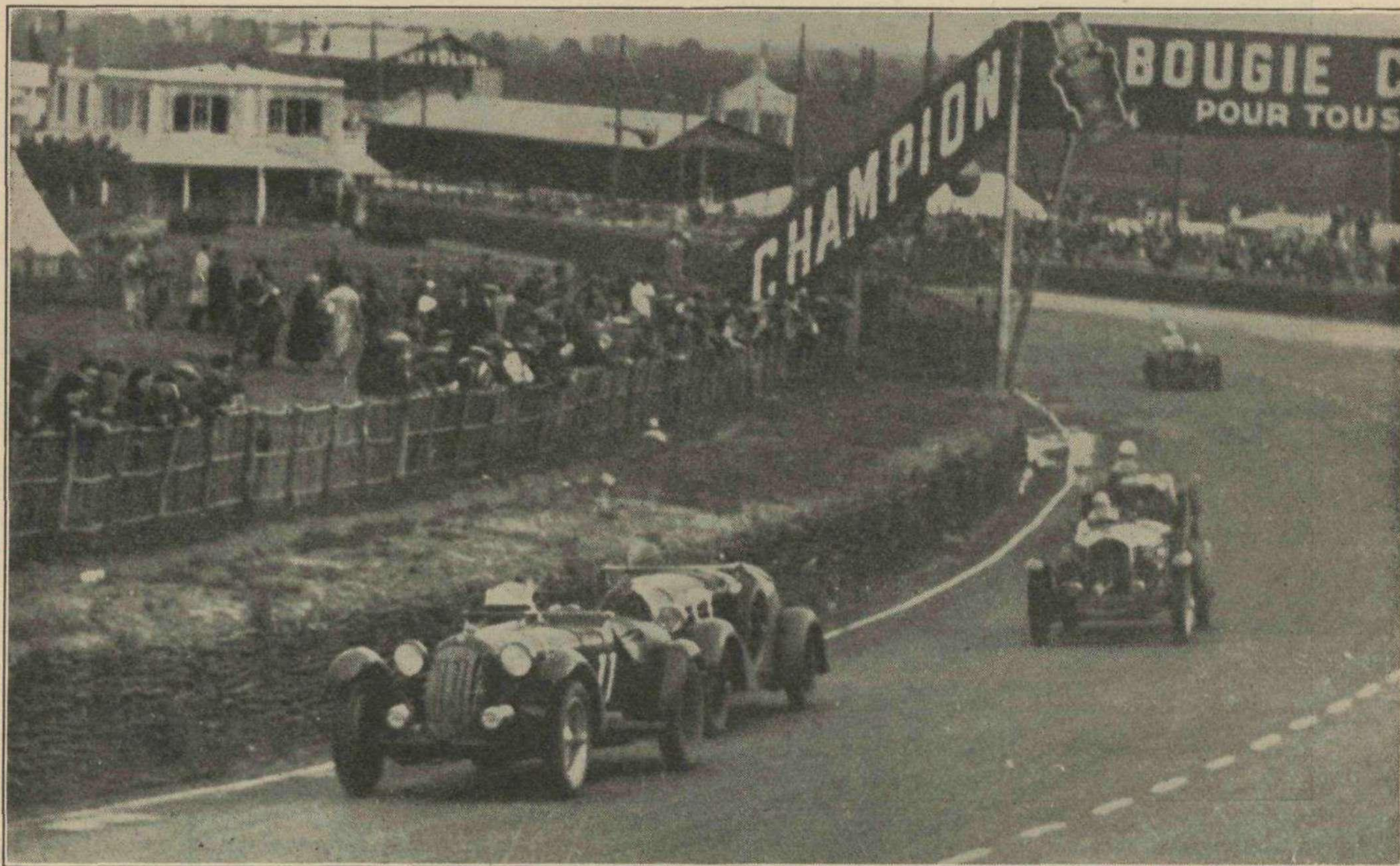


MOTOR SPORT

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MOTOR SPORT



OFFICIAL JOURNAL OF THE BRITISH RACING DRIVERS' CLUB

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The French Sportswomen

SOME weeks ago the Editor asked me to write him an amusing screed on women in the Sport. I promised to do so, and sat down to think it over. More mature deliberation brought me to the conclusion that this is, surely, rather a formidable undertaking, and I strongly suspect the presence of pitfalls and thin ice. Amusing, he says, it has got to be, so I cannot fall back on any of those nice, well-worn themes, such as "Do I consider that men make better drivers than women?" (They do, so what?) No, to be amusing one must be *personal*. This should be easy. On this tack one could surely write a most hilarious article, full of colour and detail. There always seem to be so many interesting technical points which lend themselves to discussion among women drivers. For instance, there are several most involved theories as to why Mrs. Whatsername was, at the last moment, a non-starter in the 1938 Rally (*and, my dear, they say that her car was all ready and the works had been preparing it for weeks!*) Then, another keen controversial point one might raise is *how* Miss Soanso manages to run that magnificent 4½-litre. (Oh, haven't you heard *that one*?)

There is no doubt that women in the Sport provide a wide field for discussion, but this method of approach would, perhaps, in the long run land one amid the aforesaid pitfalls and thin ice. Therefore I suppose I must seek to avoid the more diverting forms of controversy and try to skate over the thin ice.

I am, perhaps, better qualified to write about the French drivers than the British. I have driven in France a great deal and hope to do so again some day. A French motor trial or rally is a most vital and lively affair; they do understand the art of "giving a girl a good time" and, incidentally, organising rallies with incredibly high average speeds.

It is very difficult to draw any sort of comparison between British and French women drivers. Any generalisation is apt to be misleading when applied to such widely different types as one meets in a

Miss Betty Haig, the well-known British rally driver, recalls some of her fellow competitors in continental rallies.



long-distance rally. I should say that, in the case of what one might call the "full-time competition driver," the British woman knows rather more about the inside workings of her car than does her French counterpart. On the other hand, the French are tremendously thorough. They study minutely every detail of the speed tests and formula, and will sometimes spend weeks practising for one event.

This question of practising brings us to another difference between British and French drivers, one of circumstances; it is one where the French "works" drivers have a big advantage over us.

In France there are really three groups of drivers, and I think these are, perhaps, more clearly defined than in England. The top flight (and those who are best known to us over here) are the few who drive regularly, in every event, for a certain firm. They make it, as a rule, a full-time job. Sometimes they drive their own car, sometimes not; in any case their factory takes charge of the whole affair. They can practise by the hour, assisted by other works drivers and mechanics, on cars (and transmission!) which have not got, at the end of it all, to face the arduous of the trial itself. All this used to be a trifle tantalising for us British drivers, who had to strike out alone in the world, after a visit to Coventry or Abingdon, with our one ewe car, hoping hysterically that it would not lose its elusive tune, or develop some terrifying noise before it reached even the starting control across the Channel! As for any intensified practising, on our only set of transmission, one simply did not dare!

These drivers used to start the trial with the handicap formula of every other entrant completely worked out on paper

so that they knew to a fraction who were their most formidable opponents. However, although these top-flight drivers were so thorough and professional, I always found them most sporting opponents, and generally very kind and helpful.

I suppose one of the best known is Madame Rouault, the Delahaye driver. (I believe she came over to this country to race a few years ago.) She is an old and experienced hand at the job; there is very little she does not know about rally driving. I am told that Monsieur Rouault lives in Strasbourg, but Madame Rouault seems to live in a Delahaye. In 1939 she was absolutely at the top of her form and many people will remember the terrific times that she put up on La Turbie hill climb after the Paris-Nice with her very fast, scarlet, streamlined saloon.

Then there is Madame Largeot, who used to drive the little blue Gordini and Balilla Fiats; she is a very sound and careful driver and always finishes high up in the final results.

Madame Simon, very chic and blonde, drives a Hotchkiss, and charming Madame Descollas, who comes from Marseilles, is a most successful Lancia driver. She did very well in the French Alpine and, with her husband, won the small-car class in the Monte Carlo.

Mdlle. Lamberjack practises as a doctor when she is not driving large cars. However, she must have been bred to the Sport, for her father was a tough racing driver of the old school. In 1938 she drove René le Begue's racing 2-seater Talbot in the Paris-St. Raphael; it was rather temperamental, but went extremely fast.

Another well-known driver was Mdlle. des Forest, winner of the Ladies' Cup in the Monte Carlo Rally. Though she has not been driving so much recently, she used to be a familiar landmark, as she sped past, looking very small and dark, sitting very straight at the wheel and going like the devil!

There was also Madame Siko in her Bugatti, and poor Madame Schell and her



Mdlle. d'Oncieu with one of the rubber-suspended Georges Irat (one of which MOTOR SPORT tested early in the war). Behind stand Mdlle. Carsignol and Rene le Begue.

husband with their Delahayes. So the category merges into the next group, of the keen part-time drivers with their own cars, including a few private owners of small sports car.

The final group consists, of course, of those cheerful souls who tour through a rally in blissful ignorance of all mechanics and formulas, simply for the sake of a social outing, often with a family party on board (mother, sisters and a dog, and, almost, the traditional French bicycle strapped to the carrier), in some seasoned Renault or Licorne saloon. The whole outfit is generally heavily penalised in the speed trials. However, the driver may become bitten by the rally bug and graduate into the next group the following year, by blossoming forth with a large and dashing new coupé! So rally drivers evolve!

Most of the small sports cars driven by French girls were of British make, France having, unfortunately, practically ceased to build this type of car nowadays. So we usually had a sprinkling of Singers and M.G.s with French number-plates.

A most cheerful driver of a smart green P-type M.G. was Daisy Clot, from Marseilles (where her husband ran a night club). I remember one year her klaxon broke down. As an electric horn was a most vital part of Daisy's motoring equipment, she hastily supplemented her loss with a powerful police whistle, which she kept in her mouth and blew pretty consistently. On hearing this angry and legal sound approaching my tail on the first occasion, I naturally applied more throttle, and as the whistling increased so did my speed, until we were fairly rocketing down the twisting roads to Clermont Ferrand! Poor Daisy never succeeded in passing me, but she was overjoyed when she found that she had been chasing me before her, panic-stricken, most of the afternoon!

About the only exceptions to the M.G.-Singer entries were the Georges Irat cars. I don't think I ever saw one in this country. The small 2-seater in the 1,100-c.c. class was low and wide tracked, the acceleration was quite good and they

cornered rapidly. Latterly one could also buy a 2-litre sports 2-seater. This seemed to me a rather surprising machine. It was fitted with the Citroën engine, but the front suspension was quite unlike any "springing" that I have ever seen, the whole car just seemed to be slung on a few massive rubber bands!

I drove "Mouche" d'Oncieu's blue 2-seater several times in 1939. The big Citroën engine propelled the light car very rapidly, but I must admit that, to put it mildly, the general impression was one of "floating power"!

The 6-ft.-tall "Mouche" and Jacqueline Carsignol were two regular drivers of Georges Irat cars. Jacqueline's car was one of the smaller editions; it had done a big mileage and decomposition was setting in rapidly. However, she handled it well, and always made fast times. Jacqueline, in addition to driving cars, is quite a well-known aircraft pilot. She was one of the "flying women ambassadors" chosen by the French Government to fly round France and the colonies in Africa before the war. The last news I had of her was a letter which came *via* Toulon soon after the fall of France. She was at that time piloting an ambulance plane attached to a nursing unit in which "Mouche" was also serving. I wonder what happened to them after that; perhaps we shall have news again soon.

Another "owner-driver" was Mdlle. Renondeau. Her father was French Military Attaché in Berlin. She owned a big 2-seater and used to proceed at a very considerable rate of knots (not always without incident!) from Berlin to Paris, to compete in the rallies.

I met Madame Mireille Maroger in 1936. She was not a regular competitor, but was driving that year a big new Renault. She looked very trim and smart with her fair hair, dressed in a white skiing jacket, white stockings and dark trousers. Madame Maroger was a barrister. She had married recently and she and her husband elected to spend their honeymoon on Devil's Island. On their return she wrote a series of scathing

articles, entitled "In the Land of the Living Dead." In these she told me she had said, more or less, that the warders in the penal settlement were, in every way, far worse than the convicts! The result was that the French Government started an action against her.

Madame Maroger conducted her own case. A terrific legal battle ensued. I never heard what the final outcome was, for Madame Maroger was killed, tragically, in an aeroplane crash in Morocco very shortly afterwards.

France and Britain provide the main quota of women competition drivers. There are, however, a few others whom I have met. Switzerland has quite an active women's motoring club, with its headquarters in Geneva. The president, Madame Nesserli, used to drive in French rallies. She had a very narrow escape from disaster when, in 1935, her car skidded over the edge of a deep ravine, it turned over several times, coming to rest on its side at the bottom. Horrified officials rushed to the scene expecting to find nothing more than mangled remains. However, Madame Nesserli strolled calmly to meet them, remarking: "I have taken a wonderful photograph." She had, and it won the photographic competition of the rally; it could scarcely do otherwise!

Czechoslovakia produced Madame Kronbauerova, who was very attractive, and a film star in her own country. She and her good-looking husband used to come from Prague in strange cars like Javas and Aeros. The only understandable language they spoke was a few words of German. The Aero used to give a good deal of trouble, throwing out fountains of oil from its front wheels (from the front wheel drive differential). However, when all our more orthodox cars were gasping for life in the frozen dawn of a bleak *parc ferme*, struggling to turn the solidified oil in their sumps, the ridiculous Aero, with its petrol engine and no sump at all, would cough once, spring to life and calmly purr away out of sight! They were driving in a rally in March, 1939. I was with them at the Grenoble control when we got the news that Hitler had marched into Prague. I shall never forget their expressions of horror. He said: "This is the end. There is nothing for us to go back to." They returned to Prague. Since then he has, presumably, been conscripted into one of the German armies. One can only hope that they have come through it safely and will turn up with all the other widely-scattered members of the driving world when it is all over and France gets her motor rallies into running order again. No doubt this will be done as soon as is humanly possible; they are certainly a keen motoring race (witness René le Begue's effort in managing to take Talbot cars to America to race in 1941!)

In this country is it too optimistic to hope that we may be driving again by next spring? It seems a good idea to organise a few small competitions to get drivers "into circulation."

I, also, have always thought that the Junior Racing Drivers' Club was an extremely good idea, and that there should, at any time, be scope for a club of this sort. I was one of its early members, and it gave me the necessary "impetus" to begin trials driving myself.

THE OUTER CIRCUIT "200s"

PREPARATIONS FOR THE 1924 RACE

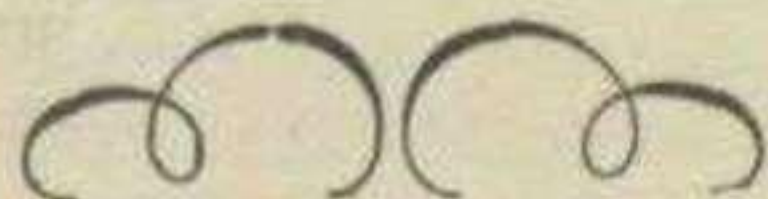
SEPTEMBER 20th was fixed as the day for the fourth J.C.C. 200-Mile Race at Brooklands, and this time, apart from the 1,100-c.c. and 1½-litre categories, a 750-c.c. class was introduced. When entries closed at single fees 47 had come in, comprising Huntley-Walker's Darracq team, five Bugattis, four Horstmans, two Alvis, four Aston-Martins, two Warwicks, two Thomas-Specials, two A.C.s, a Riley, a Ceirano and two unspecified entries in the largest class; Bovier's Salmson team, H. F. S. Morgan's two Morgans, Ware's Morgan, a Newton, a Frazer-Nash, and Ringwood's unspecified car in the "1,100" category; and no fewer than nine Austin Sevens against a lone French Vagova in the new 750-c.c. class.

Newsome's Warwicks turned out to be the 1923 cars which failed to run in that race, but with Janvier 60×130-mm. engines having o.h. valves of 1¼-in. diameter operated via duralumin push-rods from opposed camshafts in the crankcase, the timing gears being chevrons in a casing at the front of the engine. The crankshaft ran in two plain bearings and the camshafts also in plain bearings, while the mushroom tappets were adjustable at the base of the push-rods. Aluminium pistons with two compression and one scraper ring gave a compression ratio of 7½ to 1, and the piston crown was in the form of a truncated cone staggered in relation to the gudgeon pin. A forward extension of the near-side timing pinion drove the water pump, and a cross-shaft drove a Scintilla magneto which fired plugs in the off side of the head, the plugs on the near side being fired by another Scintilla magneto alongside the crankcase. The oil pump was driven from the end of the off-side camshaft and forced oil from a ¾-gallon sump to the bearings, while a 2-gallon tank in the dash enabled the supply to be replenished by hand-pump to a union in the main filler above the timing cover. A steel flywheel was used and the engine was a standard job, with two Solex carburetters, a special high-lift camshaft and stronger valve springs; it gave over 50 b.h.p. at 4,000 r.p.m., and did its early tests on a two-thirds petrol, one-third benzole mixture, on a gear ratio of about 3.5 to 1 and 30-in. × 3½-in. s.s. covers. A 4-speed gearbox was in unit with the engine, and for the 1924 race new bodies with extended detachable scuttles, and fully streamlined underparts from which only the sump protruded, were built.

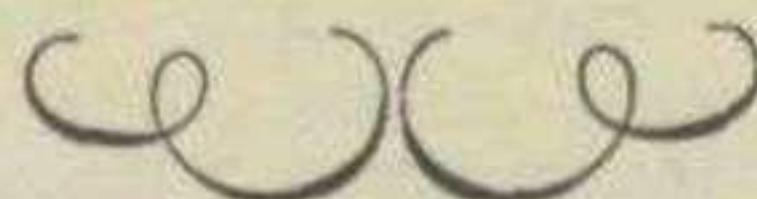
Naturally, following their spectacular treatment of the race in 1921 and 1922 (they were absent in 1923) the Darracqs aroused the greatest interest. They were tested at high speed over French roads by J. Scales, of the T.-D. racing department. Segrave, Guinness and Dario Resta were nominated as drivers. The cars were entirely new, based on the 1923 Talbots, but with Sunbeam-type Roots blowers and lower c.g. The 4-cylinder 67×105.6-mm. engines had steel cylinders, two inclined o.h. valves per cylinder, operated by twin o.h. camshafts driven from the rear by a train of straight-tooth spur gears, and were 3-point mounted.

A Bosch magneto was driven by a cross-shaft and fired one K.L.G. plug per cylinder. The crankshaft ran in five roller bearings and drove the supercharger from the front, and the H-section connecting-rods had roller big-ends, while there was a pressure and a scavenge oil pump in conjunction with dry-sump lubrication, the former feeding to the front of the crankshaft and to the valve gears from a reservoir amidships. The carburetter was a racing Solex. The engines ran at 5,000 to 5,500 r.p.m. and gave some 108 b.h.p., maintaining this output for 60 minutes. The front axle was of tubular type, in three sections, and the front springs passed through it, *a la* Bugatti.

Lionel Martin entered a standard, long-chassis s.v. Aston-Martin with the 8-valve, twin-o.h.c. engine of 65×112 mm. designed by the Hon. John Benson and recently referred to and illustrated in



During the early nineteen-twenties small cars were doing outstanding things in B.A.R.C. short handicaps and in the field of record-breaking, but perhaps they achieved their greatest allure in the J.C.C. 200-Mile Races, run over the Outer Circuit in 1921-1924. Previous articles in this interesting series appeared in the February, March, April, May, July and August issues, when the races of 1921, 1922 and 1923 were dealt with.



MOTOR SPORT. The axle ratio was slightly raised and experiments pointed to a Memini carburetter and B.T.H. magneto being used, with Discol fuel and K.L.G. plugs. Rudge wheels carried 710×90-mm. Rapsons, and a Benson-designed streamlined body was planned. Lionel Martin also had "Bunny" in again, now with o.h.v. engine and streamlined undershield. (Its radiator was only recently given to Inman-Hunter when the last owner broke the car up.)

B. S. Marshall hoped for a reliable rather than fast drive in his fairly standard road-racing Brescia Bugatti, with which he won the G.P. of Boulogne. It had a medium-length chassis and long propeller shaft and used Perrot f.w.b. T. C. Edwards entered Horstman I, which had a s.v. British Anzani engine supercharged with an Alfa-Romeo blower fed by a Memini carburetter. Signor Memini was said to have bench-tested the engine and to have got over 80 b.h.p. at 4,200 r.p.m. in the early stages. The engine was a standard s.v. Anzani, with the exception of a built-up roller-bearing crankshaft, and a lap speed of 106 m.p.h. was expected. Three other Horstmans

were merely tuned-up sports models, but the fourth car was also likely to be blown. Coe was to handle Edwards's car.

Alvis, Ltd., after their 1923 victory, were, naturally, putting in special cars. Capt. Miller was to have the 1923 winner and Harvey and Halford new cars. These latter weighed 11 cwt. (pretty incredible when you reflect that the Editor's 1924 "duck's back" weighs 17 cwt.) and had a wheelbase of 7 ft. 6 in. and a track of 4 ft. 1 in. The generously-drilled frames tapered outwards at the front and swept up over the rear axle, where the side members united. A front tubular cross-member was strengthened by diagonal stays to stiffen up the front of the chassis in case f.w.b. were used, while two bowed members braced the chassis in the centre and were united to form a support for the spherical housing at the back of the gearbox. The gearbox and clutch housing were in unit with the engine, the whole mounted on a patented 3-point suspension, which incorporated engine bearers on special rubber buffers, and the spherical gearbox mounting aforementioned. The engine followed previous "12/50" practice, but had enlarged inlet and exhaust ports, carefully polished, and a large Solex carburetter, while the compression ratio was put up to 6.6 to 1. Dry sump lubrication was used and the connecting-rods, of one per cent. nickel steel, were machined lighter than standard. Two oil pumps were used, scavenge and pressure, driven from the camshaft, and the tank was on the side of the chassis. Only the camshaft was splash lubricated. B.T.H. polar inductor magnetos were retained, and the aluminium 3-ring pistons had their gudgeon pins clamped in the connecting-rods (unlike later big-port sports engines, which used pads). The engine gave 50 to 60 b.h.p. at over 4,000 r.p.m., and power was well maintained for 300 to 400 r.p.m. below peak speed. The clutch was an inverted cone and the rear axle had a ratio of 3.5 to 1. This axle was solid, with exposed shaft and single brake, as on the 1923 car. Drive was *via* a torque-tube-enclosed shaft and rear suspension was by ¼-elliptic springs, the master leaf of which passed through a patent clip having two small helical springs at right angles to, and below, the main leaves. A second brake was incorporated at the back of the gearbox, consisting of two contracting shoes operated by hand-lever *via* quick-action threads. 710-mm. Rapson tyres were used and the cars were very stable, needing only slack-set shock-absorbers and being able to rush round Brooklands at full chat at the very inner edge of the Track. Driver and mechanic sat very low, one on each side of the propeller shaft, and the bodies had short tails, while three exhaust pipes on the off-side merged into the big Brooklands expansion boxes. The radiators and dumb-irons were most un-Alvis-like in appearance.

Joyce had a new A.C. which was outwardly similar to the car which finished 3rd in 1923 after much tyre trouble—and this time it really was ready. The 4-cylinder 69×100-mm. engine had four

tulip o.h. valves per cylinder, operated by an o.h. camshaft driven by exposed silent chain. Each crankshaft throw was separately balanced, and the clutch and flywheel were liberally drilled. The valves worked in special spherically-seated guides and the compression ratio was approximately 6.75 to 1. Cooling was thermo-syphon, assisted by a pump, and ignition by dual vertical distributors on the off side, of Delco Remy manufacture. Forced lubrication to all bearings of any importance was used, with an auxiliary filter in the line from pump to camshaft, and supplementary feed by hand pump. The radiator was flexibly mounted and the stay rod was connected to a flexible tongue on the header tank, it being possible to push the radiator back slightly by hand-pressure. The drive went *via* a floating single-plate clutch to a universal joint having a self-aligning Skefko ball race, and by open shaft to a torque tube anchored at its forward end to a tubular cross-member which also carried the pads for the $\frac{1}{4}$ -elliptic rear springs. The rear axle was the now famous A.C. racing type, solid, with exposed shafts and brake drums up against the bevel box. Steering was as in 1923, likewise the unique front axle assembly, but with better fairing in. The gearbox was, naturally, in the back axle. The channel-steel frame was very narrow for a 2-seater car and was liberally drilled and upswept at the rear, and an ash skeleton carried the aluminium tail. Hartford shock-absorbers were used all round, those at the front engaging the axle G.N. fashion *via* fibre-lined forks, and those at the rear being supplemented by two groups of six strands of aeroplane elastic. The radiator was very narrow indeed and partially cowled, and the 18-gallon fuel tank was in the tail, suspended at two points on the off side and one on the near side. Two Claudel Hobson carburettors on the near side had air intakes protruding from the bonnet to give a slight ram effect. This A.C. weighed slightly under 10 cwt. and pulled a top gear of 3.36 to 1. The passenger thrust his right arm through a hole behind Joyce's seat and hung on to a grip in approved schoolboy thriller fashion.

Meeson's A.C. had an Anzani engine and was expected to be blown. Thomas's entries were the barrel-shaped Marlborough-Thomas cars that appeared in 1923. Of the other $1\frac{1}{2}$ -litre entries, Mrs. Agnew finally nominated the 1922 Eric Campbell, now with s.v. Aston-Martin engine, for Morgan to drive. Gillow had a well-streamlined s.v. Riley which was afterwards raced in short handicaps for many years, and O'Day entered Montant, Blackstock, and Gallop in short-chassis, barrel-bodied Brescia Bugattis, similar to Cushman's 1923 car. Newton was to drive the Ceirano, Katon a Marseal, and Densham and Cushman short-chassis Brescia Bugattis. Peacock's Frazer-Nash was a 4-cylinder job.

As practice progressed it was seen that the Darracqs were very fast and consistent and beautifully prepared. Resta's sad death let Duller into the team. The cars lapped at about 106 m.p.h., Duller using larger wheels than those tried at first, after which experiment Lee Guinness and Segrave had their rear axles stripped

and the gear ratio raised. O'Day's Bugattis were more advanced than Cushman's car, the engine of which was stripped on the Tuesday before the race. Joyce's A.C. did some 103 m.p.h. and Coe's Horstman was said to be giving, finally, some 87 b.h.p. and to lap at 100. Alvis, Aston-Martin, Warwick and Thomas-Special all kept their maximum abilities dark, but Duller won a short handicap with his Thomas-Special at the August B.A.R.C. Meeting, at $85\frac{3}{4}$ m.p.h. Lionel Martin experienced very miserable luck when the special Aston-Martin crashed into its towing car and was wrecked; as is now history, H. S. Eaton sportingly took over the entry with a quite standard touring s.v. 3-seater. Eyston's Aston-Martin, too, crashed badly at Boulogne and could not be repaired in time to run, and the Ceirano was withdrawn.

Amongst the 1,100-c.c. cars, the Salmsons were naturally the favourites, and were very largely unchanged from 1922 form, with the well-known twin o.h.c. engines as before. They were said to weigh around $7\frac{1}{2}$ cwt., had tubular front axles, bound springs, f.w.b., and under-shields enclosing all but the sump. Aeroplane elastic was used instead of shock-absorbers. Hawkes, Zborowski and O. Wilson Jones were to handle them.

Pickett carried out some extremely interesting experiments with a supercharged G.N. engine. The well-known 90° o.h.v. V-twin was blown with a German centrifugal blower which delivered air to the carburetter. On test a comfortable 45 b.h.p. was obtained but, unfortunately, a piston broke at the gudgeon-pin bosses while the engine was running at full throttle and the cylinder head was irreparably damaged. Pickett therefore substituted his normal V-twin Frazer-Nash-G.N., which was almost identical to his 1923 car, but with modified bevel gearing and said to be "hotter" than previous 200-Mile G.N.s. Of the Morgans, Ware had a J.A.P.-engined car and Beart and Norris handled the "works" cars, which were similar in appearance to standard "Aeros." These cars went very high round the banking, lapping at some 90 m.p.h., and were expected to be faster than before. The Newton, with twin o.h.c. engine, had four-wheel brakes and a well-streamlined body.

In the 750-c.c. class Capt. Waite's Austin Seven was very similar to the 1923 racing jobs, but with a completely faired-in "Brooklands"-type body, the steering column being lengthened to give a lower seating position and a celluloid screen filling the space between the wheel and the scuttle, giving good instrument visibility. On the left of the mechanic was an extra oil tank and a double-barrelled hand-pump, each barrel of which held one-sixth of a pint of oil, forward movement of a lever discharging one barrel into the crankcase while recharging the other. The fuel tank held $9\frac{1}{2}$ gallons, and so a non-stop run was expected. The body was fabric-covered, and unladen the car weighed 6 cwt., or 10 cwt. ready to race. A Zenith carburetter and B.L.I.C. magneto were used, and the tyres were 700 x 75-mm. Palmers. The valves were somewhat larger than standard, and had duplex springs. Single-ring aluminium pistons gave a compression ratio of 6.8 to 1, the radiator was

standard, and forced-feed lubrication was employed. With a 4.5 to 1 top gear, 5,000 r.p.m. equalled over 80 m.p.h. Capt. Waite purposely used light tyres to obviate wheel wobble. Gordon England's Austin Seven had a chassis standard save for minor modifications. Special Hartford shock-absorbers were used, those at the front set transversely, those at the back beneath the springs, on special, drilled brackets. Axles, driving shafts and gear ratios were 100 per cent. standard. The body, including bonnet and fairings, was only 50 lb. It was built of very thin 3-ply on an ash framework, with staggered seating. Its width was 23 in. and height 36 in. from the ground. The underpart was faired with fabric and was completely flat, and both axles were streamlined by fairings. An aluminium heel-plate was used in lieu of floor boards. The seats were of beaten aluminium, and below the level of the propeller shaft, which had an aluminium tunnel over it. A wedge on the chassis raked the steering column, which also inclined to the near side, and the handbrake had no ratchet and was on the *left* of the gear-lever, which was practically horizontal, to clear the fuel tank. The latter held $8\frac{1}{2}$ gallons and was 3-point mounted under the scuttle dash. (Consumption in 1923 was $6\frac{3}{4}$ gallons for the 200 miles.) A 1-gallon oil tank over the engine, supported from the front of the fuel tank, fed to the sump on the bird-feed principle, to maintain the level, but only as a precautionary measure. The feed pipe entered the normal filler cap and a rubber sleeve enabled it to be withdrawn. Tubular connecting-rods were used and the aluminium pistons were very light and had two narrow top rings. The head had three-sixty-fourths of an inch machined off and the valves were of special steel, actuated by a high-lift camshaft. Thin oil was used in the back axle, steering box and gearbox, careful assembly being relied upon to obviate leakage. The standard pressure lubrication system was employed for the engine, which had two 30 H.K. Zenith carburettors and Delco-Remy coil ignition. The shell-less radiator was inclined rearwards inside a fairing and had tubular support running vertically to the header tank. Palmer 26 in. x 3-in. tyres were used and no spare wheel was fitted. It was hoped to maintain 4,750 r.p.m., equal to a lap speed of 85 m.p.h., and England considered that the engine had reached the peak of its development in unblown form; he proposed to experiment with supercharging for the 1925 race. The fuel tank rear support was by a single bolt which enabled the tank flange to float on a bridge support to combat chassis whip, the tank being 3-point suspended. A standard dished steering wheel was used, lightly cord bound.

Samuelson's late fee Austin entry was eventually withdrawn, probably on account of the driver's ill-health, but Hall, Hendy, Dingle, Kings, Cutler, Braid, Selby-Bigge and Spencer Grey were due to drive these wonderful little cars, in varying degrees of "specialness." The very greatest interest was aroused by Spencer Grey's entry of a Vagova, built specially for the "200," with a chassis very like that of the standard Vagova. This little French car had a supercharged

6-cylinder engine of 49.7 x 64 mm. (745.26 c.c.), giving 35-40 b.h.p. at 5,500 to 6,000 r.p.m. The cylinders were separate castings, bolted in pairs to an aluminium-alloy base chamber and surrounded by an aluminium-alloy one-piece water jacket. The crankshaft was built-up and ran in four ball bearings and the connecting-rods were tubular, with roller-bearing big-ends. Aluminium-alloy pistons were used and a geared-up centrifugal blower sucked mixture from the carburetter. The blower was geared 5 to 1 and rotated at 30,000 r.p.m. at maximum engine speed. The valves were overhead and were positively operated by a fulcrum rocker-arm and double camshafts, a system eliminating valve springs and patented by Godet and Vareille. A separate 3-speed and reverse gearbox with central gate change was used, and the rear axle was differential-less. Front brakes of Hersot-type were used, with part of the operating gear on the axle, and there were no rear brakes. Two fuel tanks were built into the chassis just before the rear axle and partially under the seats. Suspension was by 1/2-elliptic springs at

the front, to which the forged steel front axle was attached about two-thirds along from the back shackle pin. At the rear double 1/2-elliptics were used, set as a single 1/2-elliptic, and secured by a saddle surrounding the axle casing. The axle casing had a ball joint at each end, to allow oscillation between axle and springs. Again, the axle was about two-thirds back from the front shackle pin. The axle was a single steel casting and the propeller shaft ran in a casing acting as a torque tube, while a disc universal was used, supported by a small ball race in the centre. The engine was 3-point mounted, the clutch was a Ferodo-lined single-plate, and there was a transmission brake between engine and gearbox; all brakes were operated simultaneously by pedal or lever. The Maron-Pot body was very fully streamlined, the rear axle being carefully enclosed and the radiator cap set beneath the bonnet. Rudge wheels carried 710 x 90-mm. covers. The wheel-base was given as 8 ft. 9 in., and the track 3 ft. 4 in., in one reference, and 8 ft. 6 in. and 3 ft. 11 in. in another, early racing journalism not being entirely foolproof.

The patent rights for this remarkable little car were secured by Mann and Handover, but, alas, it never actually came to this country.

Nevertheless, with 50 entries at closing date, the 1924 "200" was an assured success, even if some of the entries, such as the Marseal and Newton, did not run. Small cars were certainly much faster now, as witness the fact that a Darracq eventually won at 102.27 m.p.h., and the fastest lap was 106.55 m.p.h. The 1,100-c.c. cars were mostly also quicker and this evening up of speed decided the organisers to run all classes together instead of separately as before, in spite of the inclusion, for the first time, of a "baby" car category. This made things easier for almost everyone, and new scoring arrangements added to the amenities to be enjoyed at Brooklands on September 20th twenty years ago. Yellow, red and green, respectively, identified the 1 1/2-litre, 1,100-c.c. and 750-c.c. classes, and 43 cars were expected to start when the flag fell at 3 p.m.

(To be continued.)



THESE reflections were prompted by looking through the Badminton Library compendium on "Motors and Motor Driving," edited by Alfred Harmsworth, and published by Longmans in 1903. This wonderful handbook covers the whole field of motoring when the century was young, beginning with a short history, an enchanting chapter on

★ Backwards

the "Utility of Motor Vehicles," of which more anon, advice on the purchase of a car, thoughtful hints about dress, a medical slant, technical articles on steam, electric and "petrol" (as it was always written) cars; wise words from a lawyer, "How to Drive," by Jarrott and Edge, reminiscences, and so on.

There are, of course, constant references to the "reader," the "beginner," the "tyro." And as I read I found myself looking at the book from the point of view of such a "tyro" as one would expect to have studied the work when it was first sprung upon the world; and the more I read the more the "reader" began to take on the guise of a hero, although still a beginner and probably still dim witted. I saw him as a placid country gentleman, perfectly content to hunt four days a week and receive his *Times* three days late, being gently persuaded by his wife (wives used to persuade gently in those civilised days) that he should acquire a motor. I could see the first stubborn refusal, the further pleading, the pointing out of advantages, the fact that Mr. So-and-So had a car, the arrival of friends to tea in, say, an electric brougham, the further considering, the final reluctant compromise to "look into

it." There is little doubt that it was at this stage that our hero first encountered the Badminton *vade mecum*, and it is the fact that he studied the book and still saw fit to buy himself a motor which really makes him a hero. Let us now accompany him as he delves into his new book.

The first chapter, on history, he probably skipped, and went on to the "Utility of the Motor Vehicle," by the Hon. John Scott Montague, M.P. He is at once informed that it is harder to get a good chauffeur than a good car, but that,

and Downwards

if he does get one "who is content to take you round corners at a reasonable speed when the wood pavement or asphalt is wet, then you can enjoy your newspaper or talk to your companion with as much serenity as if you were sitting in your favourite chair at home." Mr. Montague goes on to describe the advantages of the motor to the sportsman of considerable possessions, including a "stable of at least six horses," and a generous property affording good shooting and fishing, and points out the advantages of having two cars, one for the guns and one for the loaders; he extols the merits of shooting golden plover, wood pigeons and partridges from the car "without rising from the seat," while another unusual idea of his is to pursue hares and rabbits at night by acetylene lamplight and "pick them off." He sensibly points out that "panicked rabbits or hares who dash frantically under your wheel" are more suitable for making soup than for roasting.

We may suppose our embryo motorist to have absorbed this chapter with inter-

est and mounting enthusiasm, but this is somewhat damped in the opening paragraph of the next chapter on "The Choice of a Motor." Hear Mr. Harmsworth. "Of the three or four hundred types and varieties now in existence, many are of no practical use, some are extremely complicated, not a few dangerous, and many more or less faulty in construction." And, again. "The term horsepower is open to much misconstruction, and used very loosely by manufacturers in their advertisements . . . any person who has carefully considered the pages of advertisements in the motor papers will long ago have come to the conclusion that for ways that are dark



Peter Robertson-Rodger discourses on the sorrows of the "Good Old Days."

the motor-car agent is, in some cases, a long way in advance of the horse dealer."

He goes on to advise the fitting of solid tyres on the back, to avoid expenditure, and says: "I am inclined to think that the pneumatic tyre craze has been altogether overdone by motor-car owners." After a description of his Serpollet "travelling carriage" and a dissertation on Continental touring ("it is pleasant to take two cars, one faster than the other . . . the fast one can be sent on ahead so that dinner and rooms for the night can be ordered"), the chapter ends with advice on buying a secondhand car. Here we are advised: "Insist on a whole day's trial on a hilly road," and "Let the engine be taken to pieces after the trial, to ascertain condition of cylinders, gear and bearings. Should the cylinders prove to have been heated on any occa-

sion, drop the idea of purchasing the car." Try that on to-day!

It is to be supposed that our hero passed up the diverting chapters on dress, as we shall have to; they are so incredibly funny that they need quoting in full. One excerpt from each must suffice. Says Lady Jeune: "... try as hard as they can, it is almost impossible for women to make the dress they have to wear a becoming one." The stark truth of this is backed up with awful emphasis by four photographs of the most slab-faced women imaginable. In the men's section, Baron de Lyevelt, discoursing on suitable headgear, says: "... so far as the roads are concerned, the peaked cap is only to be seen on the heads of drivers and conductors of tramcars," and discourages its use.

There follows a treatise on motoring from the medical viewpoint by Sir Henry Thompson, Bart. I make no excuse for quoting at length—nothing I could add could hope to improve this superb chapter.

"Personally," writes Sir Henry, "I have found my drives to improve my general health. The easy jolting which occurs when a motor car is driven at a fair speed over the highway conduces to a healthy agitation; it 'acts on the liver,' to use a popular phrase, which means only that it aids the peristaltic movements of the bowels and promotes the performance of their functions; thus accomplishing the good in this respect which arises from riding on horseback. Horse-riding has, however, the advantage of necessitating exercise of the muscles of the legs. This is one of the disadvantages of motoring, but I have found that it may to some extent be overcome by alighting at the end of a drive of 20 miles, and running smartly for two or three hundred yards. I make this a practice in relation to my motor drives." (Sir Henry was eighty-two.) "I have known instances of ladies suffering from defective nerve power who have derived great benefit from the invigorating and refreshing effect of meeting a current of air caused by driving in an automobile."

The particular nerve trouble is not specified, but Sir Henry recommends motoring as a cure for insomnia and overwork. "A drive behind a horse scarcely amounts to a recreation after the turmoil and worry of his work." The girls come in

for it too. "... if women are going to motor, and motor seriously—that is to say, use it as a means of locomotion—they must relinquish the hope of keeping their soft, peach-like bloom." Eye trouble should be guarded against by washing the eyes with a weak solution of boracic acid.

The technical chapters which follow, including a remarkably inept explanation of the four-stroke cycle, will leave us as cold as our novice. His waning interest is given an unpleasant kick in the pants when he comes suddenly upon an arresting contribution by the Hon. C. S. Rolls, called "The Caprices of the Petrol Motor," and after struggling with a few pages of the terrifying advice contained therein, there is little doubt that he hurled the book on the floor and mixed himself a stiff drink. I think it was probably the following passage that caused him to take this wise and sociable step. Dealing with the difficulties of starting, one is advised that "in obstinate cases it may be necessary to warm the carburetter underneath by means of a little cotton waste soaked in methylated spirit. There may be a slight flare-up, but this will assist the carburation, and there is nothing to fear from it, so long as the main supply cock has been carefully closed."

If you can't imagine the effect of that advice on a sensitive man who disliked the idea of motoring anyway, I can. But worse is to come. After warning the "innocent motorist" of the dangers of a broken arm when endeavouring to crank up, we come to a list of five "road troubles": (1) motor stops; (2) motor nearly stops and then goes on again; (3) motor will not 'pull' well; (4) motor will not govern or 'cut out' properly; (5) unusual noises." (The last, of course, can hardly be called out of date.)

Each of these haunting possibilities is dealt with fully, but in such a manner that our by now almost besotted hero probably has the impression that he must not only be a trained "mecanicien" but should be accompanied by a sort of travelling workshop and store. He finds he must be prepared, say, when running over to play tennis, to drain out all the water and refill, repair hose connections, paraffin his cylinders, change exhaust valve springs, grind his "pressure valve," detect a missing cylinder, clean the

"mushroom piece" of his carburetter, beware of "puffing" noises and irregular "bursting" noises, and ensure that no part of his car gets "carried away" by contact with a dog.

Finally comes a series of tips, of which I quote the following:—

Don't spill the petrol over your clothes, and then strike a match to light your pipe.

Don't let a willing ostler fill up your petrol tank with water.

Don't pedal your tricycle for half an hour before remembering the plug, unless the doctor recommends it.

Don't let the starting handle fly off and hit you on the chin, and don't trouble to turn on the petrol tap if there is none in the tank.

We near the end, but from the chapter of "Reminiscences" by Sir John MacDonald, K.C.B., one incident stands out worthy of "Hellsapoppin," or the Marx brothers. A motor car, driven by a lady, and with her father as passenger, suffered one of the usual complete breakdowns, necessitating removal by a horse. After a long wait, they got the horse attached to the car, an enterprising yokel on its back, and the two travellers on the car. The yokel got the horse cracking at unexpected speed and nearly undid the knot in the rope. At a cry from the car crew, he stopped as suddenly, so that the car ran into the horse. The horse then sat down on the dash of the car and broke it in half. On being persuaded to rise, another start was made, but this time the horse got its leg over the rope and, in some way, wound the rope round the wheel. The car then ran over its hoof... the ding-dong battle continued most of the way home.

I like to think a gentle smile lit up the tired face of our hero, if he ever got as far as this. But with his head in a whirl of unreliable cars, unobtainable drivers, bursting noises, flare-ups, shady dealers, sprinting doctors, bloomless women, tram drivers' hats, and chasing fauna by lamplight, I think it much more probable that he mixed himself another large drink and then ordered the gig. His gently persuading wife? He probably murdered her.

Footnote.—Page 374: "There is no space to write of the humours of automobilism."

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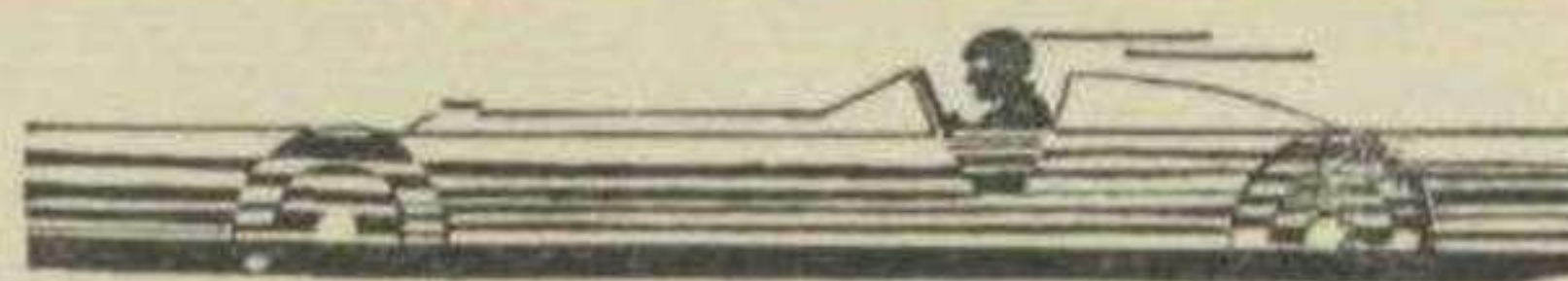
FIRST let me write that I am on an aerodrome away from all my old diaries, photograph albums, etc., which are (I hope) in London, so that dates and times are rather vague.

My first car, and it hardly deserves that name, was an A.V. Monocar. About the only thing it had in common with a car was that it had four wheels in the conventional places, roughly one at each corner. It was a single-seater with a track of about 3 ft. 6 in. as far as I can remember. The engine, a 7-h.p. J.A.P., air-cooled, was at the back and drove by a chain through a two-speed epicyclic gear down to the solid back axle. The steering was by "bobbin and cable," i.e., the steering column, vertical, had a wire cable wound around it, secured by a bolt, and the ends of the cable passed direct to the ends of the front axle which was pivoted in the centre and, as far as I remember, unsprung. When seated the driver's posterior was some 10 in. from the ground. Funnily enough it went quite well and I had a lot of fun out of it; the main snag was that there was practically no weight on the front axle (there being no reverse, one got out and, literally, picked up the front of the car and walked it round if reversing became necessary), and in snow or slippery roads the car just went straight on irrespective of the steering. I nearly forgot its main feature—the starting apparatus. The crankshaft had an extra external chain sprocket fitted with a free-wheel. To start up one pulled a chain, about 3 ft. in length, which made contact with this sprocket. In theory it really was very good as it spun the engine over about four complete turns. In practice one gave a sharp pull and the engine would start immediately. Unfortunately, the epicyclic gear would bind and the car would immediately start to creep forward, leaving the unfortunate owner holding it back by the chain at the rear. If he tried to slack off the chain the car ran away, and if he held on he couldn't (a) get into his seat, or (b) reach the throttle! What happened depended on whether help was forthcoming or not. A second "seat" was provided in the form of a pad on top of the cowling between the front cylinder and the driver's head! Any misguided person who could be persuaded to have a trip sat up in the air with his feet down on the driver's seat, and any acceleration (and that was good) slid him or her smartly back on to a nearly red-hot front cylinder and a nicely situated sparking plug. I sold it to a fellow undergraduate at Cambridge, carefully warning the proud new owner that he must not corner fast or he would turn over. His only remark was, "Oh, you're windy," and he shot off down Jesus Lane at great speed, only to turn over on the very first corner and break his arm, by which time I was safely with his cheque in a conveniently nearby bank! I have just remembered that I bought the A.V. originally from Mavrogordato, who was then "up" as well.

A pause of about six months, then a small "windfall" put me in the market again. My next purchase was an 11.9 Bugatti (funnily enough I bought it from A. R. Lindsay, who wrote about it in MOTOR SPORT some time ago). This was described in the advertisement as having "a clover-leaf body painted in deep cream!" In practice it was bright

CARS I HAVE OWNED

This instalment is by a well-known vintagent who requests us to hide his identity under the pen name of "Rivers"—Ed.

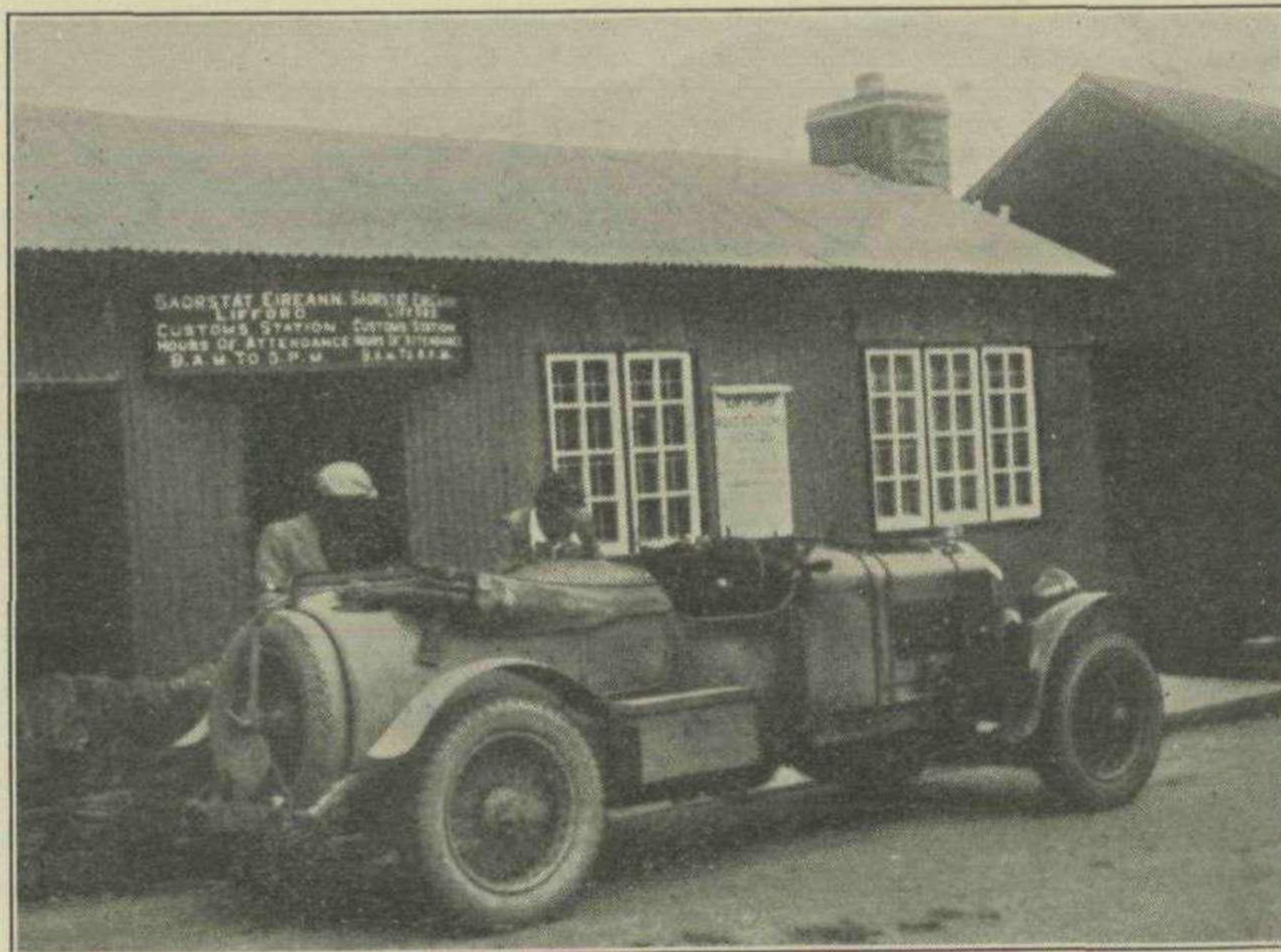


primrose with black wings. This was a really good car and I had it about two years. Its snags were the Bugatti snags of the period. First the brake pedal and brake levers appeared to be there merely as ornaments; the former worked on the transmission, and application produced either an unpleasant smell of frying oil or a violent skid; in neither case was there any appreciable diminution in speed. The latter's position was governed by whether the driver minded it rattling or not—it had no effect at all. Some year or so later I had "halo" brake linings fitted and this was a marked improvement. As mentioned, this car was good fun. I won two prizes at Dean Hill (near Romsey) and came in well up in the first J.C.C. sports-car affair at Brooklands—the High Speed Trial, being robbed of a "gold" by a broken dynamo belt. Tim Rose Richards made his first appearance in this trial, also on a Bugatti. The real snag was the starting up—or lack of it. To this day I do not know what was wrong. I had mags. changed, carburetter changed, valve guides seen to, and all sorts of experts from Cushman downward working on it, but the result was the same. One could walk up, give it one pull up, and away it would go as good as gold;

stop it for a moment and towing it behind a taxi wouldn't start it. I, in common with all old Bugatti drivers, still have a permanently thickened knuckle on my right forefinger, which used to come in contact with the split-pin holding the nut on the band front shock-absorber. The hand, on the starting handle, had a clearance of about thirty thou. with this, and one's knuckle never got time to heal up.

Next, like "E.R.H.H.," I got fed up with complications and bought a "Red Winger" 10.9-h.p. 2-seater Riley. I honestly think that this was one of the best cars ever made. A lovely driving position, four speeds, and a straightforward side-valve engine which gave no trouble whatsoever. In its standard form it would do about 64 m.p.h., and brakes and steering were first class. "E.R.H.H." and I were, and still are, great friends, and our car experiences rather overlap; I went through practically every trial in England as his "navigator." In 1926 (I think) I got bitten by the Brooklands bug and turned my Riley over to Laystalls. They balanced the crankshaft, much to Victor Riley's horror, fitted new pistons and an entirely different camshaft. Then Victor Gillow—just starting out then—lowered the chassis and did the final tuning. The speed went up to around 80 m.p.h., but the transmission couldn't take it, and my Brooklands appearance was a complete fiasco, as the propeller-shaft "whipped" so much that I couldn't hold the top gear in; so that was that. Simultaneously I received a message from my bank manager saying that something was "out of balance" in his department also, so I sold the Riley.

My next was a really lovely 14-h.p. D.I.S.S. Delage. An open 4-seater body with the rear seats decked over and given a second windscreen—the whole



The author's 1929 Le Mans 4½-litre Bentley. Two of the cars at Le Mans had this saddle-type fuel tank with filler right up in the hood.

rear shield being mounted on an "oleo" so that it could not slam down and break the screen. The hood could be either left in the conventional position or could be taken off, folded in three easy movements, and stowed in a box under the off-side running board. The 4-cylinder push-rod o.h.v. engine had bags of power, and the steering was the best on any car I have ever known. I do not know how it was done, but one could come up fast to a corner, turn the wheel with one finger if one liked, and to straighten up, merely loose the wheel, which flicked back straight instantaneously. The engine had composite pistons—the crowns being aluminium-alloy and the skirts cast-iron (anti-slap), and soon after I had it it developed a slight tapping noise when idling. A year's "mucking about"—including my good friends Thompson and Taylor—failed to cure this, and it made no difference to the running, but when I *did* sell the car to Jerry Sayers—then of Hawkers—I couldn't help being amused by his saying, "Oh, I'll stop that in a few moments; it's only a tappet." Again starting was the trouble; there was a combined starter-dynamo on the front end of the crankshaft, and the epicyclic gears were much too small and constantly sheared, so eventually I welded the lot up solid and used it as a dynamo only; she always started (Ki-gas) on three pulls up.

Next a "Red Label" 3-litre Bentley, with an open Park-Ward 4-seater body; she was the old "double sump" type and a perfect car which never gave any trouble at all, and took me all over the British Isles. My only queer experience was starting off on leave for Devonshire, and just coming out of Guildford towards the Hog's Back, when there was a sudden shriek from the engine; it was so loud that passers-by on the pavements stopped and looked round. I pulled up—not a sound, but acceleration produced the same noise. I was near a garage and pulled in, being almost sure that the top bevel drive to the camshaft had run dry. I took off the camshaft casing—all perfect. Noise again, but now, seemingly, from the magneto cross-shaft drive; awful panic, then a brainwave. I took off the port magneto and the noise stopped; spun the magneto up on a lathe and got the noise at once, but curiously enough it was *not* the internal gear wheels; it was merely a chipped carbon bush which was, presumably, dithering up and down causing the shriek. No one in the garage, or myself, had ever heard of it happening before. Then, tragedy! I left the Bentley in the car park outside the Empire in Leicester Square when I went to a cinema. Came out of the show—no car! To cut a long story short—to quote Nathaniel Gubbins—it was later recovered smashed to pieces in a smash-and-grab raid, and was gone for some six months. Meantime I bought a 3-litre Bentley "Blue Label" (chassis No. 17), no f.w.b., and the b.w.b. (why does that look queer?) were metal to metal, and produced a loud "pishing" noise like a vacuum brake—an excellent pedestrian scarer. The gearbox was actually nicer than the Red Label, as all the ratios were closer. It had a Smith "beehive" carburetter, and I could get an honest 27 m.p.g. on a decent run;

pretty good for a 16-h.p. car; also the centre of the camshaft casing boasted a lovely breather like a copper mushroom. The car was called "The Ancestor," and beyond breaking out into beads of sweat all over the radiator on steep hills, never gave a moment's trouble. I sold it when my "Red Label" was returned. I must digress for a moment to say that I never went near any works except Bentley's own Kingsbury depot with any of my Bentleys, and I can never wish to have made more pleasant friends. I always had the Bentley "seal" on my engines and never had cause to regret it—or only once; see later.

The heyday of my motoring career was reached when I bought KM 3088, a genuine 4½-litre Le Mans team Bentley. She was 1929, unblown, and had been owned by Lauchlan Rose ever since Bentley's sold her. I never want any other car; alas, the war and finance forced me to sell her. In 1929 Bentley's made two unblown 4½s for Le Mans (the other has been burned), and they differed from other models in that they had large 32-gallon saddle tanks set *in* the tail over the rear axle with the fillers right up on the hood and the spare wheel upright in the tail of the body shell. There are some good photographs of "the Old Girl" in Sammy Davis's book; one hitting a sandbank in the "Double Twelve" and one having a spot of hood bother in the pits. Her number plate is YW 2557. This car carried me for some four years all over Great Britain, Ireland, France, Belgium, Germany and Austria and was, to my way of thinking, perfect. I covered 84 miles in an hour on the Wurtzburg-Munich autobahn, and that taking things quite gently. My only fiasco was when I tried to run her at Shelsley (quite the wrong type of car, but good fun), and Bentley's lent me two Rolls-Bentley pumps. I think they must have pumped against each other, as I only just got to the top of the hill in bottom gear! That was the only time they let me down. I ran in various speed trials, but mostly I liked long-distance touring. There were many points on the car which could be standard on all cars. A panel in the side of the bonnet could be opened and at one glance the oil level could be ascertained and, if necessary, fresh oil added without opening the bonnet. A jockey pulley on the cable took up all brakes by a handwheel on the cockpit floor; all fillers were enormous. I never had any trouble running on discolor, and on a big run did anything from 14 to 17 m.p.g. Frankly, *unless you have a Le Mans job*, and a GENUINE one, too (not one of the numerous fakes), I do not think the standard 4½ is worth the extra tax; I'd rather have a 3-litre. My car still had all the duplicate, pressure or electric pump system fuel supply, and duplicate oil pipes strapped alongside all external ones. It really hurts to think that I will never drive her again. I got married in 1938 and the Bentley was supplemented with a Fiat "500." A grand car, and I mean that by all standards; drove just like a big car, high-g geared and more leg-room than the Bentley. That, alas, has gone too, so at the moment, for the first time since 1919, I am a genuine pedestrian.

This article is about cars I have owned, but at various times I had quite a bit to

do with the following unusual ones, amongst others. A 1914 27/80-h.p. Austro-Daimler—one of the four special cars built for the 1914 Alpine trials. A friend of mine had it in 1920 and it was years ahead of its time even then. The engine was actually a 4-cylinder edition of the Austro-Daimler aero engine (from which the Beardmore was copied and which gave many ideas to the B.H.P. and Puma aero engines). The separate cylinders were copper water jacketed, and the overhead camshaft operated two valves set at 90° in each cylinder. By undoing the manifolds and a locking ring the valves complete with seatings were instantly detachable. The two magnetos were driven like the Bentley mags., from a cross-shaft. The braking system was unique. *No* f.w.b. but two footbrakes and a handbrake, all effective. One brake pedal operated internal expanding b.w.b., the other a transmission brake, and the hand-lever worked external contracting b.w.b. Four-speed box and a maximum of 1,400 r.p.m. all out. Really a lovely car by any standard.

Then there was a fast Chenard-Walker, with f.w.b. and transmission brake, but no b.w.b.; a Burt McCullam sleeve-valved racing Bertelli; several Diattos; a 90-h.p. rotary-valve Itala; a Berliet (the radiator badge of which was a locomotive, and the weight of the car about the same); a rotary-valve Darracq; several "30/98" Vauxhalls; but best of all, 3-, 4-, 4½-, 6½- and 8-litre Bentleys.

Curiously enough (apart from the A.V., which was hardly a motor car) I have never had a car without four speeds, have always had 4-cylinder engines, and still like a "crash" gearbox. The only piece of constructive motor legislation that I would like to introduce would be a regulation whereby *no one* could obtain their first licence to drive a car unless they could produce proof that they had ridden a motor-cycle for at least 2,500 miles between September and April of any year. New drivers would then appreciate acceleration and braking on greasy roads.

It seems all wrong to be motorless, but it is probably a good thing, as it makes one appreciate how lucky one has been before, and when I am offered a lift on the road I can accept it with a clear conscience, as I have always given lifts when I've been driving myself. Anyhow, I have only to doze off for a few moments in a chair to feel the wind in my hair again and hear the old "hour glass" pistons rattling away. Grand days!

A final word. I lost my right leg many years ago and dislike "tin" ones intensely. If any of your readers are in doubt as to the best way of modifying a car (and the cheapest!) I will be only too glad to tell them. After 25 years I know all the snags, and ways of overcoming them.

COVER PICTURE

This month's cover picture was topical at the time this hurriedly-prepared issue went to press, for Le Mans had just fallen into British and American hands. It shows Alfa-Romeo and Bugatti sports cars in action during the classic 24-hour race held every summer on the circuit outside this French town.

Raymond Mays's E.R.A. On Show

SATURDAY, July 8th, was a day of pageantry in the little town of Bourne. The occasion was a Red Cross Fete, which was held on the local sports ground, and we, in particular, are interested in one very famous E.R.A. which was exhibited there, with literature, paintings and boards of photographs in a marquee which it had to itself. One may have guessed by now that the car was the property of Raymond Mays.

The fete was due to start at about 3 o'clock, and at 2 p.m. a number of helpers arrived at Ray's house to find the E.R.A. all ready and beautifully polished, the thick grease having been removed from the bright front suspensional parts and the engine. This work had been carried out by certain enthusiastic lads—would-be mechanics and drivers—from the local grammar school.

The E.R.A. was to be pushed by hand half a mile to its marquee, and it set out surrounded by the many willing helpers. There were no less than three people steering it and 14 persons had contrived to find room to apply a hand and provide motive power.

Once off the road the E.R.A. felt uncomfortably taut, the reason being the torsion bars had been removed, and the large hexagon nuts, one on each side, were held in position with copper wire between the abutments provided in the suspension system to limit excessive movement.

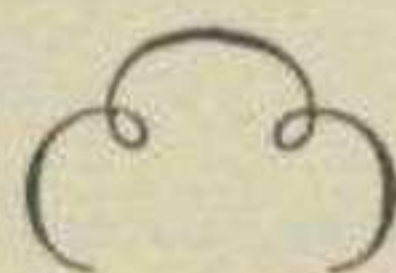
One shilling was the price of admittance to the marquee, and this enabled one to compete for three cash prizes by guessing the weight of the car. A shrewd guess by Mrs. Wiggin—who generously gave her prize back to the fund—of 14 cwt. 56 lb. was dead correct.

Ray was on the spot most of the time and was constantly plied with questions, which varied between the awful "What

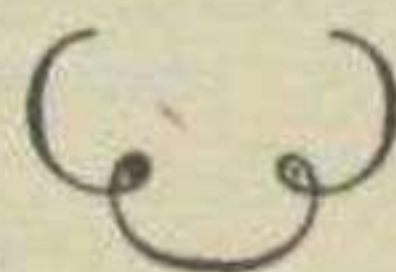
will she do?" to enquiries about the tin content of the big-end babbits.

Amongst Ray's more personal friends who turned up were Wing-Commander Lester and Squadron-Leader Craxton, the latter being a great Riley enthusiast, owning four specimens of that marque. Wing-Commander Lester did most of the organising and limited the number of people in the marquee at one time.

A number of Free French officers



It is so important to introduce the public to the racing car that we need make no excuse for this belated report of how Raymond Mays aided the Red Cross—Ed.



necessitated the organisers resorting to higher mathematics in order to convert kilos. into cwt. and lb. The Frenchmen took a keen interest in the car, but owing to the language difficulty, technical discussion became tedious. Two Frenchmen in particular were most excited; one came from near Peronne and the other from Albi, which events Raymond Mays has won and for which circuits he holds the course records.

An Australian pilot warrant officer (a reader of MOTOR SPORT) was a great enthusiast. He spent a long time with Ray learning some of the lesser-known points about the E.R.A. He informed us that he had journeyed many miles to see the car.

Very young boys set the pace for enthusiasm. A gang of them found their way into the marquee without paying, and it was as much as one could do to stop them climbing into the cockpit of



Raymond Mays at the fete.

the car, which appeared to be their major aim.

It is worth noting that the insignia on the front of the car has now been painted in such a way that the letters E.R.A. are black; the chrome background is retained, and the hitherto red, white and blue surrounding discs are now pale blue. The improvement is most marked.

At 5 o'clock some of us went back with Ray for tea, which started off in rather a formal way—nobody became seated, and everybody was saying, "No, after you." Eventually shepherded to our chairs by Ray's ever volatile and charming mother, we started one of those witty conversations in which everybody says something amusing, and we all felt very pleased with ourselves. Never did strawberries and cream taste better!

When we got back to the fete again the show was still doing a brisk trade. At 8 o'clock the festivities came to a close, and once again the famous E.R.A. was eclipsed by human forms pushing it back to its repression.

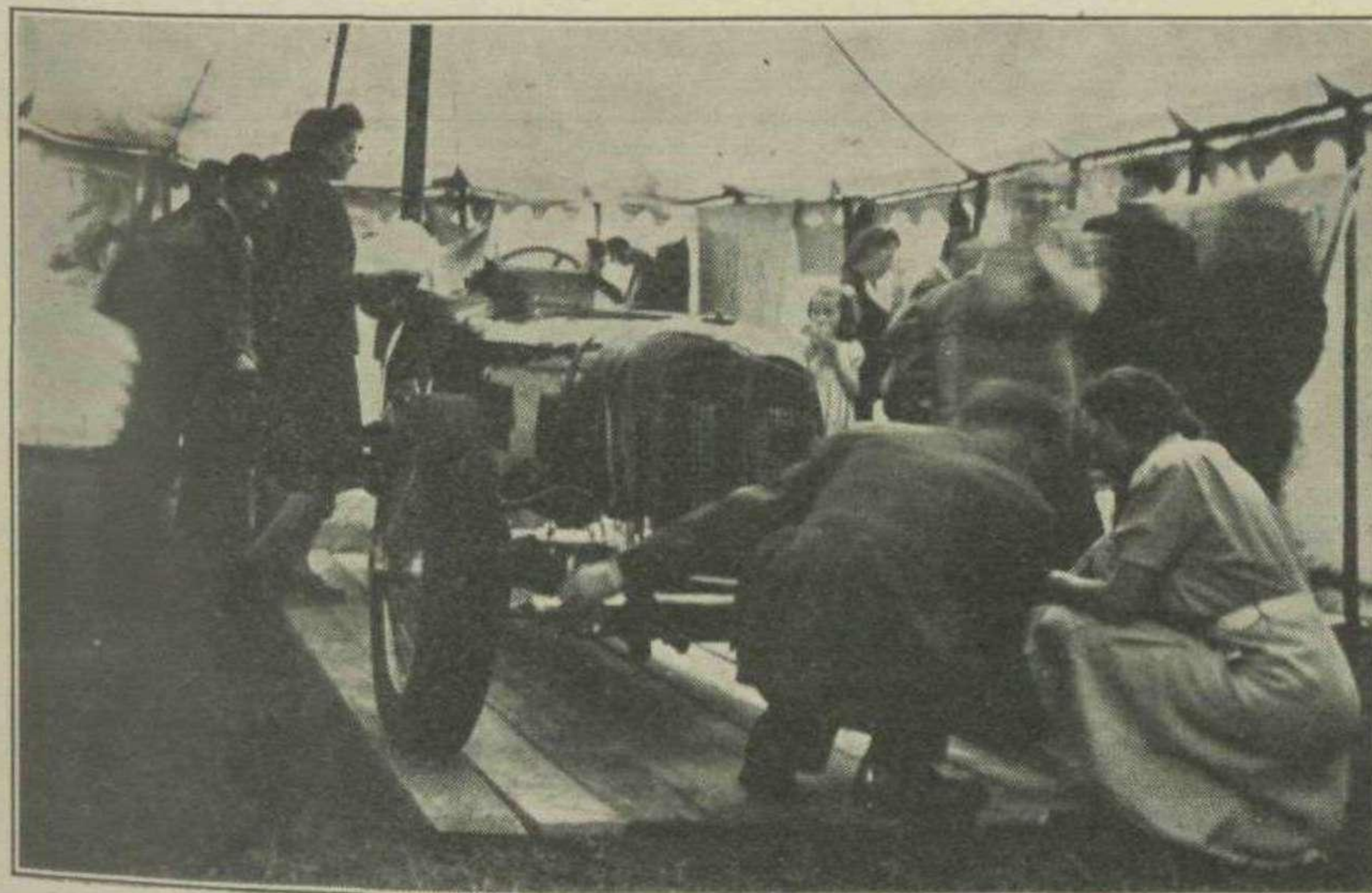
It is hoped that the next time it makes a public appearance it will play a more active role, and that it will not be very long before the exhaust note of that 2-litre engine vibrates the little town of Bourne.

(Reported by F/O. Donald Parker, who produced the posters and took the photographs.)



"Lebensraum" for Motor Sport

The offices of MOTOR SPORT were removed on August 26th from 21, City Road to 15-17, City Road, London, E.C.1. In future all communications should be sent to the new address.



The E.R.A. in its marquee.



THE SIXTEEN-VALVE BUGATTIS

Another Enthusiast writes of this popular Car

FOLLOWING the success of his 8-valve 65×100 mm. 4-cylinder model, M. Bugatti produced a team of three 16-valve cars for the 1914 Voiturette Race, which was interrupted by the war. When it was seen that war was imminent, the Bugatti factory at Molsheim, in German Alsace, was closed and the three cars sent to Italy, M. Bugatti being of Italian nationality at that time.

In 1917 the cars were brought back to France, where they were used in connection with French aviation, and M. Bugatti got busy with aero engines.

After the war a return was made to Molsheim, this time in French Alsace, and the three cars were prepared for the 1920 Voiturette Race at Le Mans.

In the meantime a production model was shown at Olympia in 1919 by the English concessionaires, Chas. Jarrott & Letts, and was described as 10 h.p. 66×100, 1,368-c.c. 16 valves, and one o.h. camshaft, 7 ft. 10 in. wheelbase, 3 ft. 9 in. track, 62 m.p.h. guaranteed. Chassis £750. (The 1919 3-litre Bentley was guaranteed to do 75 m.p.h.)

The three team cars were driven by Friederich, Braccoli and Viscaya, the first two finishing 1st and 5th. Viscaya was disqualified because M. Bugatti unscrewed the radiator cap, and the rules forbade anyone but the crew to touch the car. The race was of 256.5 miles, and the winner's speed was 57.6 m.p.h., and fastest lap 65 m.p.h. The roadholding qualities of the model were particularly mentioned, pointing out the difficulty of incorporating this in a light chassis—the cars could not exceed 1,100 lb. empty.

In January, 1921, H. O. D. Segrave bought the winning car and found no difficulty in putting 63 miles into the hour on his journey across France. This car (XE 6132) was described fully in *The Autocar* as of 65.64×100, 1,353.24 c.c., 16 valves, one o.h. camshaft, one double-spark magneto, plugs either side block, one Zenith carburetter, compression ratio 5.52 to 1 [inlet valve opens t.d.c., closes 35° after b.d.c.; exhaust valve opens 45° before b.d.c., closes 15° after t.d.c.]. Valves 24 mm. diam., b.h.p. 29.5 at 2,750 r.p.m., wheelbase 6 ft. 5 in., track 3 ft. 9 in., weight 13 cwt., 3.25 to 1 top gear, 710×90 tyres.

This was the car which was to have challenged the Aston-Martin to race at Brooklands, but did not turn up—as a result of the propeller-shaft dropping in practice.

At the 1920 show the standard production model was described as of 68×100, 1,453 c.c., 16-valve, £735 chassis, 48 m.p.g. claimed, chassis weight 9 cwt., wheelbase 8 ft. 4 in.

The works cars next raced were 68×100, 16-valvers for the 1921 Italian 1½-litre

G.P., finishing in the first four places—won at 72 m.p.h. These were similar to Segrave's car, except that the crankshaft was mounted on ball-bearings and the engine had "experimental" roller big-ends. There were two magnetos on the dash; maximum power at 3,350 r.p.m., 3.0 to 1 top gear.

At the 1921 show the standard car was shown as Crossley-Bugatti, as arrangements had been made for the production in this country, apparently rather short-lived, as only 25 cars were completed.

The first great performer on the model, both standard and sports, in this country was Leon Cushman, who raced them in sprints, hill-climbs and 200-mile races. Indeed, his speed in the 1923 200-Mile Race was not believed by the Patron himself. (91 m.p.h. and over 100 m.p.h. for the flying half-mile.) Special tuning included 8½ to 1 compression ratio, two carburetters and alcohol fuel.



Cecil Clutton recently described the pre-1914 Type 13 8-valve Bugatti, and now J. A. Fawcett rounds off the history of the early 4-cylinder Bugatti cars with this article on the 16-valvers.



For the 1922 1½-litre T.T. in the Isle of Man three cars were entered and driven by Viscaya, Maury and B. S. Marshall, and were described as 69×100, 16 valves, crankshaft bearings, two ball and one front plain, 47 b.h.p. (Talbot-Darraeq 50 b.h.p.). The plain bronze big-ends gave a little trouble.

At the 1922 show two varieties were offered for the first time, *i.e.*, 68×100 standard and 69×100 "Brescia."

In 1923 a stout effort was made at Le Mans 24-Hours Endurance by a standard 4-seater—fastest 1½-litre, average speed 46.3 m.p.h. (winning Bentley 57 m.p.h.) By this time the 16-valve Bugatti was extremely popular and enjoyed considerable success in the hands of Cushman, Raymond Mays, E. R. Hale, B. S. Marshall, etc.

Mays, particularly, with two cars, "Cordon Rouge" and "Cordon Bleu," put up a performance which can never have been equalled in the Sport, and in the nature of present-day affairs, is never likely to be. His standing starts were remarkable for clean, effortless get-away,

and the number of fastest times of day regardless of engine capacity indicates the speed thereof.

In 1924 a special version of the 6 ft. 5 in. "Brescia" was proposed, modified to Raymond Mays's specification, priced at £570, and capable of 40, 70, 85 and 90-plus on the gears. Apparently production difficulties were encountered by the concessionaires—Jarrott & Letts—and nothing came of it.

At the 1923 show two models were again offered for the 1924 season, the 11.4-h.p. chassis at £350 and 11.9-h.p. chassis at £475. The latter was called a "Modified Brescia," and had the ball-bearing crankshaft and single magneto. During 1924 the 68×100 was discontinued and the standard 11.9 model was the "Modified Brescia," guaranteed to do 65 in third and 75 in top (3,600 and 3,200 r.p.m. approximately respectively). Rear-wheel brakes only were fitted and the chassis cost £330, and the 2-seater £485. The "Full Brescia" was also offered at £50 extra, 10/90 in top being claimed.

In 1926, the last year, front-wheel brakes were fitted, of similar design to the G.P. type. Up to this time, Chas. Jarrott & Letts were the concessionaires, various models being described by them as Type 22, 68×100, 11.4 h.p., 7 ft. 10 in. wheelbase; Type 23, 68×100, 11.4 h.p., 8 ft. 4 in. wheelbase; 11.9-h.p. standard "Modified Brescia," 69×100; 11.9-h.p. standard Sports Model or "Full Brescia," 69×100.

In 1926 a branch of the factory was established at Brixton.

The above particulars are collected from *The Autocar* by courtesy of A. L. Moir, West Bank, Lancaster, who owns a complete edition, and from memory, the writer having purchased his first 16-valver from B. S. Marshall in June, 1924, and his last and present from F. H. Hambling, in 1937.

It is a thousand pities the 16-valve Bugatti went out of production, as a modernised version would still be outstanding, and the object of the design—high-speed cruising with economy—is still very desirable, and not easily obtainable on present-day cars, which are apt to mop up the juice when mopping up the miles.

ALIBI

An American banker, charged with driving at 65 miles an hour, said: "I was afraid someone would bump into me from behind."

The police gave him a prize of five dollars "for the most original alibi given by an arrested motorist."—*Daily Express*.

War-Time Motoring in Three Continents

MOTORING in time of war is for most enthusiasts drastically curtailed. In that respect I must have been particularly fortunate. My annual peace-time mileage was around the 60,000 figure, covered in all-shapes and sizes of automobile. Until I was posted to my first R.A.F. unit in July, 1941, I was engaged in work of an essential nature, and a certain amount of motoring was therefore permissible. However, my experiences with the horseless carriage since that date may be of greater interest.

The first two months, from the motoring angle, were disappointing, and it appeared rather surprising that none of my companions, most of whom were cadet pilots, evinced the slightest enthusiasm over any unusual type of motor car. Some, in fact, had never driven a car.

However, a pleasant Atlantic crossing found me in Canada, *en route* for the U.S.A. Nothing spectacular was noted during a week's sojourn in Canada, although a lone E. W. Daytona Hornet Special was encountered in Toronto in company with a few of the smaller models of Austin and Singer. Strangely enough, quite a few twin-cylinder Jowetts were seen, quite happily and unselfconsciously chugging along amongst thousands and thousands of large American vehicles. That statement is made in a by no means disparaging manner. I have a warm spot in my heart for the Jowett, but for some reason or another the number of them to be seen seemed surprisingly high.

The highlight of the visit to Toronto was a trip to Niagara Falls in a late Chevrolet over the very fine Queen Elizabeth Highway—then uncompleted. The return journey of approximately 85 miles was made in the dark at an average speed of some 55 m.p.h., with no hectic driving whatsoever.

It was not until I arrived in Florida that I began to comprehend that the soft American type of suspension, which the enthusiast at home despises so heartily, may have its advantages so far as very many American roads are concerned. The main highways are well planned and are good, providing for high cruising speeds; but the surface of the lesser-used roads leaves much to be desired. On these, either very soft springing or some form of independent suspension is an absolute necessity.

While in Florida a visit to a cinder-track meeting, then held on alternate Sundays at Tampa, provided something which, while in no way approaching the thrill of a Continental formula Grand Prix, or even of a British event, was both stimulating and satisfying. This meeting at Tampa was not so much of a freak nature as the doodlebug-type of events that were held a few years ago in this country, in so far as the speeds reached were higher and the competing vehicles bore a striking resemblance to the 1934/5 type of European *voiturette*. One car in particular, of Miller origin (rear wheel drive), was beautifully turned out and was an eminently satisfactory looking job.

At that time, due to the fact that we were something of a novelty to the emo-

Some interesting experiences in England, U.S.A. and S. Africa, described by P/O Arthur Rusling, R.A.F.V.R.

tional Southerners, and no doubt basking in the reflected glory of the Battle of Britain fighter boys, R.A.F. cadets (or as we were officially styled—"British Flying Students") were accorded the same treatment that is, one imagines, only given to film stars and such super-human beings. Consequently, it was not a particularly difficult matter to persuade the owner of a business-like Miller that an Englishman should be allowed the opportunity of showing his paces at the following meeting. This would have been a highly illuminating experience. Unfortunately, in the Service one learns in due course to go where one is sent—and the U.S. Army Air Corps deemed that I should be in residence in a distant part of America before the next event was held.

A special type of driving technique is, of course, essential to any degree of success in these cinder-track races, and the thought was inspired that, given that technique, the o.h.c. Austin could cause acquisition of large bags of gold to its sponsors. (Post-war hint to Messrs. Hadley & Co.!)

During the rest of the American visit nothing more than the normal Yankee motor was encountered. One's acquaintance with the Cord was renewed in Boston—an enjoyable experience, this time a black saloon (or should one say "sedan"?). A 1931-ish Lincoln drop-head coupé provided fast and comfortable motoring. New York was crowded with American types, naturally enough, and a solitary 25-h.p. Rolls-Royce, looking very much aloof.

On a brief infiltration into Mexico a lone Fiat "500" caused surprise. This particular "Mouse" had left-hand steering and was finished in a brilliant orange hue.

Eventually Canada was re-visited—this time not a land of sunshine, but of snow, ice and frost-bite. The Daytona Hornet was still giving excellent service in Toronto where, it was whispered, a blower Bentley (rumour had it ex-Le Mans) was to be found. Most unfortunately this was not located. Montreal provided a few more of the smaller models of the Houses of Austin and Morris, nipping smartly in traffic between their larger American contemporaries, the smartest of which may have been the popular Packard "Clipper."

In the early spring of 1942 England was seen again—an England where comparatively little private motoring was being done and where even fewer sports cars were seen on the roads.

However, after exile, a select few motor cars proved that the joy and thrill of handling a real car still remained—a thrill that the true enthusiast surely never loses, however blasé he may become—and a supercharged 1½-litre Atalanta in

the West Country, a "Brooklands" Riley in the Midlands, and lastly a 2-litre Lagonda in Cheshire, in turn, gave promise of better things to come. Unfortunately, just as it was once again realised that after all life had its compensations, another sea-cruise was indicated—somewhat longer this time—and England's summer was abandoned for South Africa's winter.

Acquaintance was soon made with the beautiful city of Durban, and a Dodge was quickly acquired with which to explore the surrounding Natal countryside. Here the motoring atmosphere is entirely different from that of either the States or Canada. Here are to be found cars emanating from Germany, France, England, the U.S.A., and Canada, while Czechoslovakia sends its representative, the Skoda, in by no means small numbers. Incidentally, the unfamiliar Skoda, with all four wheels independently suspended, tubular chassis, and typically Continental, proved something of a headache until a specimen was discovered standing at the kerbside. Your enthusiast hates to admit to his less knowledgeable friends that he is unable to identify what to them is merely a normal little car—but to him is something quite out of the ordinary!

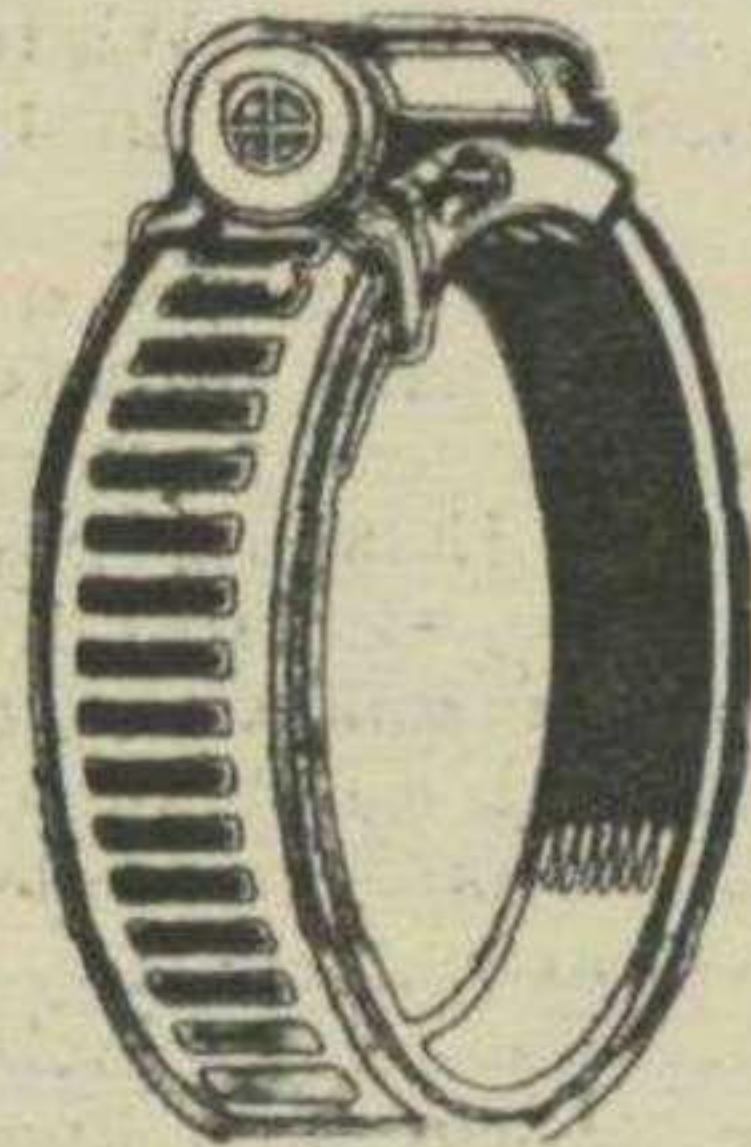
That first glimpse of Durban held a promise—a promise that was later amply fulfilled. There are to be seen numbers of D.K.W., Morris, Austin, Singer, again the Jowett, Adler, Wanderer, Citroen, Fiat, Skoda, Peugeot, and, of course, various makes of American manufacture. A few Rover and the smaller Mercedes-Benz are also to be found.

En passant, one wonders how far the popularity of German vehicles is due to German supremacy in pre-war Grands Prix.

It was somewhat surprising to learn that the Natal C.C. and M.C.C. still found it possible to hold competitions. It was possible to attend one such meeting at Currie's Fountain, Durban, in August. The small grass circuit is roughly rectangular, with one bend a banked cinder track. Most of the competing cars are single-seaters based on Austin, Singer Le Mans or Ford chassis. Basil Cook, an enthusiast who spoke of his visit to the E.R.A. works at Bourne, won the main event of the day, the Malvern Trophy, in his businesslike single-seater Austin, while Beall's Ford Special would have made the heart of any Shelsley Special builder rejoice. Beall very kindly allowed me to motor his car around the circuit, while another competitor most considerately lent me his Singer Le Mans Special for the last race, in which second place was achieved. Although the meeting was something in the nature of a circus, and was not, of course, comparable with any British meeting I have attended, it was nevertheless great fun among a fine little band of enthusiasts.

Pietermaritzburg, within easy reach of Durban, is the home of one of the Union's most promising drivers, Roy Hesketh. His stable includes an R-type M.G. Midget, acquired in 1936, and an E.R.A.—the only car of that marque resident in South Africa. This was purchased in

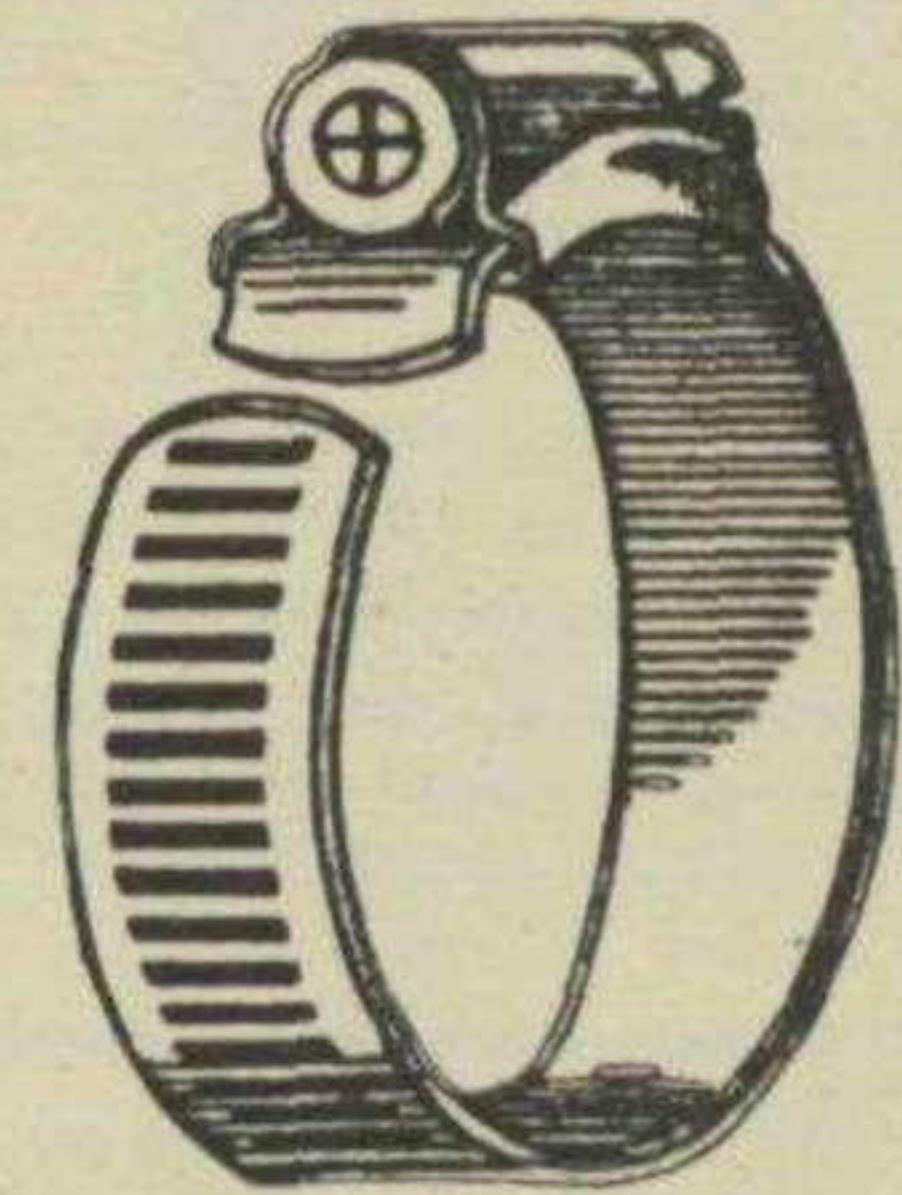
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1938. Hesketh, who is a flying instructor in the S.A.A.F., gained valuable experience racing motor-bicycles before turning his attentions to four wheels, and has shown good form against Continental and British competitors in South Africa's premier road races. He finished second in the 1938 Rand Grand Prix, and there is little doubt that the war has prevented more from being heard of him.

While flying around Pretoria I was fortunate enough to be on the same station as a very great enthusiast, J. G. O. Watson, perpetually "browned off" (to use an R.A.F. term), with the dismal prospect of completing the war in the capacity of a flying instructor instead of that of an operational pilot. Jimmy Watson, a young Johannesburg architect, raced an Austin in more peaceful days, and his present pride and joy is his "San Sebastian" Salmson, now in many small pieces. Meanwhile, he was enjoying himself with his old 14.9 Ford, purchased for a nominal sum of money. A true enthusiast in the strictest sense of the word.

Another S.A.A.F. pilot on this station was a vintage Bentley enthusiast. His war-time conveyance is a late Skoda 2-seater cabriolet. This was my first opportunity of trying the Skoda on the road, and an excellent impression was gained of the capabilities of this attractive little car. The design is compact, and one of its chief characteristics is its road-holding capacity, due no doubt to its form of suspension and good weight distribution. On the indifferent tracks in which South Africa specialises—they are not roads as we in England know them—she clung like a leech. One wonders why this little car never found its way on to the British market.

Another interesting car discovered around Pretoria was a black "Ulster" Aston-Martin, the condition of which was not all it might have been. This may have been the car entered by W. A. F. Mills in the 1937 South African Grand Prix.

In addition to the usual galaxy of Continental, British and American cars of the more normal type in Johannesburg, there are a few more interesting vehicles. Worthy of mention are a Type 540K Mercedes-Benz cabriolet, a few S.S. Jaguar saloons, a lone S.S. "100," a few "J," "P" and "T"-type M.G. Midgets and the larger representatives of Abingdon, one or two Rolls-Royce, a "Speed 25" Alvis, and a 3½-litre Bentley owned by Eric Longden, a Johannesburg business man who took part in British events in the 1920s. And there should not be omitted a beautifully kept late A.C. "Ace" 2-seater, finished in black, which was personally collected by its owner from Thames Ditton. Last, but certainly not least, there is the vintage enthusiast's representative, an ex-Guy Warburton "30/98" Vauxhall, owned by another S.A.A.F. enthusiast, burbling along quite happily through the "Golden City's" main thoroughfares, and still able to show its rear view to American cars its juniors by some 12 or 13 years.

Johannesburg has its own event—the Rand Grand Prix—and it is not surprising to find enthusiasts there. These include Maurice E. Bothner, J. G. Clark, A. S. du Toit and V. C. Berrangé. "Bobby" Bothner, a young music dealer, drove a Type 37 Bugatti in 1936, a supercharged "2.3" Bugatti in 1937, and the following season saw him with a *monoposto* "2.9" Maserati. Jimmy Clark, a popular motor trader, is a Riley exponent, and in 1937 and 1938 drove a 1½-litre of that marque.

"Sonny" du Toit, after driving converted Americans, turned to Laslo Hartmann's 2½-litre Maserati in 1938. Vernon Berrangé has consistently driven in all kinds of South African events, using Riley, Ford and Willys products.

The home of motor-racing in South Africa, and the venue of the South African Grand Prix is East London. A great deal of fun was obtained in negotiating the fast circuit per Austin 16 "York" saloon, *circa* 1935. Needless to say, Auto Union's lap record remained intact! The fast, winding leg is surprisingly narrow, and it is not hard to understand that Rosemeyer and von Delius experienced a certain amount of difficulty in overtaking slower cars on this stretch of coast road. Poor Rosemeyer's record lap stands at 115 m.p.h., while Raymond Mays completed a circuit in the 1½-litre E.R.A. at 106 m.p.h.

I was extremely fortunate to have had the opportunity of meeting John Griffin and his charming wife. John, an East London chartered accountant, has been, since 1937, the chairman of the board of directors of the company promoting the South African Grand Prix, and we spent many happy hours discussing motor-racing and mutual friends.

John introduced me to W. Buller Meyer, another great enthusiast, whose record includes second place in the 1937 South African Grand Prix in a 1,100-c.c. "Ulster" Riley *circa* 1934, and first in 1938 in the ex-Dobbs offset Riley, now powered by a 1½-litre engine, at the fine average speed of 86.53 m.p.h. Although by no means a young man, Buller, who is engaged in the brick industry, is among South Africa's best drivers. A real sportsman, Buller was tutored by Lord Howe, to whom South African motor-racing owes a

great deal, and had competed in various South African events for a few years before turning his attention to Grand Prix type racing in 1937. The "Ulster" Riley is a most satisfactory-looking vehicle and is a sight calculated to stir any enthusiast. The offset Riley, which Dobbs drove with such effect in England, is now finished in an unfamiliar shade of red, while a streamlined radiator cowl is a distinct improvement so far as appearance is concerned over the bleak radiator core previously exposed to the eyes of the British racing fraternity. The 1½-litre engine appears to have been installed by Thomson and Taylor before being shipped to South Africa in 1937, but still retains the characteristic six Amal carburettors in line.

Buller now has a 6-cylinder 1½-litre Maserati, which was obtained from the Italian works for the 1939 season, when, unfortunately, it gave trouble. It is now dismantled in Cape Town.

Two of Buller's brothers are also enthusiastic motorists and have competed with an "N"-type M.G. Magnette and a 2-litre Bugatti.

Other notable South African motoring enthusiasts include "Mario," F. Chiappini, D. van Riet, W. H. Roderick, W. Ross, H. F. Hooper, A. Govoni and J. H. Case. "Mario," or Dr. Mazyacurati, is an Italian engineer residing in Cape Town, and is head of the Eagle Racing Stable.

He is the dashing type of driver, and from 1929 to 1932 competed success-

fully in international events on the Continent. He won the 1936 South African Grand Prix in a 2.3-litre Bugatti at an average speed of 88.33 m.p.h. Since 1937 he has handled a *monoposto* 3.7-litre Maserati, and in addition drove a 1½-litre Maserati during 1939.

"Steve" Chiappini, member of an old Cape family, and now in the Army, has been a consistent competitor in South African sand races, trials and hill-climbs. He drove a 1,100-c.c. Riley in 1936 and 1937, and used it to good effect in finishing third in the 1937 South African Grand Prix. In 1938 he handled a *monoposto* 2.9-litre Maserati, and the following season saw him behind the wheel of the ex-Howe 3.3-litre Bugatti and a 1½-litre Maserati.

Douglas van Riet, also from Cape Town and now in the Army, has competed regularly and won the 1938 Rand Grand Prix, held near Johannesburg. He drives a rapid 750-c.c. single-seater Austin.

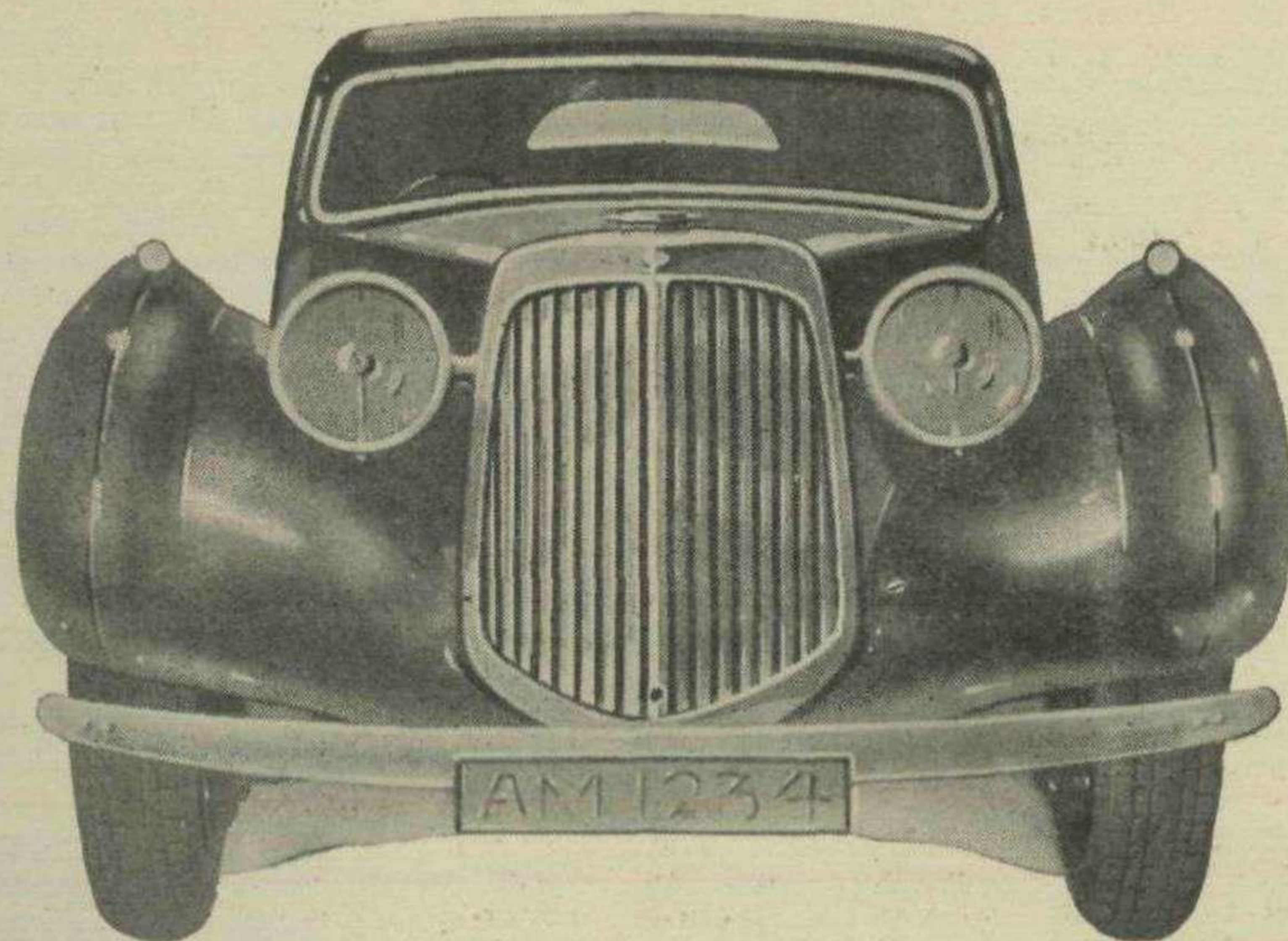
Roderick, a Bloemfontein motor trader, at one time held the lap record for the Lord Howe circuit, Johannesburg, at 65.82 m.p.h. He handles a 2.6-litre Alfa-Romeo.

During 1934 Bill Ross achieved third place in the Kimberley Hundred road race, and fourth place in the South African Grand Prix at 78 m.p.h., using a converted 8-cylinder single-seater Hudson. In 1936 he handled the 2.6-litre Monza Alfa-Romeo, and 1939 saw him with the ex-Howe "3.3" Bugatti.

Hooper has competed regularly, particularly in events held in Natal, and has experience with a 3-litre Talbot and the "3.3" Bugatti. Govoni handled a "2.3" Bugatti as a member of the Eagle Racing Stable. Case drove a twin-carburettor, single-seater V8 Ford in the South African Grand Prix of 1934—when he finished second to Whitney Straight's "2.9" Maserati—and in 1936 and 1937.

In addition to the cars already mentioned there are others worthy of note in the Union. These include a supercharged 2-litre Bugatti, raced in 1938 by Prosser Roberts, of Johannesburg, who also drove a converted V8 Ford the following year. One of the beautiful old 8-cylinder 1½-litre Talbot-Darracqs has been rebuilt and raced in single-seater form by the Eagle Racing Stable. The ex-Maclachlan 747-c.c. single-seater Austin, well known at sprint events in England, showed its paces in 1939 under the direction of Neville Clayton, of Cape Town. Then there is an M.G. "Monthèry" Midget, a T.T. Replica Frazer-Nash, and two or three "Brooklands" Rileys.

In 1934 South Africans drove large converted American machines, some of which went remarkably well, against Straight's Maserati. Five years later, when the S.A. Grand Prix became a 1½-litre event, there were three Maseratis, and an E.R.A. handled by Springboks, against strong Continental and British opposition.



The great aim of culture, the aim of setting ourselves to ascertain what perfection is, and to make it prevail"
Matthew Arnold

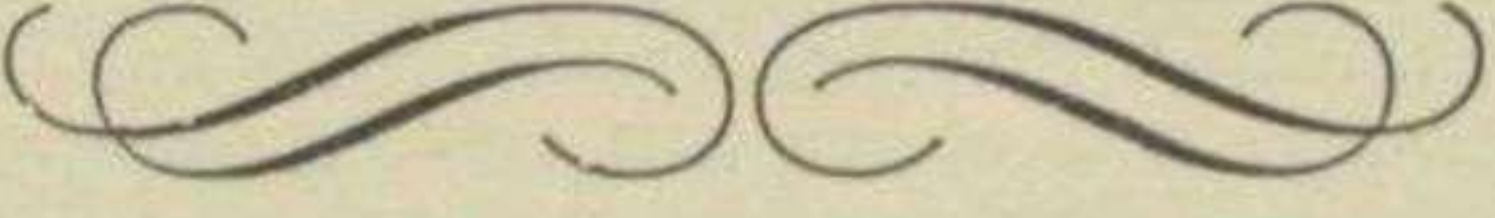
BEFORE THE ERA OF LITTLE TIN BOXES

Individuality as against Standardisation

ONCE upon a time, before the population of this island began to motor in a big and ever-increasing manner, even ordinary, mundane economy cars had an individuality all their own. Now, at a time when the long arm of bureaucracy reaches out in our midst and the most exciting newspaper headlines for a long while are those announcing a million fabricated homes, all exactly the same, for post-war workers, it does one a bit of good to ponder on what is past. Because the technical characteristics of sports cars are well known and because, here, performance enters into the argument, as it were, obscuring the issue by reason of the fact that a plain design full of urge appeals equally, or more so, than a complicated technique unable to skin the pudding, we will confine ourselves to very ordinary little motor cars indeed. We will, because the Editor is in that mood, consider the cars of twenty-two years ago. And we shall, it is to be expected, be quite a little intrigued, perhaps even a little sorrowful, as we slam the door of our modern metal box and purr in undistinguished standardisation to the 325th Home Guard parade.

Ah, yes! We are at the Paris Salon in October of 1922, and we cannot well help noticing the technical ingenuity which, as the saying is, confronts the gaze. Using a solid rear axle, the M.A.S.E., for instance, makes do with a single brake drum set against the near side of the drive casing, and we get an even profounder shock when we look at the back end of the Astatic, for a De Dion drive with fabric-jointed shafts is used, the axle ends being carried on bell cranks and sprung by coil springs within cylinders lying inside the chassis side-members, the brake being on the propeller shaft. The Dalila goes still further, having rods for attachment of axles to chassis, and only two springs, an inverted $\frac{1}{2}$ -elliptic at either side, coupled up to said rods. Even at this era Mathis have a 1,100-c.c. Six on view, the fan of which is positively-driven from the forward end of the o.h. camshaft; on the 4-cylinder Mathis the fan is on an extension of the armature of the positively-driven dynamo.

On the Aries the starting handle engages the front of the o.h. camshaft, so gaining a geared-up effect, and the Benjamin has neat planetary reduction gear in the steering. The Janemian has a water-cooled V-twin engine set motor-cycle fashion at the rear of a very narrow chassis, with an immense Rolls-Royce-shape radiator beside it, a water pipe dropping from the header tank to each pot! The Exau has a square-section front axle with a safety bracket above it in case the $\frac{1}{4}$ -elliptic spring should break. Let us recross the Channel and consider what British concerns are doing in preparation for the 1923 season. The Gwynne Eight has appeared, with its gearbox carried on the torque tube, a layout favoured also by the V-twin



Stoneleigh, Crouch, Marseal, and E.H.P. Dynamos, too, are ceasing to rely on whittle-belted for a drive, and positively-driven examples appear on the Rhode, on which the dynamo and magneto form a "V" at the front of the o.h. camshaft, on the Jowett, Austin Seven, sleeve-valve 10-h.p. Panhard, Riley Twelve, Talbot, 7.5 Citroen, Peugeot Quad, Mathis and Swift Ten, the last two having dynamos driven from the nose of their crankshafts, with starting handle dogs therein, *a la* Bugatti. As to engines, some exciting new small fours have appeared, notably the $2\frac{1}{2}$ in. \times 3 in. 696-c.c. Austin, the 50×70 mm. 600-c.c. Mathis, the Ricardo-designed 8-h.p. Angus-Sanderson, with forward swept exhaust off-take, and the Webb with very adequate-looking thermosiphon cooling arrangements. The Whitlock remains faithful to $\frac{3}{4}$ -elliptic rear suspension, while the Webb has one $\frac{1}{4}$ -elliptic above the other on each side, both front and rear. Let us go to Olympia and White City for a peer round.

The Ashby has a half-bevel and pinion steering reduction gear, uncased and carried on a single bracket, which also provides bearings for the shafts. The Calthorpe sports an electric horn on its detachable water outlet head, and the little 58×100 mm. Charron a cubby hole in its running board valance. The new sleeve-valve B.S.A. has an induction hot-spot comprising interleaved flanges on exhaust and inlet pipes, as had the Power-plus engines of later Frazer-Nashes. The sports Anzani-engined Enfield-Allday has two ventilators on its scuttle, one serving as a mouthpiece for the horn, while the Derby uses deep ribs along its exhaust box, described by the Press of the day as a "noteworthy refinement." The G.N. has become a water-cooled "four," although the radiator is not that of the 4-cylinder chain-drive example seen in Paris and from which one would not be surprised if Godfrey got his idea for the lines of the H.R.G. radiator. The chains, alas, have gone, in favour of a constant-mesh, dog-clutch 3-speed gearbox. G.W.K. and Unit still offer friction-drive, however. The Jowett has its silencer mounted transversely across the chassis, the Marseal dynamo is adjustable for belt-tension by turning a big handwheel, and the Meteorite has an elaborate system of rods to compensate its rear-wheel brakes. The 8.3 Renault has a very pre-1914 look still, because the behind-the-machinery radiator has not yet come flush with the bonnet sides, and Peugeot has redesigned the Quadrilette with equal track front and back, the 668-c.c. L-head engine driving to a minute 3-speed box on the worm-driven back axle.

The Princess has a V-twin engine in unit with the gearbox, the layshaft of which is also the camshaft, while the R.T.C. has a square-section hollow-front axle. The Standard Eight, with curiously low radiator, is not an eight at all, being rated at 10 h.p., and a luxury small car is the £450 Straker-Squire. The Surrey has an unusual casting coupling the bottom water pipe to the radiator. Talbot has a push-rod six of 58×98 mm. on view, and to get at the works of the Tamplin cycle-car you calmly hinge-up the bonnet and "header tank" of the dummy radiator. The Turner has a cup-headed gate-extension protruding from its gearbox, and the Westcar an adjustable accelerator. The Horstman has a cockpit kick-starter, turning the Anzani engine through a very coarse-thread worm on the clutch shaft, while the Albert has an ingenious toothed segment on the clutch pedal to give instantaneous adjustment. The flat-twin water-cooled Ariel has a cumbersome arrangement of framework acting as clutch withdrawal, and Lea-Francis offers a model with 700-c.c. Bradshaw oil-cooled flat-twin engine like that in the Belsize Bradshaw, and another 8.9-h.p. 4-cylinder model, with ribbed cover for the normal push-rod o.h.v. Coventry-Simplex engine, both cars designed by Alderson.

The 7.5 Citroen had its starter motor within an engine bearer, and Salmson mystified people by operating eight inclined o.h. valves with four push-rods, although the new o.h. camshaft engine had also appeared. The Cluley has a stay from the dash to steady the steering column, and the Crouch, with V-twin water-cooled o.h.v. engine having curious sleeve-like valve covers to conform to the cylinder barrels, had double $\frac{1}{4}$ -elliptic front springs and curious, trailing T-head stub axles. The Temperino actually has $\frac{3}{4}$ -elliptic suspension at the front and a vertical-twin engine enclosed in an immense dish-cover and air-cooled by a turbine fan.

All this happened at a time when the "30/98" Vauxhall was undisputed king of the road, before the 200-Mile Race had been won at over 100 m.p.h., before the wonderful little Austin Seven had sent the cycle-car proper to its grave, and when the fastest speed attained by a car was a mere 129 m.p.h., the driver being a gallant gentleman called K. Lee Guinness, and his mount the V12 18 $\frac{1}{2}$ -litre Sunbeam, unleashed on Brooklands. Direction indicators, synchro-mesh, umbrella-handle brakes, radiator "birdcages," automatic ignition advance, self-adjusting tappets. . . Bah!

LORD NUFFIELD'S RIVAL

An observant small boy, asked who was the greatest maker of cars, replied, "Max Speed."—*Daily Telegraph*.

RUMBLINGS

Lord Maugham, a former Lord Chancellor and ex-judge, stated in the House of Lords recently, during a debate on road accidents, that he confessed with some shame that he had on several occasions driven at over 100 m.p.h. on the public roads of England, that he thought such speed absolutely wrong, and that it should be stopped. He continued:—

“It is true there was no accident in my case, or I probably should not be here. The roads ought to be adapted to the traffic.

“As a lawyer, I admit that the law on motor-driven traffic is defective and should be amended.

“We ought to alter the law on the killing of an unfortunate pedestrian if it should turn out that the only possible person who can give evidence on the cause of the accident is the motorist.

“That cannot be right. Such a person gets off scot free.

“The law might well be amended to make it more difficult for people of that kind to go away leaving a person dead or dying in the road—a thing that occurs far too often in this country.”

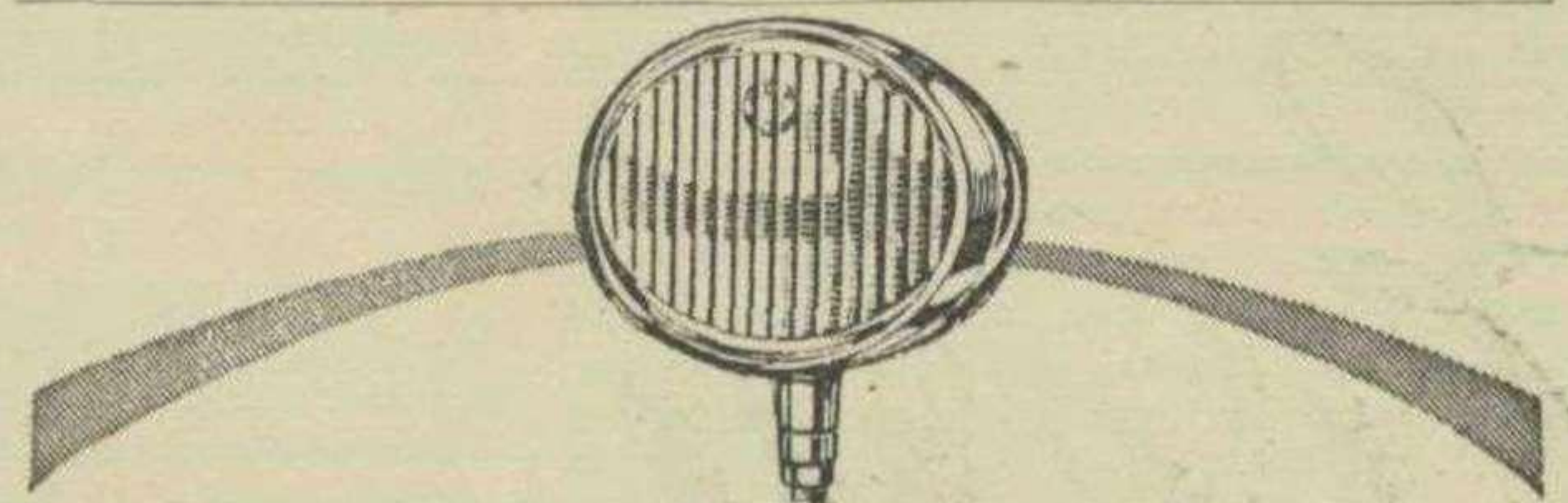
Lord Maugham also said that after the war many manufacturers will give us cars which will, with ease, do 120 m.p.h., and lots of young men will be perfectly willing to drive at that speed. These comments on speed seem those of a gentleman to whom age and, perhaps, a failing memory can be attributed, for how, otherwise, could one who has personally enjoyed rapid motoring express such opinions? We have been driven at 100 m.p.h. on suitable British roads in Bentley, Bugatti, and Mercedes-Benz cars, and at no time has an accident seemed even a remote possibility, nor has any other road or pavement user been in any way inconvenienced—most pedestrians who witnessed these good cars in full flight appeared, if anything, to register appreciative interest and good will. Lord Maugham should know that sound cars, properly handled, are far, far safer than indifferent cars casually driven, and that 100 m.p.h. is a speed unlikely ever to be attempted, far less achieved, by the latter combination. It is just possible that his lordship did his 100-m.p.h. driving in a quite unsuitable sort of car, or that his driving ability does not permit him to handle any type of car safely at such speeds, but in this case he would be well advised not to waste public time and money presenting a bogey based on personal experience. He should also endeavour to be the sportsman he once was and not deny the pleasures of fast motoring (in suitable cars on suitable occasions) to young men who have spent their youth risking their lives defending their country. Lord Leathers must surely realise that very few manufacturers will build 120-m.p.h. cars after this war, and that very, very few persons will be able to afford the luxury of owning them—war has to be paid for, and we imagine, therefore, that he will join with us in dismissing Lord Maugham as a morbid time-waster, who raises points obviously calling for no new legislation in the future. Incidentally, we thought this particular bogey was for ever laid to rest some years ago, when a court dismissed a dangerous driving charge on the grounds that the only complaint was one of exceeding 100 m.p.h. However, it is as well to observe that this debate, which was opened by

Lord Brabazon of Tara (whom we trust), produced Lord Huntingdon and his description of the Mexican driving test, all complete with medical examination and taking of finger-prints, and resulted in Lord Leathers saying that after the war the steps to be taken to reduce road accidents would include more searching driving tests and, it was hoped, a revival of police patrols. This country looks even less like being fit for heroes to live in than in 1918, when no one worried much, we believe, about the possibility of rear-braked “30/98” Vauxhalls exceeding 80 m.p.h. In the name of enthusiasm, write to the Press, write to your M.P., take whatever action you can on behalf of the motorist, for it is always, and eternally, the motorist who is blamed, accused, suspected and legislated for the total loss of life on the road—and lots of young men and women who have helped win this war for us (in 400+ m.p.h. aircraft and the like) will soon expect to be able to motor with peace of mind in something faster than a 40 m.p.h. tin box.

* * *

From Harold Biggs come details of a C-type M.G. Midget which Owen Finch, who has a technical job with Rootes, has recently rebuilt as a sports car. The C-type was an unblown model based on the original record-breaking M.G. Midget, and had

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the inlet and exhaust ports on the same side of the cylinder head, although some of these cars were subsequently fitted with J-type heads which had opposed ports. Finch's car is chassis No. C.025, with engine No. B.30534, and is 4 in. shorter than the standard C-type. It was driven by A. R. Samuel and Ashton Rigby in the 1934 B.R.D.C. 500-Mile Race, but broke an oil pipe after 18 laps and retired. It then had a 2-seater body with the passenger's seat faired over, an uncowed radiator, and a long knife-edged tail. Finch came into possession of this car in 1940 and proceeded to completely strip it down. The engine had a "Magic Midget" type crankshaft, polished ports and a Scintilla type VM4 magneto. A supercharger had at one time been driven from the nose of the crankshaft, but this had subsequently been removed. On the radiator stay-mounting was fitted a Tecalemit oil cooler and filter, and fuel feed was by Autopulse pump. The gearbox was a type 2H4 E.N.V. crash change job. All the engine oil pipes were external and of considerable diameter and, although the float-controlled reserve oil supply was provided, it was not used. The shock-absorbers were Hartford triple-blade, and those at the rear were driver-controlled *via* Bowden cables. The brake drums had

a diameter of approximately 13 in., and the liberally-drilled back plates had light-gauze aluminium-alloy covers. The radiator was mounted 1 in. lower than that of a J2 M.G. Midget and had a stoneguard. Finch rebuilt the engine and chassis and, acquiring a crashed J2 M.G. formerly owned by George Symonds, fitted its rear tank and, after shortening it 4 in., the body, to the C-type. He also fitted the J2 inlet manifold with its two S.U. carburettors and made up a Bugatti-pattern underbonnet exhaust manifold. The completed car has been cellulosed black, with crimson hide upholstery, and it must be very potent indeed as a road car. Finch is now contemplating blowing the car again, possibly using the Type 75 Marshall supercharger from Biggs's trials Austin Seven.

* * *

Clayton's Amilcar Six awaits better times in a South London garage, and O'Boyle's Alta, with i.f.s., is stored not far away. In America Ab. Jenkins has converted his Mormon-Meteor into a sports car, and he is reported to have in hand a new land-speed record car which he hopes will achieve 400 m.p.h. The Midland Motoring Enthusiasts' Club continues its successful monthly meetings.

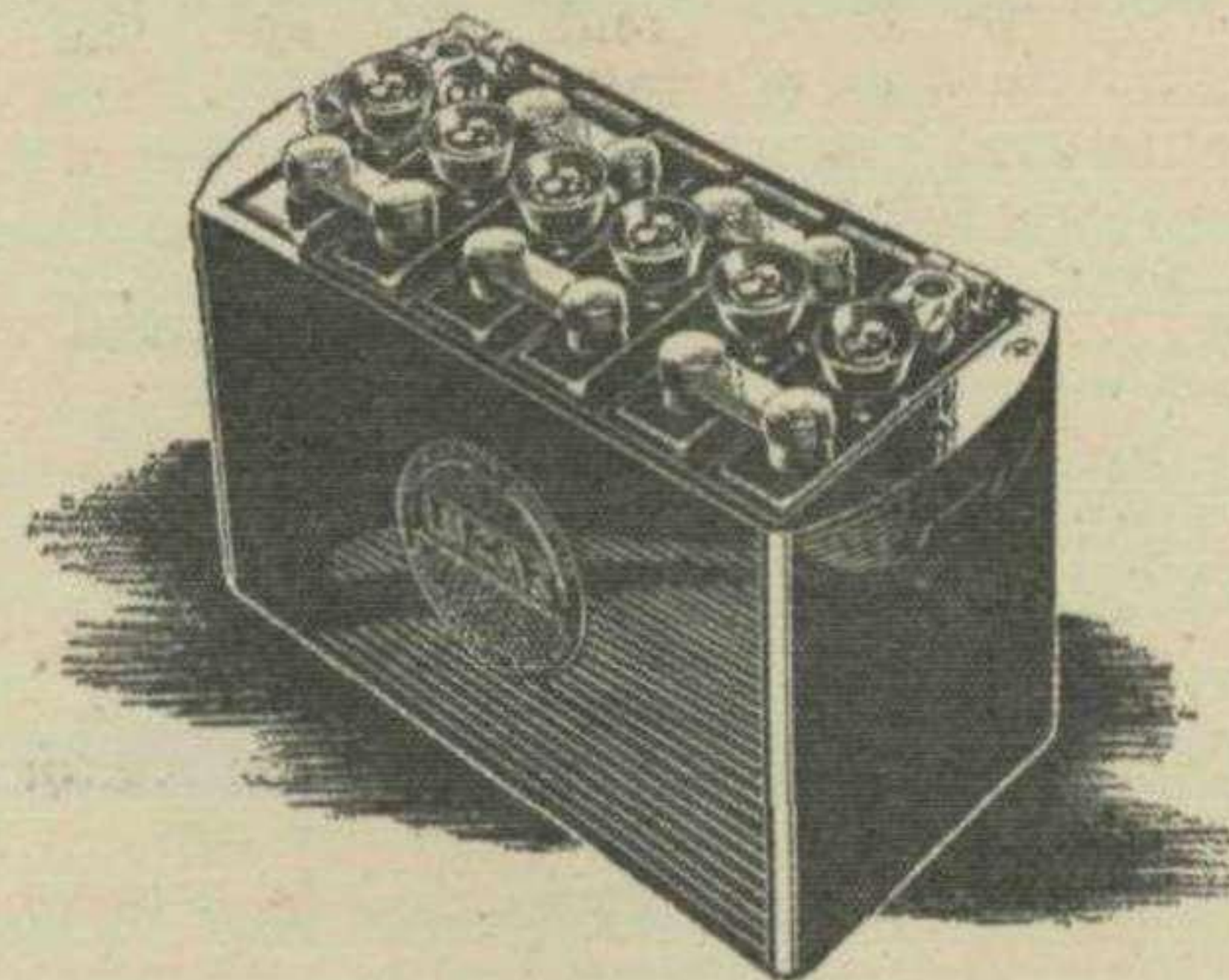
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Club News

WE HEAR

Pybus, we hear, runs a 3-litre Bentley, has a McEvoy Hornet in store, and also possesses a Frazer-Nash with the chains replaced by a high-ratio Ford V8 crown and pinion on the solid axle, and a close-ratio M.G. Magna gearbox, the engine being a blown M.G. Magnette unit. Cars continue to change hands and well-known drivers to acquire new mounts. Boddy has sold his Frazer-Nash to a Farnborough enthusiast, who also owns a s.v. Aston-Martin Anzani, and Biggs is replacing his Fiat "500" with a late-model Austin Seven saloon. Then Fisher was seeking a Fiat "500" to replace his faithful Raleigh 3-wheeler, while Robson has taken unto himself a curious "12/50" Alvis 4-seater believed to have been a "12/40" originally, and now possessed of a T.G. "12/50" engine converted to coil ignition. He wishes to dispose of his overhauled 8th Series Lancia "Lambda," the coupé body of which needs replacing ere it flies away. Peter Monkhouse has sold his 3½-litre S.S. Jaguar saloon and bought two "38/250" Mercedes-Benz cars—the open 2-seater owned by Rothchild and a fabric coupé. Macdermid has disposed of his rear-engined "Aprilia" "Special" to Joe Fry (who intends to put a bigger engine into it), and his Lancia "Aprilia" to Jennings—the Centric blower and carburettor from the former are available if anyone needs them.

Williams has been juggling with Austins, buying the Jarvis car back from Ken Gilling and putting a "works" s.v. engine into it, the blown "Ulster" engine from this car going into a single-seater which Willis bought from Derrington. Down at Godstone the Le Mans Austin Seven once owned by Mrs. Petre, and now the property of Clarkson, and the supercharged "Grasshopper" Austin Seven owned by Gibson, are undergoing overhaul at the hands of Leslie Ballamy's brother.

James Woolley seeks an interesting vintage car and has for possible disposal a Type 40 Bugatti with rather cut-about body, and an overhauled 13.9 Lancia "Lambda" engine which just about goes into it—an interesting combination.

Inman-Hunter is busy reconditioning a 1930 "International" Aston-Martin which, by a coincidence, left the works on the very day he started his apprenticeship there. He also hopes to complete a book on "The History and Development of the Aston-Martin Car," not necessarily for publication. The veteran Panhard at Whitstable has been rescued by A. W. F. Smith, of Orpington, a member of the Veteran Car Club. The Frazer-Nash fanatics who, as announced last month, are compiling a register of these cars and spares, are very anxious to know what has become of the supercharged Blackburn-engined Frazer-Nash, last heard of in the hands of Stear, who was then a sergeant in the R.A.F. Wads-

worth, of Isleworth, has for sale the Full Brescia Bugatti described last month by Sqdn.-Ldr. Boothby in his "Cars" article.

An airgraph from G. Sandford-Morgan, of Australia, tells us that his "life was saved" by the receipt of some recent copies of MOTOR SPORT; he has a much modified "14/40" Vauxhall and a "14/40" Delage. The Vauxhall has a lowered chassis and a light 2-seater body, being a converted model LM, while the Delage appears to be mostly DIS, the engine number being 1554, in case anyone can definitely identify it. Then J. Macy Willets, Junr., of New York, has acquired a 3-litre straight-eight Alfa-Romeo and a V8 Maserati, the former apparently the car built for Raymond Sommer, which was driven by Chet Miller at Indianapolis in 1940, and the Maserati the car brought to America and driven by Wilbur Shaw at Roosevelt speedway. Willets hopes to run both cars at future Indianapolis "500s" and would like to hear from anyone who knows the cars or has spares for them. A young enthusiast has acquired what appears to be a Vernon-Derby with Ruby engine, and altogether interesting cars seem to be happening on all fronts. Flt.-Lt. Cowell, R.A.F., intends to supercharge an S.S. "100" after the war, probably using a Bugatti-Roots blower, of which he claims to be collecting numbers in France.

Farnborough, in Hampshire, is a good place to be in; not only have several motor-cycle trials and scrambles happened near there of late, but the local motor-cycle boys hold regular meetings in one of the local pubs., and another bicycle trial was staged by them last month.

The 1924 Swift Ten recently advertised in the weekly Press is just the sort of car the Editor had in mind when he put in a word recently for early small cars, and he hopes it went to a good home.

Boddy was married in London on July 31st by special licence, just before he left for the north. Joe Lowrey, now a qualified civilian test pilot, spent his holiday in the West Country and climbed Porlock, Lynton and Countisbury on his bog-wheel—Porlock, he says, took 45 mins. to climb, and the descent completely wore out the brakes.

Denys Axel-Berg has purchased a Full Brescia Bugatti engine and a long-chassis 2-seater in pieces, and hopes to get it rebuilt quite soon, although a large frost-aperture in the block is not going to help. This is the car which Bill Shortt had for a time. Axel-Berg hopes to dispose of his partially rebuilt and well-shod 1925 "Red Label" Van den Plas Bentley and "14/40" Delage, and an "Ulster" Austin Seven is reported near Southampton. On his exile journey north in the Alvis the Editor encountered a fine 2-litre open Lagonda, a straight-eight Delage saloon having its slipping fan adjusted at

a garage, and a 2-litre Alta travelling south in a hurry. The Scuderia Chemvamo still issues an interesting news-letter at intervals.

★

DIFFICULT SITUATION

Just as the Editor of MOTOR SPORT thought he was about to acquire a well-arranged office in which to work (after years of scrabbling at the job under war conditions in limited spare time) he has been posted north. Consequently, he apologises for any errors of omission and commission which may occur, and assures his readers that he will do his very best under the prevailing circumstances. Any deficiencies in this number should be excused on the grounds that it was hurriedly prepared before leaving. Letters from readers on all topics of motoring interest will be as welcome as ever, and he hopes opportunities will be granted him to visit northern enthusiasts' stables and scuderias. The Library of Instruction Books will have to be discontinued, and certainly reference books will not be readily available, as they have been put in safe storage. Will readers therefore only submit *essential* queries and generally endeavour to assist by keeping editorial correspondence to a minimum? After the war you can let him have it, but until then . . . Voluntary contributions, especially experiences of individual makes, and competition reminiscences will be very welcome. These, and letters of editorial moment, can be addressed to W. Boddy, 123, Bilton Lane, Harrogate, Yorks. All other correspondence to 15-17, City Road, E.C.1, please. New instruction books for Library use *after* the war are still welcome.

★

TRUST THEM!

One of the evening papers gave quite prominent mention of Le Mans motor-racing associations on August 9th, when the good news of our penetration into the city came through. But, while congratulating them on this timely publicity we must chide them for calling Le Mans the "French Brooklands"—clearly they confused the place with Montlhéry.

★

M.M.E.C.

The next meeting will be held at the "Crown," Corporation St., Birmingham, on Wednesday, 6th September, at 7.30 p.m. The August meeting was a quiet affair due to holidays and lack of ale.

★

REMBRANDT

See you at the "Rembrandt" on September 17th?

LETTERS from READERS

Sir,

In your August number, Mr. Clutton accuses me of having criticised a particular make of foreign car in "a recent public utterance." I am sorry to have annoyed Mr. Clutton, but I cannot trace ever having mentioned this machine in any article or talk I have given.

After prolonged cogitation, it occurs to me that Mr. Clutton must be referring to my description of a friend's car as being foreign, having one carburetter and 16 sparking plugs. Now I have ridden in three different makes of car to which that vague specification applies, and know of at least as many more, so why Mr. Clutton should assume that I was referring to his particular pet I just cannot imagine. If I had mentioned that the 16 sparking plugs were on the wrong side of the head, or that the exhaust valves employed cast iron instead of liquid as a coolant, identification would have been easier. But, stay, I did give one more clue to the species of the vehicle, because I said that it was "a very bad car."

In the same article it is suggested that there is something humorous about an 8-cylinder car with four carburetters. I have experienced the effects of fitting four carburetters to several straight-eights, which were as follows:—

(1) An appreciable power increase at high engine speed.

(2) A considerable improvement in fuel economy.

(3) Immediate development of full power without flat spots after starting from cold.

(4) An increase in noise at full throttle, coupled with a difficulty in finding room for adequate silencing arrangements under the average bonnet.

I am, Yours, etc.,

Wrotham,
Kent.

JOHN BOLSTER.

[Please, Mr. Bolster, put an Editor exiled from his works of reference out of his misery—tell him the six or more makes which use one carburetter and 16 plugs!—Ed.]

* * *

Sir,

It was very good of you to reply so promptly about the ex-Wakefield Maserati, as I know that your time must be more than fully taken up at present.

I shall certainly write to T. and T.'s for any information which they can supply.

The Maserati has now been completely stripped and is at present in a city repair shop, where it (the frame) will be duly straightened when time allows. I found that the frame was quite badly twisted, but as it is such a straightforward design, it should be possible to achieve quite good results without any chassis measurements.

The off-side torsion bar, which had been about one inch out of line ever since the crash, returned to normal as soon as it

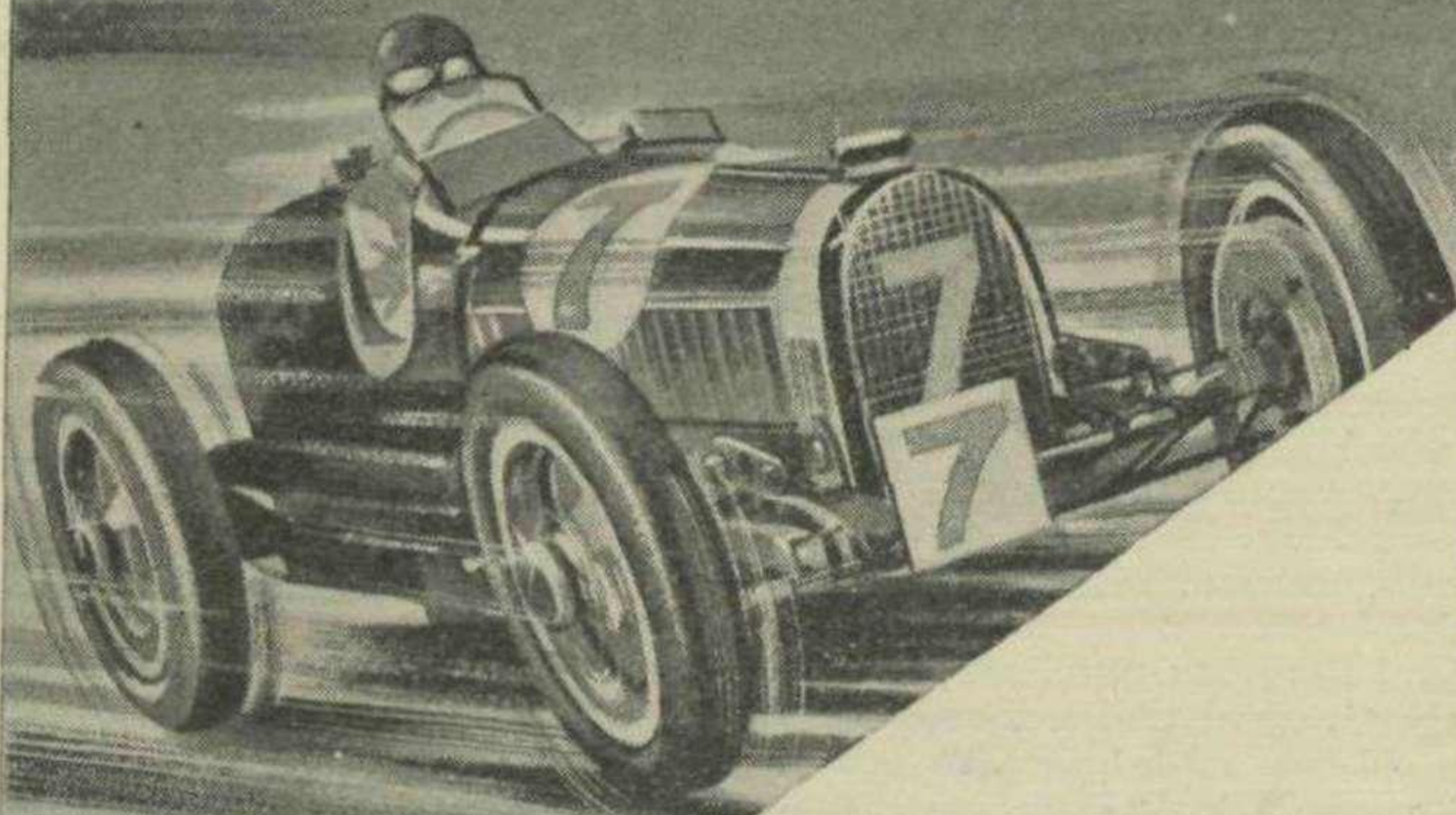
was unbolted. This seems to show that "our allies" used good material in their pre-war products!

The two most serious results of the accident so far discovered are a broken ball-race in one front hub and a bent back axle housing caused by a non-standard connection with the chassis side members. Of the eight wheels (four 17-in. and four 16-in.) five are undamaged and two worthy of repair. The eighth will supply a spare hub and a few spokes! One rear brake drum and brake support plate are badly damaged, but, fortunately, the gentleman who brought it to Australia bought new replacements when passing through Italy. He also bought several other useful but less essential replacements.

I am enclosing a photograph of the car as it appeared when the sides and top of the packing case had been removed. This may be of some interest to you. (The "power-cycle" in the background is not mine!) If my memory serves me rightly the serial number I quoted in my previous letter was incorrect. It should have been 1546 not 1560.

The present stable, incidentally, consists of a 1924 Straker-Squire 20-h.p. tourer, which has lately been fitted with a 1926 Chrysler 4-cylinder motor owing to the sad demise of the original. The present "hack" is a 1936 S.S. "Jaguar" 2½-litre, which provides some interesting but not altogether trouble-free motoring

SHELSLEY



REMEMBER the hill, and the grass on its side, and the mud when it rained . . . ?

REMEMBER the tent near the top, and the "Swan" at Tenbury afterwards . . . ?

REMEMBER the "pips" from the Orchard, and the waiting at the Hairpin till he came—and went.

Making a machine do something rather better than the rest was our job even in those days!

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precision that wins

on the present inadequate (but we do get some!) monthly ration of "propulsion spirit." Number three is a 1914 Buick, which my brother is rebuilding with a view to post-war "veteran rallies." Last, but far from least, is the Maserati.

I will not take up more of your valuable time, but would like to thank you on behalf of all S.A. enthusiasts, for keeping **MOTOR SPORT** going, and also for your promise to put something in the March issue *re* my search for Maserati spares.

I am, Yours, etc.,

KENNETH BROOKS.

Adelaide,
S. Australia.

* * *

Sir,
This is somewhat of a strange request when one considers I'm quite a long way away from the realms of "Le Sport." The fact is I'm desirous of acquiring one of the following motors—an L-type M.G. Magna, N-type M.G. Magnette, and a "Brooklands" Riley Nine. The first two you will no doubt frown upon, being nothing more or less than "buzz-boxes." However, to offer an explanation—condition is immaterial, just so long as chassis and transmission are intact. I don't mind terribly if the "works" are missing, as I intend to fit an alternative engine anyway—an A.C. Six to be precise. By the way, this doesn't apply to the Riley.

If by chance you can help me, arrangements financially can be made through my esteemed parent, R. H. P. Beaumont, 40, Norbury Close, Green Lane, London, S.W.16 (Phone: Pollards 2864).

I still manage to preserve some semblance of sanity as **MOTOR SPORT** still continues to arrive at fairly frequent intervals—although May and June copies have not as yet reached me. Motoring is almost non-existent for Service people here, although I have seen a particularly stark "4½" Bentley driven with great verve by an Army captain, and a "2.3" Alfa, horribly rough, in the hands of an Anglo-Indian. For myself, I have acquired a 1922 A.B.C., which hasn't motored for a long, long time owing to a somewhat washed-up cross shaft. However, we have hopes in the near future.

Thanking you in anticipation.

I am, Yours, etc.,

R. R. H. BEAUMANT.

R.A.F.,
India.

* * *

Sir,
We had not intended to make any public statement about the Gordano so soon, but after your friendly paragraph in **MOTOR SPORT**, may we offer some comments on the points mentioned there, and also give some account of our aims?

The suspension, as you say, has something in common with the Lancia layout, but it also embodies the Dubonnet feature of having the whole of the steering linkage sprung.

We did consider fitting a single driving lamp, but have decided that, as filaments do still sometimes break, it would be much safer to have two.

Price is an important point. We regard £300 (in pre-war values) as a rough dividing line between those who have a reasonable choice and the impecunious enthusiasts or deserving poor! These are the people for whom we are designing

the car. It is no good producing an enthusiast's car which only one enthusiast in a thousand can afford to buy, and we intend to keep the price below the post-war equivalent of £300 if we possibly can. The "Donington" model has not been considered in detail yet, but we fear it is not likely to be cheaper than the standard sports 2-seater. The money saved by making the car more stark will be spent on developing it for road racing. Incidentally, the seat in the tail of the standard sports model is a "dicky" and the normal crew will be only two.

As for our general aims, we have already said that we are designing for the impecunious enthusiast. Accordingly, the car is intended to be up to normal standards of comfort and convenience for daily hack motoring, but to be at its best in long, fast journeys, and in the sports-car classes at sprints and minor road races. Moreover, we share the enthusiast's liking for a sound engineering job and his dislike of shoddiness covered up with tin; so we are trying to make the car really satisfying to contemplate and work upon.

The general conception of the car is based on current road-racing practice, from which it borrows a very low centre of gravity, stiff frame, soft, independent suspension, low unsprung weight and clean semi-streamlined form. It will have the vintage features of high gear ratios and high-g geared steering. Accessibility is receiving special attention, and weight-saving *very* special attention indeed, since it brings so many blessings in its train.

We believe there is a very definite demand for such a car among enthusiasts, and eagerly look forward to the time when we can make more rapid progress than is possible at present.

R. R. Jackson, who needs no introduction, has now joined us in the preparation of this undertaking.

I am, Yours, etc.,

For the Gordano Motor Company, Ltd.,
R. D. CÆSAR (Director).

Clapton-in-Gordano,
Somerset.

* * *

Sir,
I was very interested to see in the May issue that you have been informed that Wing-Cdr. Evans is reputed to have bought the O.E.44 "30/98" Vauxhall from me. I do not know how this has come to your ears, but there seems to be a slight mistake somewhere. I bought the car at a local house auction, where it had been stored in the garage some 12-15 years and had never been used.

Unfortunately, at the time I had no room to keep the car, and due to many other misfortunes, I foolishly took the first offer I got for it. I sold it to a local enthusiast, or reputed enthusiast. I am very glad someone who really understands and appreciates this car has now got hold of it and is prepared to fit it up with front brakes, etc., as this car is in most remarkable condition.

I understand that the car was bought brand new by the people in Hale (near Altrincham) in 1923, and was run as a family car until 1929, when the old man sent the car back to the works to have it completely reconditioned. I understand from the son, who is now a man of about

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VERTICAL Magneto 6-cyl., £5, or exchange for 4-cyl. large vertical S.U. carburettor. A. S. Lamburn, 230, Broadstone Road, Heaton Chapel Stockport.

PARTS of incomplete "Special," front axle, springs, brakes, frame members, rear tank, etc. A. S. Lamburn, 230, Broadstone Road, Heaton Chapel, Stockport.

SCINTILLA Magneto, 6-cyl., ½-engine speed, £4. Greenhalgh, 22, Scaffell Avenue, Morecambe.

TRIUMPH Monte Carlo Sports Chassis, 1936, 10.8 h.p., complete, £25. Will dismantle. Clayton, Cheapsides, Gilberdyke, Brough, E. Yorks.

PAIR "Seelite" anti-dazzle 6-volt spotlights, with bulbs, bright metal, perfect condition, £2, or nearest. D. H. James, 4, Granby Road, Stretford, Manchester.

14 Jensen Hornet Special, overhauled, crank reground; also Scintilla 6-cyl. Offers. Ward-Booth, Fairhave, Beechwood Avenue, Coventry.

ZOLLER Supercharger, suitable for 750 or 850-c.c. engine, £20. 14-h.p. 6-cyl. Riley engine, dismantled, needs boring and new pistons, crank and bearings excellent, £8, and carriage. Adams, Myton End, Warwick.

REAR axle, complete, radiator, gearbox, for 1934-38 Morris Eight, sale or exchange. Williamson, "Newhome," Artle Brook, Nantwich, Cheshire.

UNBOUND copies **MOTOR SPORT**, December, 1941, to December, 1943, inclusive, 25s. Chaundy, The Cottage, Hook-a-Gate, Shrewsbury.

"MOTOR RACING," by Davis, and "Full Throttle," by Birkin, good condition. Offers. Newell, Springmount, Shankill, Co. Dublin, Eire.

"THE MOTOR," 1906-9, well bound in brown cloth, new condition. Offers. Newell, Springmount, Shankill, Co. Dublin, Eire.

AUSTIN front spring, unused, suitable "Ulster," "Nippy," or "Special," 25s., or offer. E. Rummitt, c/o Monaco Motor Co., Watford, Herts.

WANTED

BUGATTI, 1½, 2 or 2.3-litre Grand Prix, complete, or parts for same. F. O. Cleveland Harmer, 83, Old Oak Road, Acton, W.3.

WANTED. **MOTOR SPORT**, Jan., 1932. Urgent. Condition immaterial. Any reasonable price. Anthony Brooke, 44, Greycoat Gardens, S.W.1.

"N" MAGNETTE Chassis, 1936, 2-seater. Boreham, Bridge Street, Long Melford, Suffolk.

SINGER 1½-litre Mark 2 handbook wanted, will buy or exchange Riley Nine, Morgan "4/4," or B.S.A. Series 6 Handbook. Tyrer, 48, Liverpool Road, Burscough Bridge, Lancs.

SUPERCHARGER, complete with fittings for 9-h.p. Singer. "Aslyn," Hartford Road, Darlington.

TRIUMPH Vitesse or Morgan Induction Manifold Twin (horizontal and downdraught). F. Harrison, Tunstall, Richmond, Yorks.

COMPLETE set cycle-type mudguards for "T" M.G. wanted. Reasonable condition. Pat Stilley, 191, Derby Road, Long Eaton, Nottingham.

URGENTLY required, copies of **MOTOR SPORT** for September, 1939, February, June, August, September and October, 1940, June and September, 1941, June, 1942, and January, October and November, 1943. Wood, c/o **MOTOR SPORT**, 15, City Road, E.C.1.

ALVIS'S "12/50," four of them, three in regular use. Excellent cars. See Classified Advertisements.

Spares Section, MOTOR SPORT,
15-17, City Road, London, E.C.1

50, that the reconditioning was absolutely complete, including engine overhaul and renewal of all inside leather work and seats, repaint, etc. The car was then run for a matter of only 400-500 miles, when the elderly owner died and his wife put the car in the garage, where it was left carefully covered up until I bought it.

It is even more remarkable when I can honestly state that when a 12-volt battery was put in, and the tank contained two gallons, the car started on the second pull of the starter without even taking the trouble to examine the plugs, points or anything. I then pumped all the tyres, but two of the six were not pumpable, and we had a spin round the local countryside. The car simply would not wind up beyond 2,000 revs., so I bought new plug wires, and after fitting these in the engine ran nearly perfectly. It was driven away by the person I sold it to, under its own power, to Manchester (about 10 miles). It seems the only fault on this fine old car was the brakes, which, to say the least, were pathetic.

At the moment I am just completing the rebuild of a 1933 Wolseley Hornet "Special" which I picked up in an extremely good mechanical condition, but rather rough round the body work. I am afraid this is not the kind of car which suits me, but it runs extremely well and winds up to over 5,000 r.p.m. without much trouble. How long it will last being pushed around at this pace I do not know, but this car seems to have the same troubles that most of these Wolseley Hornets have. It does not steer very well, though the Telecontrol shock-absorbers fitted to it probably improve its road-holding.

You may remember from my previous letters to you that my heart is set on a Frazer-Nash, but round this district there seems very little available in that line and, unfortunately, bags and bags of money seem to be needed to buy anything worth while.

I recently visited Kenneth Neve, of Lymn, where he has the T.T. Humber and a very nice short-chassis 4½-litre Bentley, to which he is fitting turned-over mudguards of the Le Mans style. In what spare time he has he is rebuilding a 1933 or 1934 T.T. Rep. Frazer-Nash, but, unfortunately, has not made much progress with it over the last year. I keep trying to urge him to get something done

so that I can buy it from him when finished, as he does not want to part with it as it is now.

I am sorry that I cannot contribute any interesting article or correspondence to assist you in running the *MOTOR SPORT*. If I do manage to find time to write anything worth while, I will do my best.

Here's to the not too distant future—we hope—when our cars may be on the road again.

I am, Yours, etc.,
J. R. NORMANTON.

Hale,
Cheshire.

Sir,

I have read with much interest the letter from Mr. Eric Richter concerning Murray Jamieson's career. First of all I would like to say that Murray Jamieson had no greater admirer than myself, and during the years he was connected with Raymond Mays I was fortunate enough to come into contact with him a great deal. Whilst mentioning this matter, I should also like to say that Raymond Mays, I know, had the greatest possible admiration for him and looked upon him as a good and true friend.

Apparently the remarks in my letter misconstrued to some people exactly what I wished to convey. I know of Murray Jamieson's qualifications throughout his earlier career, but what I was trying to convey in my letter is the fact that Amherst Villiers, Murray Jamieson, and Peter Berthon, to a very great extent, owed their association and specialised work in connection with motor racing to Raymond Mays.

It should here be noted that Raymond Mays entirely started Amherst Villiers on his motor-racing interests and career as early as 1921, when Raymond Mays started motor racing, and when both of them were at Cambridge University. Many years of experimental and development work were spent on Raymond Mays's Hillman, Bugatti, supercharged A.C., etc., before Murray Jamieson joined Amherst Villiers, and I feel perfectly justified in standing up to my original statement that all three of the people mentioned owe a great deal of their success to the opportunities and associations, direct and indirect, which they had with Raymond Mays.

I do not know if it was Murray Jamieson's original intention to make a name in the motor-racing world, but I do think Mr. Richter will agree that it was during his association with Amherst Villiers and Raymond Mays that he was enabled to put his experience to the test.

I am sure it would give the greatest possible pleasure to all readers of *MOTOR SPORT* if Mr. Richter could find time to write the life of Murray Jamieson, as mentioned in the last paragraph of his letter.

I am, Yours, etc.,
H. L. P. LESTER (Wing-Cdr.),
International Sportsmen's Club,
London, W.1.

* * *

Sir,

I am afraid that Robert Hood's racing Mercedes cannot be a 1908 Grand Prix car. The formula for that event laid down a maximum bore of 155 mm., and the Mercedes cars used this with strokes of 170 and 180 mm. If the machine was originally designed for racing (as certainly seems likely) it is probably a 1907 G.P. machine, with a bore and stroke of 175×150, which conforms more closely with Mr. Hood's description. The clutch sounds rather mysterious, since I believe that all racing Mercedes from 1901-1908 used the shoe and spiral spring affair. It appears, also, that they never used the L.T. magneto at this period., for racing.

With the other information quoted by Mr. Hood, this evidently fine car can probably be identified exactly by someone possessing at all complete Mercedes particulars.

I am, Yours, etc.,
CECIL CLUTTON,
London, W.11.

Sir,

May I point out that the model o.h.v. racing Austin, page 142, July issue, has the exhaust pipe on the wrong side of the car!

On otherwise such a good model, I think the mistake cannot be forgiven!

I am, Yours, etc.,
HAROLD PRATLEY,
Liverpool.

[The reason for the pipe being on the wrong side was given in the article.—Ed.]



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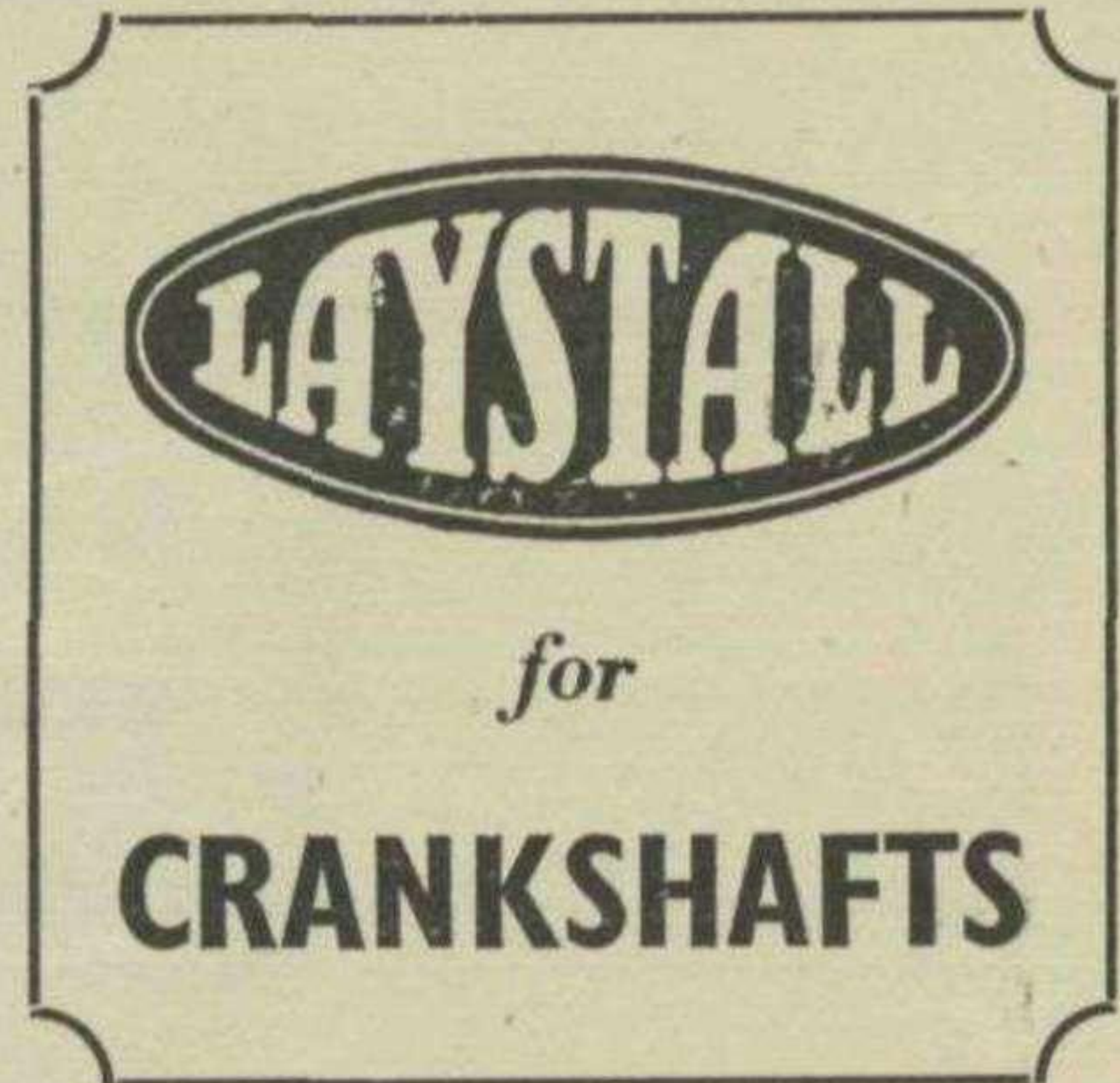
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1939 Delahaye, new, unregistered, 23 h.p., 4-litre grey drophead coupé, £1,800, or exchange "327/80" B.M.W. and cash. Stuart Wilton, 40, Brent Street, London, N.W.4.

DISMANTLING three Riley Chassis 1936 Lynx 1½ and Nines, 1932-4. State requirements. Whitehouse, 3, Warwick Road, Kenilworth, Wks.

1929 4½-litre Bentley, fitted Harrison flexible 4-seater sports body. Spotless condition, Le Mans engine, No. KL.3590, 15/50 ratio axle, "D" type gearbox. Maintained by Bentley's. Mileage 46,000 (believe genuine), dash fitted with petrol pump and gauge, clock, 8-in. revolution counter, water thermometer, ammeter, light switches, oil gauge, starter, Ki-gass, etc. Engine completely overhauled. Cleanest Bentley on the road. Bargain, £750 cash. Richardson, 134, Salisbury Road, Birmingham, 13.



FOR SALE—continued

J.A.P. 996 o.h.v. racing twin 50°, 10-1 compression twin float binks, all in first-class mechanical condition and finish, suitable for installation in sprint or Shelsley special vehicle. Apply C. R. Instone, Box 147, MOTOR SPORT, 15, City Road, E.C.1.

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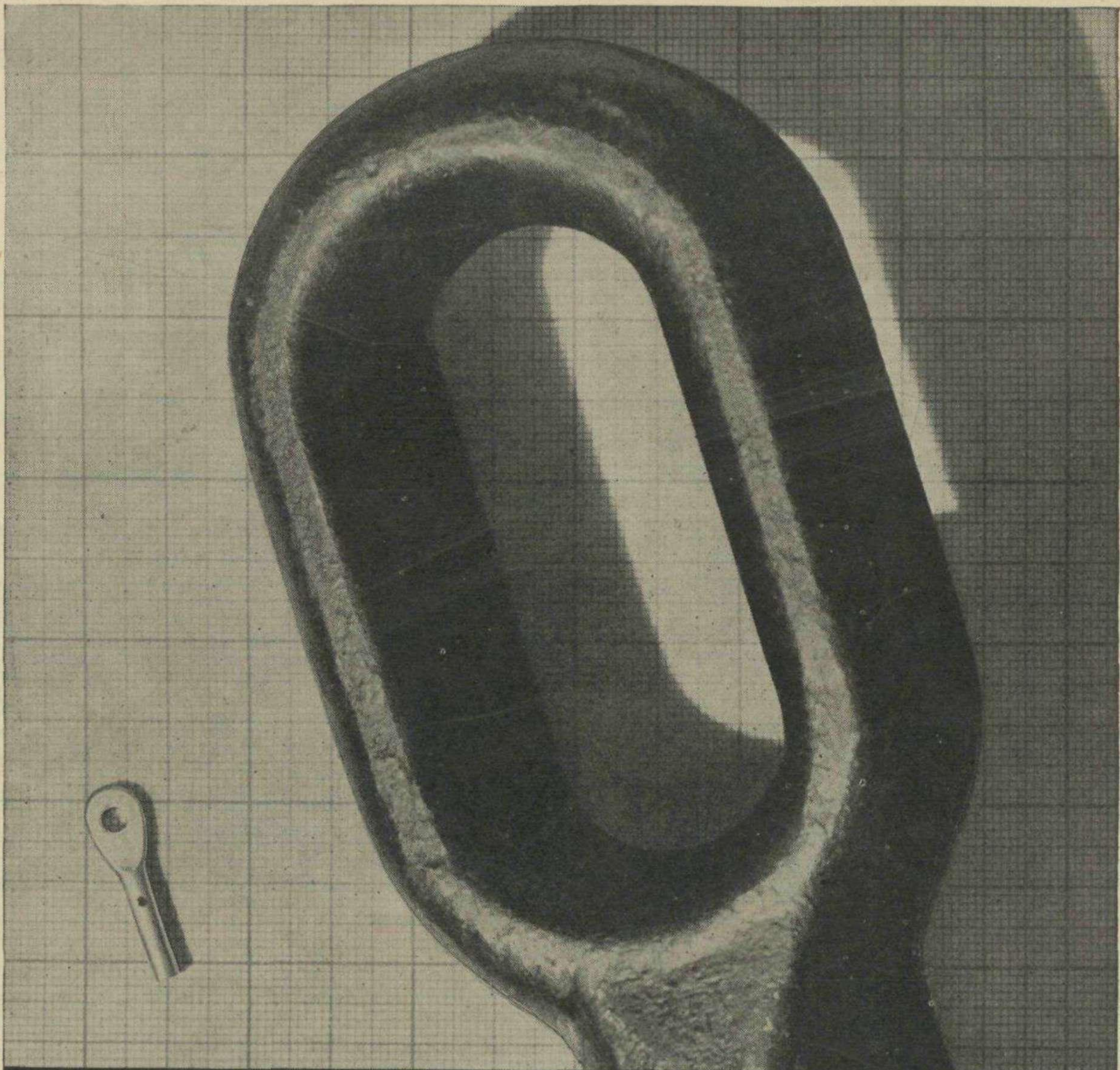
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