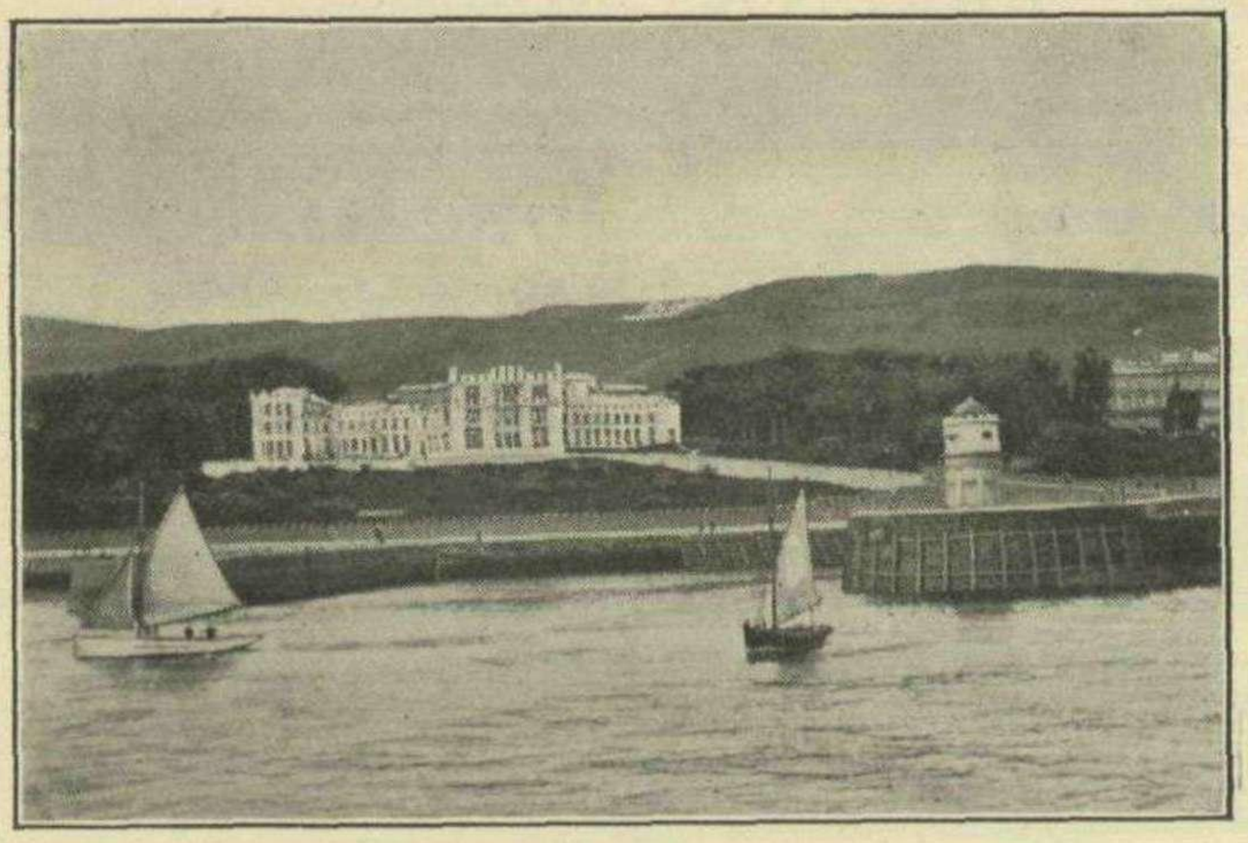
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I.O.M.—CRADLE OF BRITISH ROAD RACING—continued.

realises that the modern 350 can weigh nearly three times that amount.

The year 1905 saw the last of the Gordon Bennett races but it also brought with it the first of the Car T.T.'s. These races were started, as the name implies, with the object of developing the touring car, and in order to exclude the huge machines which were usually used for racing at that time, a petrol allowance of 25 m.p.g. was fixed. The long course was again used, but the start was from a side-road on the outskirts of Douglas just above the Quarter Bridge. The chassis and body of each car was weighed separately, and one can imagine the fury of a driver when he found that all the coachbolts had been rivetted over at the works to prevent the nuts working loose. After the weighing, the tanks were filled up, and the cars were towed to the starting line by horses. The organisers had evidently devoted some time to thinking out the rules, for they arranged the finish near the top of a rise, so that cars which had used all their fuel would be unable to coast in on an empty tank.

In the actual race, canny drivers descended the hill before switching on, but the Hon. C. S. Rolls made a fast start with engine running. He was one of the fancied drivers, and set a hot pace, but was soon put out of the running by failure of his steering gear. The pace was a hot one; wheels came off and transmissions gave out. Bennett on a Cadillac, which was at that time one of the cheapest cars made, met with a startling accident. The ballast which all cars were compelled to carry was lying in a sack in the tonneau of his car, and when he attempted to take Crag-na-Baa corner at speed, the weight was flung outwards and upset the balance of the car so that it rushed into the ditch and turned over, luckily without injuring the driver. The corner was forthwith christened Bennett corner.

There was a keen struggle for first place, J. S. Napier on an Arrol-Johnson being slightly ahead of Northey on a Rolls. In the last round, just as Napier was passing the judges, his silencer came adrift, and he lost two minutes in securing it. Northey slipped into first place, but by dint of hard driving Napier was able to catch up and overtake his rival, and brought in the Arrol, which incidentally was a twin with four pistons, into first place. The race was won at 33.96 m.p.h., and Northey finished two minutes behind the leader.

A New Course.

A similar race was held in 1906, but in 1907 various alterations were made. The old course was considered to be too long, so instead of running from Quarter Bridge to Castletown, the direct road to Ballacraine was taken, thence on to Peel. Here the course turned north along the coast road, round the famous Devil's Elbow, joining the modern course at Kirkmichael, whence it passed through Sulby to Ramsey and the Mountain Road; this gave a lap of 40 miles. The cars competing were divided into two classes—Heavy Cars, and Tourist Trophy cars proper. Ballast was again carried, but this year was increased to the absurd figure of 1,400 lbs. for the light cars and one ton for the heavy class, so that it was not surprising that springs broke under the strain, while the steering was adversely affected. In addition the Heavy Car class had to carry a vertical erection behind the driver, the top of which was fully 10 feet above the road, and which was pierced with two portholes to permit a view of an overtaking driver. Anyone seeing the photographs for the first time might be pardoned for imagining that the racers were normal touring cars towing sleeping caravans!

The race was to have been six laps for the light cars and seven for the heavy, but this was reduced to five for the latter. The race was held in very heavy rain so that the Club was compelled to increase the petrol allowance, while everyone was ordered to fit non-skid tyres. The extra petrol supplied was not sufficient in all cases to balance the increase occasioned by the heavy weather and a large number of cars were put out of the race from this cause. The Berliets had removed their undershields to reduce weight, but so much mud was thrown up that it filled the gear box of one car through the hole for the selector rods and rendered it immovable. [*Continued overleaf*

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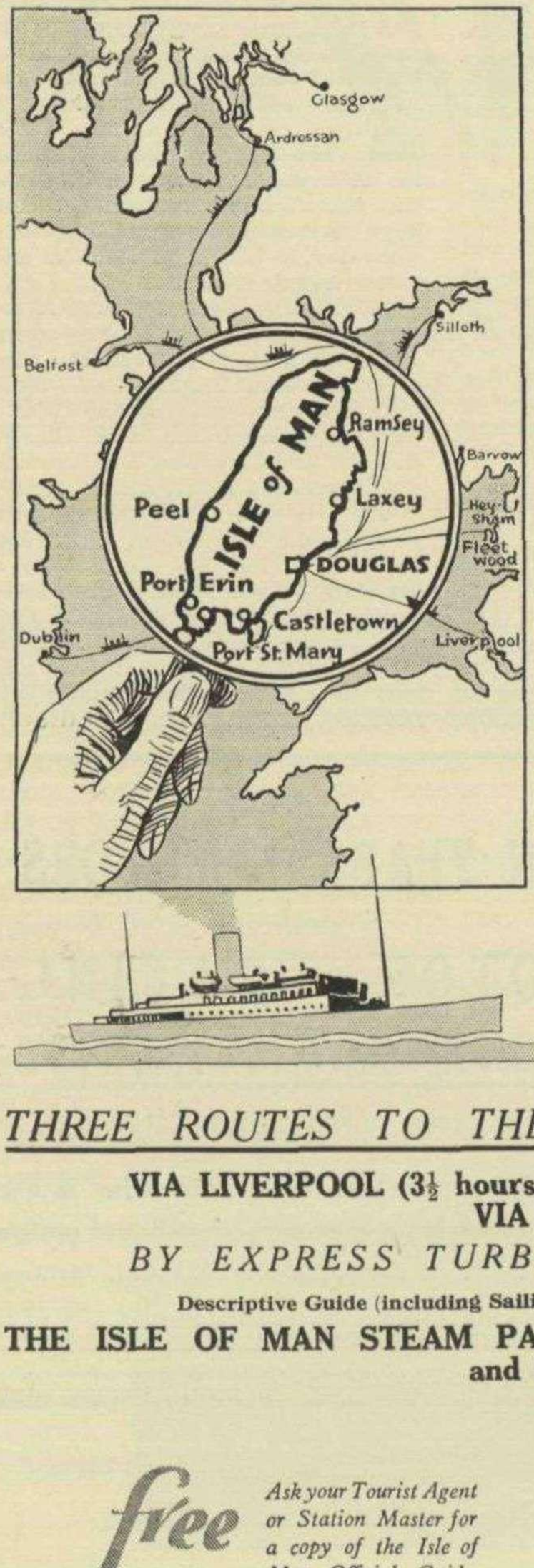
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I.O.M—CRADLE OF BRITISH ROAD RACING—continued.

Most of the drivers conserved their petrol on starting by not turning it on till they were almost on the Quarter Bridge, and several of them stalled there, as the Bridge was then much steeper than at the present day. After this rather tame beginning, things began to move quickly, and the Beeston-Humber overhauled nine cars in the first lap, and the Hillman-Coatelen thirteen, but the latter took Quarter Bridge too fast on the second lap, and lost 15 minutes getting back on to the road. Napier on an Arrol-Johnson then took the lead but was put out of action by a choked petrol pipe. Courtis on a Rover, who had been driving with no thought but that of finishing ran into first place.

In the Heavy Car race the early leaders had been put out of action by lack of petrol, and allowed the big Beeston-Humber to win. There had been some doubt in 1907 as to whether the T.T. races were to continue, but the close finishes and the success of the steady drivers showed that the objects of the organisers were being achieved, and the Automobile Club decided to continue the events.

1907 saw the beginning of the motor-cycle T.T. races which have been such an important feature of the Island's racing calendar. The course was a short one, commencing at St. Johns and running up Glen Helen to Kirk Michael, returning to Peel by the coast road. The single cylinders were given a petrol allowance which worked out at 90 m.p.g., and the twins 70 m.p.g., so that everyone ran a 3½ to 1 gear, which was found embarrassing on Creg Willy's Hill and the corner at Kirk-michael. C. R. Collier won the single cylinder class at 38.5 m.p.h. in spite of having to push his machine up Creg Willy's, while R. Fowler on a 5 h.p. Norton won the multi-cylinder class.

The limitation of fuel, whatever effect it may have had in keeping down engine size, was not conducive to high speed, so in 1908 the problem of developing an efficient small car was tackled from a new angle, and the Four Inch Race took the place of the fuel-consumption races. The rules provided that four-cylinder cars were to have a bore not exceeding four inches in diameter, six-cylinders proportionally less, and all other restrictions were abolished.

The Start was situated quarter of a mile above Hillberry, so that spectators were able to see the cars coming into sight at what is now Brandish corner, and running down the slope to the corner at the bottom. The marshalling was still a little sketchy to our modern ideas, for in places where the telephone was not installed, marshals were provided with a pair of bicycle orderlies, who needed an iron nerve, as in the event of an accident they were expected to ride round the reverse way of the course and inform the nearest telephone depot. The "Rules and Regs" naïvely pointed out that special care was required on corners "as the drivers would take them on the inside whether they be right or left hand."

It was found that the "4 inch" engines, small though they were in comparison with the 100 h.p. monsters of the past, with unlimited petrol could develop 95 at 2000 r.p.m. and the Darracqs with an engine considerably below the limit were capable of 80 m.p.h.

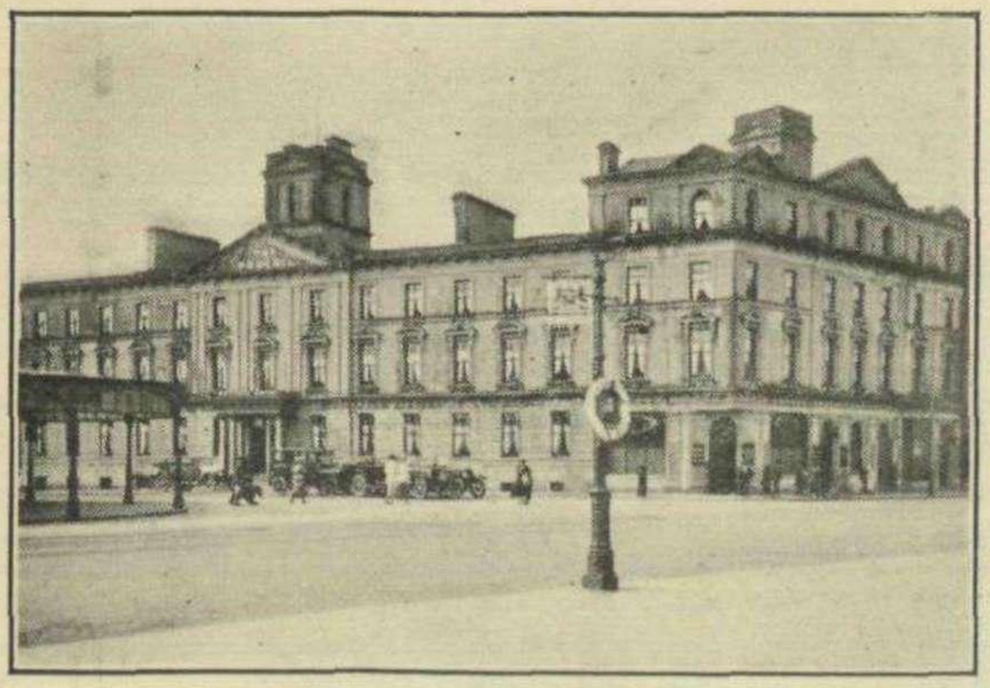
The race was won by Watson on a Hutton at a speed of 50¼ m.p.h., representing a very considerable increase on the figures of the year before, while A. L. Guinness on a Darracq was second. Darracqs also won the team prize and forced home the conclusion that a small high-efficiency engine could be reliable.

The motor races continued until 1914, and were revived again in 1922, but the narrowness of the mountain roads and the torrential rain which fell on the race day made proceedings far less successful than in former years, and no race was held in 1923. The T.T. was revived successfully in 1927, when it was run in Ulster, but the Manx people have never ceased to hope that it will return to their shores some day, to be run on a shorter and more easily handled circuit.

The motor-cycles we had left at 1907; they continued to use the Peel course until 1911, when they followed the cars races on to the Four Inch course. Since then with the exception of the War period they have been run with the greatest success, and this year will provide their usual week of excitement. Many thousands will come over and witness these events and the Grand Prix Races in September, but for those who cannot get away to see these living survivals of the earlier days of motoring, there are many worse things to do than to visit the scenes of the G.-B. trials in July, and muse over the departed thunder of Napier and Darracq, and the men who drove them.

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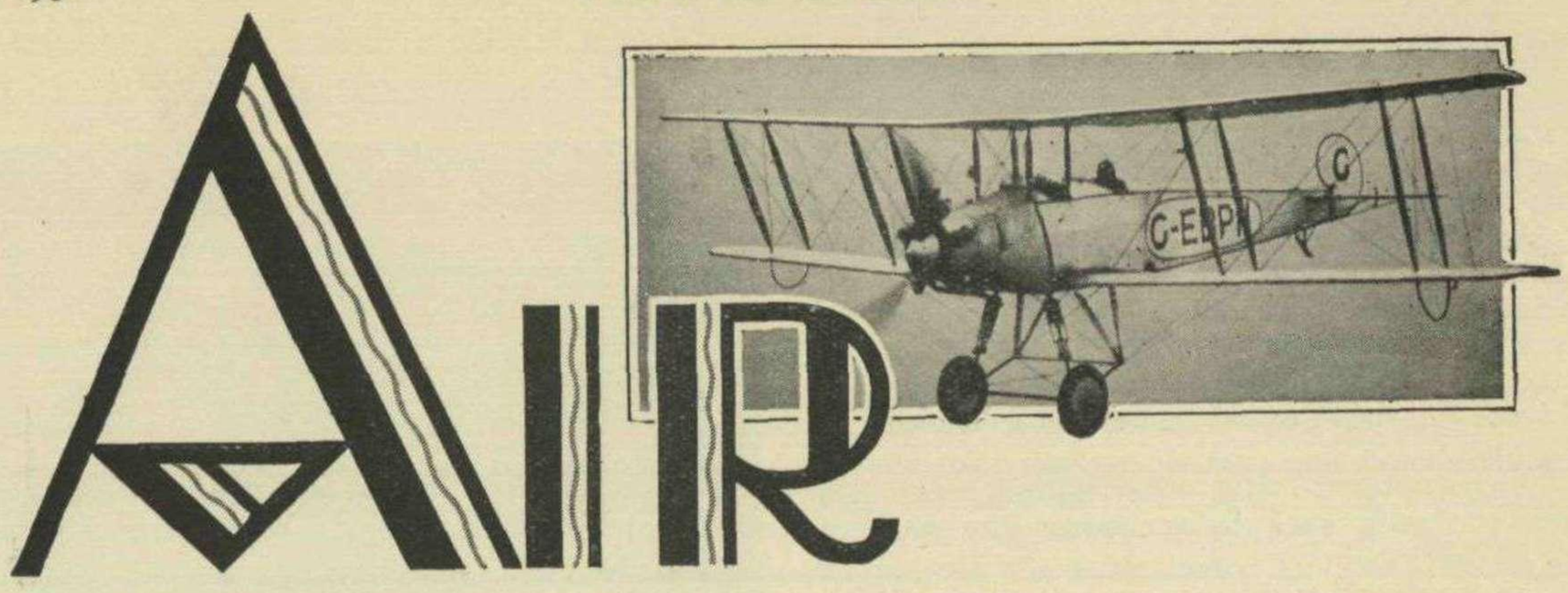
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AN AMATEUR-BUILT MACHINE OF CLEVER AND UNORTHODOX DESIGN

THE "tailless" aeroplane is not by any means an entirely recent development in aircraft design, since some of the pioneer machines were of this type, whilst the post-War years have seen sundry experimental craft embodying the tailless arrangement both in Europe and America.

As far as this country is concerned, the most notable example of the tailless machine produced in the past decade was Captain Hill's "Pterodactyl." Built in the first instance as a private venture—and constructed, incidentally, under somewhat difficult conditions in the back garden of its designer—this 'plane showed so much promise in its initial test flights that the Air Ministry agreed to co-operate with Captain Hill in furthering its evolution. That was some years ago, and research work and experiments are still continuing. Whether the tailless machine will ever vie with the existing orthodox type is a matter for conjecture, but there is no doubt that the former has definite qualities of its own which are both attractive and encouraging.



A three-quarter view of the Granger machine. Note the centre section strutting arrangement. The engine is a Bristol "Cherub."

The principal feature is its controllability at the stall, and its consequent safety in flight. In the tailless aeroplane the lateral and fore-and-aft controls are all combined in the wing tips, which in the "Pterodactyl" are rotatable, so that at whatever angle of incidence the wing may be in flight, the tips with the control surfaces may be moved so as to be effective. Thus, the machine may be pulled up to a steep climbing angle when it will reach the period of the stall, yet, instead of falling in an involuntary dive as would be the case with a normal craft, the wing tips may be set so that the airflow remains even and steady over the directional surfaces, and control maintained.

Obviously, such an inherent quality as this is of paramount importance, while another matter to be considered is that the tailless machine should be cheaper to build.

It was these two points which led the constructors of the machine here described and illustrated to choose a modified form of the tailless arrangement as the basis of their design.

(Continued overleaf.)

THE GRANGER MONOPLANE—continued.

The Granger " Archaeopteryx," as it is named, differs from Captain Hill's machine in that the engine (a Bristol " Cherub ") is in front of the pilot, and not placed as a pusher as in the " Pterodactyl." It also has the rudder placed at the rear of the short fuselage in the usual way, while it has a normal undercarriage. These departures were made with the intention of obtaining a better control on the ground, when taxiing, and it was anticipated that a higher top speed would be secured as a result of its clean lines.

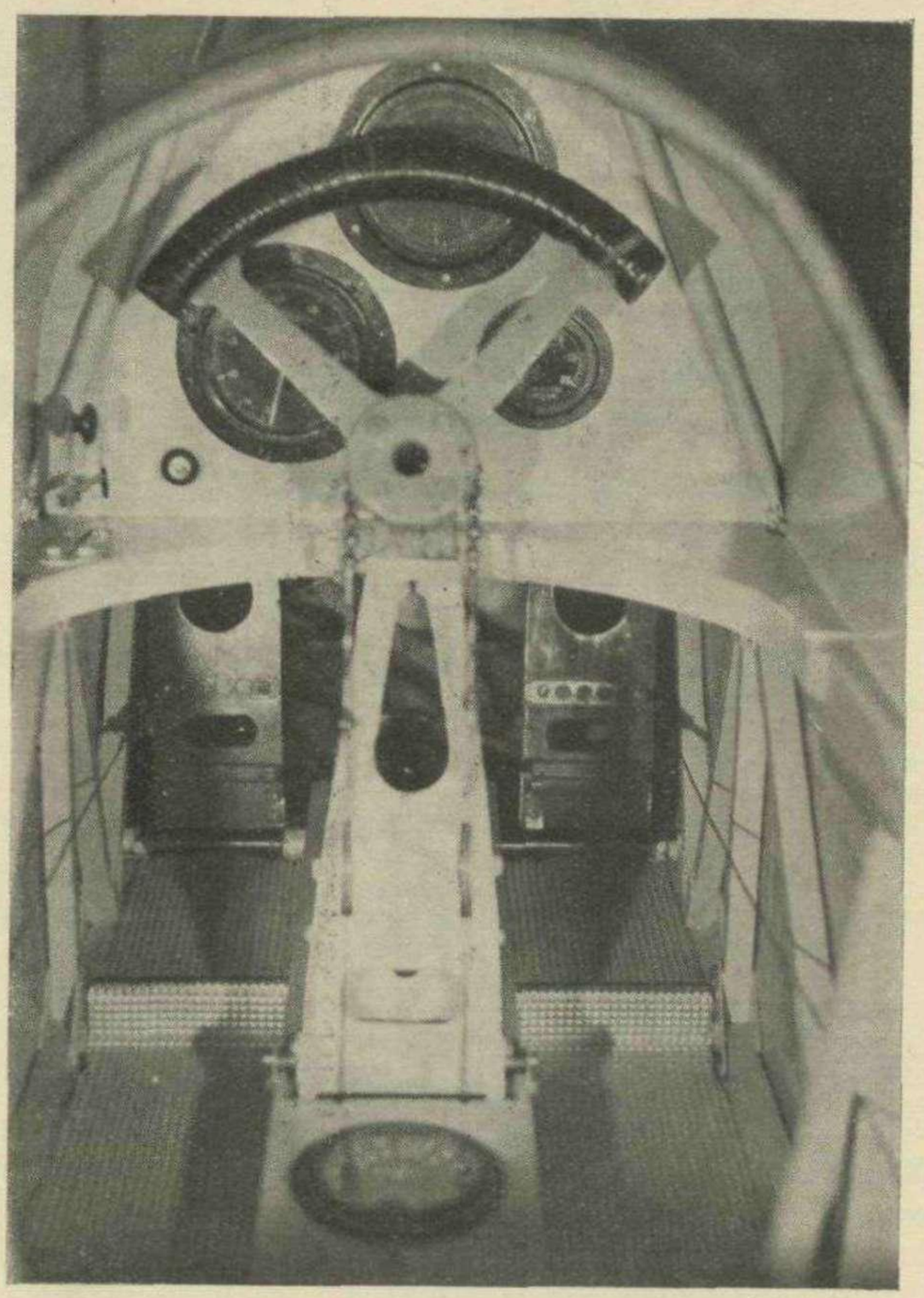
The " Archaeopteryx," like other tailless types, has a pronounced sweep back to the wing, the span of which is 30 feet.

The wing construction follows normal practice, with spruce spars, and spruce and plywood ribs. The covering is of fabric. The fuselage, too, is wooden, being semi-monocoque in form. The overall length of the machine is 14ft. 10 ins., and the weight (unladen) is 336 lbs. This gives a wing-loading of 5.2 lbs. per square foot.

The arrangement of the wing tips is based on Captain Hill's layout, their movement being actuated by a control column, while the ailerons are operated by a wheel (fixed at the top of the joystick), the movement being transmitted by cables. The rudder is worked by pedals, reminiscent of the old Maurice Farman " Rumpety," and more recently, the Kegel " Prufling " and " Professor " soarers.

In the air the " Archaeopteryx " appears to behave quite well; the controls are light and nicely balanced, and the landing speed is low. The top speed has not yet been ascertained, but it is believed to be in the neighbourhood of 90 m.p.h.

Altogether a very interesting and original effort, the craft was both designed and built by two amateurs—Mr. R. F. T. Granger and his brother, Mr. J. Granger. Neither has had any engineering training which makes the handiwork all the more commendable. The construction of their 'plane occupied three and a half years, the work being carried out under difficulties in a small garage.



Orthodox light 'plane practice is not followed in the controls of the Granger. The cut-down wheel operates the ailerons and the pedals take the place of the more usual rudder-bar. From this photograph some idea may be gathered of the excellence of the workmanship put into the machine by its amateur constructors, the finish being apparently quite equal to the average factory-built job. The instrument panel holds the rev. counter, airspeed indicator and oil guage, while the altimeter is mounted just behind the control column.

A FAST AMERICAN.

CAPTAIN Frank Hawks, who is by this time one of the most famous of American pilots not only of power 'planes, but gliders, came to Europe last month with his Travelair monoplane, and within a very short time after his arrival, began to attract a great deal of attention both in France and in this country.

His first flight over European soil was from Cherbourg to Le Bourget, which he did in 55 minutes. The distance is something over 200 miles.

On 18th April Hawks paid a visit to Croydon where his machine caused much interest. It is a low-wing monoplane of quite small span with Rafwire bracing; the flying wires are attached to the undercarriage at their lower terminals, after the style of the little D.H. " Tiger Moth." The engine is a boosted Wright " Whirlwind " which develops 450 h.p.

The whole machine is beautifully finished and finely streamlined everywhere. The undercarriage wheels are encased in " spats," and a celluloid hatch completely encloses the cockpit opening.

On 22nd April Hawks set off from Heston with the intention of flying to Rome and back in the day, but although he had two forced landings on the return trip, and so failed in his object, he created a record by doing the 900 odd miles on the outward trip in 5 hours 22 minutes, an amazing performance.

The Travelair carries about 100 gallons of petrol and weighs, fully-loaded, 2,100 lbs. Its top speed is 250 m.p.h. and it cruises easily at 200 m.p.h.

Captain Hawks, who is an Australian by birth, is aeronautical adviser to the Texas Oil Co.



SLIPSTREAMS

The New Record Flights.

LAST month was notable for two record long-distance flights made by two British pilots, namely, Kidston's journey to the Cape in 6½ days and Scott's rush trip to Australia.

No one who has had any experience or knowledge of flying for long periods at a stretch, over strange territory and under varying weather conditions can fail to have some admiration for these hardy souls for their stamina, skill and pluck in undertaking such flights, but at the same time these lengthy aerial journeys at high speed are now becoming so common that one is bound to question their use from a technical standpoint. The England-Australia trip has now been made often enough to prove that a light 'plane can do it, but after that the value in providing data for future air transport development ceases, and such flights become stunt efforts pure and simple.

The same may be said of the air route to the Cape, and it is not unnatural that the prominence given in the daily Press to the fact that Lieut.-Commander Kidston's object in doing his flight was to show up the "awful slowness" of British air mail services has resulted in a certain amount of criticism, and resentment. In the first place, one cannot compare his Lockheed "Vega" with the Imperial Airways multi-engined craft, and there can be no question as to which is the better type for reliable and regular service—the first essentials of a mail organisation. Secondly just as one swallow doesn't make a summer, so one remarkably fine flight on a fast single-engined machine under good conditions, doesn't indicate that the same sort of journey could be made *regularly* all the year round with a freight-carrying aeroplane at approximately the same speed.

Scott, one gathers, set out to break the record to Australia solely for the sport of the thing, and one cannot help feeling that the same urge was the main object at the back of Commander Kidston's effort.

Propaganda.

The bringing about of an increase in public interest in aviation and the spreading of "airmindedness" is a job which has claimed the attention of a lot of people in the last few years. But while we have a number of "synthetic pilots," lookers-on and hangers-on, the number of people who are anxious and keen to fly is really very small. So the people who are trying to make us a nation of airmen have got an up-hill fight, I shouldn't be surprised if much of the antipathy of the "man-in-the-street" towards active aviation is due to the late War, for what with the nasty machines we were compelled to fly and the scrappy training we received in those days, the number of crashes per day throughout the country was simply appalling. And people remember those fatalities and shake their heads and talk about "keeping on the ground."

Once this prejudice, which after all is not difficult to understand, is broken down, flying will undoubtedly become far more popular; and the way to break it down is to bring people into really close contact with flying. That is why I think C. D. Barnard's tour, which is now in progress, is a sound scheme. He is, of course, carrying on the work started in 1929 by Sir Alan Cobham, and like him, C.D.B. will meet Mayors and other municipal personages and urge the immediate necessity of reserving sites for future aerodromes in their districts.

Barnard has also formed a flying scholarship fund, and in most of the districts visited, a boy will be selected from the secondary schools and taught to fly at the nearest flying club without charge up to 15 hours' instruction. In this way, valuable assistance will be given to the private flying movement and at least one hundred boys who would not otherwise have the chance of learning to fly will be able to take up aviation.

Not less than 150 of the more important towns will have been visited by the time this tour is completed and at each of these towns a well-organised air pageant will be held which will provide an attractive and instructive picture of the progress made in aviation and will, in addition, offer everyone who wishes to try the experience of flying the opportunity of doing so.

Massed Flying Tours.

The Heston people made an innovation last year when they organised a tour extending over a wide itinerary of the Continent and lasting several days. Recently the arrangement was repeated and a group of private owners visited Cannes, Nice, Tours, Chartres and other resorts in the South of France. This idea of organised flying parties strikes one as being extremely attractive, especially for those private owners who are new to fairly long trips over foreign land but wish to attempt such jaunts, as since they have a leader of experience, they can do so without risk of losing themselves provided they do not drop out of the "formation."

I notice that members of Heston Air Park are now able to hire that concern's machines at the rate of £3 per hour, subject to their making a deposit of £25, which is, of course, returnable.

Pushers Popular Again?

Near the end of the late War the old pusher type of machine was beginning to be regarded as being completely out-of-date, and in the last decade they have been looked upon as barbarous relics of the past. But now there seems to be signs of its revival; after all, for "pleasure" machines the engine behind arrangement has much in its favour as many old F.E. and Maurice Farman exponents will agree. Engine noise which reaches the occupants of a pusher is far less pronounced than with a tractor, and the young hurricane from the slipstream, to say nothing of stray oil spots and smell, are pleasantly absent.

"RUDDERBAR."

Gliding Gossip and News

THERE is no question that the research station of the Rhon Rossiter Gesellschaft at Wasserkuppe is the hub of the whole motorless flight movement, and the small party organised last year by the B.G.A. was so successful that an attempt is being made to organise a similar trip on a larger scale this year. It is also hoped to arrange for the London Gliding Club to enter at least one machine for the International Competitions, and should the constitution of the party justify such action, it is also hoped for a machine to be available for use by members of the party who are not members of the Competition Flight.

Fullest possible facilities will be available to members of the party to examine the organisation of the Rhon-Rossiter Gesellschaft in all its aspects, and almost every known type of machine will be seen in operation. Conditions are usually ideal at this time of the year and those interested can rest assured that this trip should form a new and delightful holiday.

The Hotel Deutscher Flieger, where the party will stay, is excellent and is situated within two hundred yards of the Competition ground. As this is the only hotel accommodation which is less than six miles away and its accommodation is strictly limited, no reservation can be accepted after May 5th.

Also in order to obtain specially reduced travel rates, it is essential that the party should all start together, although the dates of return can be arranged to suit individual convenience. The party as outlined takes 18 days, London to London.

THE Easter camp of the London Gliding Club proved to be extraordinarily successful, in spite of the fact that the weather conditions were not altogether favourable. Members were able to put in quite an exceptional number of flights on both the "Zogling" and "Prufling" machines, while things were further enlivened by the recently-acquired "Professor" being in action. Mr. G. M. Buxton carried out the first test flight in it, following its erection, and although the wind was very slight, he remained in the air for 1 hour 5 minutes. The soarer was then flown for quite respectable periods by Captain Latimer Needham, Major Petre and Mr. Marcus D. Manton. On 12th April, Buxton exceeded all previous soaring flights made by English pilots, by cruising in the "Professor" for some 3 hours.

MOTOR SPORT PHOTOGRAPHS

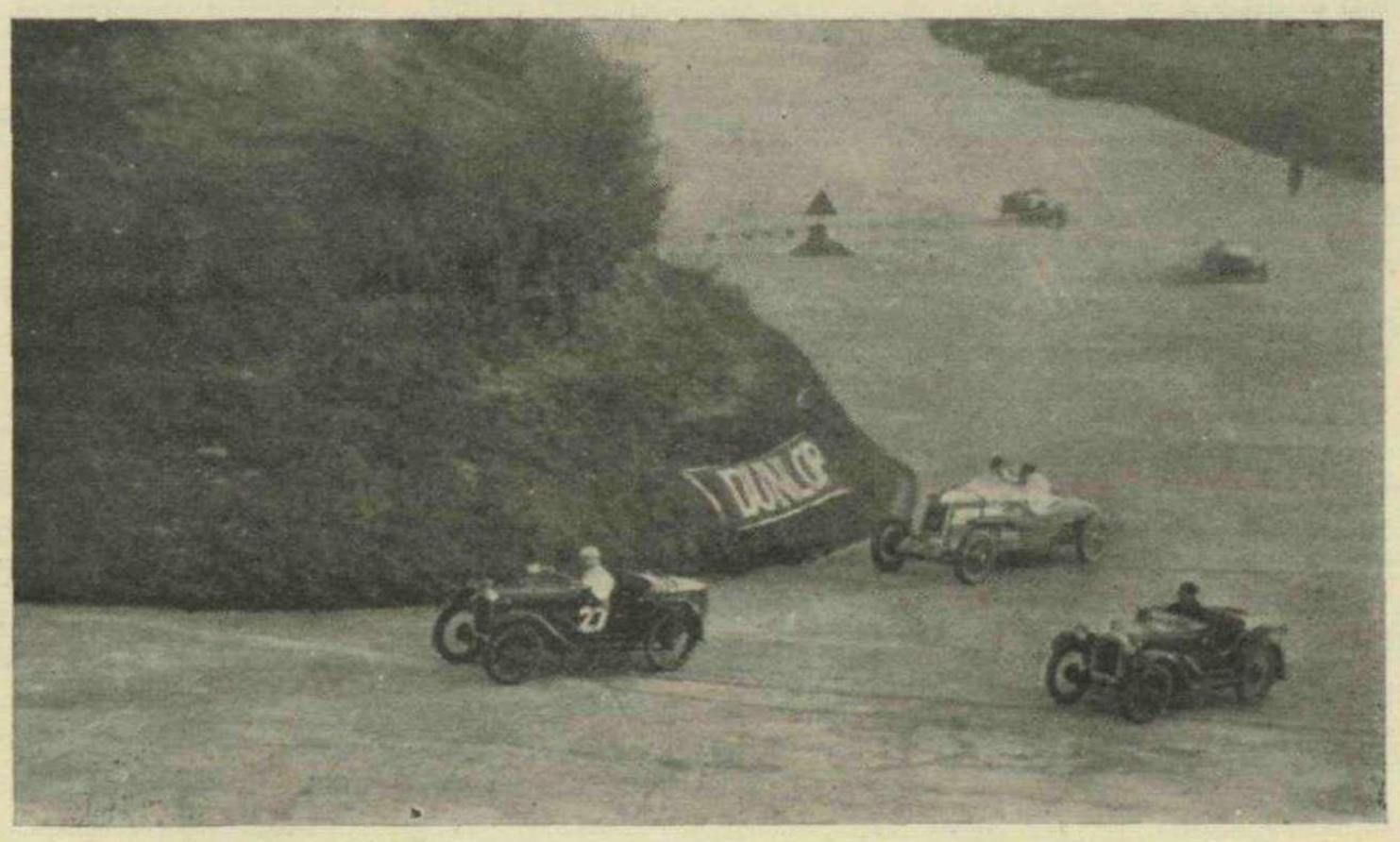
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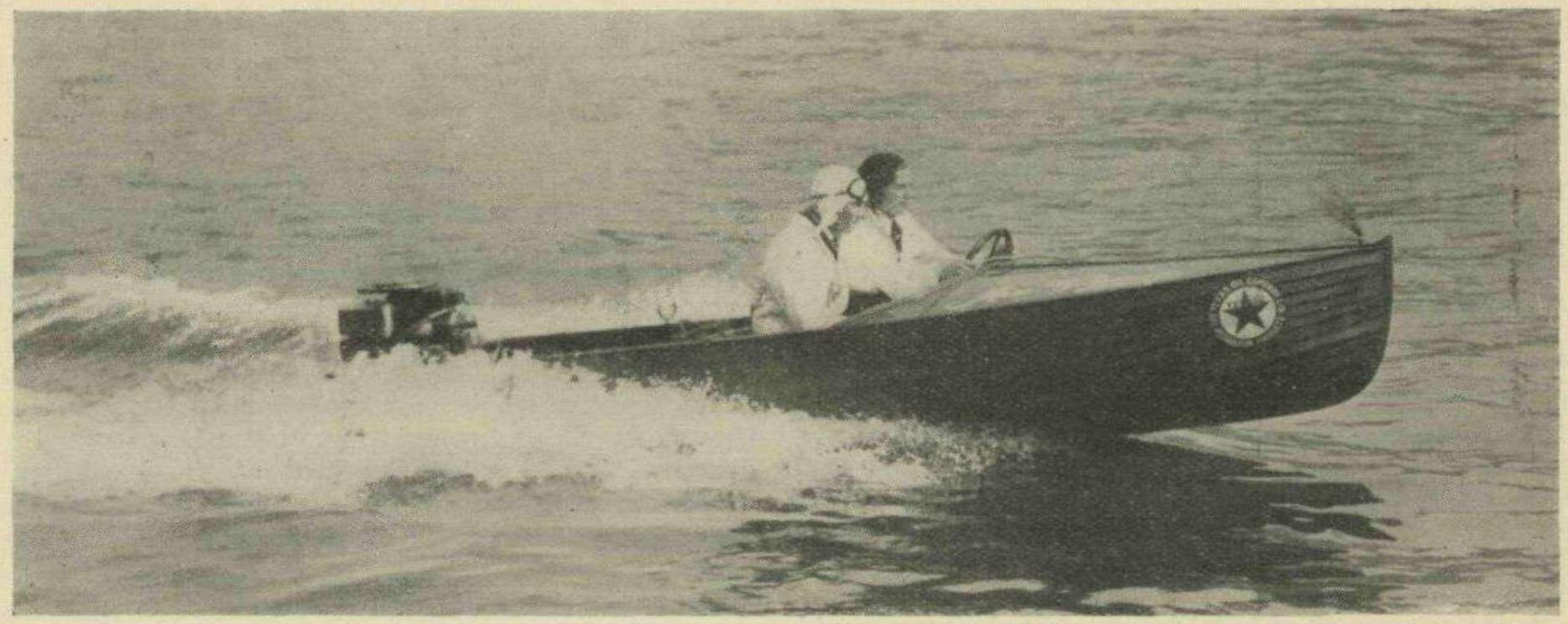


M. C. Lewns (Austin) leading two other competitors at the end of the finishing straight.

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THE SPORT AFLOAT



Miss G. Clements and Mr. R. Cole, who in their Watermota-engined Wood dinghy recently demonstrated the modern way of travelling to the Continent.

MR. KAYE DON has more than accomplished what he set out to do, when on April 2nd he recaptured for Great Britain the world's motor boat speed record, for the way that he snatched his victory in the last few hours of his official period, will be remembered in Buenos Aires for many a day. Don deliberately made his task harder by travelling half across the world to what at this time of year is not the most ideal waterway for record purposes, in order that he might be an asset to England at the British Empire Trade Exhibition. National thanks are also due to that great sportsman, Lord Wakefield of Hythe who made the attempt possible. Willocks' supreme confidence in the British design, materials and workmanship of Miss England II., a confidence which might well have been shaken after his previous experience in her, coupled with the boat's present performance, should convince this growing part of the New World that this country is not losing her grip.

The bald statement that appeared in the daily papers, something like this :—

" Buenos Aires. April 2nd.

" Mr. Kaye Don on the Parana River here to-day, succeeded in breaking the world's water speed record in his boat Miss England II, with a mean speed of 103.5 m.p.h. This record was previously held by Commodore Gar Wood in Miss America IX with a speed of 102.3 m.p.h."

—can convey nothing of the fear and hopes which lie behind such an attempt as this. The preliminary runs, followed by the unexpected trouble with the water cooling manifolds owing to the high water temperature of the river, and the days of suspense while mechanics worked feverishly must have put an undue strain upon the three waiting to make the official run. Imagine coming right down to the last possible day before things are ready and having to go out on a river swollen with water from the Autumn rains and upon which driftwood was a menace in spite of the excellent work put in by the Argentine Government. The speeds set up with and against the current were 105.28 m.p.h. and 101.70 m.p.h. respectively and give a good idea of the condition of the river. Don himself said it was more uncomfortable than travelling round Brooklands at about 140 m.p.h. ! Altogether it was a magnificent show, and has more than justified Mr. Fred Cooper's breakaway from the orthodox.

Miss England II is at the moment en route for Italy to take part in the international meeting on Lake Garda next month, and it is more than likely that an even better speed will be put up on this water, especially if Gar Wood should succeed in breaking this coveted record again in the meantime, for Wood is not the man to accept defeat without a blow struck in defence.

The Outboard Record.

Kaye Don thought that he had thus put this country in the enviable position of having all the world's speed records in which the internal combustion engine is used, to its credit. But such was not to be, for but a few hours before Don gained his record, Signor Aldo Dacco was successful in breaking the outboard speed record previously held by Charles Harrison. The run was made at Gardone, and Dacco put up the very useful speed of 52.54 m.p.h., but being of course only .66 m.p.h. better than Harrison's speed, we may expect developments in the near future. It is understood, however, that Harrison's Elto has been disposed of, so perhaps he is expecting something even hotter from the States. So much the better, for Dacco is not resting on his laurels, and in conjunction with Sig. Passarin, the designer of the successful Mariella boat, experiments are being

THE SPORT AFLOAT—continued.

carried out with various 'props' and with weight distribution, with a view to increasing the record speed at the International Meeting on Lake Garda.

Aldo Dacco used his previous record breaking 997 c.c. Laros engine, which peaks at 4,300 r.p.m. and produces 51 b.h.p. A comparison with Harrison's Elto, which tops at 4,900 r.p.m., producing nearly 55 b.h.p.,gives a good indication of the amount of thought expended on the Italian hull.

Britain was not entirely unrepresented in this record attempt, for Wakefield's and Amal both had a finger in the pie, and unless Dacco's original intention was altered, the drive was entrusted to a Thornycroft 'prop.'

At the same time that Dacco was performing, Cav. Sandro Salvi was putting up an even better show on Marietta VI. He was attacking the 12 nautical mile Class C record, but he had to make three attempts before being successful, then putting up the very creditable speed of 47.41 m.p.h., still more so when it is realised that eleven 180° turns had to be made, because Salvi was using the measured nautical mile course at Gardone.

Modern Travel.

If not possessed of an expensive yacht one would naturally assume that if a fortnight's tour on the Continent is planned, the only way of getting there is to go by one of the regular steamship routes.

Miss N. Clements and Mr. R. Cole have, however, proved conclusively that the small outboard-engined speed dinghy is the outfit to give you the independence of a private car over the whole journey.

The outfit chosen for this journey was one of the new Wood's dinghies, powered by a utility 4-11 h.p. Watermota outboard motor. Cole has had experience with these motors at sea before, and it is significant that a Watermota should have been selected again. These two modern mariners have so far completed some 400 miles by water and when they again tie up at Westminster, the figure will be nearer 500. The excellent performance put up by this motor will be realized when it is remembered that two people with their personal and navigating equipment, the boat, and sufficient fuel for about 250 miles, was taken the whole way by an engine of no more than 350 c.c. Their progress has not been slow, for although not starting until 1 p.m. on Saturday, 11th April, they were in Brusselles on Tuesday morning and would have been there on Monday night if they had not missed the right canal and landed up at Gavre. Further it has been found that the petrol consumption is no more than 18 miles to the gallon under full load, and Cole writes to say that never has more than one pull at the starting been necessary.

Miss Clements and Mr. Cole were accorded a public reception by the Royal Yacht Club on their arrival, and some days later a dinner was given in their honour.

Quite a lot of time has been occupied giving demonstration runs to people at the Yacht Club and for this, Miss Clements must be thanked for it is all good propaganda for British boats and engines.

Miss Clements has the honour of being the first lady in this country to " go down to the sea " in an outboard, and both she and Mr. Cole are to be congratulated on their very plucky venture, for the whole time they have regarded their 13ft. dinghy as a sea-going boat and have not been accompanied when making the Channel crossings; anyone who knows the Channel at this time of year will realise just what nerve and good seaman ship is needed.

Is Silence Golden ?

Quite a number of people saw the Schneider Trophy Race a year and a half ago, while an even greater of less fortunates (of whom I was one), listened to the broadcast of the event—and for myself—to the finest broadcast ever. Just hearing the distant whine, the terrific crescendo, combined with the sudden drop in tone as the machines passed, and then the fading away before you had forgotten the first sound, was—magnificent. Aunt Agatha's conception of how quiet a racing engine really should be would definitely not have done at all, and the whole broadcast would have failed, and thousands of people would have been disappointed and disgruntled. Ye gods ! Think of it ! the great British public disgruntled because a racing engine was not making enough noise. They would, however, have been equally annoyed if there had been a microphone actually in one of the competing machines, and the row had come over without a break.

And thus it is with our sport—outboards do make a noise, but it is because they make it for long periods at a time that they are offensive. The inhabitants of Rickmansworth did not object to the race days at the Aquadrome, but to the continual din made during the practising. Two or three weeks ago a quite well known pilot, in search of a suitable stretch of water for testing a very fast outfit stopped and looked over the bridge at Maidstone, and well pleased with what he saw, proceeded to launch the boat. The motor was in the unlimited class and had an open exhaust, and it was a Sunday afternoon. Yet an hour's test was carried out without interruption or objection from one of a crowd of several hundreds who witnessed the show. Encouraged, two boats were taken down the following Sunday and an afternoon was put in, up and down the Medway; a huge crowd controlled by the police, witnessed the proceedings, and they thoroughly enjoyed it. Some days later a solicitor's letter was received, but this, in mild terms, merely pointed out that a speed limit of 5 m.p.h. existed on the Medway, which had been exceeded. (Actually the culprit had done about 40 m.p.h.). But there was not a murmur about the din that had been created in the process. On the other hand, what attracted the crowd was the noise, and as I have mentioned, they appeared to thoroughly enjoy it. If the 5 m.p.h. limit can be got over, one might do well to organise a race meeting in the Medway at Maidstone. To make our sport more popular and widespread it must be thrilling to the general public and plenty of spray and a healthy open exhaust both contribute towards making it worth watching. Long distance races in the national dinghy class can be kept as quiet as reasonably efficient, but if you want some notice to be taken of you, let the fast hydroplanes sound as if they *are* going fast. Organisers could arrange for everything to be kept quiet at a race venue before and after the actual races, but when the events are in progress they ought to " let things go."

F.M.

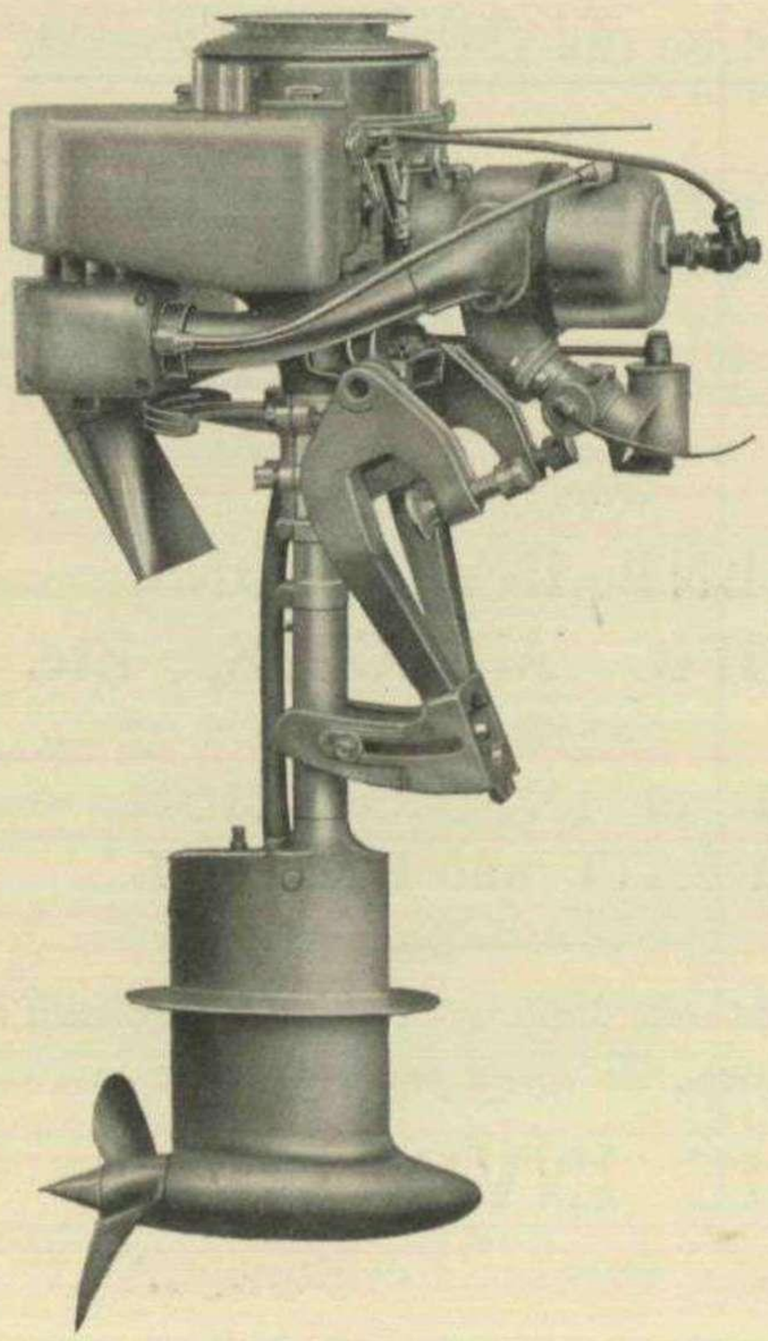
PREPARING YOUR OUTBOARD

III.—THE POSITION OF THE FIN.

WITH most outboardists, I regret to say, the fin is a kind of thing to stop the boat going sideways when cornering and is to be stuck on the bottom of the boat in the most convenient place, i.e., when there is a stout bit of wood to screw it to. In order to secure good steering qualities for any outfit it is essential that the position of the fin be carefully decided upon as it is the sole fulcrum about which the boat turns. It will clearly be seen that the further forward the fin is placed the greater will be the lateral movement of the aft planing surface across the water, thereby increasing the risk of the offside aft chine digging in the water, especially if the water is broken, with a result that the whole outfit goes over. Further in rough water the boats, when striking a wave, lift from the bow and if the fin is forrar'd of the step it will come clear or partially clear with comparatively little vertical movement, with a result that the effective lateral resistance is constantly varying, and when the turning point is permitted to move laterally in varying degrees, a very unsteady motion is imparted to the craft as a whole. Here then are two good reasons why the tendency should be to keep the fin aft. Another important point with regard to the fin position is whether a high or low geared steering is desired. It will be found that the majority of racing car drivers favour high geared steering, for it makes the car feel "tighter" and permits one to place it with a greater nicety. So is my experience with hydroplanes, and therefore, I have another reason for keeping the fin well aft.

By practical experiment it has been found by keeping the position of the fin aft that the craft remains much steadier on the straight, speed wobble, or whatever its water equivalent's name may be, is absolutely illiminated. In my opinion the fin is best placed just about in line with the vertical, through the centre of gravity of the outfit complete with pilot, and this position is situated usually just about 6 inches behind the step.

Incidentally it is essential that the fin should be bolted (not screwed) dead fore and aft, or the craft will wander from the straight and narrow in an alarming fashion. It should be noted that the skin-friction of the fin and of the prop housing is considerable, and these parts should be kept well polished. This polishing will be greatly facilitated if, when removing the outfit from the water, these two items are wiped over with an oily rag—this is essential if the craft has been used in salt water, as the salt corrodes the aluminium.—M.



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By "Camshaft"

Streamlining.

So much has been said of streamlining recently that the opinion of one of our leading bodywork designers is particularly interesting.

Mr. Stanley Riley, who is responsible for the chassis and body design of the 9 h.p. car bearing his name, believes that so far as the ordinary motorist is concerned, the only merit of streamlining is found in its appearance. He states that it can be of no practical value until 50 per cent. of our cruising speeds exceed 70 miles per hour !

Up to this speed, says Mr. Riley, the ideal theoretical shape varies with every mile per hour and attempts at streamlining, whilst they may be attractive, are valueless. He contends that for normal road use, the most practical shape is a smooth sided square or oblong with, of course, as small a frontal area as possible.

When he designed the Riley Nine, minimum wind resistance was considered in conjunction with appearance and safety. The extremely low floor level was the key to the situation. It allowed a low roof and a low centre of gravity—appearance and safety respectively ; but at the same time it very considerably reduced the effective frontal area and, in consequence, the wind resistance. From a performance point of view, practical streamlining of this nature is obviously of more value to the motorist than theoretical streamlining, which can only be of value at speeds which are never reached !

The Late Lieut.-Col. Benson.

It is with deep regret that I hear of the sudden death of Lieut.-Colonel A. E. Benson, London Manager of the Triumph Company.

He had not been well for some time past but no serious developments were anticipated and at the time of his death he was playing golf. He suddenly collapsed and did not regain consciousness.

It may be remembered that Colonel Benson joined the Company in the years immediately following the Great War. He was extremely popular and will be keenly missed by Triumph owners and by his many friends in the Trade.

Rolls-Royce Finance.

The Directors of Rolls-Royce, Ltd., at a recent meeting decided to recommend at the Annual Meeting at Derby, that a dividend be paid at the rate of 8% per annum together with a bonus at the rate of 2% per annum for the 12 months ended December 31st, 1930, to be due and payable on 17th of last month.

The profits for the 12 months ended December 31st, 1930, were £147,170 16s. 10d. The last accounts were for a period of 14 months.

Wanted—First-class Car Designers.

Mr. T. G. John, Managing Director of the Alvis Car and Engineering Co., Ltd., states that " one of the biggest handicaps to progress of the motor car industry in this country is the lack of first class designers and men with sound experience who can carry the necessary responsibility ; those of us who have them are fortunate.

" At the present time this is a regrettable feature of several big industries other than the motor car industry, but because of the intensive nature of the product possibly it is more felt in the latter than in most others.

" Whether the prime cause is due to the falling off in the brains or stamina of our younger generation, whether it is due to the depressing political atmosphere in which this country seems to be cursed, or whether it is due to the very hot pace set by the demands of the industry, are questions worthy of serious consideration."

In Mr. John's view one of the troubles ever present in the motor car industry is that clever design is not easily separable from expensive manufacture ; this is where the directing genii of the business find most scope for initiative and ingenuity.

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ALFA-ROMEO, 1925-6 3-litre super sports 4-seater, red leather pneumatic upholstery, special instrument board with concealed lighting, Autopulse fuel pump, twin carburetters, 835 by 135 Dunlop tyres, f.w.b., 120 m.p.h. speedometer, rev. counter ; this car is extremely fast, very economical to run and in tip-top condition throughout, probably one of the finest sports cars that have ever been offered for the money, 99 guineas. Bowles, 96, South End, Croydon. 'Phone 0881.

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£60 ALVIS, 12-50 super sports 2-seater, re-finished in black and ivory, completely overhauled and in perfect condition throughout, 75 m.p.h., outside exhaust. Greenwood's, 30a, Highgate Road, N.W.5. Mountview 4223.

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1931 ASTON-MARTIN 4-seater international sports, just registered, fully guaranteed, price £535. Taylor and Askew, 13 Weymouth Mews, Harley Street, W.1. Langham 3929.

1925 ASTON-MARTIN 3-seater sports, f.w.b., finished in green, with cream wheels, chromium-plated fittings, very smart appearance and a really hot lot, taxed for the year, bargain, £145, hire-purchase to suit you. The Motor Combine, 349 Euston Road, W. Museum 2705.

USED SPORTS CARS FOR SALE (*continued*).

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1931 International sports 4-seater ASTON-MARTIN, green, 6,000 miles, careful running, condition as new, £495. Kevill-Davies and March, Ltd., 9 Bruton Street, W.1. Mayfair 5446.

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FRAZER NASH cars, Falcon Works, London Rd., Isleworth (Hounslow 3172) always have for disposal reconditioned and guaranteed cars, fitted with new tyres and F.W.B. Prices from £125.

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SPORTS!!! £45; 2-seater boat body Itala, F.W.B., all-weather equipment, numerous extras, 12 months' guarantee ; terms, exchanges.—Berkeley (Mews) Garages, Connaught Street, Edgware Road, Marble Arch.

17 h.p. Itala Sports Chassis, F.W.B., fitted with special coachbuilt drop head coupé body, upholstered in leather, beautifully cellulosed primrose-black, complete Bosch equipment, numerous extras, in perfect mechanical condition, very fast and easy to drive, insured December : price £65. Small 2-seater or saloon considered in exchange.—Oram, Loudoun Road Mews, Loudoun Road, N.W.8. 'Phone : Maida Vale 2133.

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Motor Sport Classified Advertisement Section—*continued.*

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