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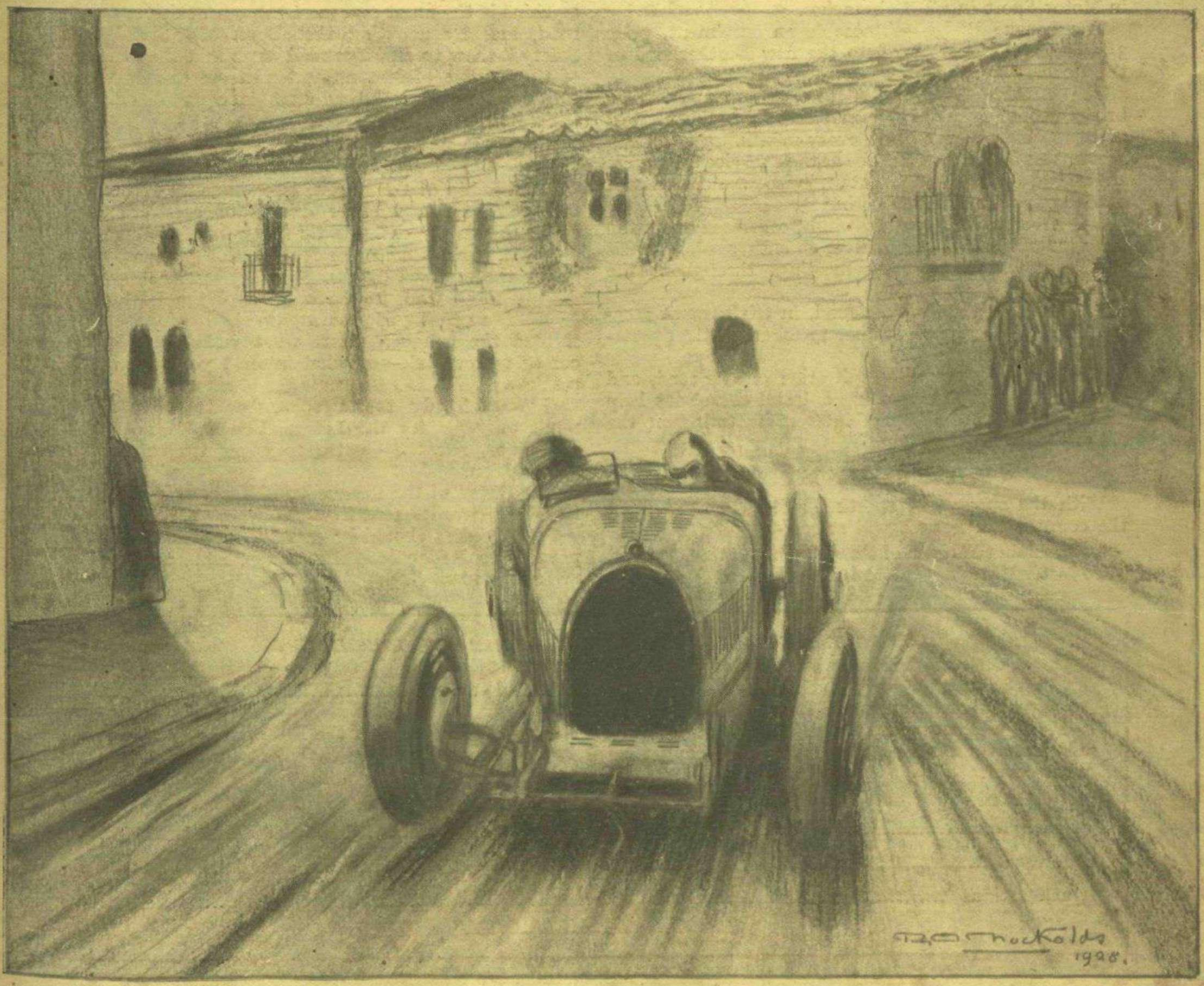
The Official Organ of the League of Motor Sportsmen.

MOTOR SPORT

Incorporating The Brooklands Gazette

Vol. 4 No. 10

May—June 1928



THE LEAGUE OF MOTOR SPORTSMEN

INAUGURATION OF A NEW LEAGUE OF FELLOWSHIP

Incorporated by *Motor Sport*, the 100 per cent. Sporting Journal, the Organ of Motoring Sport in the British Isles.

The Spirit of the Road is no longer to be a thing of the past. You will be a member of a Fraternity of Good Fellows, the finest company in the world, the Motoring Sportsmen.

Membership of the League of Motor Sportsmen is open to all who take an active and enthusiastic interest in Motor Sport in all its branches.

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The Annual Subscription to *Motor Sport* of 8/- brings a copy of the only Journal devoted to the greatest of all sports to your address every month.

Members of the League have at their service the expert advice of *Motor Sport* staff, who are in closest touch with all matters motoring.

Whenever possible, parties will be organised under the direction of the staff (themselves all enthusiasts) to visit the more famous sporting meetings throughout the year.

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Members will recognise each other on the road, and render each other that willing aid and chivalrous help which used to be inseparable from motoring in the old days.

OBJECTS OF THE LEAGUE.

With the support of sporting motorists throughout the country the League will strive :—

To promote the cause of Road Racing in this country.

To foster Motoring Sport in all its aspects.

To combat unjust Police persecution.

To educate Public Opinion, which is so definitely anti-motorist.

To restore the Chivalry and Fellowship of the Road, which, with the increase of purely utility motoring, is fast dying out.

To establish a bond between all owners of sports vehicles, cars or motor cycles.

To show, by example, that the owner of a sports machine is the finest and most competent driver on the road, and by adopting the slogan of "Speed with Safety," show to all other road users that the members of the League of Motor Sportsmen are drivers whose consideration for all road-users is equalled only by their expert driving.

HOW TO ENROL.

Membership of the League is open to all subscribers to *Motor Sport*, whether drivers of cars or motor cycles, or simply enthusiastic followers of the sport.

Fill in the form at the foot of this page, or write giving the required details.

Only those who, in the opinion of the Editor, are *bona fide* motoring sportsmen, are eligible for membership of the League. State what vehicle you own—car or motor cycle—or what interest you take in the pastime.

If you already are a subscriber to *Motor Sport* remit only 3/6 for the League Badge. If not yet a subscriber, remit 8/- extra to cover twelve months' subscription.

The Badge of the League and Membership Card will then be forwarded post free.

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I desire to become a member of the League of Motor Sportsmen.

I am not* already a subscriber to MOTOR SPORT, and enclose ..... to cover subscription,* and Badge of the League.

I will endeavour to further the objects of the League, and agree that the Editor may refuse me admission or cancel my membership at any time if he should consider this expedient for any reason whatsoever.

* Strike out the word(s) which do not apply.

(Signed) .....

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Conducted by
R. B. RADCLYFFE.

Edited by L. A. HUTCHINGS.

Assistant Editor:
RODNEY L. WALKERLEY.

MAY-JUNE, 1928.

PIETRO BORDINO.

IT was with deep regret that we had to announce last month the death of the famous Italian driver Pietro Bordino, who was killed near Alexandria in Italy while testing a Bugatti racing car. To the generation of motor sportsmen who have grown up since the war, Bordino will always remain as the type of all that is most picturesque in the racing driver. Bordino was a man of 45, and was known at Brooklands before the war when he drove the giant Fiat Mephistopheles there ; but it was in post-war days that he really proved himself one of the most daring and skilful drivers that the world has ever seen. When Fiat took up racing again seriously in 1921, he appeared in the Italian Grand Prix at Brescia and annexed the lap record. The next year he seemed a certain winner in the French Grand Prix at Strasburg until near the end he was put out with a broken axle-shaft. He had his revenge, however, by winning the two opening races on the Monza track—for 1,500 c.c. and 2-litre cars. In 1923 he again led for most of the French Grand Prix at Tours, until put out with supercharger trouble. While practising for the Italian Grand Prix that year he met with an accident and broke his arm, in spite of which he started in the race and, relying on his mechanic to change gear, actually held the lead until the effort of holding the car with one hand after a burst tyre proved too much for him and he had to retire.

Many will remember the epic fight he put up in the Coppa Florio of 1924 on the 1,500 c.c. Fiat, which was by no means suitable for the course ; and how, in the French Grand Prix at Lyon he held the lead during the opening laps, although that year the Fiats were not the fastest cars in the race. Last year he reappeared at Monza on the new double-six Fiat racer and won the Milan Grand Prix. His last public appearance was in the Brescia 1,000 miles race, when he drove a Bugatti, which make of car he was to have handled in the Targa Florio. At the time of his death many would have named him as the finest road-race driver in the world, and his loss will be keenly felt by enthusiasts in every country.



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THE ESSEX SIX HOURS ENDURANCE RACE.

ITALIAN DRIVER WINS PREMIER AWARD.

BIRKIN WINS THE BARNATO CUP.



EXCELLENT weather conditions helped to make the Essex Six-Hours Race the success it undoubtedly was, and a considerable crowd enjoyed a fine day's sport. The entry of forty-six provided a very representative field, with an international flavour, as Italian drivers were competing on Alfa Romeo cars, Campbell and Lord Curzon were on Bugattis, an Austro-Daimler team was entered, and a German entry was present in the big 36/220 Mercédès. There were few non-starters, notably Miller's second entry—the Delage to be driven by Clowes, the fourth Alfa Romeo, Leitch's four-seater Lea-Francis, and Major Harvey on his Alvis.

The start proved highly diverting to the spectators. L. Headlam, on the saloon Alfa Romeo, was off first, followed almost instantly by the Bentleys, Rubin, Barnato and Birkin getting away in that order.

Lord Curzon followed, and then Mason's Austro-Daimler led the ruck.

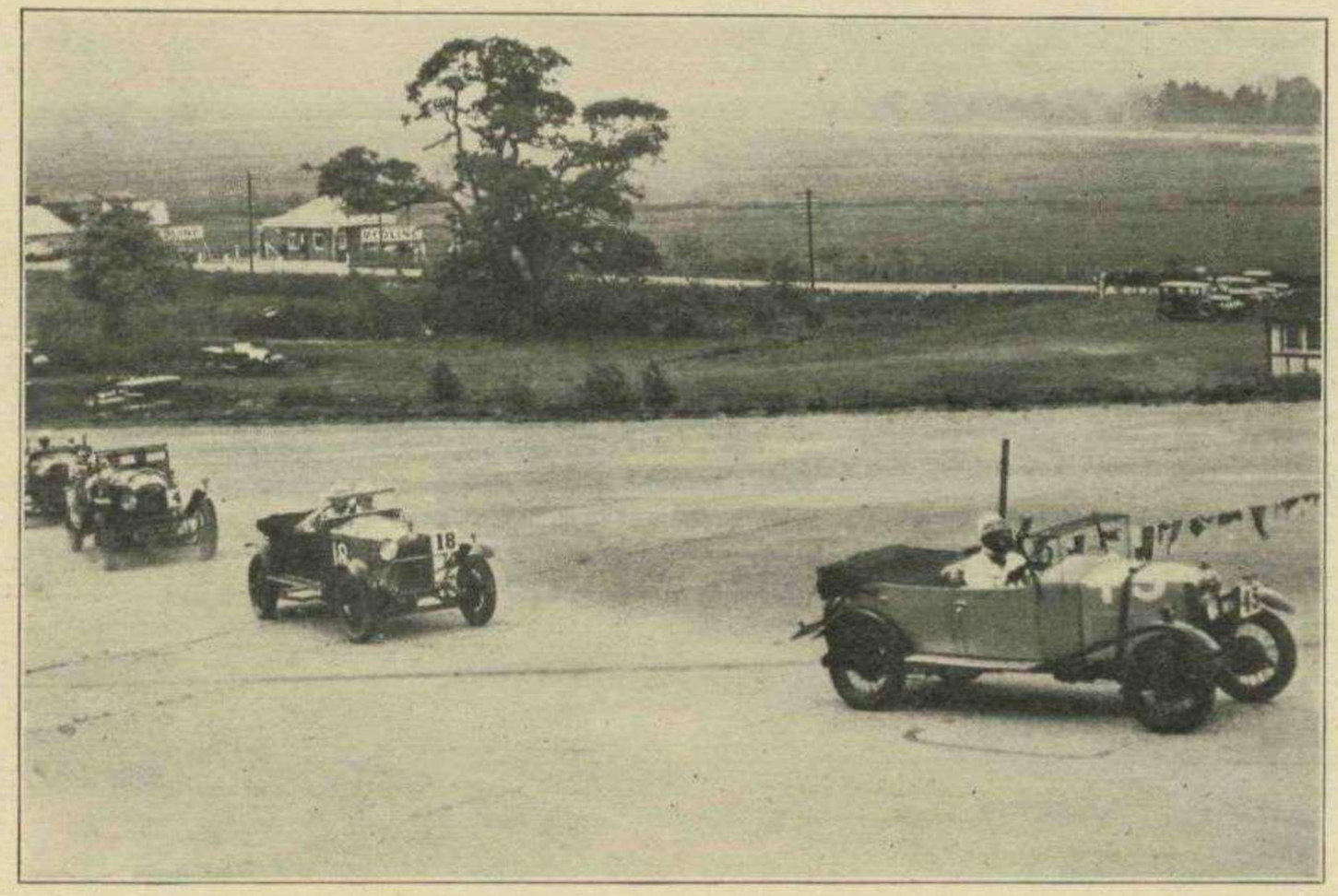
The beginning of the race was sensational. Much had been expected of the Mercédès, and it was with some astonishment that we realised the car was the identical machine road-tested by *Motor Sport* last month, with some 25,000 miles, without an overhaul, to its credit. Miller made a very late start, being well back in the crowd, lying about twenty-fifth as he passed the stand. At the end of the first lap, Lord Curzon led Campbell, and a length behind him—the Mercédés! This seemed too much to expect from a cold engine, and the jubilation of the Merc. supporters was changed to consternation when the German car blew up on the next lap, and pulled in to its pit. Frantic work was done, and after a quarter of an hour the car carried on, smoke belching from the louvres and surrounding the driver with a pall of blue fumes. Miller completed nine laps intermittently, and gave it up, the trouble proving to be a hole in a piston, owing to hitting a valve which had warped through the inner valve spring breaking. Thoroughly hard luck for this *marque*.

Meanwhile, Campbell had taken the lead, hotly pursued by the Bentleys, with Lord Curzon falling back. Particularly noticeable at this early stage was the splendid running of the Rileys—especially S. C. H. Davis—and the Alfa Romeos. Signor Ramponi was evidently going to live up to expectations, for he looked easily the fastest through the banks, and his little car was lapping at rather more than seventy-three.

Another early retirement was the Lagonda entry, F. King driving. This was particularly bad luck, as the trouble was eventually traced to a lump of brass in the carburettor which must have been there when the instrument was fitted. This put the Lagonda *hors de combat* on its third lap. Lord Curzon's supercharged Bugatti was the next to fall by the wayside, his trouble being ignition, and he retired after sixteen laps. After doing twenty laps, R. R. Jackson had trouble with his Frazer Nash. Capt. Frazer Nash, on the other car of this *marque*, stopped in front of the stands on his 21st lap, but afterwards got going again. At the end of an hour four cars were out, and Campbell was leading Barnato, while a lap behind came Birkin, two Austro-Daimlers, Clark on an O.M., and Ramponi leading the smaller cars. Jack Dunfee on No. 25 Alfa was tucked in behind Hayward on the big Excelsior, and these two thundered round and round lap after lap, never varying their positions by more than a yard at a time. The Excelsior was altogether an impressive spectacle, being tall and cumbersome in comparison to the smaller fry. Perhaps the most awe-inspiring sight of all was the Alfa Romeo saloon handled by Headlam, as it swept through the sand banks by the stands. The car rocked to the full extent of its springs, and it appeared that he *must* shed a tyre on each lap. Headlam's small boy passenger seemed extremely apprehensive, and clutched the window frame with determined grasp.

R. F. Skelton's three litre Sunbeam was disappointing, and, while not being particularly fast, spat and misfired from the first lap. The H.E. driven by Clease was going

THE ESSEX SIX HOURS RACE—continued.



G. E. T. Eyston (Riley) Followed by an O.M. and a Bentley Through the Last Bend.

extremely well, despite the nasty metallic sound of its exhaust.

By the time two hours were gone, Barnato's Bentley was on its fifty-seventh lap, with Birkin on his heels a lap behind, then came Mason's Austro, and Giullio Ramponi. R. R. Jackson's Frazer Nash burst finally on his forty-seventh lap, W. B. Scott's Bentley—the old "Number Seven"—went out with plug trouble on his thirty-seventh, and Lionel Martin (Riley) on his thirty-eighth lap.

Cornering past the grand stand was sometimes amusing and always instructive. Campbell was not particularly fast; Ramponi's Alfa seemed by far the fastest, but the front wheels of these motor cars dithered badly on the approach and the getaway. Headlam rolled worse than ever, the Excelsior only running him close in this respect. The Rileys were fast, but Wilkinson's machine suffered from terrific front wheel flap immediately after the last turn before the stands. On one occasion Headlam's saloon created a mild furore by approaching the first turn almost broadside, and only just got round.

After four hours the outlook was greatly changed. The only other Bugatti, driven by Malcolm Campbell, had developed trouble with its fuel pressure and forced a retirement. Davis was out with his Riley, Newman's Salmson had given up, and the next retirement was Newsome's Lea-Francis driven by Frank Hallam. This car had just come off the Members' Banking and was travelling at a good eighty, when it burst into flames. The mechanic flung himself clear, and escaped injury, and Hallam was able to pull up and jump out unscathed. His chief anxiety was for the Pyrene brigade to arrive before twenty-two gallons of good fuel went up with a bang. Something was wrong somewhere, because the car was blazing for a good twenty minutes before help arrived!

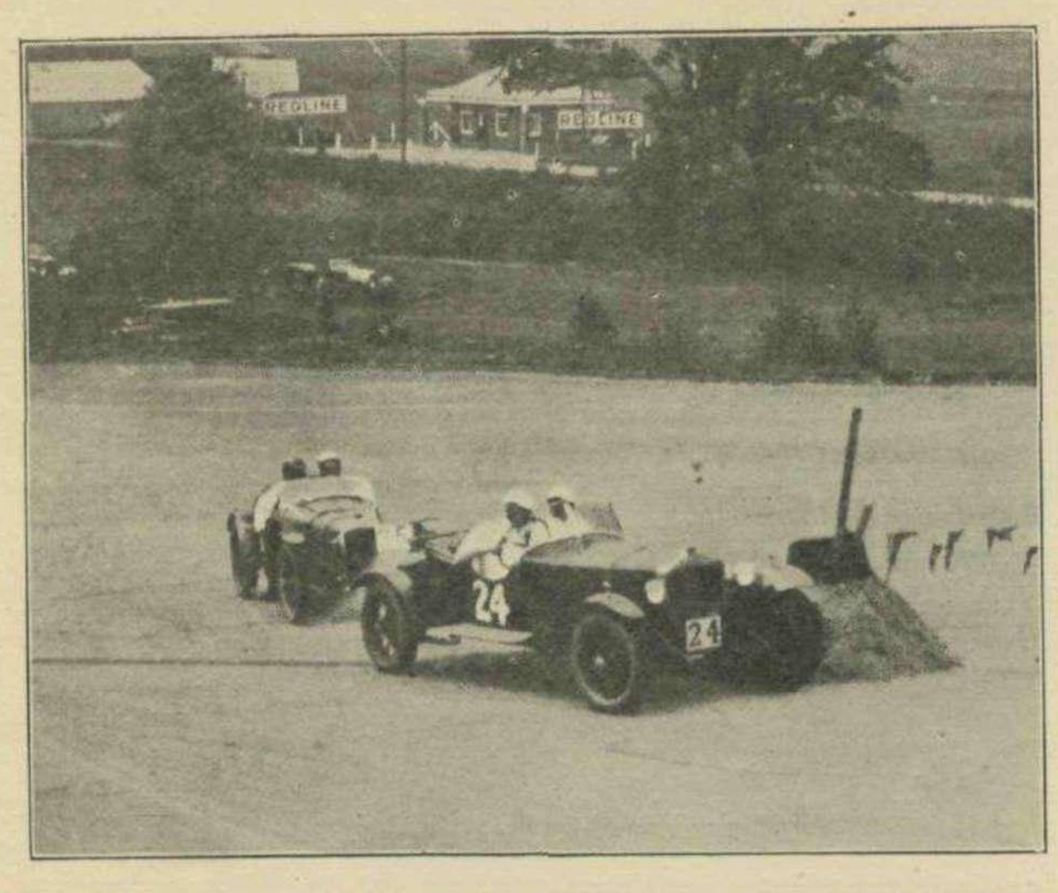
At this point, Birkin's Bentley had taken the lead, and Clease's H.E. was pounding along in great style, rejoicing that both Bugs. were dead. Perhaps it was pure light-heartedness that caused the H.E. to fling away its spare wheel on the railway straight.

By four o'clock, barring accidents, it was obviously Birkin's race, while Ramponi was far ahead in his class, being actually only three laps behind the Bentley. The Bentley team was running in close formation, the order being, Birkin, Cook, Rubin and Barnato, each separated by a lap. The Austro-Daimlers had been having bother during the afternoon, and ran some ten laps behind the Bentleys.

Ramponi was holding Barnato, and the other two Alfa Romeos ran steadily together; a lap behind ran the surviving Lea-Francis. Mrs. Dyke's Alvis was putting up a splendid show, having accomplished 135 laps in the five hours. Lt. Rooper's car of the same make was running in company with Vernon Ball's Amilcar on lap 115. Peacock's Riley was on the same lap, running well, but Wilkinson had dropped out. The other Riley four-seater driven by Eyston was a few laps behind, and right at the tail came Dingle's little Austin Seven.

During the last hour there was not much incident to note, and we took the opportunity of watching the cars from the Byfleet bridge. The Bentleys were running strongly, and the Austro-Daimlers, which seemed so much faster on acceleration after the turns, were unable to lessen the Bentleys' lead on the straight. The Alfa Romeos were especially steady, travelling half way up the banking. Vernon Ball's Amilcar was beginning to flap at the rear, Peacock's mechanic was observed, by the aid of glasses, to be prone on the bonnet at the beginning of the straight, fastening the front number plate, what time the driver grasped his ankle, and drove with the other hand.

THE ESSEX SIX HOURS RACE—concluded.



RAMPONI (ALFA-ROMEO) LEADING V. BALLS (AMILCAR) ROUND THE SANDBANKS.

Back at the stands we saw the Sunbeam describing arcs of a circle in negotiating the turns, and almost turned completely round. Just before the end, Ramponi burst a tyre while accelerating under the foot-bridge, but he carried on, performing wonderful skids on the top corner. He completed the lap, and changed his tyre at the pit; there were strange tales afoot after this of the Italian hurling jacks into the pit, together with strange oaths, what time the pit attendants took cover from the bombardment.

And so the race drew to a close, beneath a threatening sky and a hint of thunder. At five minutes to five the chequered flag was lowered, and then the maroon banged; the race was over.

The results are as follows:—

RESULTS.

ESSEX CUP (Premier Award).—Ramponi, 1,485 c.c. Alfa Romeo; 417.44 miles at 69.51 m.p.h.

BARNATO CUP.—1st, H. R. S. Birkin, 4,398 c.c. Bentley; 433.64 miles at 72.27 m.p.h.: 2nd, B. Rubin, 4,398 c.c. Bentley; 428.14 miles at 71.36 m.p.h.: 3rd, W. Barnato and F. Clement, 4,398 c.c. Bentley; 422.08 miles at 70.35 m.p.h.

MACREADY CUP for Team Performances.—Bentley Motors, Ltd.

CLASS WINNERS:—

Class 10.—F. H. Hayward, 5,344 c.c. Excelsior; 336.24 miles at 61.04 m.p.h.

Class 9.—H. R. S. Birkin, 4,398 c.c. Bentley; 433.64 miles at 72.27 m.p.h.

Class 7.—(Pass and Joyce Cup.) P. Turner and C. Paul, 2,998 c.c. Austro-Daimler; 409.18 miles at 68.18 m.p.h.

Class 6.—A. G. D. Clease, 2,289 c.c. H.E.; 313.92 miles at 52.32 m.p.h.

Class 5.—R. F. Oates, 1,991 c.c. O.M.; 372.75 miles at 62.12 m.p.h.

Class 4.—(Henly Cup.) Ramponi, 1,485 c.c. Alfa Romeo; 417.44 miles at 69.51 m.p.h.

Class 3.—K. S. Peacock, 1,089 c.c. Riley; 368.43 miles at 61.39 m.p.h.

Class 2.—J. P. Dingle, 747 c.c. Austin; 306.93 miles at 51.16 m.p.h.

FINISHERS' SPEEDS FOR THE SIX HOURS.

H. W. Cook, 2,994 c.c. Bentley	... ...	60.75 m.p.h.
R. F. Skelton, 2,916 c.c. Sunbeam	... ...	59.32 ,,
L. Headlam, 2,994 c.c. Alfa Romeo	... ...	58.46 ,,
A. Mason, 2,994 c.c. Austro-Daimler	... ...	54.68 ,,
F. Clark, 1,991 c.c. O.M.	... ...	57.76 ,,
Signor Bruno, 1,485 c.c. Alfa Romeo	... ...	64.84 ,,
Lt. J. B. Rooper, 1,496 c.c. Alvis	... ...	59.34 ,,
J. H. Newsome, 1,496 c.c. Lea-Francis	... ...	63.63 ,,
Vernon Balls, 1,093 c.c. Amilcar	... ...	60.75 ,,
Major A. T. Gardner, 1,087 c.c. Salmson	... ...	59.4 ,,
G. E. T. Eyston, 1,089 c.c. Riley	... ...	58.19 ,,
F. S. Clarke, 1,087 c.c. Salmson	... ...	57.11 ,,
W. E. C. Davy, 1,047 c.c. Amilcar	... ...	56.35 ,,

THE "LUXOR GOGGLE."

The most important part of the personal equipment of a racing motorist is the goggles, and too much precaution cannot be taken in their selection. The most popular type at present used throughout the world is the "Luxor" goggle, manufactured by E. B. Meyrowitz Ltd., of London, New York and Paris. The goggle was designed after very careful research, and conforms to every requirement of the racing motorist and airman. Incidentally, this goggle has the unique record of having been worn by every champion of both land and air for the past five years. The latest record made with the assistance of the Meyrowitz "Luxor" goggle is that of Mr. Keech, who has recently broken the record held by Capt. Malcolm Campbell. Other well-known racing motorists who wear the "Luxor" goggle are Major Segrave, Mr. George Duller and others too numerous to mention. The two most popular models of the "Luxor" goggle are the No. 4, made with Triplex glass, and the No. 6, which has curved lenses of ordinary glass. These, and a full range of the other models can be seen at either of Messrs. Meyrowitz's London branches situated at 1A, Old Bond Strect, and 199, Regent Street, W.1.

R.A.C. Tourist Trophy Race.

The following additional entries have now been received by the R.A.C. for the Tourist Trophy Race to be held in Ulster on Saturday, August 18th:—Two Frazer Nash, one Amilcar, one Mercédès, one Riley and one Vauxhall. With the forty-five already received this makes a total of fifty-one entries. Further entries at the 20 guinea fee can be received up to June 30th.

Arrangements in connection with the race are well in hand. The R.A.C. is undertaking a preliminary inspection of the cars already entered to ensure that they comply with the regulations. In addition to the prizes already announced, it has been decided to award prizes to the winners of the various classes in the race, and also to give a prize to the team of three cars of the same manufacture making the best performance, irrespective of class.

Plans are now being prepared for the construction of a grand stand opposite the start, to seat approximately 5,000 people. This will face the scoring board, and will be equipped with loud speakers from which all news connected with the race and its progress will be announced. Seats will be bookable in advance, but no applications for bookings can yet be considered.



Capt. Malcolm Campbell on the future of Speed and Motor Racing.

(In an Interview).

IT is rather difficult at this stage in motoring history to give any definite views on speed and its future, or to embark on prophecies with any degree of confidence.

At the moment all our ideas regarding motoring and the possibilities of speed are in the melting pot. Preconceived notions have been proved valueless, and to-day we stand on the threshold of the unknown; we are entering upon a new era of motoring development.

When the attempts were first made on the world's land speed record, unknown conditions had to be faced, and no data were available for use of designer or driver as to factors encountered at 200 miles per hour.

When the attainment of this tremendous speed was first contemplated, it was declared to be, if not impossible, at least almost suicidal. But both Major Segrave and myself achieved this speed with comparative ease. The machines were designed for this particular end, and it was known that the engines would develop sufficient power. The unknown factors were wind-pressure, steering and the effect of side winds on the car travelling at this hitherto unheard of velocity.

Major Segrave and I approached the problem from different angles. An inspection of our cars would show our varying ideas, for where Major Segrave used colossal engine power, I employed roughly half as much. My Bluebird was very much smaller than the Sunbeam, and was streamlined on quite different lines, and my disposition of the radiators—working in a vacuum created by the speed on aerofoil principles—and my using a fin were quite novel departures in automobile design.

The American, Mr. Ray Keech, went a different way to work again, and used a tremendous power to overcome or dispense with streamlining as we know it, and, as we have seen, succeeded in raising the speed by half a mile per hour.

Perhaps the greatest difficulty to be overcome at these phenomenal speeds—which will soon become things of the past—was that of steering.

Major Segrave had great difficulty during his record run employing ordinary steering gear. I used the Marles principle, with duplex control, and this probably saved my life, for I was able to correct a terrific skid at about 220 miles an hour! I am quite certain that this method of directional control, together with the tail fin, tremendously increased the stability of " Bluebird " at these speeds.

My sensations at 207 miles an hour?

I hardly know. My whole mind was concentrated on the task in hand, and my faculties were so rivetted on one problem—keeping the Bluebird on her course—that I had no time for outside impressions. The wind, of course, forced itself upon my notice, and I have never conceived such a tremendous pressure of air, which was like a solid thing, and I was thankful for the foresight which enclosed me in the cockpit.

I scarcely noticed the exhaust noise, and the whole run was one tremendous sweep over the sand which I hardly felt, with a hurricane wind seeking to wrest the car from my control. During the skid, which was probably set up by a soft patch of sand, I must confess to a momentary qualm, but before I realised it, I had straightened out, and was roaring onwards down the course.

I am convinced that Bluebird, under proper conditions, could travel twenty miles an hour faster, with equal comparative safety, as in order to break Major Segrave's record I did not have to travel flat out the whole way. I am not yet resolved as to the place, but I am determined to recapture the record for England. I shall use the same engine, and only minor modifications to the Bluebird itself.

The limit of speed is, in my opinion, by no means reached, although it must be in sight. Ten years ago 200 miles an hour would have been declared fantastic and impossible; who, then, shall declare 250, or even 300 miles, an hour, beyond the bounds of possibility?

Regarding the future of motor racing, I think the coming racing car will have a medium capacity multi-cylinder engine, with supercharger, and much greater attention will be given to streamlining, transmission and weight distribution. Traction or propuslion is a coming question, and four-wheel drive and steering is not an unforeseen development.

I hope the day is not far distant when we shall be able to run road races over English roads, when the greatest of all sports may be indulged in over our own roads, and we shall no longer suffer under the present great disability regarding motor racing.

GREAT RACING MARQUES.

XIII.—ASTON-MARTIN.

By E. K. H. KARSLAKE.

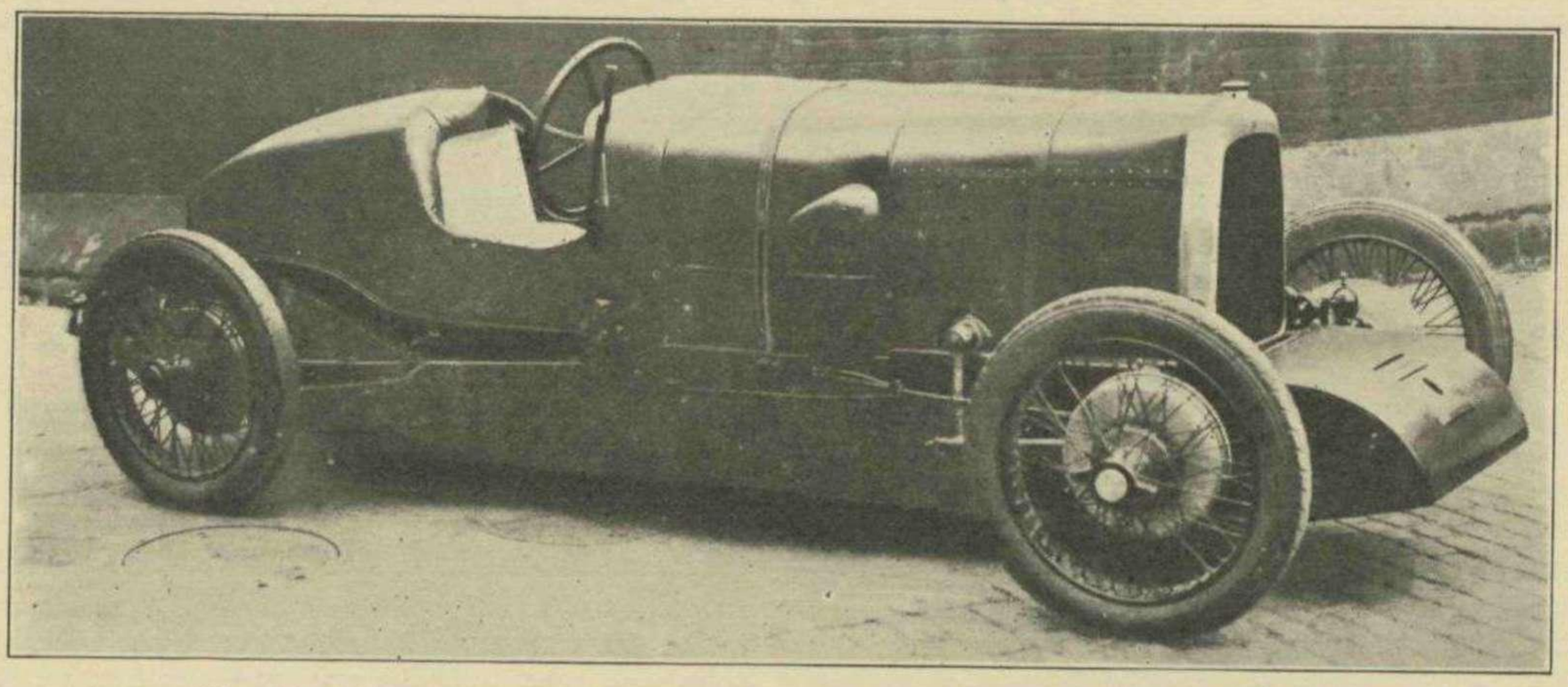
THE small sports car which to-day is so universally popular is a comparatively recent phenomenon in the history of the motor car. In the early days, if one wanted a fast car, one selected the highest-powered machine which was made by the firm which one favoured. If a millionaire, one probably succeeded in obtaining something of even greater engine size in the form of a successful ex-racing car and proudly exhibited the result of 120 h.p. on the road to those who had only got "90's" or "70's." The small fast car was practically non-existent.

It was the anticipation that something of this latter type could supply a demand in this country which led to the production of one of the first British sports small cars. In the years immediately preceding the war Mr. Lionel Martin had been engaged on the improvement of the performance of a 10 h.p. Singer, and the result of these investigations was that he decided to manufacture a 1500 c.c. sports car under the name of the Aston-Martin. This car, which was destined to become so well-known, had four cylinders of 66.5 × 107 mms. bore and stroke (1487 c.c.) with side valves, a four-speed gearbox and semi-elliptic springs all round.

In 1921 the Grand Prix des Voiturettes was run at le Mans and was for cars under 1500 c.c. One Aston-Martin was entered for the race, and was driven by B. S. Marshall. This was the occasion of the first appearance of the famous "invincible" Talbot-Darracqs, which opened their career by carrying all before them; but Marshall ran with extreme regularity and finally finished sixth.

During the same year was run the first 200 Miles Race, and four Aston-Martins were entered in the event. But again the predominance of the Talbot-Darracqs prevented any of the other cars figuring very prominently. The next year, however, the Aston-Martin had an opportunity of showing its capability for sustained high speed, when a car driven by Clive Gallop, H. Kensington Moir and S. C. H. Davis broke the records in the light-car class from 800-1,200 miles and for 12 hours.

In 1922 the R.A.C. revived its Tourist Trophy race, and organised an event in the Isle of Man for 3-litre and 1500 c.c. cars. Aston-Martin decided to take part in the smaller class, and three cars were entered. Of these two, which had Count Zborowski and Kensington Moir as their drivers, were standard 1487 c.c. side valve models, but the third, which was to be handled by R. C. Gallop had an engine of entirely new design. It had four cylinders with a bore and stroke of 66 × 112 mms. (1486 c.c.) with four valves per cylinder operated by two overhead camshafts driven by a vertical shaft. Unfortunately, however, neither this car nor Zborowski's was ready in time for the race, with the result that Kensington Moir started alone on the veteran Brooklands racer, "Bunny." It was obvious, however, that he could have no chance in the race, for he started with a broken valve-spring and valve trouble soon put him out of the running.



THE ASTON-MARTIN DRIVEN BY H. W. COOK IN THE 1925 200 MILES RACE.

Although not ready in time for the T.T., however, two of the overhead valve Aston-Martins were completed shortly afterwards and were entered for the French Grand Prix at Strasbourg. This race was for 2-litre cars, but Aston-Martin proved that they were enterprising enough, not only to be one of the very few English firms who have entered for this event since the war, but to do so with 1500 c.c. cars. The two cars were driven

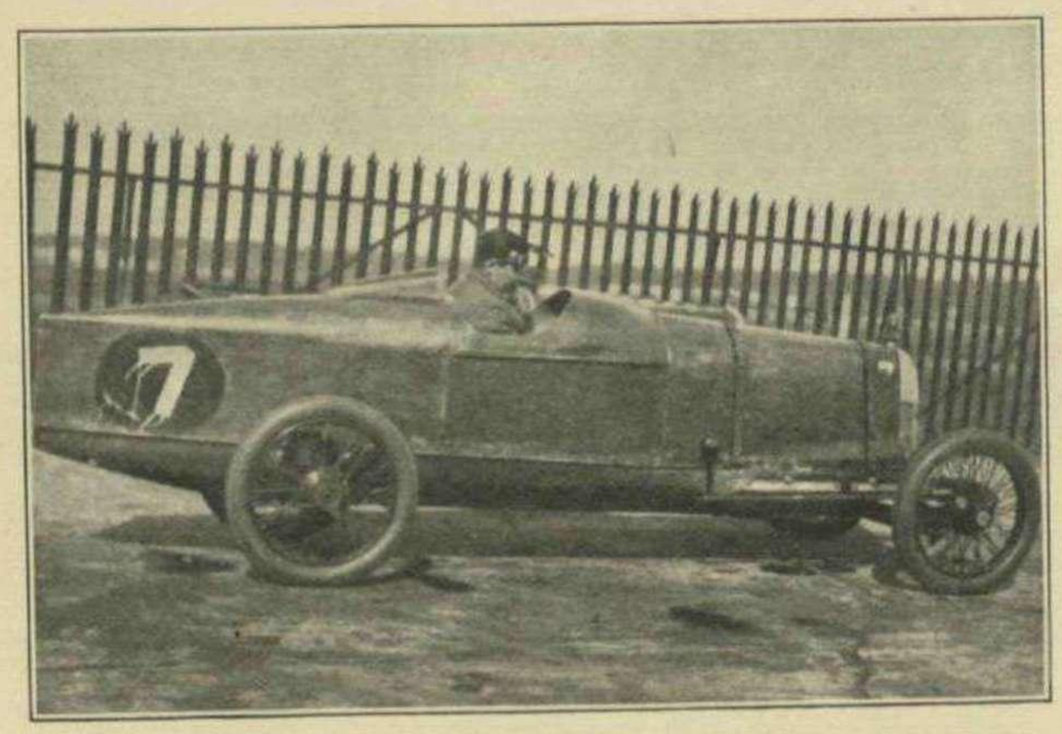
GREAT RACING MARQUES—continued.

by Count Zborowski and R. C. Gallop, and they soon proceeded to show that what they lost to the bigger cars in maximum speed they were very nearly able to make up by the speed at which their little cars, with their short stub tails, could corner. As a result of this, they were able for a long time to hold seventh and eighth positions in a field of eighteen, until, when about a third of the distance had been covered, Zborowski was forced to retire with magneto trouble. Gallop, however, managed to get his car into sixth place, and stayed there until half-distance, when magneto trouble put him out of the race also. This was extremely bad luck to reward a very gallant effort.

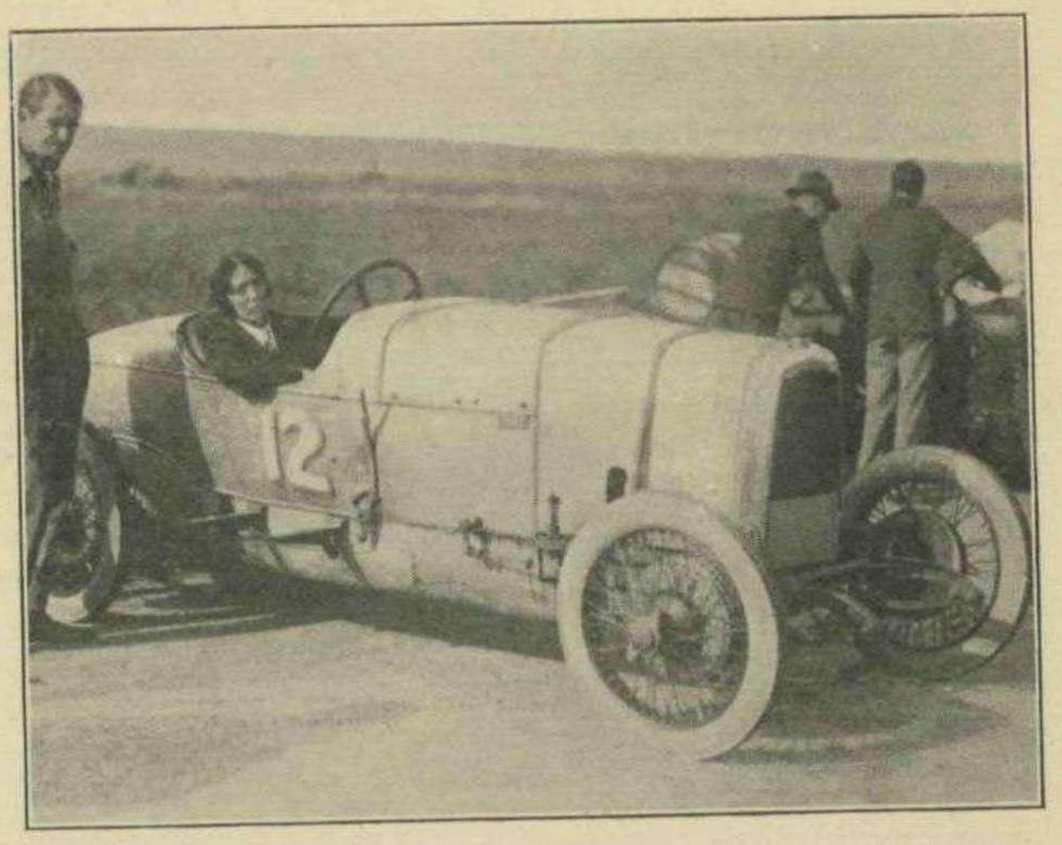
The two cars, with Zborowski and Kensington Moir as their drivers, were entered for the 200 Miles Race, which was the next great event of the year, and with them G. C. Stead started on the veteran "Bunny." The famous "invincible" Talbot-Darracqs, of course, started hot favourites in the 1500 c.c. class, but at the end of the first lap it was Moir who held the lead, with Zborowski fourth and Stead fifth. For five laps Moir was first, and then on the sixth he dropped out, once more with a burnt-out armature, to be followed almost immediately by Zborowski.

This left only Stead still in the race to uphold the Aston-Martin prestige with his side-valve car. But in spite of its age, "Bunny" was lying second, and there, after only an occasional drop to third place, it still was at the end of the race, having beaten all the specially-built and most up-to-date racing cars with the exception of one Talbot-Darracq, and having averaged 86.33 m.p.h. for 200 miles.

Before the year was out, the two Aston-Martin racers appeared once more in a Continental road race. They were entered for the Grand Prix de la Penya Rhin in Spain, and once more had to meet the redoubtable Talbot-Darracqs. The two Aston-Martins were driven by Count Zborowski and Douglas Hawkes, and although Hawkes was put out by a broken valve, Zborowski drove a fine race, and finished a good second, averaging over 64 m.p.h.



CAPT. J. C. DOUGLAS ON THE ASTON-MARTIN WITH WHICH HE WAS SO SUCCESSFUL SOME YEARS AGO.



MISS LISTER, WHOSE ASTON-MARTIN IS STILL FAMILIAR TO BROOKLANDS HABITUES.

The Grand Prix de Boulogne in 1923 provided another opportunity for Aston-Martin activities. Two cars were entered by their owners, G. E. T. Eyston and R. C. Morgan, and although only standard side-valve engined cars, set out to compete against the new Talbot-Darracq racers. At the end of the first three of the twelve laps of the race, the two Aston-Martins were lying third and fourth and running with complete regularity. For ten out of the twelve laps they stayed there, and then one of the leaders dropped out, and Morgan and Eyston finished the race second and third respectively, beating, as in the 200 Miles Race of the year before, everything but one Darracq.

In the meantime, a new Aston-Martin attack took place in the field of records. A special car was constructed with the overhead valve engine, a very narrow chassis, a crab track and no differential. The car was fitted with an extremely narrow single-seater body and was very carefully streamlined. In August, 1923, this car made an attack on the standing start records in the light car class, and in the hands of F. B. Halford annexed those for the half-mile, kilometre and mile at 62.8, 66.5 and 74.12 m.p.h.

For the 200 Miles Race in 1923, no fewer than six cars were entered, four by the makers and two by their owners. In the end, however, Zborowski decided to go to Barcelona instead, and as one of the new cars could not be completed in time only four machines were projected for the race. Of these J. McCulloch's overhead valve model could not face the starter, and so only G. E. T. Eyston was left to start on the other overhead valve car, with E. R. Hall on "Bunny" and R. C. Morgan on another side-valve machine.

The fastest cars in the race were the two 1500 c.c. Fiats, but when they fell out it was Eyston on the Aston-Martin who held the lead. From the thirteenth to the thirty-ninth lap he held it unchallenged, and then his engine began to misfire and he stopped at the pits, which cost him two places. The misfiring continued, and for

GREAT RACING MARQUES—concluded.

sixteen laps Eyston continued, convinced that a valve-spring was broken, while the pit displayed a board which told him to stop and which he was unable to see. At last, however, he did so; the plugs were changed, and the car had its speed once more, but the race was lost for good, and he had to be content with fourth place. The two other Aston-Martins, driven by Morgan and Hall, finished sixth and ninth respectively, and were thus the only team in the race to finish complete.

In the meantime, Count Zborowski had taken his Aston-Martin over to Spain to compete in the Grand Prix de la Penya Rhin against the famous Darracqs, which had not appeared in the 200 Miles Race. As usual, it was soon apparent that they were the only serious rivals of the Aston-Martins, and after lying third behind them for the greater part of the race, Zborowski finally managed to pass Resta and finish second. He thus succeeded in repeating his performance of the year before and earning for himself in Spain the name of the Eternal Second, which Girardot was dubbed in earlier times. The Penya Rhin race, near Barcelona, was followed by another event for 1500 c.c. cars on the occasion of the opening of the new Spanish track at Sitges. Once again Zborowski started, and after a magnificent race finally finished third behind his two great adversaries.

G. E. T. Eyston and R. C. Morgan again entered their cars for the Boulogne Grand Prix in 1924. The latter was afflicted with magneto trouble, but Eyston took the lead at once and proceeded to hold it for the first few laps. Then, however, a most unfortunate event occurred; while trying to pass one of the French cars, the latter hit a heap of stones, the tail flew up into the air and the machine landed almost broadside on, with the result that Eyston had to take the ditch to avoid a collision, entirely deranging his steering gear and involving his retirement.

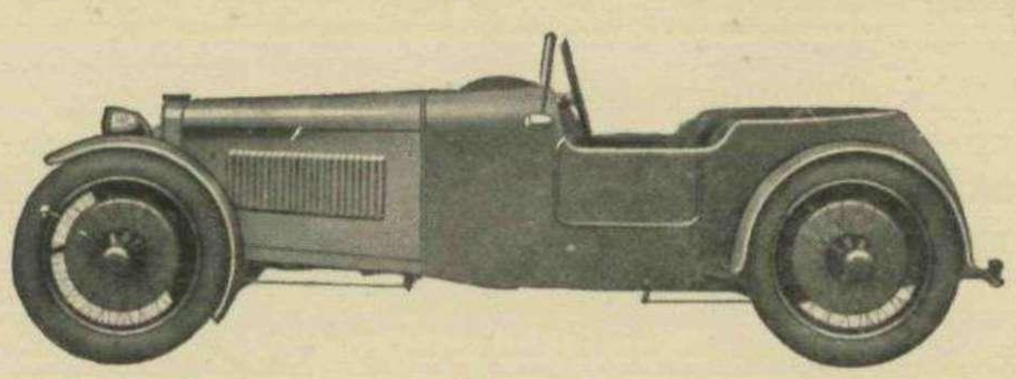
1924 200 Miles Race.

Three Aston-Martins started in the 200 Miles Race of that year, of which two, driven by G. E. T. Eyston and E. R. Hall, were overhead-valve models, while the third was a side-valve car, entered and driven by H. S. Eaton, and fitted with a 3-seater touring body. The race proved a triumph for the new supercharged Darracqs, but at the end of thirty laps E. R. Hall was running fifth. On the fortieth lap, however, a most extraordinary incident occurred. The engine suddenly stopped with an ominous clanking noise, and the conclusion having been reached that it had a broken con-rod, the car was withdrawn. On being examined after the race, it was found that there was nothing wrong with it. In the meantime, Eyston had also retired, a loose oil-union having allowed all the lubricant to leak away and the engine to seize. This left only Eaton's "touring" car in the race, which continued very steadily and finished twelfth. As well as this, J. C. Morgan's car, which had an Aston-Martin engine in an Eric Campbell chassis, ran remarkably well and finished ninth.

In the next year's race three Aston-Martins were entered, the two O.H.V. ones being driven by H. W. Cook and G. E. T. Eyston, while H. S. Eaton again entered his side-valve car. As well as this, however, a car was entered by F. B. Halford, which was called the A. M. Halford and which consisted of an engine with three overhead-valves per cylinder, of the entrant's own design, in an Aston-Martin chassis; while J. C. Morgan entered an Aston-Martin chassis with a Thomas-designed O.H.V. engine. The Aston-Martin were early in trouble, for on the first bend Cook's car got out of control and crashed the railings. Thirty laps later Eyston had also to retire with clutch trouble, and was followed by Eaton. Both these cars were fitted with touring bodies, and the hopes of the *marque* had materially faded after Cook's crash. Halford, in spite of running out of petrol and having to push his car a long way to the pits, finished fourth in the 1500 c.c. class.

This car was entered for the British Grand Prix in 1926, and G. E. T. Eyston also entered an Aston-Martin with an Anzani engine. In the race, however, the latter retired with engine trouble, and Halford, having been running third and fourth for a great deal of the race, was put out with a broken universal joint. The Anzani-engined Aston-Martin appeared once more in the Boulogne Grand Prix in the hands of B. Eyston, but was put out by magneto trouble.

Just latterly Aston-Martins have not been so much seen in the big races; but the entry of three of the new overhead camshaft models in this year's Grand Prix d'Endurance at le Mans marks the appearance of this enterprising English firm in a new field of activity.



THE ASTON-MARTIN IN ITS LATEST FORM.

* * *

GEORGE BROUGH RETURNS TO RACING.

Most motor-cyclists remember the many racing successes of George Brough, the maker of Brough-Superior machines. Five years ago Brough was one of the foremost of our racing men, but he has not figured in speed events since his serious accident in 1923.

Now, however, he has returned to the racing game. This is largely due to the fact that F. W. Dixon, who rode a B.S. in several speed events last year, has joined another concern. Brough, therefore, will himself ride the machine he made for Dixon, and will probably attempt to break the world's motor-cycle speed record—a real example of a manufacturer who puts his trust in his own goods!

THE TARGA FLORIO.

ANOTHER VICTORY FOR BUGATTI AFTER KEEN DUEL WITH ALFA-ROMEO.

BY OUR CONTINENTAL CORRESPONDENT

FOR the fourth time in succession the Targa Florio, the greatest road race of the year, has been won by Bugatti. This time the successful driver was Albert Divo, who is recognised as among the very first rank of French aces, and who handled his car with consummate skill in spite of very little practice on the course before the event. His time of 7 hours 20 minutes 56 seconds falls short of the record set up by Meo Costantini, the wizard of the Madonie circuit, in 1926, by only 11 seconds, and is considerably faster than that of last year's winner.

The race, however, was no walk-over. Throughout the contest a terrific duel was waged between the Frenchman on his 2.3-litre Bugatti, and the Italian champion Guiseppe Campari on his little 1,500 c.c. Alfa-Romeo, who finished less than two minutes behind him in one of the closest races that the Targa has ever provided.

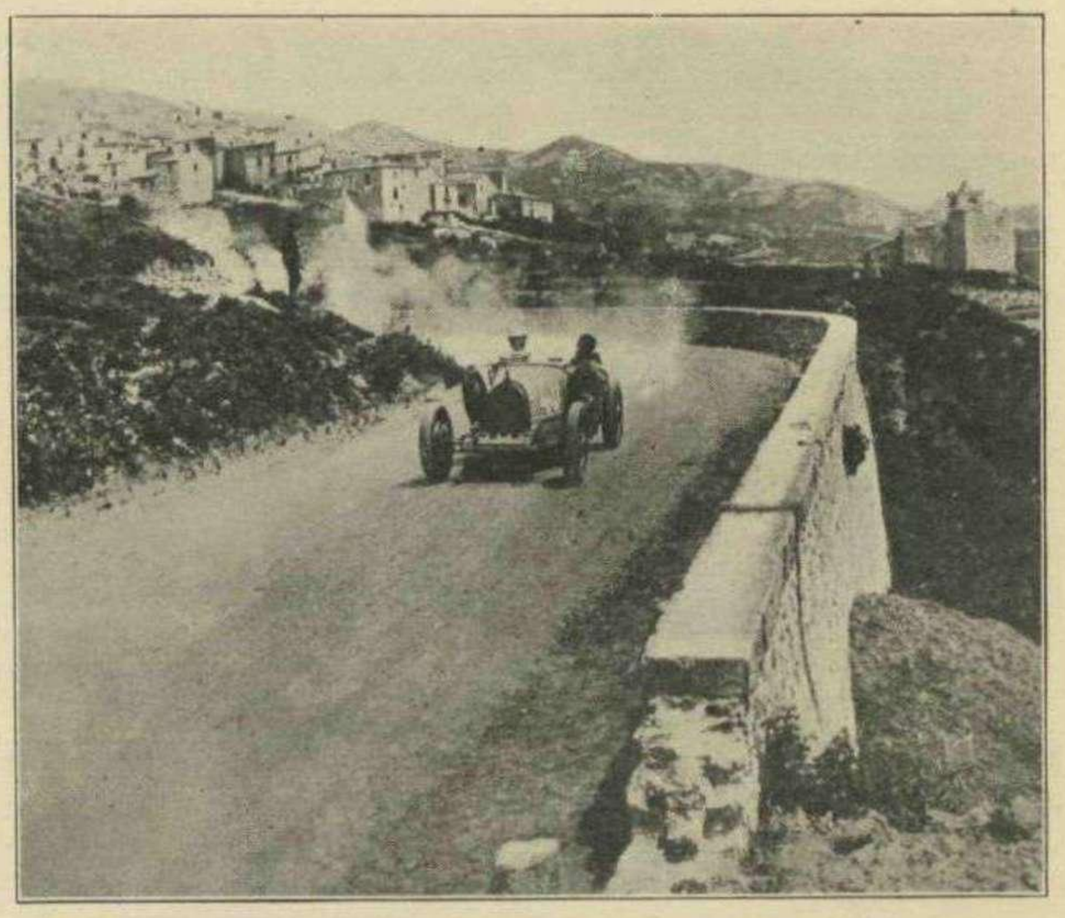
The new Alfa-Romeo, by its victory in the Brescia 1,000 miles' race and on formula in the Essex club's 6-hour race, as well as by this magnificent performance, has made its name beyond all possibility of question.

Behind Campari came one of his compatriots, Count Conelli, on his 1,500 c.c. Bugatti, only 17 seconds later in a race of 335 miles. Fourth place was gained by Louis Chiron on a 2-litre car of the same make, and fifth came the marvellous Czecho-Slovakian lady driver, Madame Junek, who was only nine minutes behind the winner.

The 1,100 c.c. class, which was over three circuits of the course, as opposed to five for the larger machines, was won by Riccioli on a 9 h.p. Fiat sports model, his average of 38.3 m.p.h. being better than that of the car which won the whole event in 1923. Second place was won by a similar car driven by Rallo; it seems that France will have to look to her laurels of invincibility in this class.

Two of the Bugattis, an Alfa-Romeo, a Maserati and a Salmson having been scratched, 37 starters were left for the race. The most dangerous competitors were obviously the official Bugatti team, consisting of Albert Divo on a 2.3-litre machine, Louis Chiron and Count Brilli-Peri on the 2-litres, and Count Conelli and the veteran Nando Minoïa on the 1,500 c.c. racers. Of the amateur Bugattisti, Madame Junek, Lepori and Huldreich Heusser drove 2.3-litre machines; Jules Foresti, Emilio Materassi, last year's winner, and Nuvolari, 2-litres, while Countess Enisiedel, the other lady driver in the race, Verso, Villarosa, Dreyfus, Scianna, Cocuzza, Nenzione and Inglese handled 1,500 c.c. cars.

It was evident that the Bugattis, all of which, by the way, had superchargers, would have as their chief rivals the two 6-cylinder 1,500 c.c. supercharged Alfa-Romeos, driven by Campari and Marinoni. These racers were perhaps more business-like than elegant, as they consisted more or less of a seat on a chassis, of which half was occupied by a spare oil tank instead of a mechanic. Besides them, Silitti handled one of the old 2-litre Grand Prix Alfa-Romeos.



CHIRON'S BUGATTI LEAVING THE MOUNTAIN VILLAGE OF POLIZZI.

The other Italian team were the Maseratis, of which three driven by Ernesto Maserati, de Sterlich and Borzzachini, the well-known Salmson driver, were 2-litre machines, while Marano and Fagioli's cars were in the 1,500 c.c. class. In the biggest class, Mocciaro drove an Auburn and Candrelli a Steyr. The 1,100 c.c. division was made up of four 9 h.p. Fiats, driven by Riccioli, Rallo, Fanelli and Vigo; Biondetti and Casano on Salmsons; a Sangiorgio driven by Ciolino; and two Camens handled by Sirignano and Esposito. The last-named cars are made at Naples, and have 4-cylinder V-type 2-stroke supercharged engines of 1,036 c.c., and independently sprung wheels.

At eight o'clock on the morning of Sunday, 6th May, the first car was sent off on its long journey, followed at one minute intervals by the remaining 36, each eager to win the dual prize, the Targa for the driver and the Florio Cup for the manufacturer of the winning car. By the end of the first round it was seen that the race was going to be immensely keen, for 1 hour 26 minutes after he had been sent off, Louis Chiron was back at the grandstands, and three other cars' times were within a minute of his. The order for the first lap was as follows:—

1.	Chiron (Bugatti)	1h. 26m.	29s.
2.	Campari (Alfa-Romeo)	1h. 26m.	40s.
3.	Divo (Bugatti)	1h. 26m.	45s.
4.	Mme. Junek (Bugatti)	1h. 27m.	2s.
5.	Nuvolari (Bugatti)	1h. 27m.	32s.

THE TARGO FLORIO—concluded.

6. Conelli (Bugatti)	...	...	1h. 27m. 48s.
7. Fagioli (Maserati)	...	...	1h. 28m. 4s.
8. Materassi (Bugatti)	...	...	1h. 28m. 33s.
9. Borzacchini (Maserati)	...	...	1h. 28m. 51s.
10. Minoïa (Bugatti)	...	...	1h. 30m. 33s.

Already the duel between Campari and the Bugattis had begun, and already Madame Junek had proved herself equal to the best men drivers on the terrible Madoine circuit. In the 1,100 c.c. division, Riccioli (Fiat) led Biondetti (Salmson) by one minute.

During the second circuit the battle became even more furious. Madame Junek achieved the marvellous feat of getting ahead of Divo, considered, perhaps, the best of all French drivers, and led into the third round, first of the whole race. Nuvolari's Bugatti broke a piston and Brilli-Peri also was put out with engine trouble. In the 1,100 c.c. division, Riccioli still led, but the Salmson had retired with a broken stub-axle, and the second place was now taken by Sirignano's Camen.

Second circuit order :—

1. Madame Junek (Bugatti)	...	...	2h. 54m. 31s.
2. Campari (Alfa-Romeo)	...	...	2h. 54m. 51s.
3. Divo (Bugatti)	...	...	2h. 55m. 10s.
4. Conelli (Bugatti)	...	...	2h. 55m. 48s.
5. Materassi (Bugatti)		...	2h. 57m. 21s.
6. Chiron (Bugatti)	...	...	2h. 59m. 2s.
7. Fagoili (Maserati)	...	...	3h. 1m. 5s.
8. Borzacchini (Maserati)		...	3h. 1m. 13s.
9. Minoïa (Bugatti)	...	...	3h. 2m. 32s.
10. Maserati (Maserati)		...	3h. 4m. 57s.
11. Dreyfus (Bugatti)	...	...	3h. 5m. 18s.

On the third circuit, Campari, driving like a demon. finally took the lead on his Alfa-Romeo, and Madame Junek still led the Bugatti contingent. This was the final round for the 1,100 c.c. class, and of them all had fallen out except two of the little Fiats. The final result of this class was, therefore :—

1. Riccioli (Fiat)	...	...	5h. 15m. 23s.
			Average 38.3 m.p.h.
2. Rallo (Fiat)	...	...	5h. 58m. 35s.

After Three Laps

The order of the bigger cars at the end of the third circuit was as follows :—

1. Campari (Alfa-Romeo)	...	...	4h. 23m. 17s.
2. Mme. Junek (Bugatti)		...	4h. 25m. 32s.
3. Conelli (Bugatti)	...	...	4h. 26m. 15s.
4. Divo (Bugatti)	...	...	4h. 26m. 38s.
5. Chiron (Bugatti)	...	...	4h. 28m. 33s.
6. Materassi (Bugatti)		...	4h. 31m. 39s.
7. Fagioli (Maserati)	...	...	4h. 34m. 17s.
8. Minoïa (Bugatti)	...	...	4h. 34m. 59s.
9. Heusser (Bugatti)	...	...	4h. 38m. 21s.
10. Dreyfus (Bugatti)	...	...	4h. 41m. 41s.
11. Maserati(Maserati)		...	4h. 44m. 47s.
12. Marinoni (Alfa-Romeo)	...	...	4h. 46m. 56s.

On the fourth circuit, the field began to thin out. Materassi, last year's winner, withdrew his Bugatti, Borzacchini's Maserati suffered from supercharger trouble, and Candrilli withdrew his Steyr, which, however, had never figured very prominently in the race. Foresti was held back by tyre troubles and both Countess Einsiedel and the veteran Minoïa were held up after colliding with the retaining wall of the road. Campari, however, still led, but Divo was coming up. Order at end of fourth circuit :—

1. Campari (Alfa-Romeo)	...	...	5h. 53m. 3s.
2. Mme. Junek (Bugatti)	...	...	5h. 54m. 3s.
3. Divo (Bugatti)	...	...	5h. 54m. 14s,
4. Conelli (Bugatti)	...	...	5h. 55m. 31s.
5. Chiron (Bugatti)	...	...	5h. 59m. 55s.
6. Minoïa (Bugatti)	...	...	6h. 6m. 5s.
7. Fagioli (Maserati)	...	...	6h. 9m. 20s
8. Dreyfus (Bugatti)	...	...	6h. 18m. 10s.
9. Lepori (Bugatti)	...	...	6h. 20m. 33s.
10. Marinoni (Alfa-Romeo)	...	...	6h. 22m. 34s.
11. Heusser (Bugatti)	...	...	6h. 29m. 34s.
12. Mme. Einsiedel (Bugatti)	...	...	6h. 29m. 46s.

As Campari led into the last circuit, it looked as if Bugatti's succession of victories in the Targa was to be interrupted. But such was not to be. In order to save weight, the Alfa-Romeos only carried one spare wheel, and on the last circuit, Campari burst his spare, and had to drive six miles on the rim to his next tyre depot. In the meantime, Divo made a final sprint which took him ahead of Campari and of Madame Junek, who was also passed by Conelli and Chiron.

19th TARGA FLORIO AND 11th COPPA FLORIO.

RESULTS IN FULL.

1. Divo (Bugatti)	...	...	7h. 20m. 56s.
			Average speed, 45.65 m.p.h.
2. Campari (Alfa-Romeo)		...	7h. 22m. 33s,
3. Conelli (Bugatti)	...	...	7h. 22m. 50s.
4. Chiron (Bugatti)	...	...	7h. 27m. 22s.
5. Mme. Junek (Bugatti)		...	7h. 29m. 40s.
6. Minoïa (Bugatti)	...	...	7h. 40m. 21s.
7. Fagioli (Maserati)	...	...	7h. 43m. 25s.
8. Dreyfus (Bugatti)	...	...	7h. 53m. 53s.
9. Lepori (Bugatti)	...	...	7h. 54m. 5s.
10. Foresti (Bugatti)	...	...	8h. 9m. 39s.
11. Countess Einsiedel (Bugatti)		...	8h. 21m. 25s.
12. Maserati (Maserati)	...	...	8h. 22m. 12s.
13. de Sterlich (Maserati)	...	...	8h. 25m. 27s.

Thus ended one of the most thrilling races ever seen on the Madoine circuit. This is Bugatti's second win in the Coppa Florio since the Cup was re-presented by Peugeot in 1925, the other occasion being when Costantini won it in Sicily in 1926. Last year the Cup was raced for in France and won by Aries. The Cup is to become the definite property of whichever firm wins it three times.

The running of another successful race on the Madoine circuit is encouraging to all racing enthusiasts. While this race is run, motor racing cannot be said to be dead. It is only to be hoped that next year's event will see some British entries.

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AN IMPRESSION OF DIVO (BUGATTI) ON THE LAST CIRCUIT WILL BE FOUND ON OUR FRONT COVER.

SPORTING MACHINES ON TEST.

THE 596 c.c. SCOTT SUPER SQUIRREL.

By RODNEY L. WALKERLEY.

OF all the machines on the road the Scott is probably the most distinctive. The unconventional frame is celebrated, and shares with the Cotton the reputation of being the finest road-holding frame on the road, by reason of its constructional principles, which embody a duplex frame of unique design.

It was with real pleasure that I looked forward to road testing the 1928 Super Squirrel, and I can definitely say that the new Scott is like the previous machines were, only more so.

I took over the Scott at the London Depot, 78, Charlotte Street, W.1, on a pouring wet day, and I was pleasantly relieved by a glance at the generous mudguarding of the Super-Squirrel. The whole machine appears to be as weather-proof as a motor cycle very well can be, the engine, gear-box, and primary transmission being totally enclosed in very handsome aluminium casings.

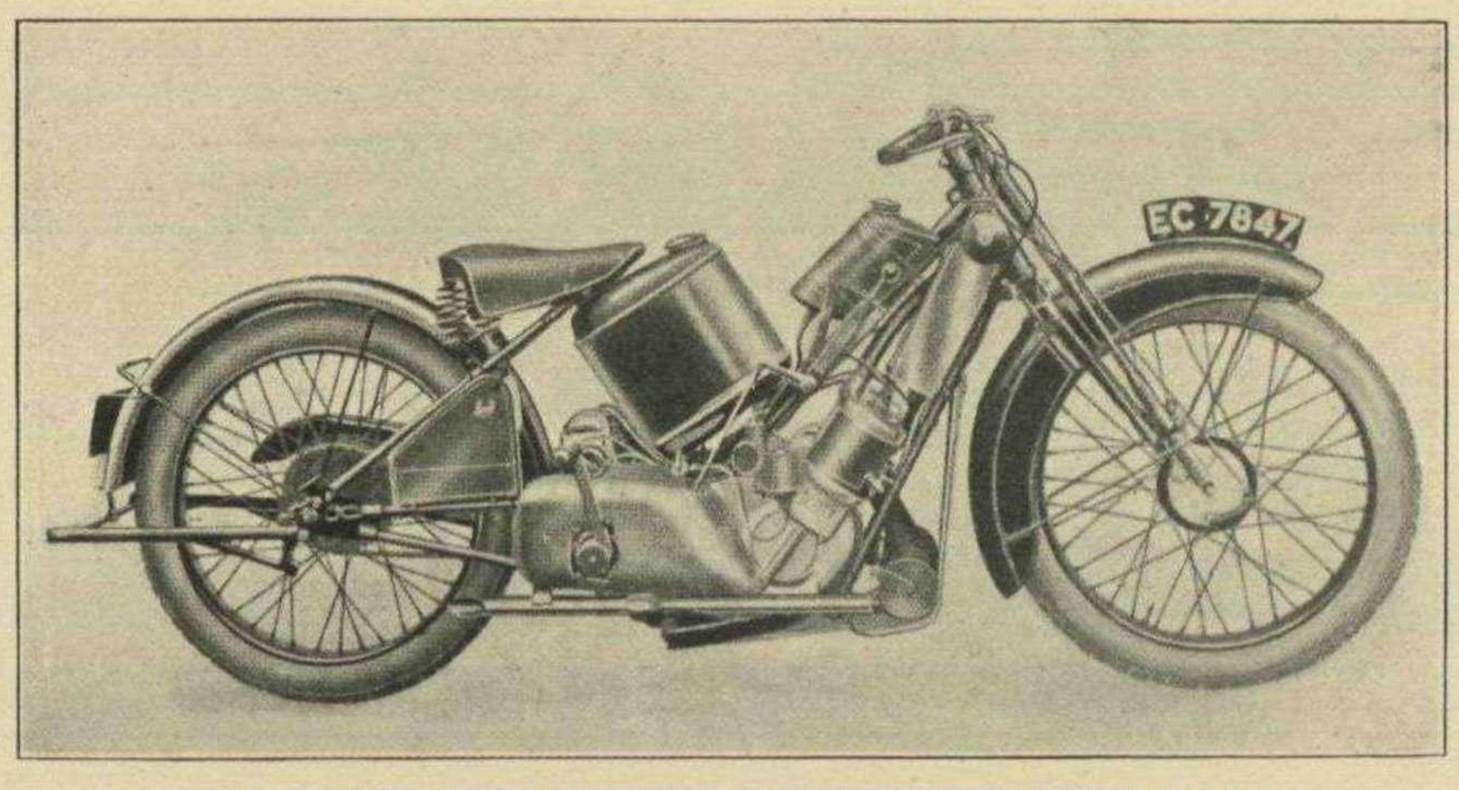
Having adjusted my goggles, and pulled up my coat collar as far as it would go, for the rain was pouring down, I got astride the machine, and with one gentle depression of the starter, the engine woke into life. I was reminded of the extreme "pep" of the Squirrel by a very good example of skid on the road-ooze when I accelerated away, and I drove with increased caution for the rest of the way out of Town, over tram lines at their worst, and various stretches of surface notorious for their lack of "μ," but apart from a gentle sliding if the throttle were jerked open, the Scott was rock-steady.

During my tests I habitually drive fast, and for this reason I opened the oil taps to a greater degree than was strictly necessary, which caused uneven running at speeds below twenty-five. In traffic I found it impossible to avoid four-stroking on any gear, and this is, I believe, inherent in the Scott; and the 1928 Super-Squirrel is no worse in this respect than other Scotts I have ridden in the past, but with tuning of carburetter, and due regard being given to the oil supply, I am certain this erratic running could be cured. But as I personally prefer a machine which runs perfectly from forty-five onwards this tendency did not detract from my pleasure in the least.

No shock absorbers or dampers were fitted to this machine, and I must confess to a little apprehension when travelling rapidly. The weight of the Scott is placed low, very low, and it is because of this that the Scott is not altogether as other machines.

One thing I found, and that is, that the front brake is very, very useful, and simply *must* be used if a stop is urgently indicated. A mere application of the rear-brake—which is very powerful in itself—is not sufficient, for the rear wheel bucks up and down on the road. The front braking mechanism is enough to counteract this, and once the principle of fore-wheel braking is grasped, the arresting of progress is simplified.

While talking of front brakes, the adjustment to the Scott front wheel brake is simplicity itself; but it must be carefully seen that the lock nut is securely tightened,



THE CLEAN AND ATTRACTIVE LINES OF THE THREE SPEED SUPER SQUIRREL.

SPORTING MACHINES ON TEST—continued.

as I suspect the adjustment was slipping once or twice, since I had to re-adjust almost every fifty miles.

It was suggested to me that the Squirrel made an "unholy row." That the exhaust is distinct, I will agree, but if it is noisy, it is a decidedly nice noise, and pleasant to the rider's ears. If it should be thought that the drone is too loud for the common weal, it is quite simple to fit the silencer supplied by the Scott people for this very purpose.

This device is known as the Howarth Silencer and is fitted to the exhaust pipe by a clip. With one of these silencers fitted—which is in addition to the standard expansion box—the result was uncanny. The drone became a purr, and one just fluff-fluffed along. To my mind, the delight of the Scott was gone, one might have been astride an electric motor. Nor does this device cause any appreciable slowing of the engine; the "pep" was still present in full strength. However, this is a matter for individual taste; personally, I would have none of it.

Performance.

The Super-Squirrel undoubtedly has tremendous power. From fifty onwards there is a surge forward when the throttle is propped open which delights the driver. One sweeps along the road in one long, glorious howl, and on corners, the Scott is, of course, famous. High averages are possible across any line of country. I personally rode from Effingham, beyond Brooklands, to my home, via Staines, Colnbrook, Iver and Denham—all notorious "roads"—a distance of quite fifty-two miles, in one hour, twenty minutes, two up, and the last fourteen miles were done in eighteen minutes. The Scott certainly can go.

With regard to speed, I should estimate that this machine bettered seventy under good conditions, as it stood. But the chief beauty is its effortless fifty-five to sixty, when the engine is droning along, revelling in the speed. Flat out, over bumpy roads, I found the machine a handful. I say this advisedly, because over bumpy stuff no machine is particularly docile from sixty-five onwards, and while I say I had my hands full holding the Scott down and in a straight line, there was no danger of an uncontrollable wobble at any time. Once only, in the five hundred odd miles I drove this machine, I encountered a wobble. This arose owing to my taking a hump-backed bridge at speed, and landing with the front wheel in a deep pot-hole.

The wobble was distinct, but momentary, and without diminishing speed it died away.

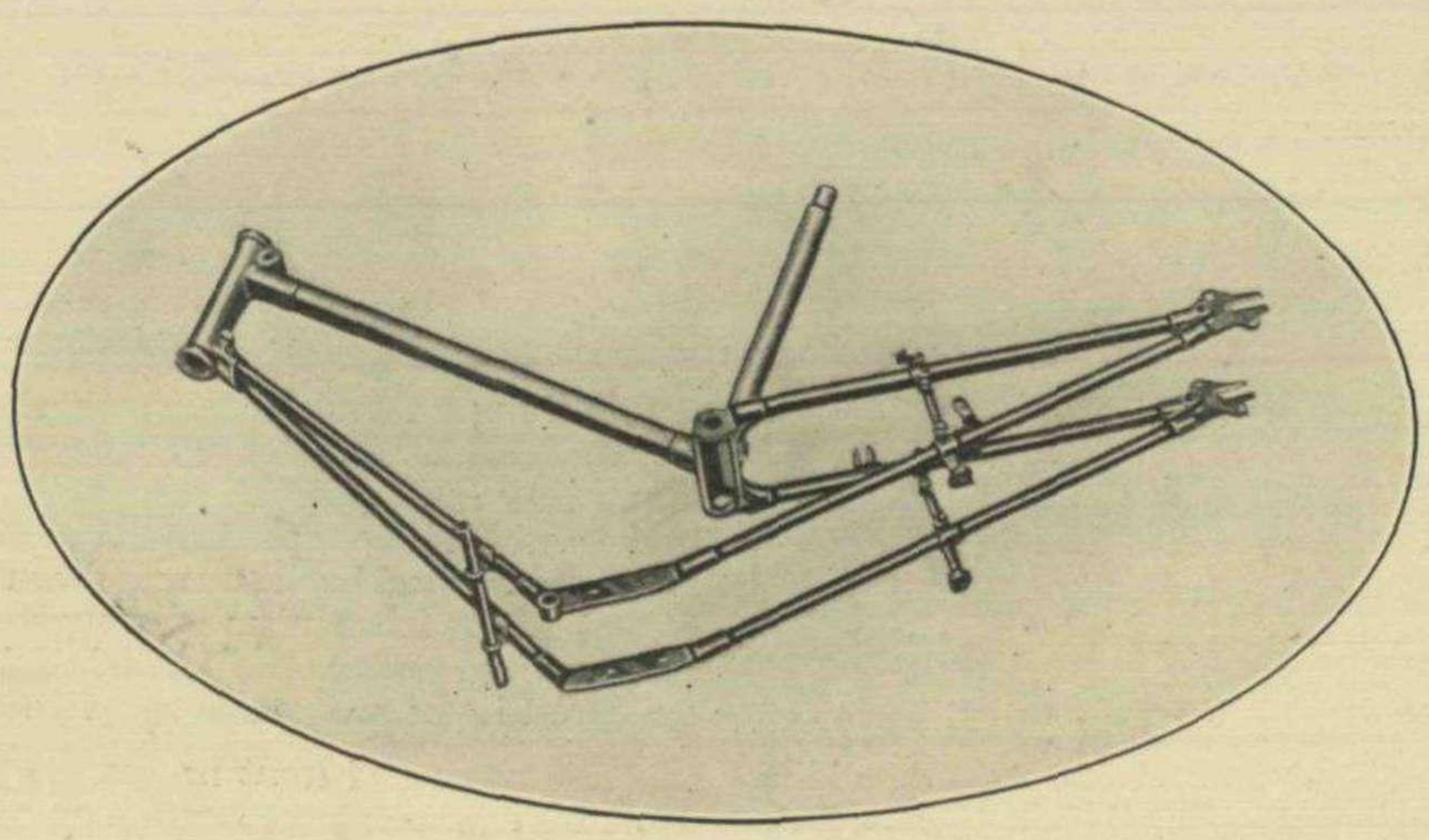
It was possibly this jolt which caused one of the breakages I suffered. I found the engine vibrating badly at high speed, and on examination, the cause was found to be a fracture of the front engine bearer, where the engine was bolted into the forward end of the cradle. I suggest that a shock-absorber would have damped this crash and saved the fracture. The only other casualty was the petrol tank became loose on its seating, and this may have been due to the same cause.

Off the Beaten Track.

I took the Scott over a short colonial section, and through a foot-deep water splash. Over the former its behaviour was exemplary, but the surface was rather drier than on previous occasions, and the Scott made light of it.

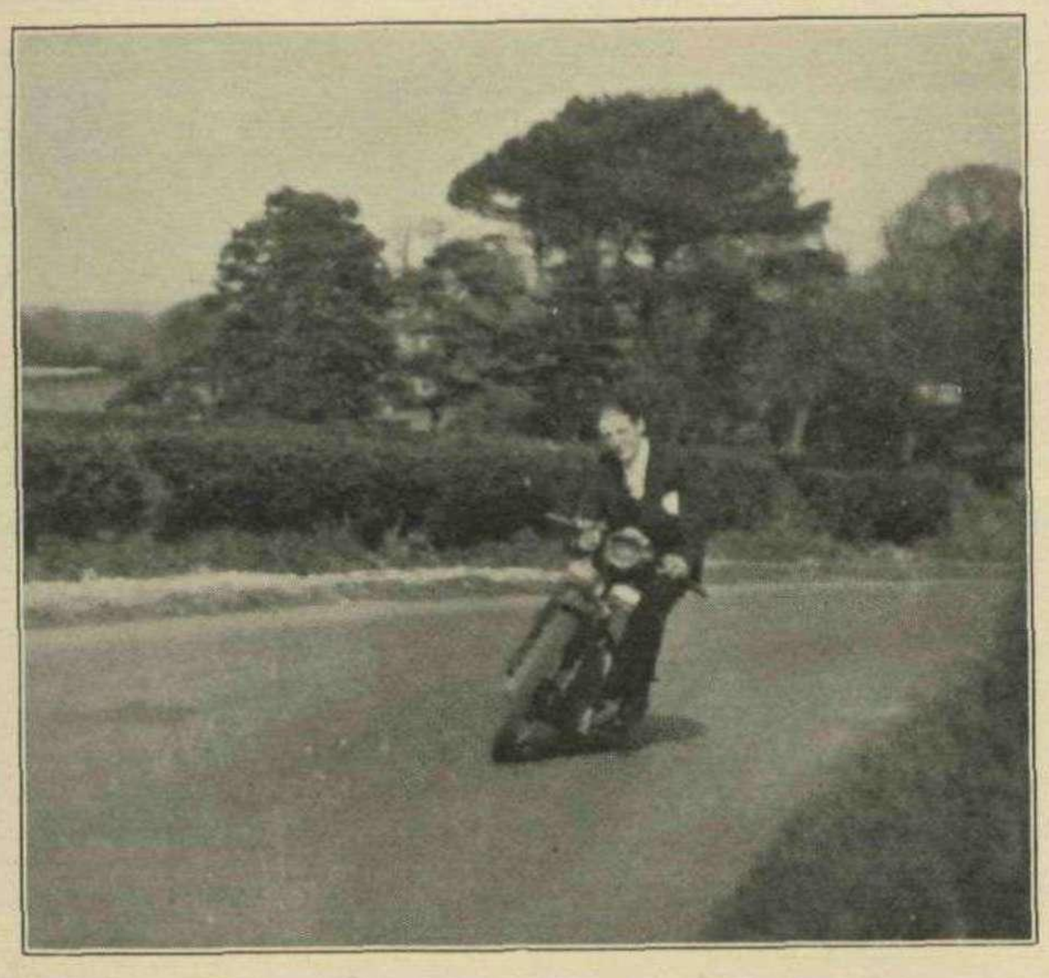
The Squirrel seems to be the ideal machine for negotiating water. The large shield in front keeps spray from the rider, there is no flywheel to fling water onto plugs and carburetter, the magneto is tucked out of harm's way, and the plugs are high and dry, far from the reach of water in the deepest splash likely to be included in a trial.

Driving the Scott is a joy in itself. The gear change is easy and certain, both up and down, and the clutch is reasonably light in use. Starting from cold is not difficult, and I found that liberal "flooding" yielded a start in about four kicks from stone cold. When warm, one gentle depression is quite enough.



THE UNIQUE DESIGN OF THE SCOTT FRAME.

SPORTING MACHINES ON TEST—concluded.



EFFORTLESS CORNERING AT HIGH SPEEDS IS A FEATURE OF THE SCOTT.

Without criticism this sort of article would be useless, and I must append one or two points which I disliked. I found that, for my taste, the gear ratios were too wide. For acceleration bottom was far too low and middle was too high for rapid acceleration from a speed of about fifteen miles per hour. The gap between middle and high, while being excellent for touring purposes, was also too great for sporting needs. However, I am assured closer ratios can be fitted to the customer's own require ments, which is an ideal arrangement.

There certainly should be a shock absorber and steering damper. The forks clashed far too easily, and at speed I felt I *might* get a wobble—I didn't actually, but that was the feeling.

The saddle position could be lower with advantage. Somehow, I felt perched very high on the Scott, and the saddle is some inches above the rear tyre. On the Flying Models, I believe, this has received attention, and I recommend that this be extended to all the Squirrels.

Here criticism ends, all small points, but which might be improved.

A point which needs careful attention from the rider is the regulation of the oil-feed. Two drips with two adjusters are combined in the one pump, low down over the gear-box on the left of the machine, and visible when riding. These drips must be nicely regulated, for an over-dose from one upsets the precise running of the machine. A small item, but worth noticing

To sum up, I found the 596 c.c. Super-Squirrel a delightful machine to handle, capable of the highest speeds possible on an ordinary journey, and perfectly reliable withal. A splendid production upon which the Scott Motor Cycle Co. are to be congratulated.

THE JUBILEE WORM DRIVE CLIP.

Motorists who have struggled with the fitting of new water connections should study the advertisement at the foot of our last page.

The conventional type of clip cannot be considered satisfactory, as in order to obtain adequated pressure, an undue strain is imposed on the nut and bolt.

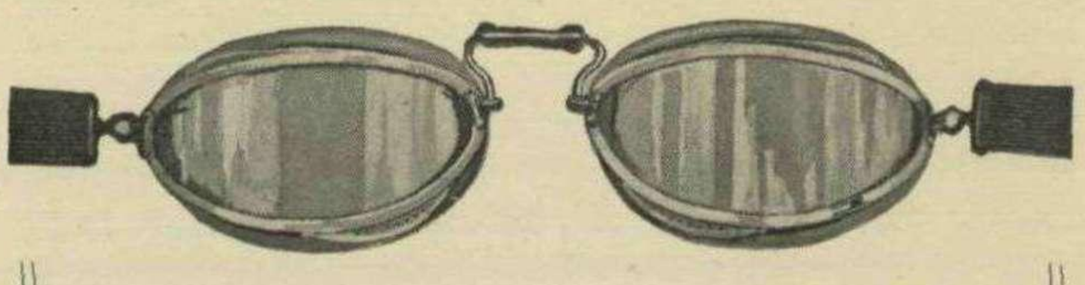
The Jubilee Clip, as the illustration shows, embodies a neat worm which engages with a number of depression in the opposite end of the clip. The strain is thus distributed over a wider area, and it is possible to increase the pressure without danger of breakage. Apart from its mechanical advantages, the Jubilee Clip is very easy to manipulate.

ARBUTHNOT TROPHY TRIAL.

At a meeting of the R.N. and R.M. Sports Control Board and the Auto-Cycle Union held recently, it was decided that this year's Arbuthnot Trophy Trial should take place on Saturday, August 4th, in the neighbourhood of Salisbury.

The Trial will be run under regulations practically identical with last year's event, and it is hoped that on the particular date selected, and with a venue so convenient for the Southern Stations, a large entry will be obtained.

MEYROWITZ LUXOR GOGGLES



MODEL 6 — Price 35/-
also in Triplex - MODEL 4 at 40/-

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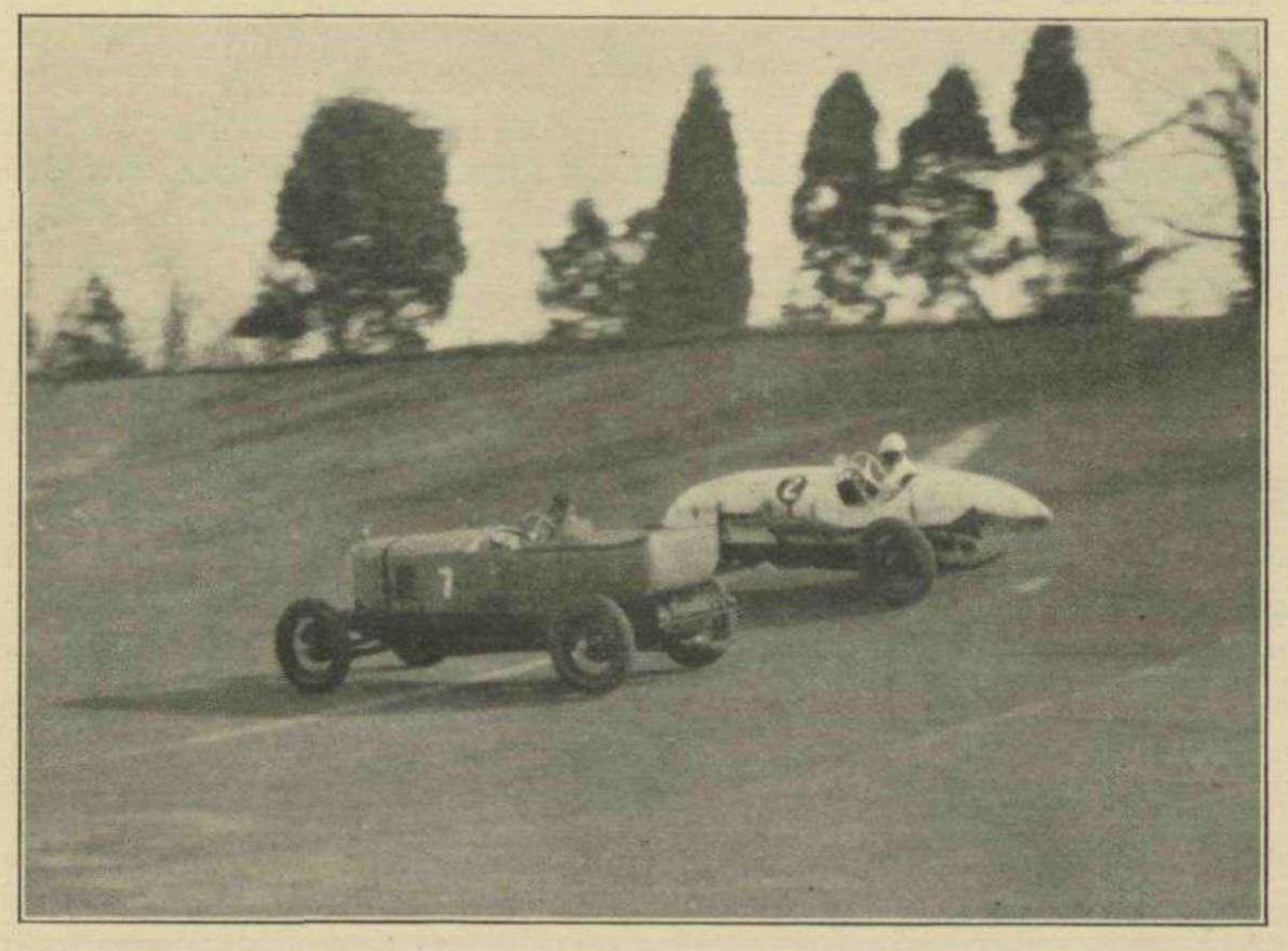
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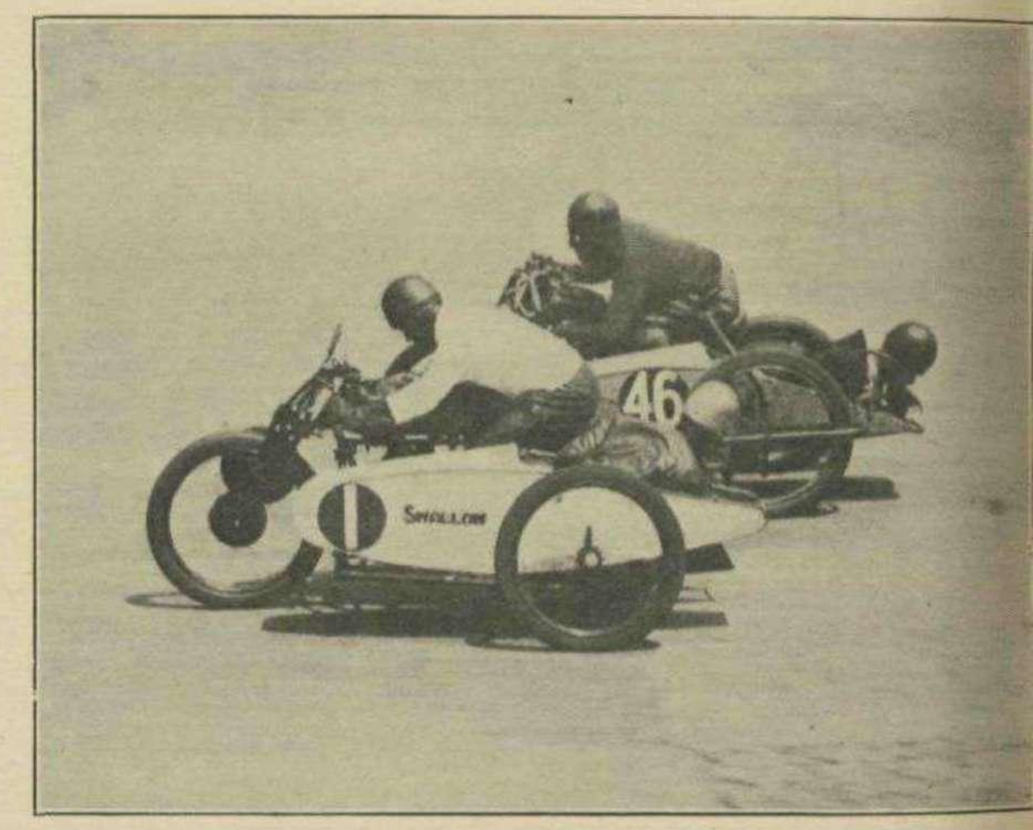
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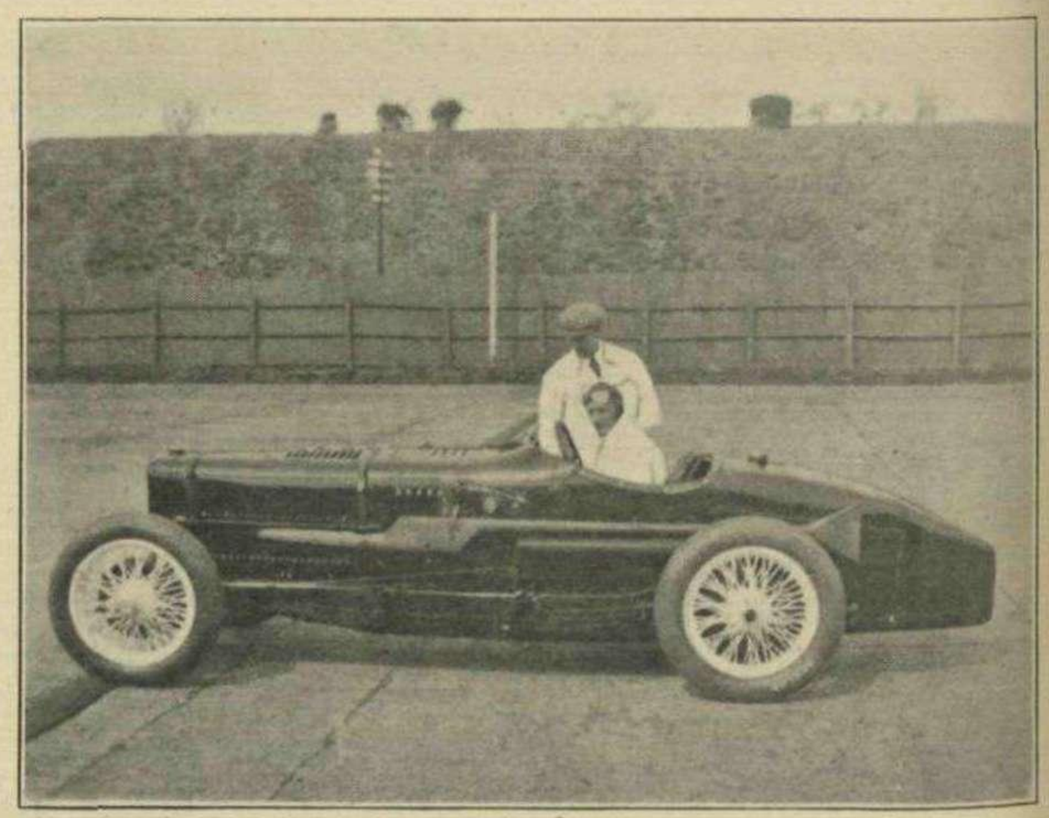
H. W. Purdy on the new Laystall Special Overtaking a Vauxhall at the Easter B.A.R.C. Meeting.



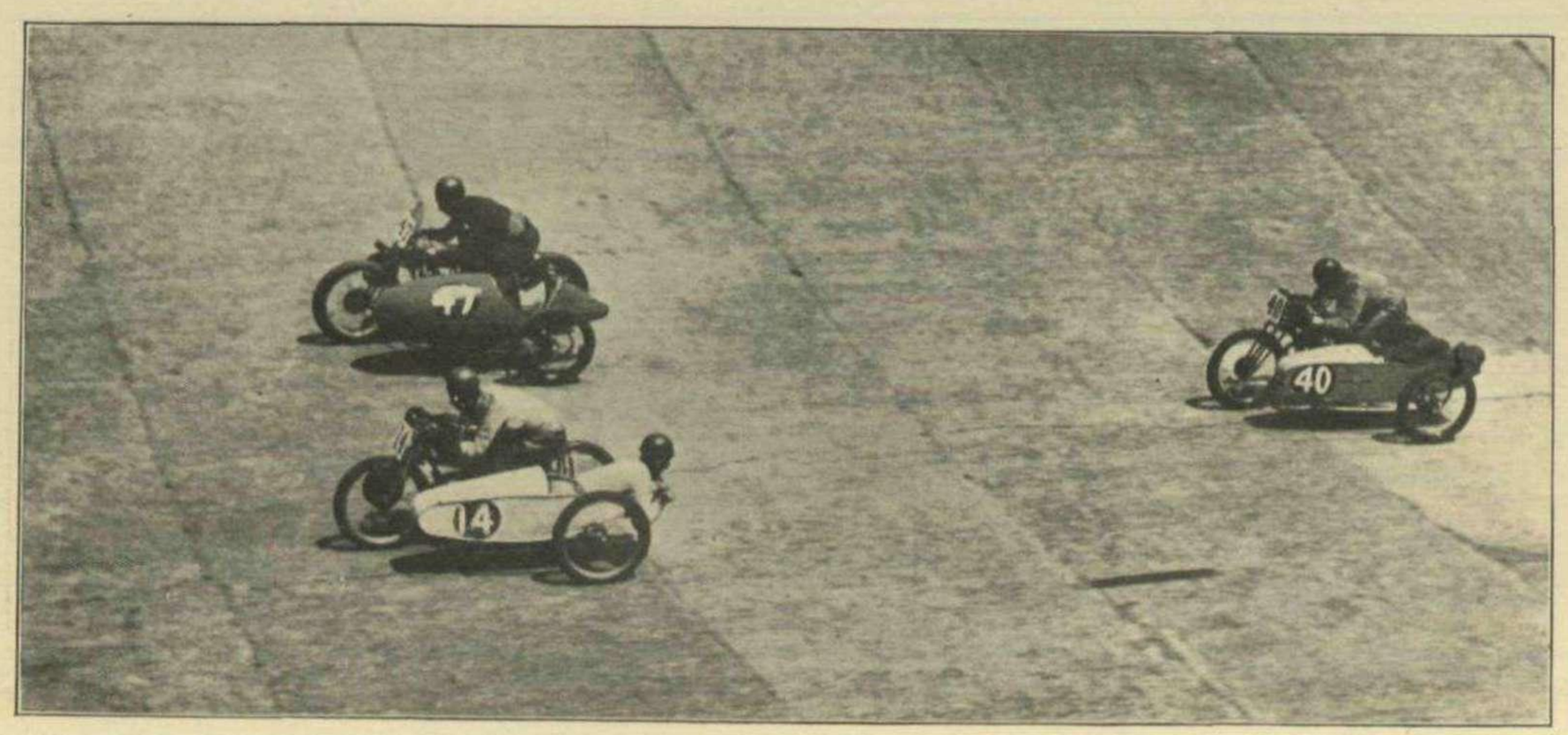
J. Kempster (McEvoy), No. 46 and L. J. Pellat (O.K.), No. in the 200 Mile Sidecar Races.



Competitors at Greenford Dirt Track about to Perform a "Rolling Start."

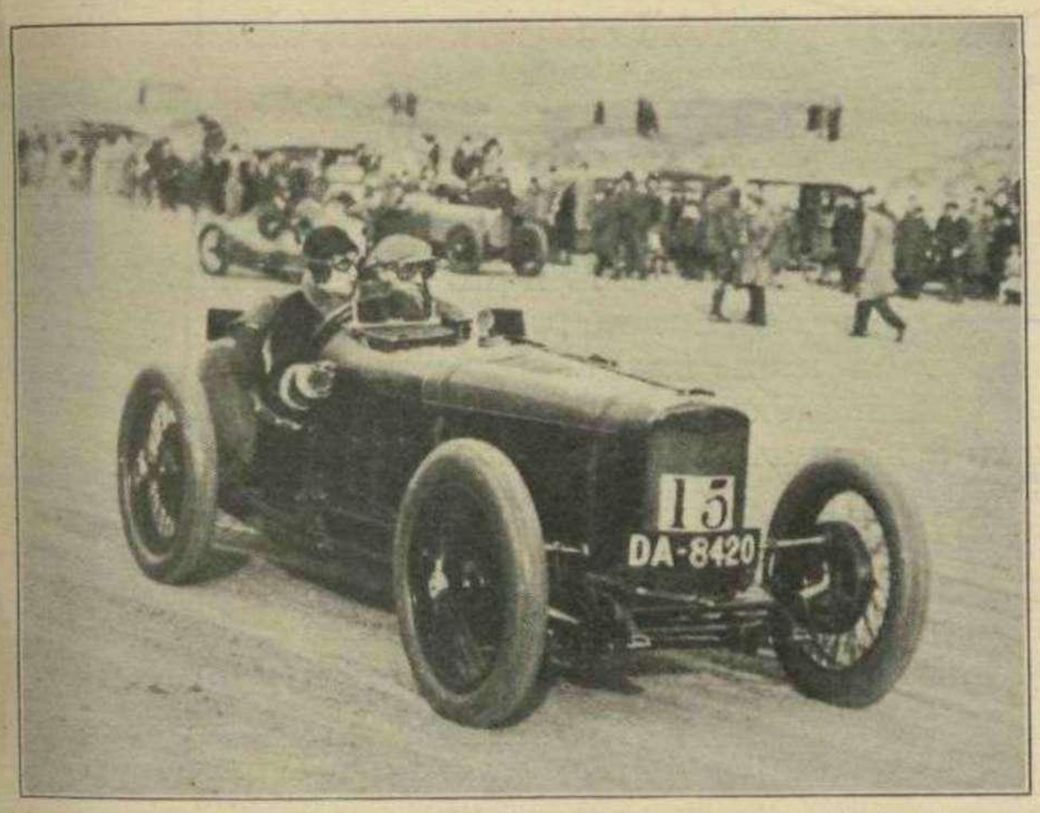


Kaye Don on the 2-Litre Sunbeam with which he Recently Broke Several World's Records.

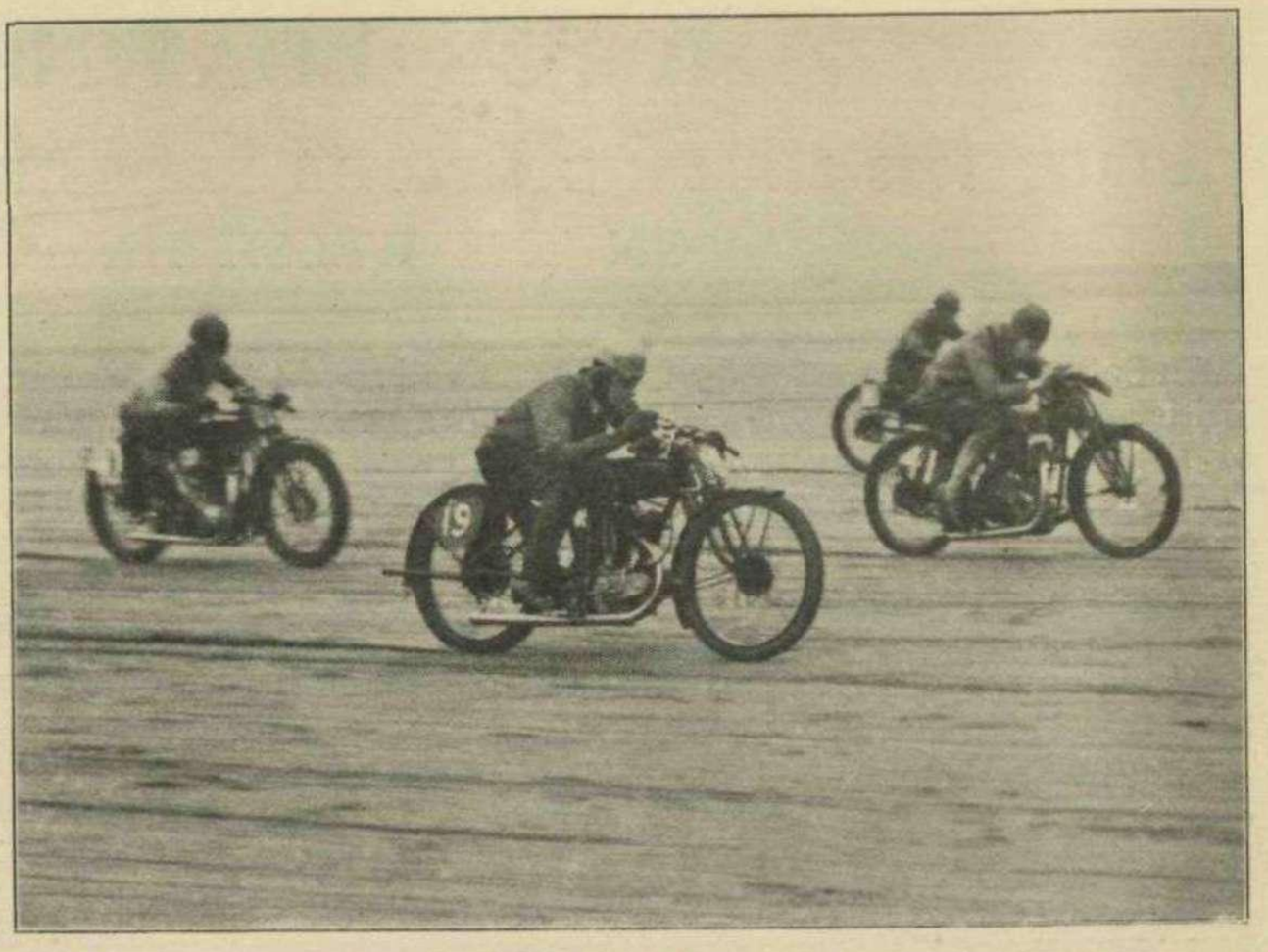


E. C. Baragwanath (No. 47), the Winner of the 1,000 c.c. 200 Mile Sidecar Race, Passing Two Other Competitors.

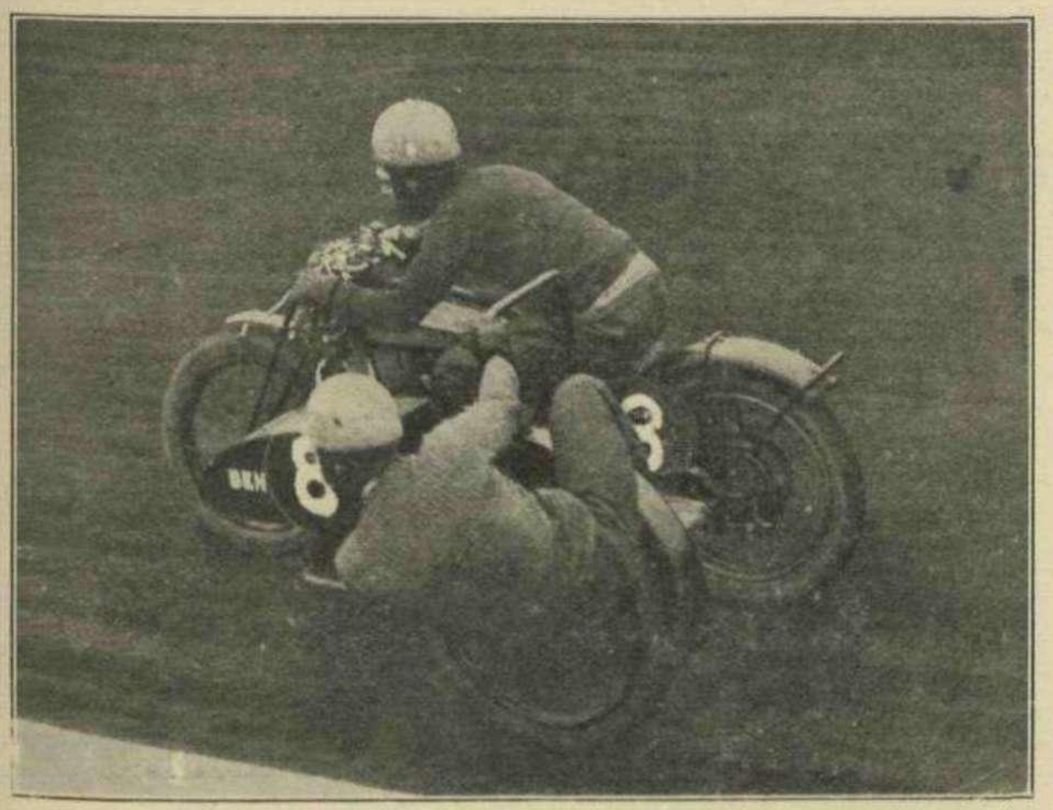
ts in Pictures.



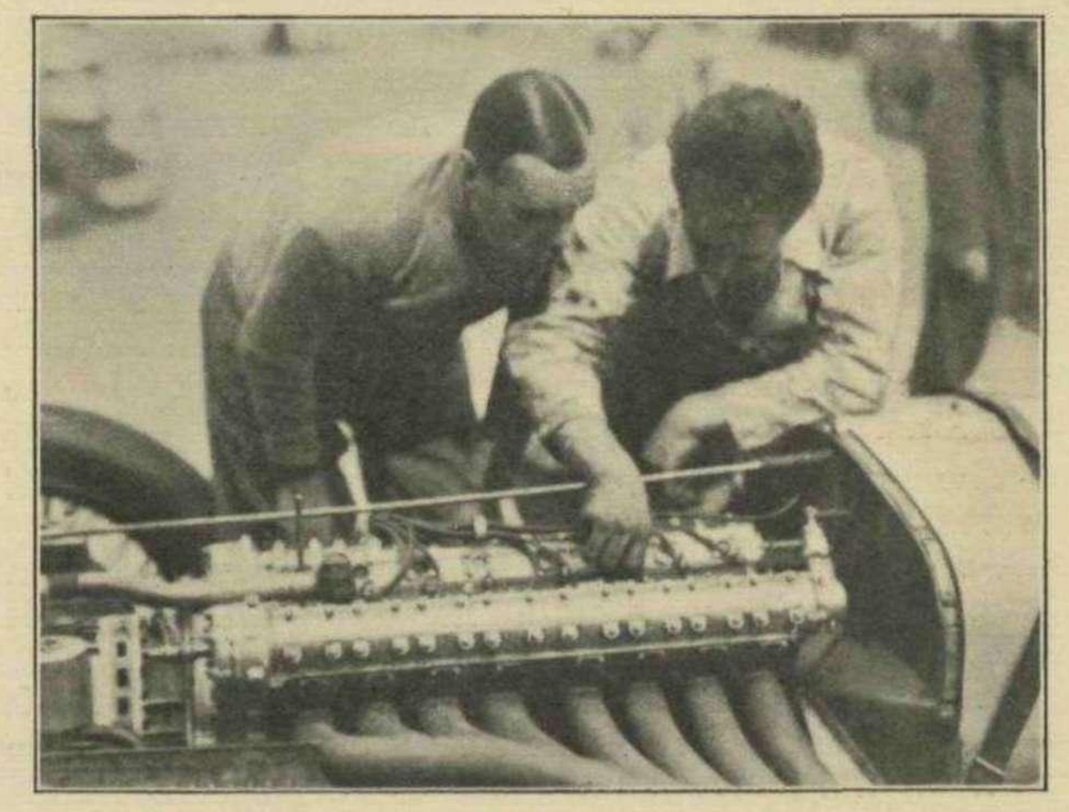
MISS MAY CUNLIFFE, THE BRILLIANT LADY DRIVER, IN HER 2-LITRE SUNBEAM AT SOUTHPORT.



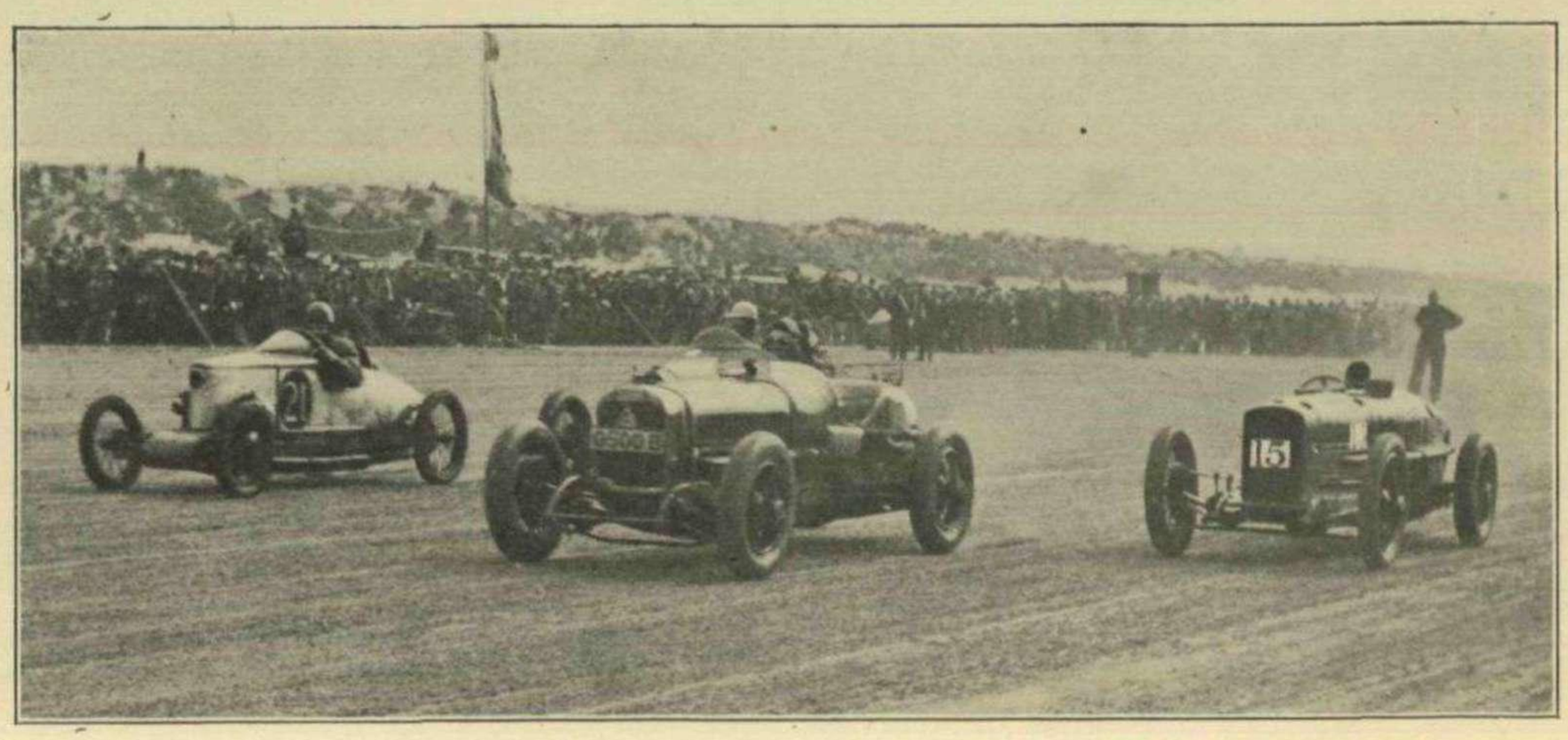
R. F. PARKINSON (A.J.S.), NO. 19, WHO IS A MOST SUCCESSFUL COMPETITOR IN NORTHERN EVENTS.



A. NOTERMAN (TRIUMPH), A DARING SIDECAR DRIVER WHO HOLDS THE RECORD FOR SEVERAL DIRT TRACKS.



CAPTAIN CAMPBELL ATTEMPTING A DIAGNOSIS OF HIS RECENTLY-ACQUIRED 1,500 C.C. DELAGE.



A TYPICAL SOUTHPORT "FIELD" GETTING AWAY FOR A MILE SPRINT.

MOTOR BOATING NEWS.

FIRST 1928 MEETING OF THE BRITISH MOTOR BOAT CLUB HELD ON THE WELSH HARP, HENDON.

On Saturday, April 14th, the Outboard Section of the British Motor Boat Club held the opening race meeting of 1928, when a large concourse of spectators attended, despite the bitterly cold wind, and watched an interesting afternoon's sport.

There were one or two points wherein the organisation lies open to criticism, and attention to these matters would do much to increase popular interest in the meetings.

The starting arrangements seemed rather inadequate, especially in the first race. A large dial ticked off the seconds after the 5-minute gun had been fired, but the starting gun went off two minutes late, although the flag was lowered at the correct moment. Owing to this confusion one competitor, who had been timing his start by stop watch, left the post 19 seconds late, and sundry others, who were cruising about behind the line, made bad starts.

There was a board for the posting of non-starters' numbers, but this was not apparently in use, with the result that there was much confusion as to who was, and who was not, running in the race.

The Press stand was in a good position, which was appreciated by the public, who crowded this section, to the exclusion of several earnest press-men, who wandered about complaining of their inability to see anything.

The arrangements for tea were hopelessly inefficient, and many missed the last race owing to this. Added to which, the unfortunate wights who had been immersed during the racing were quite unable to get their clothes dried, and roamed about shivering in the bitter wind.

The racing itself was not thrilling, except for the finish of the first race, which was really close, although the turns at the buoy were sometimes very spectacular.



MISS Z. LIVERSEY'S SPITFIRE IN THE LADIES' RACE.

The first race was for Class B motors—up to 350 c.c.—and was to be run in two heats, owing to the excellent entry of 26. However, 14 of these proved non-starters, and the race started in one final at 3.20 p.m.

C. D. Fair ("Nize Babey," Watermota) made a bad start owing to a misunderstanding, but the others got away fairly well. It was at once obvious that, owing to the choppy water and strong wind, the speeds would be low, and flat bottomed craft found the going difficult. P. C. Parker ("Skimduck," Lockwood) overturned early in lap one, while "Miss England"—Elto—retired on lap 2.

On the turn at the end of lap 1 W. T. Fry ("It"—Lockwood) was leading by 200 yards from "Wow"—Elto, with Fair (British Maid II.—Watermota) in third place—an excellent effort considering his very bad start.

At the end of lap 2 Fry was still leading, but Fair was now in second place; "Wow" followed third, and stood on her tail at the turn. The finish was very close, "It" winning by not more than three lengths from "British Maid II," with "Wow" a poor third.

RESULT RACE I.

1. W. T. Fry's "It" (327 c.c. Lockwood), 23.5 m.p.h.
2. C. D. Fair's "British Maid II" (347 c.c. Watermota), 23.26 m.p.h.
3. C. Harrison's "Wow" (322 c.c. Elto), 21.95 m.p.h.

Race Two was a Women Drivers' Race, Class B, and out of seven entries four came to the post. All made fair starts except one, who stopped her engine at the post. "Wow," driven by Miss Shillan, took the lead and held it to the end; a rather dull race.

RESULT RACE II.

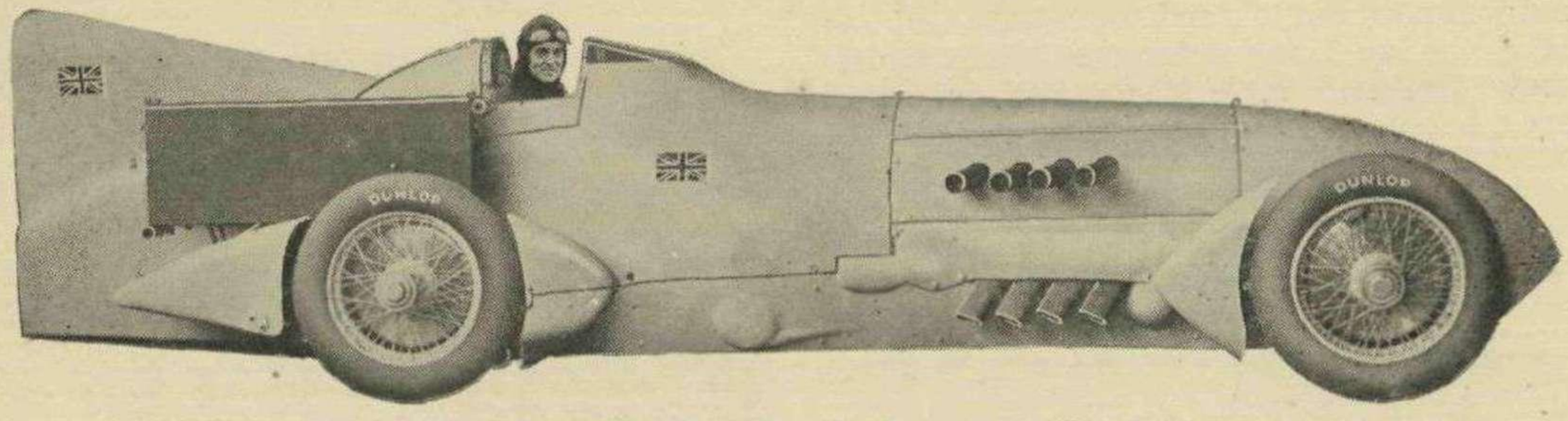
1. Miss G. Shillan's "Wow" (322 c.c. Elto), 17.45 m.p.h.
2. Miss Z. Liversey's "Spitfire" (322 c.c. Elto), 15.96 m.p.h.
3. Miss Joan Fry's "It" (327 c.c. Lockwood), 15.10 m.p.h.

At 4.20 p.m. we had a diversion in the form of a combat between an aeroplane and a motor-boat, the object of the former being to "bomb" the latter with flour-bags.

The Moth used was piloted by Capt. C. D. Barnard, and the boat was a Chris-Craft Cadet piloted by Mr. Arthur Bray. The motor-boat proved astonishingly fast and quick on the turn, skidding round in her own length when at full speed. The aeroplane was unable to cope with its elusive foe, and failed to get nearer than 20 yards. However, a bomb exploding 20 yards from a motor boat would be sufficiently unpleasant. Altogether an interesting display.

After an alleged tea Class C raced in two heats. Five started in the first heat and two entered in Heat 2 started in Heat 1 as well. Heat 1 was won at the good speed of 26.79 m.p.h. by "Miss Chief." In Heat 2 "Zion" competed, although she should have appeared in Heat 1, showing that organisation has still to be improved.

"Baby Mo II" burst early in the race, and the winner proved to be "Cyclone," at a speed of 28.04 m.p.h. (fastest time of the day).



CAPTAIN MALCOLM CAMPBELL

in his wireless telephone message to "The Evening News" on Feb. 20th, said :

"The tyres, which had a terrible gruelling, finished up absolutely cool. I didn't have to change them between the runs. I just turned round and went straight back across the line."

The wide experience gained through these great racing tests is built into every Dunlop Tyre you buy!

FIT DUNLOP TO YOUR CAR

The standard by which all tyres are judged

C.F.H. 105

MOTOR BOATING NEWS—concluded.

The final was next run off, and proved the best race of the day. On lap 1 the order was "Miss Chief," "Ace," and "Cyclone," while Miss Spicer, on "Flash I," stopped her engine and was a lap behind. On lap 2 "Miss Chief" and "Ace" were close together with "Cyclone" dropping back. On lap 3 "Cyclone" turned over on a corner and immersed the pilot. The finish was very close, "Miss Chief" winning by 1-3/5th secs. from "Ace," C. D. Fair doing well to secure third place with his 347 c.c. motor "British Maid II."

RESULT RACE III (CLASS C).

1. R. Gibbs' "Miss Chief" (486 c.c. Evinrude), 27.11 m.p.h.
2. A. H. Browning's "Ace" (486 c.c. Evinrude), 27.03 m.p.h.
3. C. D. Fair's "British Maid II" (347 c.c. Watermota), 24.32 m.p.h.

DEVELOPMENTS IN OUTBOARD RACING ON THE CONTINENT.

In Belgium outboard races for the coming season have now been organised to take place in Antwerp, Ghent, Liege, Namur and Ostend, and in Holland several races have been organised by the two leading Dutch motor boat clubs.

In Germany lt looks as though races will be held in different towns almost every week—such is the tremendous amount of interest in this new sport there. One long-distance race is being organised along the Rhine, and although the exact starting and finishing times have not yet been settled, it will be a two day's race and about 150 miles in length.

In Austria four Outboard Race Meetings have been organised to take place within the next two months, and other races will probably be organised as soon as one or two clubs are formed.

One particularly interesting long-distance race which is on the cards is from Vienna to Budapest, a distance of 163 miles. I also understand a race is being organised from Pressburg to Vienna, a distance of 35 miles.

Sportsmen in Czecho-Slovakia are also commencing to take an interest in Outboard Motor Boating. Outboards have been sold there during the last few years but in rather small quantities. Now, however, in the south on the numerous lakes in that district, and also on the Danube, outboard motors are selling more freely, and one or two enthusiasts are endeavouring to organise race meetings during the coming season in that region.

Outboard motor racing is also bringing a great deal of attention to the utility of outboard motors as an auxiliary for yachts, and quite a number of ordinary "Service" models for pottering around are being sold to yachtsmen who in the past have not given any thought to utilising the outboard motor instead of oars.

Besides the growing popularity of outboard motors in the above-mentioned countries, it will interest readers to know that outboard races have actually been organised in the following European countries :—Finland, Norway, Sweden, Denmark, Latvia, Poland, Roumania, France and Switzerland.

ELTO PRESENT PRIZES FOR OUTBOARD MOTOR-BOATS.

The Elto factory, in order to add zest to Outboard Motor Boat Racing, have offered several big cash prizes for the best official time in competitions made with the Super Elto 4-cylinder "Quad" "D" Class Motor, and the Super Elto Twin Cylinder "Speedster" "B" Class Motor. The grand prize is to be $1,000.00, approximately £200, and will be awarded to the holder of the best official time in races with the Super Elto "Quad."

To the second best official time with this model, a prize of $500.00 will be awarded, i.e., approximately £100. A further prize of £100 will be given for the best official time in competition with the Super Elto "Speedster" Model and a second prize in this class will be $250.00, i.e., approximately £50.

The speed records covered by these awards must be under International Motor Yacht Union rules. The period of the contest began on May 1st and will end on October 1st, 1928.

It will also interest readers to know that their factory and English organisation pledge themselves not to compete for these prizes, and, furthermore, will not extend any special aid to any owner which is not equally available to all owners who wish to try for these prizes.

This means that every "Quad" and "Speedster" owner will have an equal chance of winning these prizes.

* * * *



A Competitor in the Recent Brighton and Hove Speed Trials.

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". . . . . is, of course, a classic . . . . a historic document . . . . every keen motor cyclist will enjoy each page of it."—MOTOR CYCLING.

RADCLYFFE & HUTCHINGS, LTD.,

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SOME IMPRESSIONS OF AN UNCONVENTIONAL FRAME.

THE DUPLEX STEERING O.E.C.

By E. B. N.

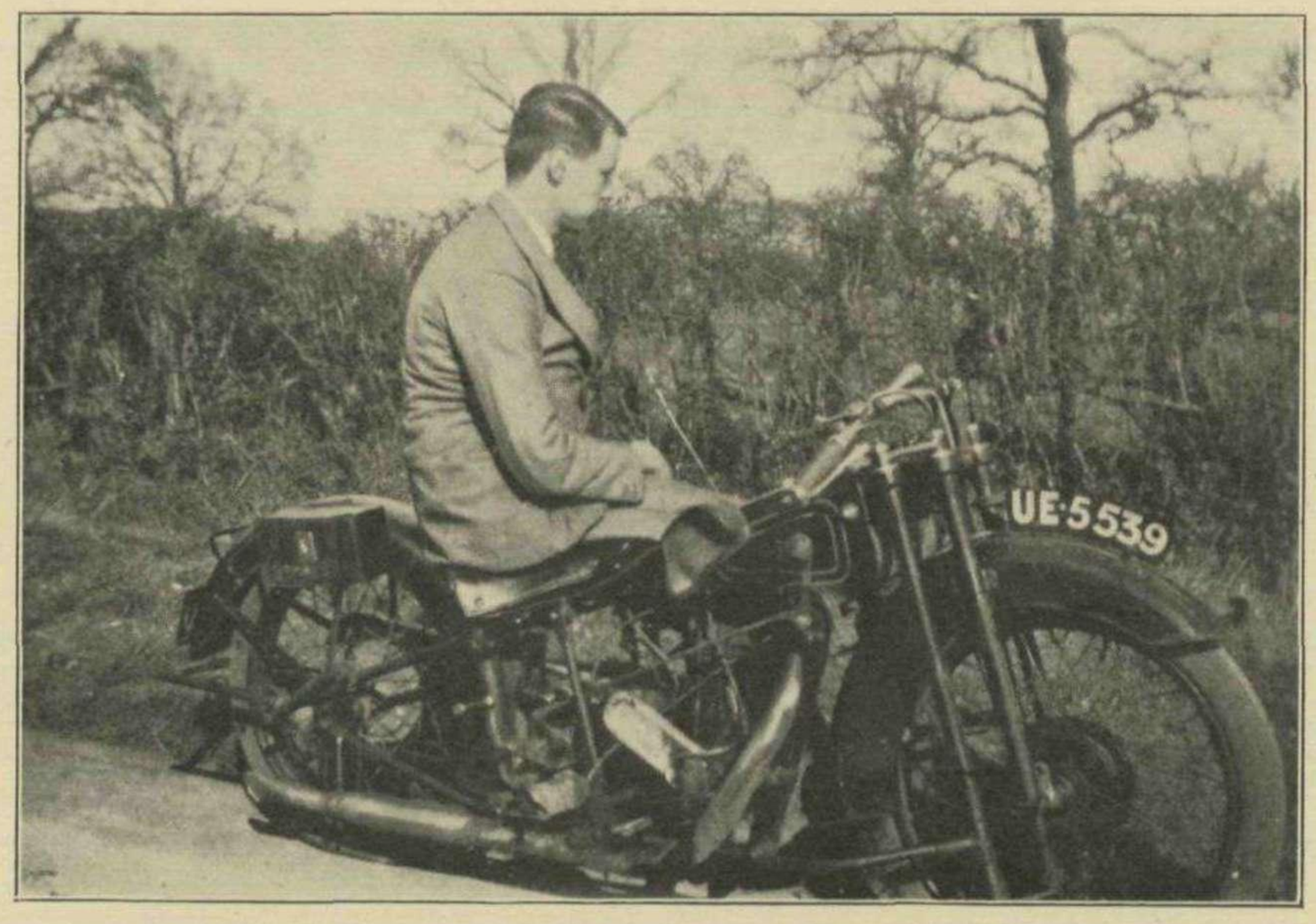
I ordered the model in question last Show, greatly against the advice of my friends—technical and otherwise—who told me that it wouldn't steer; that it ran out of track ; the hind quarters were always off the ground ; with the aforesaid result—I ordered one.

It was delivered to me at the end of last January, and since then it has moved about 4,000 miles—100 miles a week regular—to and from work, in all weathers and an odd jaunt or two up to Town or the Track on the week ends.

I got the bus about six o'clock one Friday night, fitted it with a flash lamp and rode it straight from Coventry to Twyford non-stop, a distance of 83 miles, on a frosty—a very frosty—night.

To continue, directly I got going on the road the superior steering at once became apparent, and let me say now, once and for all, I shall never, never go back to the old 6 in. length single head perched above the front wheel, flexing and wobbling at the smell of a pot hole or corner ; the steering is excellent and honestly and truly, I couldn't ask for a better, and all who have tried it have enthused on this point, and agreed with me.

My first experience of a skid was on the aforesaid night when taking a corner slightly faster than the surface considered decent. The tail started to swing outward and I pursued a diagonal course round the bend, but to my amazement, the model just straightened out and continued on without the suspicion of a wobble or



SHOWING THE DETAILS OF THE DUPLEX STEERING GEAR.

The manhandling of the model is somewhat difficult at first, owing to the balance and one or two of my experienced friends promptly fell over it on first trial ; but it becomes simple after a day or two. The lock, which is not all that could be desired when foot slogging, becomes ample when riding owing to the ease with which the machine can be heeled over to any angle. I can ride round in an 18 feet circle, which is more than sufficient for any town or hairpin. The lock can be greatly improved by replacing the large valenced guard for a sports type guard, as the large guard restricts the movement.

reactionary skid. All the time I have had the bus, I have never had a wobble, in fact, it can't wobble ; you can ride along hands off and punch as hard as you can either end of the bars and simply nothing happens, the bus just " shivers" and goes straight on. As far as skid cornering is concerned it is great ; one can go round a dusty corner in a *front* wheel skid, just like a car, and provided you don't try to correct it by straightening out in a hurry it simply takes grip as the corner is rounded and one continues on as I have already said without any wobble.

There is a left-hand bend I go round every morning

IMPRESSIONS OF AN UNCONVENTIONAL FRAME—continued.

on the way to work which can be taken at 40-50 and necessitates the model being leaned over to an angle of about 45° ; the front wheel completely ignores half-a-dozen pot holes on the corner, and the back just moves two or three inches to the right over each hole and that is all!

I tried some broadsiding on a cinder track the other day and provided the back wheel is kept revolving the model goes round the circle definitely in a real broadside with the front wheel on the opposite lock, until you wear your left shoe through or it comes off, as mine did!

A rumour is abroad that the model will not steer at slow speeds ; to disprove that statement I am often having " slow " races with my critics ; I can beat them, or at least they beat me, by yards in about 20 yds., or they subside. I sometimes find some slight difficulty in manoeuvring round the Arm of the Law when they stand on the far corner and make you go round them to turn right, if you know what I mean.

As far as pot-holey roads are concerned, they can be traversed at any speed you may choose, even the wheel-buckling variety, and except for sundry Ford-like noises in the interior (of which more later), one continues blithely on without any wobble or uncertainty whatever. There is a certain amount of back wheel bounce over rough roads, only noticeable by the spasmodic revving up of the engine and the consequent loss of speed, but I think this is entirely a case of riding position; you see, you can't have your cake and eat it, so to speak, and to obtain a low riding position with the consequent low c. of g., the saddle must be placed forward to miss the rear wheel, and to keep the rear wheel on the ground, you must sit on top of it to keep it down. Hence, the track racing position.

N.B.—I have dwelt rather lengthily on the steering and road holding capabilities of the model as these are undoubtedly its most interesting and unique features ; but let us now disintegrate the model and examine it in detail from the mechanical and technical points of view.

Starting at the forward end, the 27 × 2.75 Dunlop all-Rib shows no appreciable wear even for 4,000 miles which speaks well for the tyre and the front springing arrangement of two barrel springs accommodated in the two front tubes ; these could be slightly stronger and I am thinking of fitting a Hartford from the hole over the off-side spindle-rest to the tube above, to counteract an occasional pitching.

The forks are attached by four flat links to a similar fixed rectangle on the frame as shown in the accompanying photograph. *En passant*, it would be better if these links were braced vertically or made T-shaped as the strain is vertical rather than horizontal. These links work in cups and balls, which must have been made of very inferior steel as they have now worn " flats " in the vertical position and made the steering come out of the straight with a jerk. I am replacing them with Timken Taper Roller bearings.

The tank, such as it is, is a wierd and Heath Robinson looking contrivance, precariously suspended by thin strips from the duplex top rails and a small quart oil tin stuck in the top which rattles on the tank at every opportunity. The whole, and a lot more, is covered by an enormous tin canopy, which covers a multitude of sins, and doesn't fit and does not go far enough down the front to cover the mess of strips and petrol tin, which, by the way, holds 1½ gallons. The general effect, when viewed with any scrutiny, is far from pleasing.

The engine, an excellent job (of which more later), is suspended by (God forgive them) 3/32 engine plates ; the front plates, or rather wafers, are suspended in turn by two long thin bolts clipped to the duplex front down-tubes and distance pieces which hang over the bolts like quoits. The Burman box and M. L. Magneto all exist on the rear plates, which extend right away back to the seat-pillar, like a suspension bridge, and when you kick over, the whole contraption bends and flexes in a most alarming manne. The box fixing isr, or rather was, made of aluminium, and consequently the first time I tightened up the bolts it cracked all over. I have made a steel one which is certainly better and seems to steady the plates a little ; but I am making some new engine plates of ¼ steel and some respectable bolts and fixings, and dropping the engine 1¾ inches in the frame—it is far too high—and exchanging the box for one having a bottom fixing, giving room for a seat-pillar oil tank and a decent petrol tank.

The foot-rests are bolted on to two fan-like plates, drilled for six positions, only two of which are available owing to the unique design of the brake-rods and stays in the vicinity. The tool-box on the back mudguard suspended from the valence has already fallen off owing to insufficient support.

The brakes, two 6 in., front and rear, work well enough if kept in good order, but the front is worked by Bowden wire from the right foot and bottoms on the exhaust pipe unless kept right up, and then requires such force that you have to stand on it to feel the brake at all. I am fitting up a rod and lever with only a 6 in. length of cable at the far end, which should be more efficient.



AN EASY AND NATURAL RIDING POSITION IS AN O.E.C. FEATURE.

THE 200 MILE SIDE-CAR RACES.

This year's " 200 " sidecar races were rather dull and uninspiring, as this event usually is. It was enlivened by a long duel in the 600 c.c. class between Le Vack (New Hudson) and Denly (Norton), until the former blew up. The Byfleet was the scene of two rear-crashes Kempster had the front down tube of his McEvoy come in half, and Baldwin's sidecar became unattached standing on end amid a cascade of sparks.

The big twins, as usual, were very disappointing, and the 600 c.c. winning speed was nearly five miles an hour faster than the 1,000 c.c.

Results as under :—

350 C.C. RACE.

1. F. G. Hicks (348 Velocette), 70.84 m.p.h. 2 hr. 50 min. 39 4/5th secs.
2. P. J. Ashton (348 Chater-Lea). 68.31 m.p.h. 2 hr. 57 min. 27 secs.
3. F. A. Longman (346 New Hudson), 65.87 m.p.h. 3 hr. 3 min. 59 secs.

Hicks broke the 3 hour record in Class B/S, at 70.79 m.p.h.

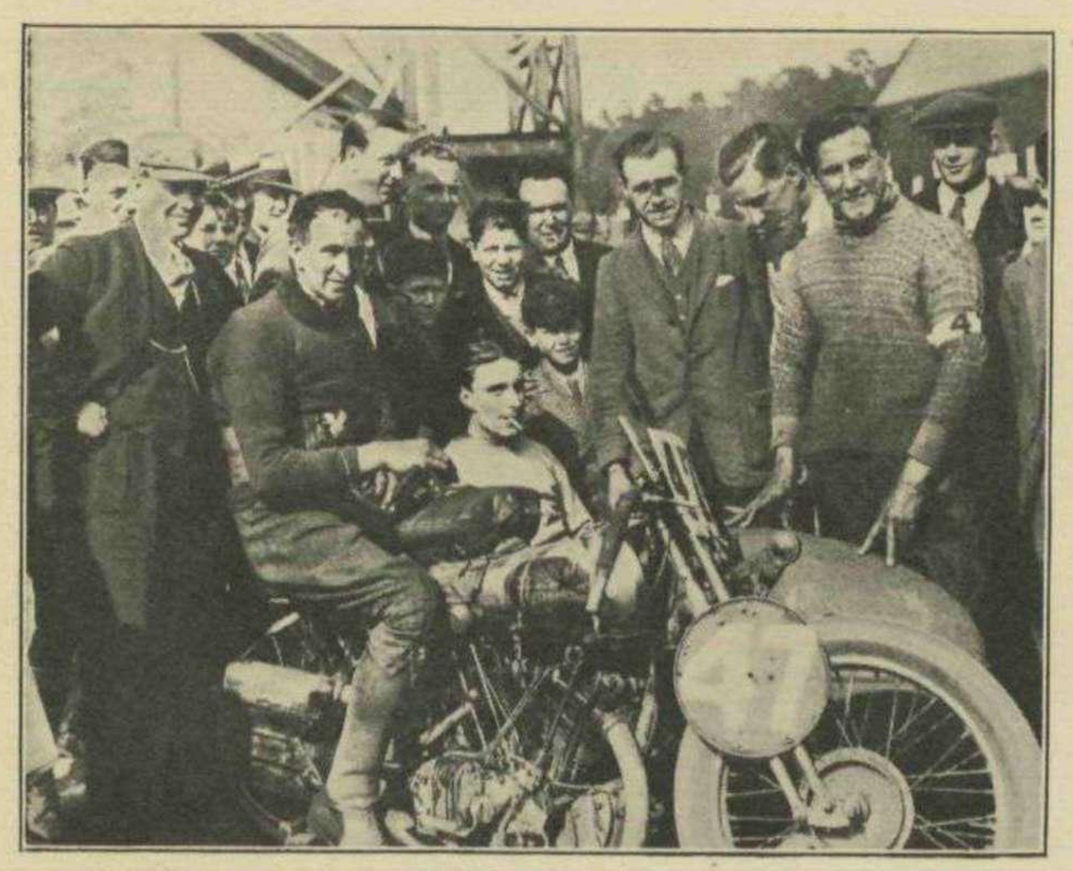
600 C.C. RACE.

1. A Denly (588 Norton), 78.73 m.p.h. 2 hr. 33 min. 37 2/5th secs.
2. G. H. Tucker (588 Norton), 75.86 m.p.h. 2 hr. 39 min. 48 secs.
3. L. P. Driscoll (588 Norton), 67.30 m.p.h. 3 hr. 0 min. 6 secs.

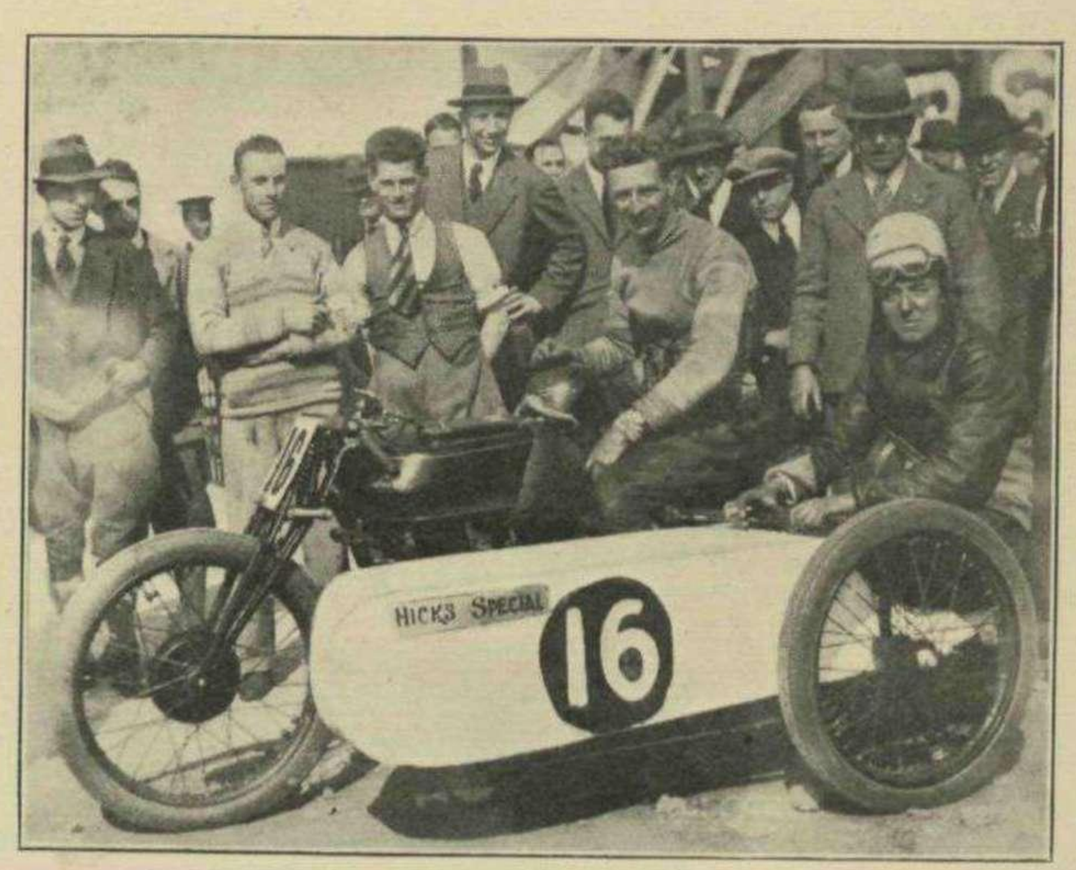
Denly secured three records in Class F. 100 Miles : 1 hr. 13 min. 3.016 secs.—81.47 m.p.h. ; 2 Hours : 161 miles, 601 yds.—80.67 m.p.h. ; 200 Miles : 2 hr. 32 min. 17.96 secs.—78.79 m.p.h.

1,000 C.C. RACE.

1. E. C. E. Baragwanath (996 Brough-Superior), 73.95 m.p.h. 2 hr. 43 mins. 35 secs.
2. P. M. Walters (980 Zenith), 66.62 m.p.h. 3 hrs. 1 min. 59 secs.
3. C. F. Edwards (980 Brough-Superior), 64.54 m.p.h. 3 hr. 7 min. 43 secs.



E. C. Baragwanath (Brough Superior) the 1,000 c.c. Winner.



F. G. Hicks, who won the 350 c.c. race in Record Time, on his Velocette.

IMPRESSIONS OF AN UNCONVENTIONAL FRAME—concluded.

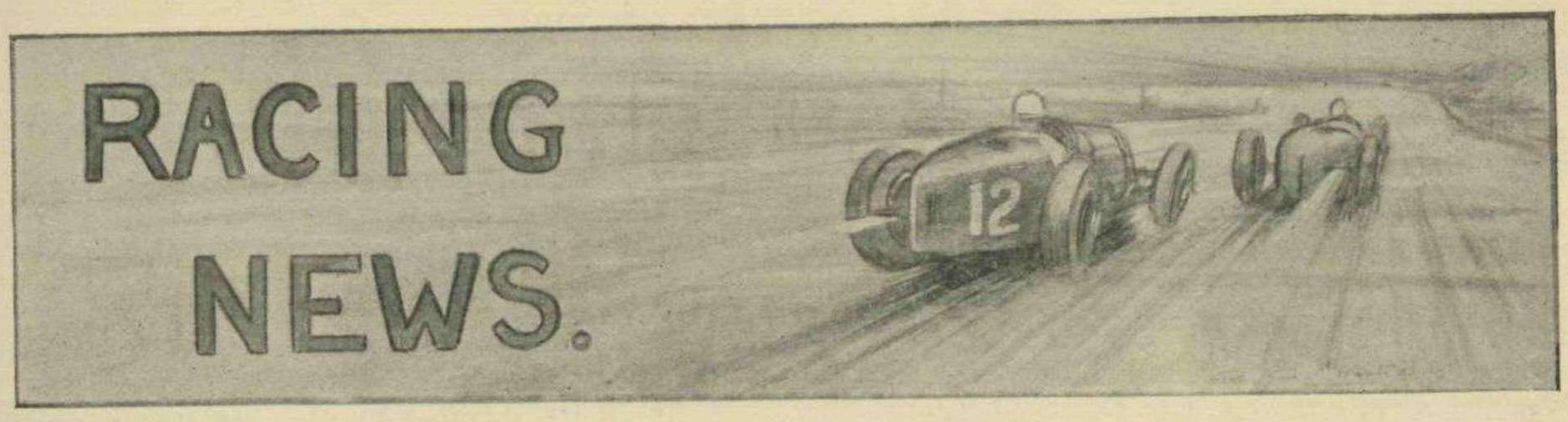
The rear brake is good at 50 and over, but gradually declines as the speed drops, until at 10 m.p.h. it hardly has any apparent effect. It has a habit of sticking on unless carefully oiled and has to be pushed up with the toe on release.

The motor itself is a touring 350 S.P. Blackburne engine with low-lift cams, weak valve springs (rather too weak) and no pressure fed lubrication (as on the sports models); it is capable of hauling the bus along at a maximum speed of just under 70 when excessive valve bounce puts an end to its further activities

The touring Amac gives a low petrol consumption, bad acceleration, good starting, and continually loses its float chamber top.

The Burman box stands up to a lot of hard wear although I dislike the cork clutch (I have burnt it out twice) and the somewhat difficult gear change at low speeds owing, I think, to the coarse design of dogs on the gear faces which do not give sufficient positions of enmeshment.

In conclusion, as far as the general design is concerned and the link motion type of steering, the model is far away ahead of the present average designs ; the smaller points of design and materials leave much to be desired, but I think the 1929 models will have the majority of these points eradicated, and in its improved form with the teething troubles over I could not think of a finer machine.



The Grand Prix de Juan-les Puis.

This extremely sporting race over the Garoupe circuit on the Riviera provided yet another victory for Bugatti, the successful driver this time being Chiron. The entry list was a good one, as it included nine Bugattis, six of which driven by the French ace Chiron, the Englishman W. G. Williams, Bret, Trutschler, Drefus, and Ceresato, actually started. After them the next most formidable team were the three Amilcars, driven all by well-known drivers—André Morel, C. Martin and Jean Moriceau. Four Salmsons were driven by d'Havrincourt, Martinatti, Jourdan and Signoret; de Joney and Carasso drove B.N.C.'s and Benoist had a little car called a Tony.

Chiron took the lead at the outset, but was displaced by Bret, who held it until the 25th lap, when he was put out by a broken valve spring. His place was taken by Williams, who, however, was passed by Chiron, the latter never afterwards losing the lead, and finally winning at 52.5 m.p.h. for 190. In the 1,100 c.c. class, Moriceau proved the winner on his Amilcar at 48.9 m.p.h.

The final order was as follows:—

1. Chiron (Bugatti).
2. Williams (Bugatti).
3. Dreyfus (Bugatti).
4. Moriceau (Amilcar).
5. Signoret (Salmson).
6. Martinatti (Salmson).
7. Benoist (Tony).

The Circuit of Pozzo.

The race over the Pozzo circuit, which was run off at the end of March, resulted in yet another victory for Bugatti. The race was run over a distance of 193 miles, and was won by Nuvolari on a 2-litre Bugatti at 72.3 m.p.h. The winner in the 1,500 c.c. class was Maggi on a Maserati, who was second in the general classification, while the third man home was Clerici, whose Salmson won the 1,100 c.c. class. The fastest lap was made by Nuvolari at 83.24 m.p.h. The complete list of finishers is as follows:—

1. Nuvolari (2-litre Bugatti).
2. Maggi (1,500 c.c. Maserati).
3. Clerici (1,100 c.c. Salmson).
4. G. Fagioli (1,500 c.c. Bugatti).
5. Cattaneo (1,100 c.c. Amilcar).
6. Alvera (2-litre Bugatti).
7. L. Fagioli (1,500 c.c. Maserati).
8. Saccomanni (1,100 c.c. Amilcar).

The French Grand Prix for Sports Cars.

It is a sign of the times that after the failure to secure sufficient entries for the Grand Prix for racing cars of the international racing class and for the Coupe de la Commission Sportive race on a fuel consumption basis, the French Grand Prix for sports cars has attracted no fewer than fifty entries. In the first group, with engines of more than 3 litres capacity, Monsieur C. T. Weymann has entered a car which has not yet been named, but which will probably be his Hispano-Suiza, which lately won its match against the Stutz at Indianapolis, or else the Stutz which he bought after the race. Besides this, the Peugeot Company has entered one of their 4-litre sleeve valve cars, of which the driver has not yet been named, while Morain will drive a similar machine. Laly will run, as usual, on an Ariès, while Bouriat and Stoffel, both well-known le Mans drivers, will handle one a car not yet named, and the other a Chrysler, a second Chrysler being driven by de Vere.

In the second group, up to 3 litres, there are no fewer than eight Bugattis. Two of these have been entered by the Nerka sparking plug company, and one of them will be driven by Louis Chiron, the well-known Bugatti driver, who is head of the Nerka racing department, while the driver of the second car has not yet been named. W. G. Williams has also entered a Bugatti, and the other drivers will be Drouet, Velitchkovitch, Lehoux, Simon and Madame Jennky. Their rivals in this class will be the veteran, Arthur Duray, on a 3-litre Ariès, Rost, the daring aviator and driver, on a Georges Irat, entered, like the Ariès, by its manufacturers, Besaucèle on his Ballot, Pierre Mesuil on a 6-cylinder Bignan, Bocca on a Lancia Lambda, Lormand on a 6-cylinder Erskine, and Bussinere, the le Mans driver, on a car which has not yet been named.

Bugattis also predominate in the 1,500 c.c. class, in which five have been entered. One will be driven by J. C. d'Ahetze, who will also start as No. 1 in the Bugatti Grand Prix, and another by Charavel, who usually races under the name of "Sabipa." Gaupillat and Dreyfus will also drive their own cars, while the fifth has been entered by Velitchkovitch, who is driving in the 3-litre class, and has not yet selected the driver of his 1,500 c.c. machine. The sole rival of the Bugattis in this class is Doré, who finished second in last year's Coupe de la Commission Sportive race, and who, as usual, will handle a Corre la Licorne.

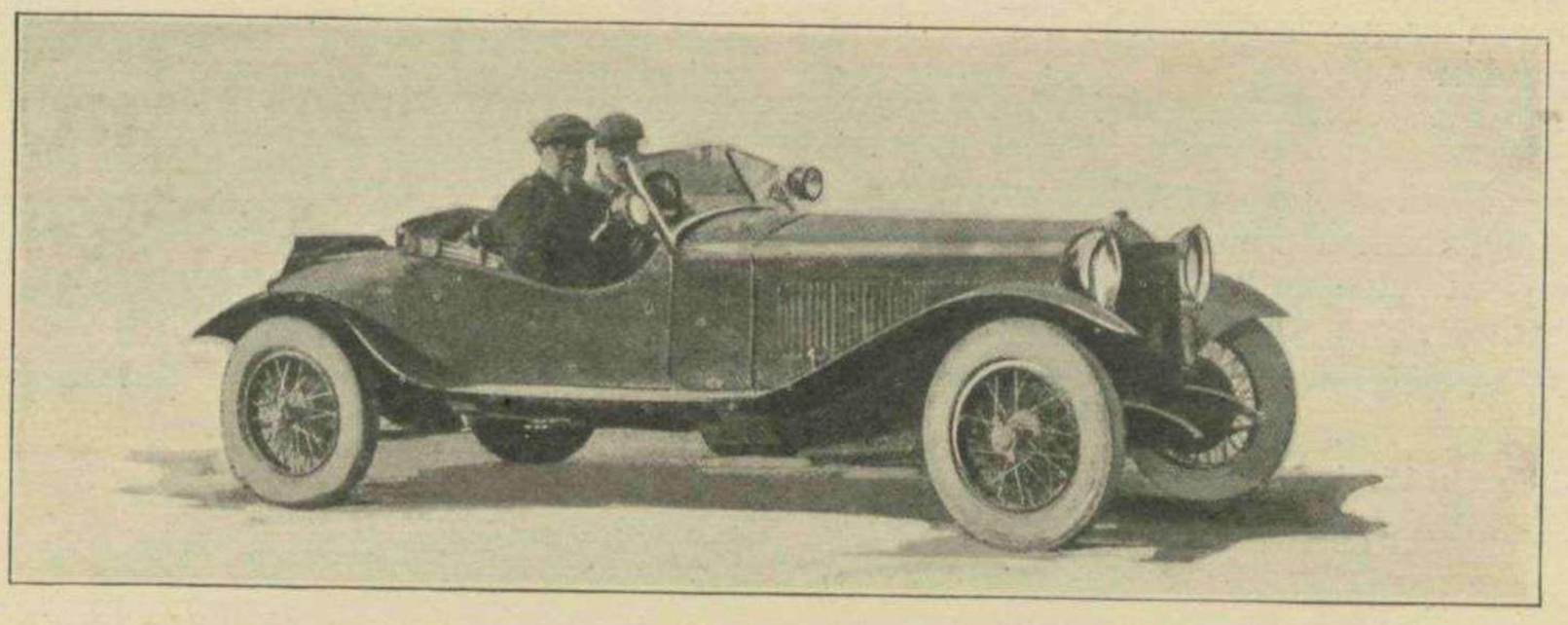
In the 1,100 c.c. class, Lombard has entered a team of three cars, to be driven by Desvaux, the ex-Salmson driver, Guy and Christian. Two Salmsons have also been entered by the firm, but their drivers have not yet

RACING NEWS—continued.

been nominated, while Gauthier, Signorel, d'Abbadie d'Arrast, d'Havrincourt and Laval will drive their own cars of this make, seven Salmsons being entered in all. Two de Coucys, whose drivers have not yet been named, have been entered by the firm, Louis Rigal, the well-known Peugeot driver, will handle a small Ariès, Charles Moran a Rally, Brisson, the le Mans Lorraine driver, an Alphy, Billiet a B.N.C., Simas a d'Yrsan, while the remaining car entered by Lepicard has not been named as yet and neither has its driver.

Finally, in the separate race for 750 c.c. cars, the jovial de Rovin will drive one of his own productions, Siran will appear as usual on a d'Yrsan, Marcel Violet will drive a car as yet unnamed, but which is sure to be extremely ingenious, while one of his Sima-Violets will be handled by Trennet.

To judge from this entry list in fact, the race, which will be run on 1st July over the Comminges circuit, described in a recent issue, will be a great success, and, as in the case of the Brescia 1,000 miles race, we have only to deplore the lack of any British entries.



CAMPARI ON THE SUCCESSFUL ALFA-ROMEO AFTER THE BRESCIA 1,000 MILE RACE.

THE BRESCIA THOUSAND MILES RACE.

RESULT.

1. Campari-Ramponi (1,500 c.c. Alfa-Romeo), 19h. 14m. 53-4/5s.
2. Mazzotti-Rosa (2-litre O.M.), 19h. 22m. 22-2/5s.
3. Strazza-Varallo (2½-litre Lancia), 19h. 37m. 37-2/5s.

The second Brescia 1,000 Miles Race, which was run on 1st and 2nd April last, proved even more successful than its predecessor. Owing to the really marvellous organisation of the Fascisti, this magnificent race over a circuit 1,000 miles round—from Brescia to Rome and back another way to Brescia—was a complete success. No fewer than 100 entries were received, and of these 83 started, while the countries represented were Italy, France and America, England being the only important motor manufacturing country not represented, which was a great pity.

In the 1,100 c.c. division no fewer than twelve 9 h.p. Fiats were entered, against a baby Peugeot, three Salmsons, an Amilcar and the little Italian S.A.M. In the 1,500 c.c. class, eight of the new 6-cylinder Alfa-Romeos, with two overhead camshafts, competed against two Maseratis, two Ceiranos, two Bugattis and a Fiat. O.M.'s dominated in the 2-litre class with 13 cars, against another Maserati, three Bugattis, four Italas, and an Ansaldo. In the 3-litre division, 17 Lambda Lancias were entered, with three Bugattis, three Alfa-Romeos, two Ansaldos, a Talbot (Darracq), a Bianchi and a Diatto. The 5-litre class consisted of four Chryslers, two la Salles, a big Alfa-Romeo (4½-litre), and a Paige; while the only entry in the 8-litre class was a 36/220 h.p. Mercédès driven by Prince Paul of Greece and Prince Charles zu Schaumburg-Lippe, which, however, did not start.

Among the better known drivers, Campari, winner of the French Grand Prix in 1924, drove one of the 1,500 c.c. Alfa-Romeos, Minoia and Morandi, winners of this race last year, had a la Salle and an O.M. respectively. Brilli-Peri, Bordino and Nuvolari all drove 2.3-litre Bugattis, while Materassi was at the wheel of his Chrysler.

Last year we remarked on the fact that in a race for cars of all sizes, the winner was an O.M. of only 2-litres capacity. This year, however, an even smaller car, the 1,500 c.c. Alfa-Romeo, proved the victor. It seems, in fact, to be definitely proved that for fast touring, including mountainous country—for the course took the competitors over the Appenines—a small car has very definite advantages over a larger one, even if the latter has a higher maximum speed. For behind the little Alfa-Romeo came a 2-litre O.M., while the third place was gained by a Lancia, which only just misses the 2-litre category.

The performance of the Alfa-Romeo was nevertheless magnificent, for, besides gaining first place, cars of this type were fourth and fifth in the general category, while they gained the first seven and the tenth place in the 1,500 c.c. class, the whole team thus finishing. The sports 1,500 c.c. Alfa-Romeo with two camshafts has, in fact, made a great name for itself in this race, and their performance in the Essex 6-hours' race and the Tourist Trophy will be watched with interest.

In the smallest class of all the little Fiat repeated its performance of last year by capturing the first two places; while the S.A.M. was third. The O.M., if

RACING NEWS—concluded.



A Salmson Competing in the Brescia 1,000 Miles Race.

unable to win the race outright this year, nevertheless gained the first eight places in the 2-litre class, while in the 3-litre division the Strazza-Varallo Lancia was, of course, the winner, while Brilli-Peri and Lumini were second on the 2.3-litre Bugatti, Lancias occupying the next three places. The performance of the big cars was on the whole disappointing, for in the 5-litre class the winning la Salle, driven by Minoia and Balestrero, both ex-members of the O.M. team, was only fifteenth in the general classification, while the two Chryslers, which were runners-up, did not make very good times.

The Moroccan Grand Prix.

The Moroccan Grand Prix, which was run at Casablanca on 15th April, included classes for both sports and touring cars. In the 1,100 c.c. sports class the entries consisted of a Salmson and a Derby, and something of a curiosity in the form of an 1,100 c.c. Bugatti, of the type which won the Alsatian Grand Prix in 1926. Of these, however, only the Salmson started. In the 1,500 c.c. division, a larger Bugatti had to compete against three Citroëns, two Renaults and two Chenard-Walckers. A third Bugatti in the 2-litre class had three more Chenard-Walckers as its rivals, while in the 3-litre class the three Renaults were unopposed.

Among the racing cars, Rost drove a 3-litre Georges Irat and Cuvillier a big 5-litre Panhard. Bugatti was represented by three 2-litre cars, and a 1,500 c.c. machine, while a 1,500 c.c. Chenard-Walcker and an Amilcar were the remaining starters in this class.

The race was for a distance of 444 miles, and in the racing class all the competition lay between the Georges Irat and the Bugattis. Of the latter, Lehoux took the lead at the outset, but went out before the end of the race, which was finally won by his team-mate Meyer at 92.113 m.p.h., which is claimed as a record for any road race. Rost, on the Georges Irat, was second. Among the sports cars, the Renaults won the 3-litre and 1,500 c.c. classes, while the Chenard-Walcker was the only finisher in the 2-litre division. Results :—

I. Racing Cars.
1. Meyer (2-litre Bugatti), 92.113 m.p.h.
2. Rost (3-litre Georges Irat).
3. Mario (1,500 c.c. Bugatti).
4. Cuvillier (5-litre Panhard et Levassor).
5. Vaugelas (1,500 c.c. Chenard et Walcker).
6. Bénitah (1,100 c.c. Amilcar).

II. Sports Cars (3-litre).
1. Liocourt (Renault), 69.1 m.p.h.
2. Bailly (Renault).
3. Courtin (Renault).

III. Sports Cars (2-litre).
1. Cornaggliotto (Chenard et Walcker), 55.3 m.p.h.

IV. Sports Cars (1,500 c.c.).
1. Quatreson (Renault), 57.5 m.p.h.
2. Cazal (Renault).
3. Radigon (Salmson).
4. Eyraud (Bugatti).

Hispano-Suiza versus Stutz at Indianapolis.

Nearly twenty-nine years ago an argument took place as to the relative merits of French and American cars, and the result of that discussion was the series of Gordon Bennet races, for which all countries were allowed to enter a team of cars. Of these events, four were won by France, one by England, and one by Germany. Thus it was proved as conclusively as possible that at the beginning of the century France led the world in automobile production.

Last year the same argument came up again. This time it all arose from the apparently harmless remark of a man who said that he could get from point to point quicker in his Cadillac than in his Rolls Royce, because he was more used to driving the former. But as the result of the ensuing discussion Mr. Moscovics, of the Stutz Company, betted $25,000 that one of his firm's cars would go further in 24 hours on Indianapolis track than a Boulogne Hispano-Suiza, which M. Charles Weymann chose to represent France.

The result of the ensuing contest, which took place on the 18th and 19th April, was that M. Weymann won his bet. Unfortunately, the contest did not turn out to be as exciting as had been hoped. The Stutz had trouble in the early stages, and at the end of six hours the Hispano was nearly 120 miles ahead. At the end of 19 hours the Stutz had to retire altogether, the Hispano being then some 600 miles to the good, but the French car continued for the remaining five hours, and averaged over 70 m.p.h. for the two rounds of the clock.

The Hispano, in fact, thoroughly lived up to its reputation and Weymann and his companion driver, Robert Bloch, drove a very fine race on the unfamiliar Indianapolis track.

AN EPIC NARRATIVE OF PIONEERING DAYS.

TEN YEARS OF MOTORS AND MOTOR RACING. By Charles Jarrott.

(RADCLYFFE & HUTCHINGS, Illus. 7s. 6d. nett).

IN reprinting *Ten Years of Motors and Motor Racing* the publishers have rendered a real service to the motoring world, and it is incredible that Charles Jarrott's book was ever allowed to drop out of print. To the rising generation of motoring sportsmen, with their Bugattis and Amilcars, Alvises and Aston-Martins the state of affairs existing when Jarrott held a wheel is bordering on the legendary and mythical. Nowadays, when motoring has developed into an every day affair, when long journeys can be safely accomplished at high speed and without the slightest suspicion of mechanical failure, we find it hard to realise that, not so many years ago, a motorist needed to be a man of tremendous physical resource and of the greatest stamina. A journey of a hundred miles only thirty years ago took on the atmosphere of a present-day round-the-world tour, and it was not unknown for an automobilist to abandon his machine after ceaseless struggle, and to stagger back to his home by train in a state of collapse.

In his memoirs, Colonel Jarrott mentions quite casually that *four hours* were spent mending tyres. The idea of a modern youth repairing his tyres on the road side at all has become preposterous. Thus, it will be seen that *Ten Years* carries us back to a period in motoring history which resounds with titanic struggles against disaster, when every motorist was a hero, and every journey the voyage of a pioneer.

Of all the men qualified to tell us of those days, none is more acceptable than Colonel Charles Jarrott. His whole being was wrapped up in the things of the automobile, and his prowess is not unknown even to the present generation of motorists, even though his name has taken on the aura of fame accorded to the semi-mythical heroes—the Chevalier de Knyff, Charron, Giradot, the " eternal Second," Baron de Caters and the other giants whose names still live despite the passage of the years.

Ten Years is written in a crisp, terse style, which is typical of the writer. Its simple language adds in no small measure to the fascination of this enthralling book, and Colonel Jarrott has cause to be proud of his incursion into letters. His quick forceful sentences create an absorbing atmosphere, and in his pages the past lives again, when the long dusty roads of France were the scenes of Homeric struggles between the immense monsters which were the racing cars of those days. Not for them the banked track, or the closed road circuit, but the highways of Europe were their race courses, and great capitals their destinations. Not for them an entry of a few dozen cars, their numbers were to be counted in hundreds. If you want grim realism, a story reeking with the dust and fumes of the old-time long-distance race, read the chapter on the Paris-Madrid of 1903, the Race of Death.

Indeed, I have never read a book which was more quotable than this, and an excerpt taken at random must serve to show the quality of this remarkable book. The following is taken from the account of the Paris-Vienna race of 1902 :—

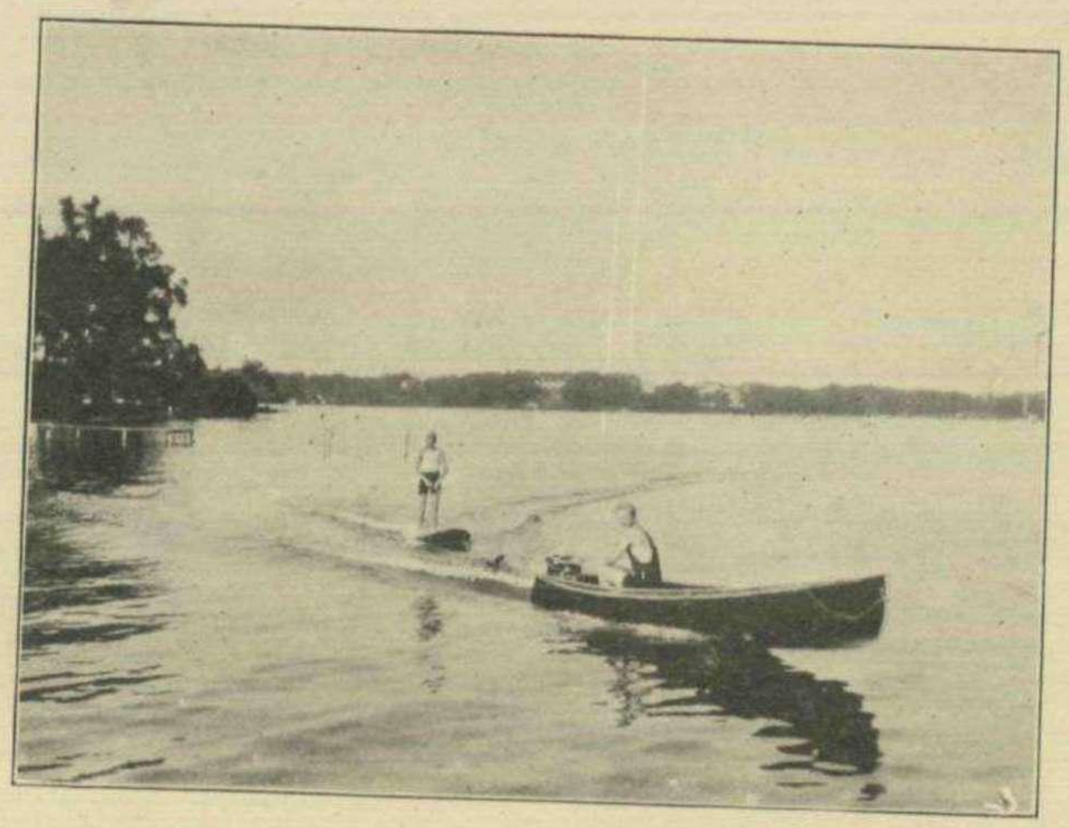
" The Arlberg at last ; and we were climbing up the first portion of the ascent in magnificent style . . . . Then the summit was reached, and we began to descend. The ' Seventy ' (70 h.p. Panhard) had been travelling magnificently, and I was straining every nerve to regain some of the lost time which we had expended in repairing our car and returning for the lubricating oil. As we rushed down the mountain, corner after corner presented itself, and with hundreds of twists and turns the road lead down towards the plain.

" The aspect of a number of drivers on the descent was curious. Some were crawling down slowly with the brakes hard on, whilst others had actually stopped to rest. Then, swinging round a corner, I came upon a driver sitting in his car, which was motionless, with his head buried in his hands. A few yards further on I came across a coat and a bag of tools . . . . What had actually happened was that Max, a driver of a Darracq car, had gone clean over the precipice, and the sight had so unnerved the driver of the car following that he was rendered helpless and unable to proceed another yard."

And if that is not pure, unadulterated drama, I do not know what is.

Ten Years of Motors and Motor Racing runs to 290 pages and an appendix, whilst it is copiously illustrated with photographs and maps, of which there are nearly fifty, all of great historic interest. Truly a magnificent book, and an achievement of which Colonel Jarrott may well feel proud.

R. L. W.



" Far from the Madding Crowd "—AN ELTO OUTBOARD IN IDYLLIC SURROUNDINGS.

NEW DEVICE TO MINIMISE ROAD SHOCKS.

By A. KINGHAM.

AN interesting device has been invented and patented which renders motor-cars and motor-cycles considerably less subject to vibration or road shocks.

The idea is an air-cushion fitted into the road wheel of the vehicle. This air-cushion renders the whole of the vehicle "Sprung Weight," thus, jar or shock is prevented from being transmitted to the car. The whole drive being taken by the air-cushion transmission, shocks are also counter-balanced.

The device consists of a stout tube, fitted between two drums in the centre of the wheel, making a cushion between the hub and the wheel itself. Flanges are arranged to keep the whole in position, whilst buffalo hide and canvas washers give protection against any friction. The valve of the tube projects through the outer drum. The air-pressure used is 30 lb. in the case of motor-cycles and 35 lbs. per square inch on motor cars. The tubes cannot be punctured. The riding qualities of cars and motor-cycles are certainly open to improvement and no doubt here is an improvement.

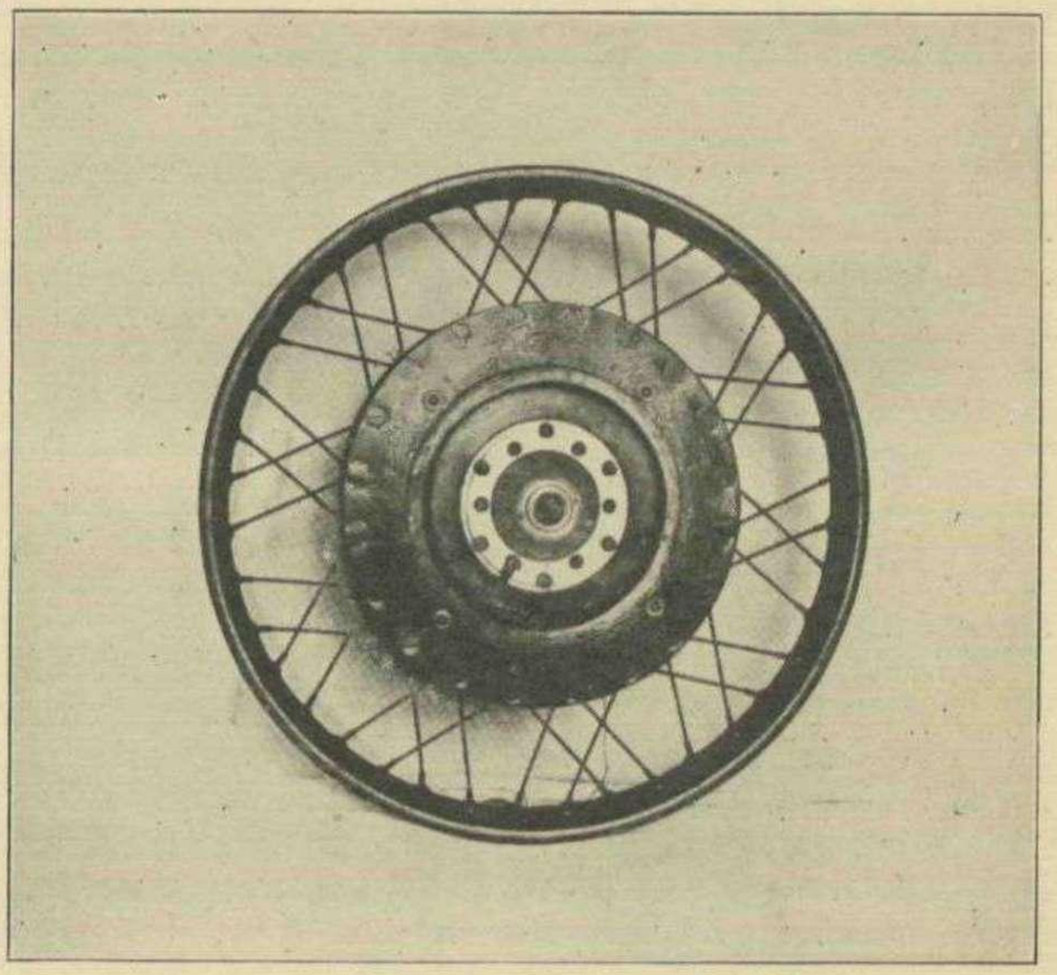
An ordinary 11-9 h.p. car of popular make has had the patent wheels fitted for 12 months, during which time 11,000 miles have been covered. The tyres fitted were ordinary high pressure type and on completion of the above mileage it was found that the front tyres were not one-third worn and the rear about half-worn. The wheel grip is good and skidding tendencies are practically eliminated. The device has proved greater riding comfort, economy in tyres, springs and transmission.

In the case of motor-cycles, the patent wheel is only fitted to the rear wheel. Recently I had an opportunity of testing a similar motor-cycle to my own fitted with the new wheel. My first impression was the decidedly smooth running, there being no road shocks transmitted to the body. On a particular bad stretch of road, I found it possible to maintain a good speed without any discomfort or bounce. On trying the machine on a Colonial bike track, deep ruts, boulders and patches of deep sand forming the surface, with a gradient of 1 in 6 and 1 in 4. The machine climbed this with ease, the rear wheel never giving any signs of leaving the ground, nor was the body thrown out of the saddle. To the sporting rider I am convinced the new wheel has definite advantages.

The fitting of the device does not in any way detract from the appearance of the machine, looking only as though an extra large brake drum had been fitted. The extra weight was unnoticeable. From a rider's point of view, I could not find any disadvantages during the trial.

Some of the foremost British motor-cycle riders, both professional and amateur, have ridden machines fitted with the patent wheel and express every satisfaction at the performance and bear out the inventor's claims. I am informed that several manufacturers are interested in the idea. The inventor, Mr. Oswald Handel, of Skyreholme-Skipton, who has been working on the device for many years, claims that its incorporation would only slightly increase the cost of the wheels, provided they were produced in quantity.

Another noticeable point is that if the engine is racing, when the clutch is let in violently, or the brakes applied sharply, no shock reaches the transmission, the "give" of the hub taking up any vibration. The tube acting on the same principle as the ordinary inner tube of the road wheel is not put to any undue strain.

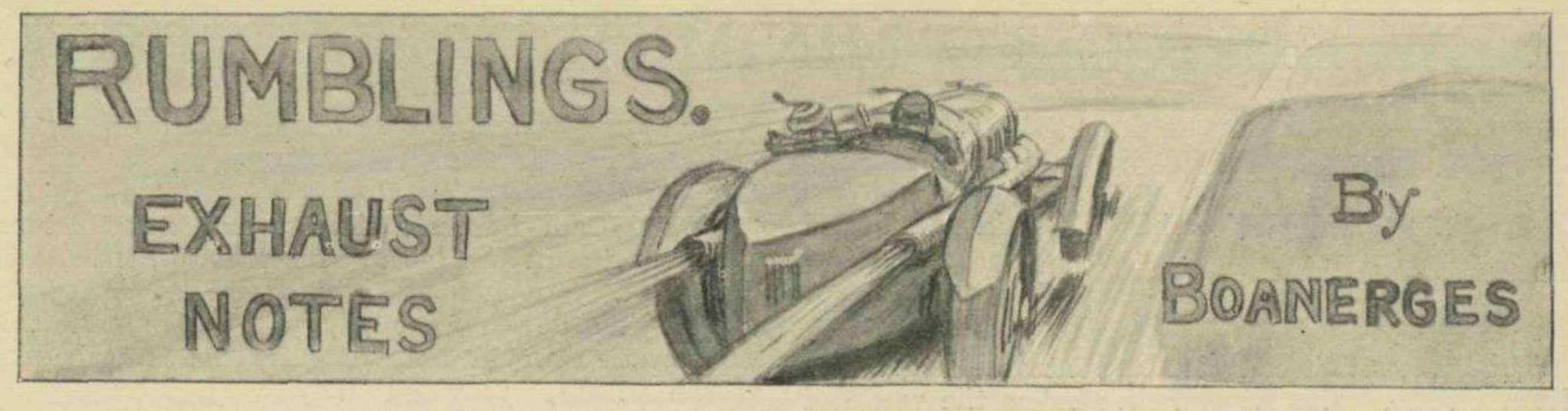


THE ILLUSTRATION GIVES A CLEAR IDEA OF THE INVENTION.

The wheel can be incorporated in the case of heavy vehicles. Here, no doubt, are great possibilities, giving pneumatic tyre comfort with heavy solid tyres. An outstanding case where the additional comfort of the new wheel would be appreciated is in ambulances, expecially in the case of Army work on rough ground.

A special trial recently arranged to prove the durability of the new hub tube took the form of a 180 miles run with the tube deflated. On examination, on completion of the above run, the tube was found to be in no way affected. It is therefore not possible to be stranded by any accident to the new hub tube.

The inventor informs me that he is prepared to offer any trial to interested parties by arrangement.



I wonder whether the standard of driving is steadily degenerating, or whether it is simply that the number of cars on the road being steadily on the increase, the proportionate number of bad drivers is therefore steadily growing? Whatever the cause, the fact remains that bad driving is far more prevalent now than ever before, and it is not the lady driver who is the sole culprit.

I have now definitely made up my mind as to who is the worst driver on the road. (Boy, bring vitriol, and charge my pen.)

The worst driver is undoubtedly the elderly owner of a cheap family car, out for his week-end jaunt with the family all on board.

This type of " driver " knows next to nothing about his car, seems incapable of changing gear correctly, never makes signals until he has commenced his proposed movement, and is guaranteed to lose his head in any sudden emergency.

Many are the diatribes directed at the modern youth who drives a sports car or fast motor cycle. But this driver is perfectly safe at all speeds, is thoroughly accustomed to fast travelling, knows to an inch in what distance he can pull up, and is possessed of a cool head and steady nerve.

The elder man is not of the mechanical bent, and only uses his car for pure " utility " purposes. He is getting on in life, and naturally his nerves and quick thinking are not what they were, and while he himself is slower in determining his moves, his car is also slower in answering than the sports car with its better acceleration, better braking, and light steering.

* * *

My opinion as to the elderly man being the world's worst driver received added confirmation the last week-end, when I was at the wheel of an Austin seven, and thus limited in my speed.

I found myself in a bunch of vehicles, and immediately in front of me, heading the procession, was a typical example of the man I mean. He was tooling along the narrow, winding road at such a speed that he held up every one behind, while the road wound about too much for safe overtaking. I rolled along in his dust for two miles in this way, then we came to a steepish hill. We slowly ascended, then, nearly at the summit, he waved me on and began to change down. As I prepared to pass, acting on his signal, a large saloon appeared over the brow and glided down the hill, and next thing I had to stand on everything because the boob in front had missed his change and came to a full stop. He caused five cars to pull up dead on the steepest part of the hill, and an unfortunate motor cyclist ran into the back of one lower down, and fell off.

In the next three miles I had precisely the same experience, this time with one of those horrible fabric saloons of about 10 h.p. Again he came to rest, and again only my brakes saved my wings. These are only isolated examples still fresh in my mind of the sort of thing one is continually coming across. Drivers stopping dead without sign ; drivers signalling one thing and doing another ; drivers making signals whose import is unknown to man ; and drivers being thoroughly dangerous at a modest twenty-five miles per hour.

It is not the sports car which is a menace at fifty, but the cheap family model, which is almost uncontrollable at that speed. These are the drivers who should be trapped, and fined, and imprisoned, and executed ; and these, unfortunately, are the type of men who sit as magistrates on the bench talking balderdash about what they don't understand in the least—i.e., modern motor cars and motor cycles.

* * *

The foremost sporting event of the past month was undoubtedly the Essex Six Hour Race, and a very pleasant day's sport it was. I have great sympathy with the Mercédès' people, who truly had the worst possible luck with their car. The Merc. had been lapping the course at over eighty during practice, and to have it burst on the second lap must have been a very bitter pill for Capt. Miller. Indeed, many, including myself, think he did wrong in blinding a cold engine on its first lap, and the general opinion is that the car would have run perfectly if it had been more gently warmed up.

I was particularly interested in the Merc.'s performance as, when I saw it at the start, I realised it was the car we tested last month, which had not been specially prepared for the race, and had covered some 25,000 miles without being even decarbonised!

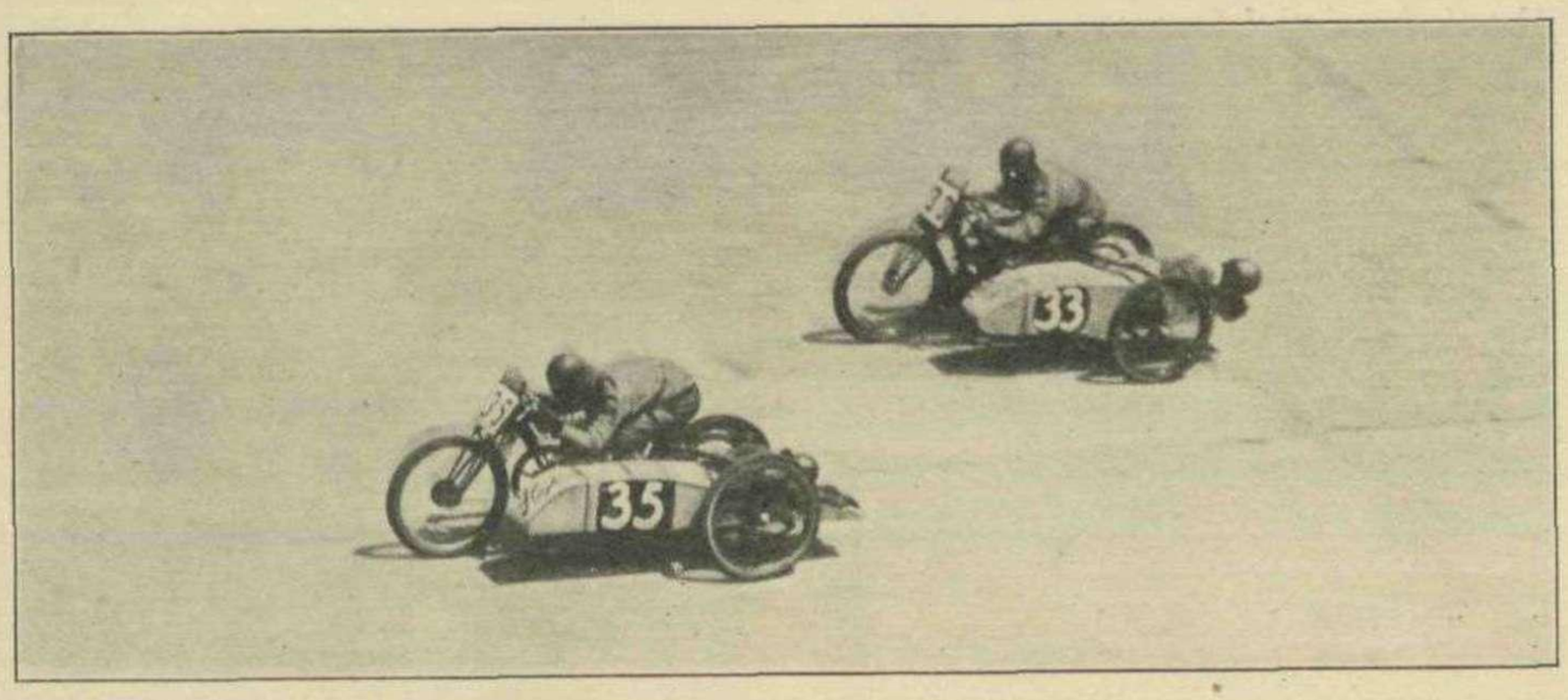
* * *

Dr. Benjafield has made an interesting suggestion with regard to the organisation of the Essex Race from the spectators' point of view. As he points out, following the race was most difficult from the Grand Stand and the Paddock, as the bridge and the other board obscured the numbers exhibited on the hill. The doctor's own suggestion is that the position of the board be improved, and that the cars should be credited with their full number of laps at the start, the number decreasing lap by lap, so that the exact state of the race can be instantly seen.

The number of laps start could be exhibited over the car number, so that spectators could easily reckon the net distance covered.

Altogether an excellent suggestion.

THE SECOND B.M.C.R.C. MEETING.



Racing was not very thrilling, apart from the passing of the three figure mark by 500 c.c. machines on several occasions. W. A. Colgan (498 Zenith-Blackburne) covered a lap at 102.27 m.p.h., joining the select few who have lapped at over 100 m.p.h.

Lacey showed a fine turn of speed in the second race, doing his stuff at the rate of 95.23 for the standing lap, and 107.34 m.p.h., 105.29 m.p.h. for the two succeeding laps. The 107.34 m.p.h. looks like a 500 c.c. lap record.

The three lap 600 c.c. passenger race was interesting. Le Vack had a weird chair which was battened down; he rode a fine race and finished some two lengths ahead of a very rapid Denly (566 Norton), while Tucker on a sister machine made a good third.

Rain next arrived to damp the ardour of some, and the next race had thirteen non-starters. A half hour's wait saw the 1,000 c.c. and 350 c.c. handicap run off on a wet and treacherous track, and seventeen entrants thought better of it. This race provided excitement in that W. A. Colgan and his 498 Zenith came apart on the Byfleet at some 100 mp.h., the machine disappearing over the lip and leaving the rider behind unhurt. marshalls rushed about with red flags, but no one seemed to mind, and the race went on.

After this race, more rain, and after a dreary wait the rest of the meeting was abandoned. The results were as follows:—

350 c.c. 3-Lap Scratch Race.
1. C. S. Staniland (346 Excelsior-Jap), 91.22 m.p.h.
2. F. G. Hicks (348 Velocette).
3. C. W. G. Lacey (346 Grindlay-Peerless-Jap).

Winner of Sealed Handicap: F. G. Hicks.

500 c.c. 3-Lap Scratch Race.
1. G. W. G. Lacey (488 Grindlay-Peerless-Jap), 102.27 m.p.h.
2. H. Le Vack (496 New Hudson).
3. W. A. Colgan (498 Zenith-Blackburne).

Winner of Sealed Handicap: W. A. Colgan.

1,000 c.c. 3-Lap Scratch Race.
1. O. M. Baldwin (998 Zenith-Jap), 102.92 m.p.h.
2. A. Denly (588 Norton).
3. J. S. Wright (996 A.J.W.-Summit).

Winner of Sealed Handicap: O. M. Baldwin.

600 c.c 3-Lap Passenger Scratch Race.
1. H. Le Vack (654 New Hudson sc.), 83 m.p.h.
2. A. Denly (588 Norton sc.).
3. G. H. Tucker (588 Norton sc.).

Winner of Sealed Handicap: G. H. Tucker.

350 c.c. 3-Lap Handicap.
1. G. Grose (346 Excelsior-Jap), 42s., 83.99 m.p.h.
2. H. W. J. Taylor (348 A.J.S.), 54s.
3. C. R. Viewing (248 O.E.C.-Blackburne), 1m. 18s.

350 c.c.-1,000 c.c. 3-Lap Handicap.
1. R. Price (499 Douglas), 39s., 92.23 m.p.h.
2. C. J. Williams (495 Raleigh), 45s.
3. R. E. Dicker (499 Rudge-Whitworth), 45s.

THE SPORTSMAN'S MECCA.

J. H. Bartlett has been well known in the sporting world as a specialist in used sports cars for the past three years, and his newly opened premises at 27a, Pembridge Villas, Notting Hill Gate, are well worth a visit from the enthusiast.

He will find here a display of some fifty sports cars of every *marque*, from A.C. to Vernon Derby; it is a veritable paradise for the man wanting a fast motor. All sorts of sports cars pass through Bartlett's hands, and while some are standard products, others have histories famous in the sporting world. Whatever class of motor is required Bartlett can supply it.

Mr. Bartlett is fortunate in having the assistance of Lieut.-Commander John Havers, who is well known in sporting circles, and both gentlemen make it their business to attend personally to every customer's requirements.

Part payments and deferred terms are dealt with, and in every transaction there is that personal note which is so desirable, but usually so lacking.

A visit to 27a, Pembridge Villas ('Phone: Park 0523) will prove of interest to any motorist.

There is another side of the business, and any reader who wishes to dispose of his sports car should ring up Museum 7915, for any make of sporting car is purchased at that address by this progressive firm.

HERE AND THERE.

A Useful Handbook for Ariel Owners.

The Book of the Ariel. By G. S. Davison. (Pitman. Illus. 2s. net.)

Although of interest to all enthusiastic motor cyclists, Mr. Davison's book is designed to cater specially for the riders, and prospective riders, of the well known Ariel motor cycle. In the preface, the author says that he was puzzled as to what should be omitted from the book, and indeed he was confronted with no small problem. He has, however, surmounted this difficulty with success, and nothing of importance has been left unsaid, and no subject of especial interest has been left untouched.

In a book of this sort, it is extremely difficult to write in an interesting way, and to avoid the highly technical, but Mr. Davison has contrived to make each chapter interesting and easily understandable to even the most recent recruit to the pastime of motor cycling. Together with the many excellent diagrams and photographs, the book makes most excellent reading, and the author is to be congratulated on handling his subject with such manifest success.

He begins with a description of the various models and their parts, and passes via Running Costs to such matters as Law and Insurance, which affect motor cyclists. There are "running-in" and driving hints, and an excellent chapter on the maintenance and tuning of the Ariel, where every part of the machine is mentioned.

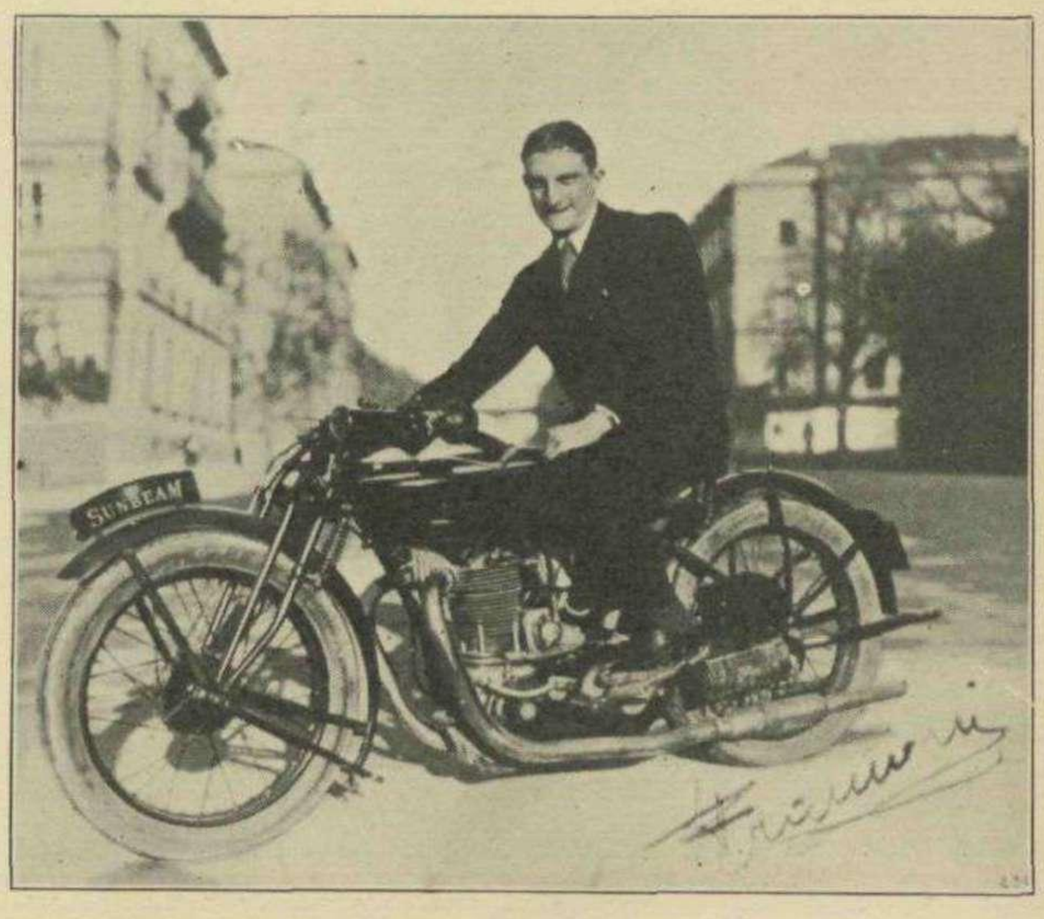
Of especial interest are the chapters on tuning for competition work, together with hints as to riding, both in reliability events and for speed trials. The little book concludes with an entertaining and well written history of the Ariel concern, and some very useful tables of gear ratios, engine revolutions on various gears, gradient tables and lighting-up times, are included in the Appendix.

The Book of the Ariel is a worthy addition to the motor cyclists' library series, and at two shillings is excellent value for the Ariel rider.

A Six-Port Levis Two Stroke.

The manufacturers of the Levis motor cycle, who, as is generally known, were the first to produce an air-cooled two-stroke, have now brought out something altogether new in two-stroke design. The ordinary two-stroke engine has three or four ports and three moving parts—piston, connecting rod and crankshaft; the new Levis has *six* ports, but it retains the simplicity of the standard type, in that it has only the same number of moving parts.

The six ports are made up as follows:—Two exhaust ports, one inlet port, two transfer ports, and a port in the piston itself. The last port makes it necessary for all the cold, incoming gas to pass around the under side of the piston head. This vital part of the engine is thus kept quite cool, and overheating and stuck rings are prevented. The new machine has been named the "Six Port Super-cooled" model, and its engine has a capacity of 247 c.c. ($2\frac{1}{4}$ h.p.), while the machine, which is capable of over 60 miles per hour, is listed at £39 10s.



F. Franconi, Who Will Ride a Sunbeam in the T.T. Races.

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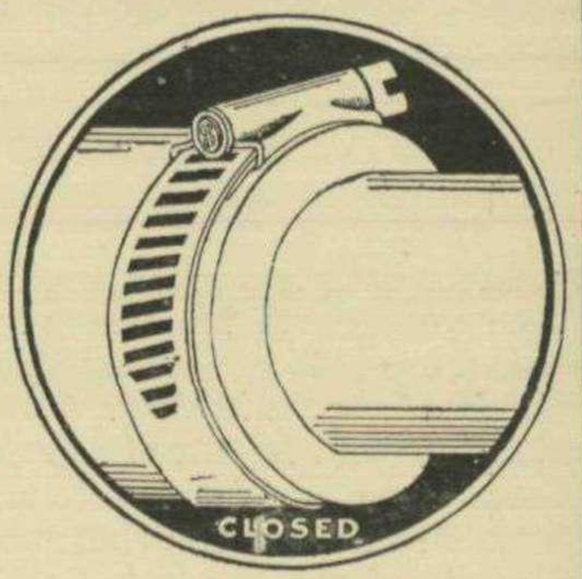
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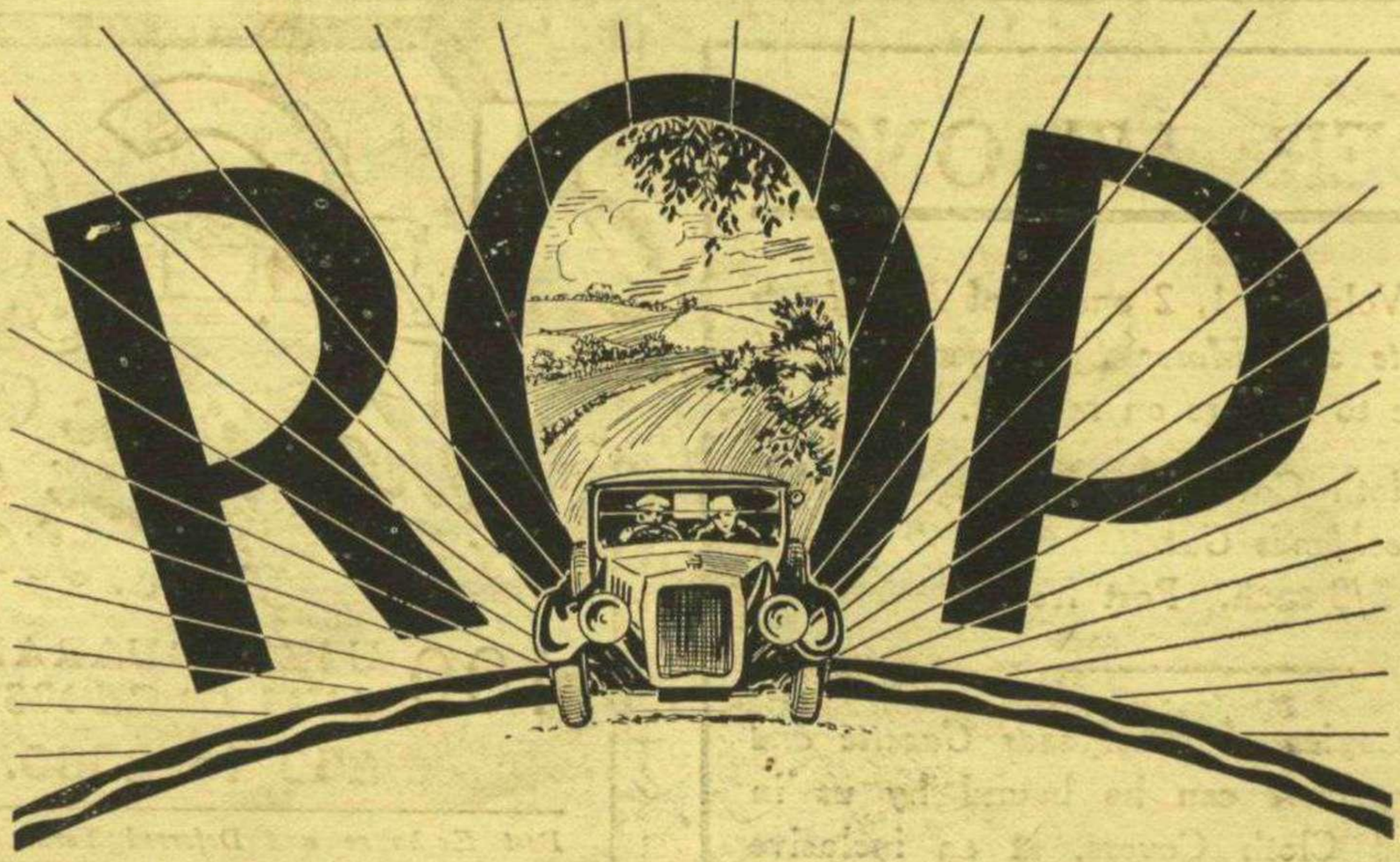
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