Vol. XX No. 10 **OLD SCHOOL BENTLEYS** *October, 1944*

MOTOR SPORT

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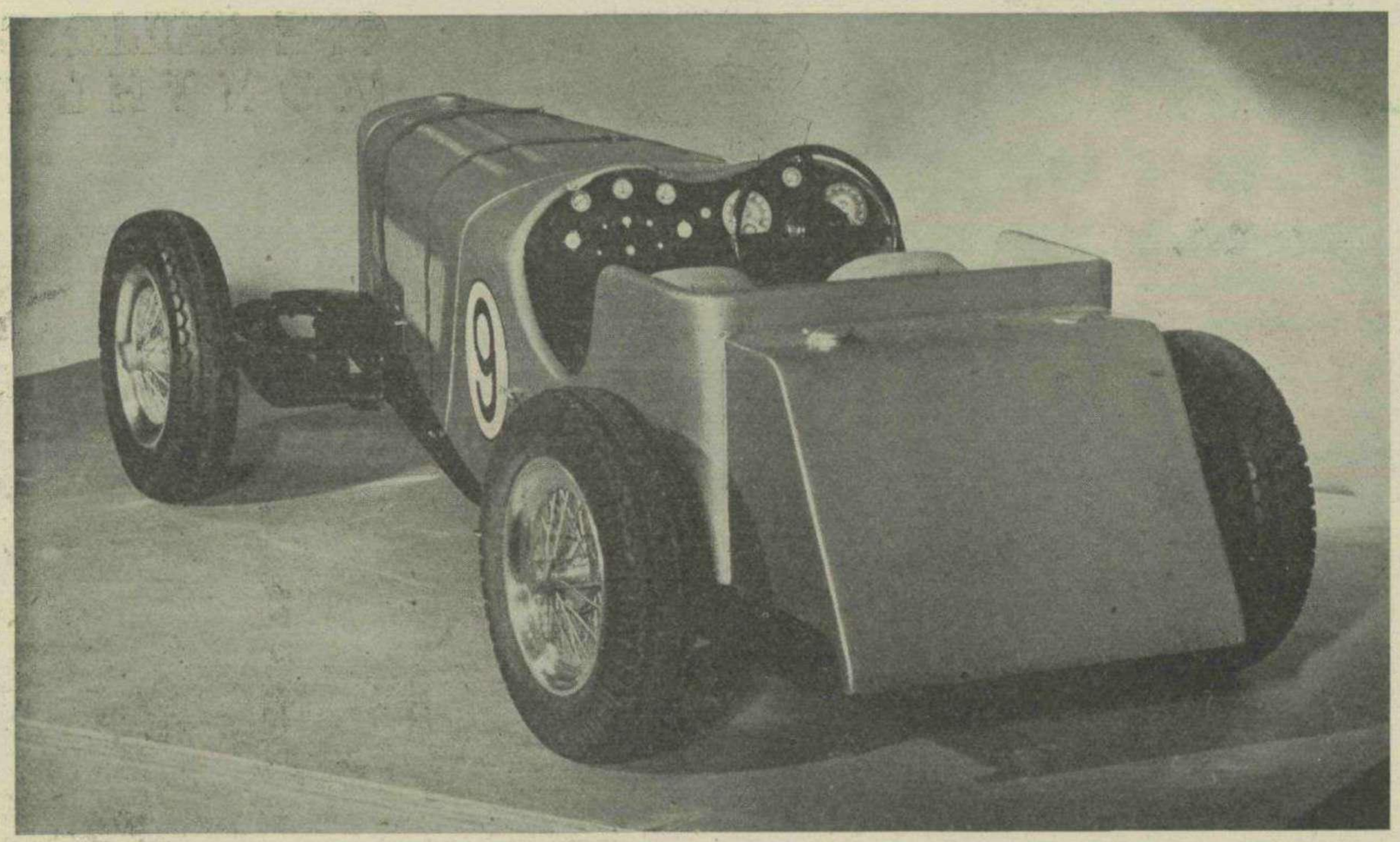
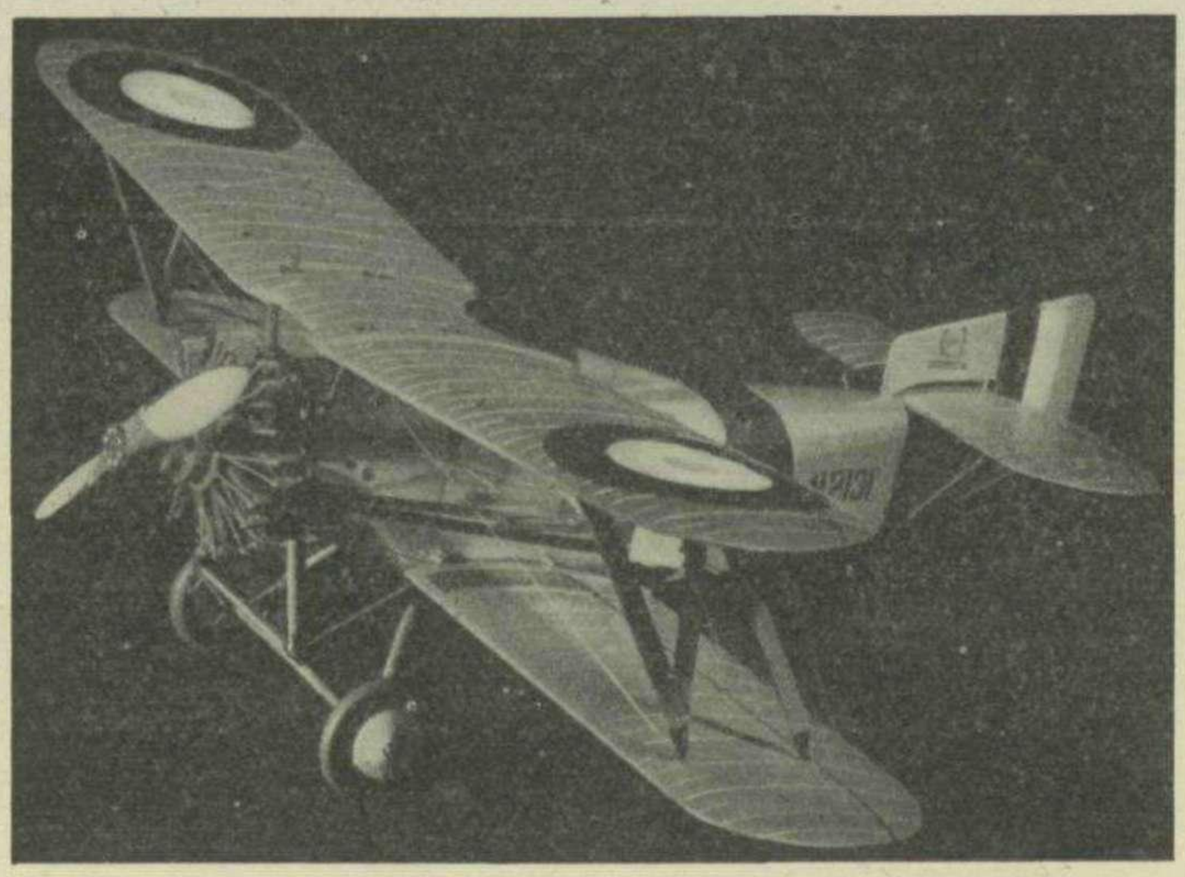


Above is illustrated a model 2½-litre "S.S. 100," designed by Mr. D. A. Russell, the body and wheels of which were built by Dagra. The scale of the car is approximately one-fifth full-size. The power unit is a 10-c.c. two-stroke petrol engine. All-up weight of the car is some 11 lbs., and speeds of 35 to 40 m.p.h. have been obtained. The chassis, built by the designer, is strictly to scale, and rear-wheel drive is employed.



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A TALE OF TWO BENTLEYS

An unusual 4½-litre put on the road by Alan Skerman

THE first intimation of the existence of CK8172 was when my friend and colleague, John Hay, returned from a deviously-routed official journey with the news that a quaint Bentley, believed to be a 3-litre, was residing in a breaker's yard at Bradford. A journey was obviously imperative, so we went to hold an inquest on the remains, and found the engine and gearbox complete and apparently undamaged. The back axle was less the differential unit, there being only the axle casing and wheels and half shafts in evidence, despite extensive rooting about among the surrounding ruins. The body was reduced to the absolute minimum, less seats and rear squab, and the dashboard had been robbed extensively, I suspect, by sporty boys desirous of having Bentley-marked instruments on their Ford saloons.

After some argument as to valves, the Bentley was literally uprooted from its ignominious resting place by means of the yard crane, and its numerous flat tyres were inflated. We were prepared for the worst in respect of these tyres and tubes, and had taken along an excellent collection of jacks, pumps, tyre levers, and puncture outfits. But there must be something about Bradford air, because once those tyres were inflated they stayed inflated until we took them off to paint the wheels six months later. My theory is that the dusty atmosphere in that locality rapidly blocks up the usual holes one finds in old tubes ! Perhaps this is a marketable idea, so I leave it to the Bradford Corporation.

With all tyres " airworthy," and some sketchy adjustments done to the brakes, we hitched on to my Morris coupé, and with much hilarity from the Bradfordians, the cortège proceeded. The dead weight of the Bentley, with brakes rubbing due to the absence of the rear axle parts, nearly killed the Morris, especially on the long pull over Yeadon Moor. Coming down from Yeadon we cast off the tow and I went down to try the Bentley on its own. A small saloon, which was stationary at the lights by the "Pyneley Arms," will never know how near it was to annihilation, because it went ahead just as I was deciding to overshoot everything to avoid it, the brakes by now merely emitting rusty noises and having little retarding effect. Finally, we pulled into the stack-yard of the farm where I was staying in my caravan. The farmer was very amused and took it to be an antediluvian form of tractor, having some apt remarks to make in his broadest Yorkshire brogue.

In the field, amid snow and ice, work started in earnest, and the first thing off was the body with its one-time coat of white paint, plus four other assorted colours, now camouflaged with ferrous oxide finish. The main worry was the absence of the differential unit, but we soom remedied that matter after sundry visit to breakers, on duty trips around the country. When we examined the car we found much of interest. First, our 3-litre had somehow become a 4½-litre, still carrying Bentley seals, and with twin S.U.s, twin built-up rear wheels with an admixture of 6.00 in. by 20 in. and 30 in. by 6 in. tyres, also complete Telecontrol shock-absorber equipment. The chassis had been reduced to a wheelbase of about 8 ft. 6 in. The chassis was first registered as a 3-litre on October 10th, 1923, and the radiator is a " Blue Label " type with the support brackets reversed and a 4-in. chunk removed from the bottom centre of the honeycomb to clear the starting handle. By this means the bonnet has been lowered until it just clears the top of the camshaft cover. The fan has, of course, been removed. A straight-through exhaust system had been fitted, but was replaced by most of the exhaust system from a 6½-litre Bentley. Queer aluminium-alloy wings just covered the tops of the rear duplex wheels, but the front wheels were missing. I later found one cycle-type wing on a 4½-litre Bentley in the same breaker's yard, but had to make its fellow up from an old rear wing by extensive blacksmith's work on a tree trunk in the field.

After some three months' work we fitted up a small header tank and turned the engine over rather hopelessly. To our intense surprise it started, and soon lapped up the hard-earned drop of petrol in the header tank. This was incredible, considering the 2½ years' internment in the breaker's yard and the fact that we had not then dismantled any part of the engine except the magnetos and carburetters. Now, with the Kigass working, starting is always easy, and I often compare it with the poor starting one had from other cars. We found the " urge " available outstanding, enabling us to spin the car right round in the field by accelerating sharply ; this process became even more spectacular after the passage of several examples of the bovine species.

Numerous modifications were made of a minor character, and after much assembling, painting, and upholstering, the car was ready for a journey to London.

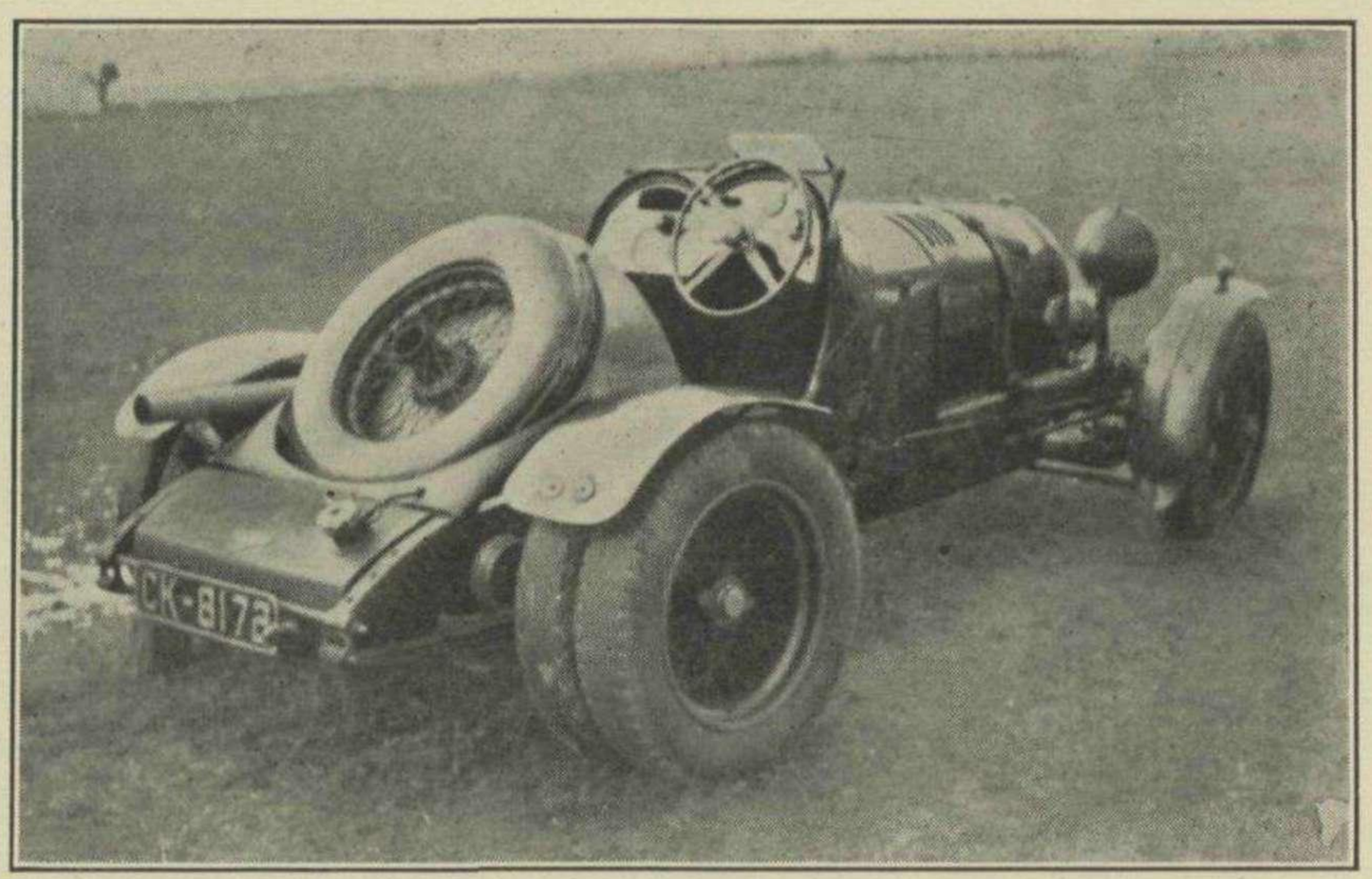
We started off with two 32-in. by 6-in. heavy-duty tyres on top of the spare wheel, just in case our very bald tyres passed away, unaccustomed as they were to contact with tarmac for a distance of 200 miles. We did the 75 miles as far as Flt.-Lt. Crook's squadron at a maximum speed of 35 m.p.h. in order to eke out our fuel, because we had no idea what the consumption would be ; actually, it worked out at 17 m.p.h. for that first part of the journey. We decided that on the next day, just occasionally, our right foot could be depressed slightly harder.

After a most enthusiastic welcome at the squadron, culminating in a party in honour of something not now quite so clear in my mind, we had an honoured send-off next morning, accompanied by

Crook's "2.9" Alfa-Romeo, to the intense pleasure of the local R.A.F.

By lunch-time we had developed a leak at the bottom of the radiator honeycomb, so we tried all the usual advertised remedies—but this was rather a special leak. After some miles of radiator-thermometer watching and refilling from wayside streams, I saw red, and did some frantic work with plasticine, rag, and small wooden pegs. This worked much better, and our pleasure graph showed signs of improvement. Now, as it was Sunday, we had the rare happening of having petrol coupons to spend but no garages open from which to obtain supplies. In fact, the last 30 miles were done on two gallons just at black-out, in a thunderstorm, on sidelights only. We dare not use the P 100s, less masks. We finished, with an occasional ominous hurried ticking emanating from the dual S.U. pumps, and so ended a most thrilling war-time trip.

The following general details may prove interesting. The initial cost was £15, and when all necessary items were purchased and modifications made, this had risen to £40. All work was done in the field over a period of 18 months, and bad weather was not allowed to interfere with progress; it is surprising how much easier it is to work in a minimum of clothing in the open when it is raining. The car's engine number is PM3254 and the chassis number is 324. The chassis is so short that the propeller shaft is only 14in. long. The only work required on the engine after its 200-mile test run was a new joint behind the starboard magneto, where there was a slight oil leak. We fitted four new plugs during the journey; the remaining four plugs we juggled from our stock of plugs gathered during years of motoring. It being my first Bentley I was amazed at the way it would crawl along in top gear and pull away when needed, providing the ignition lever was treated with the respect due to it, and the right foot depressed in the war-time gentle manner.



Alan Skerman's queer 4½-litre

—and a 3-litre, purchased literally for £7, by C. J. L. Mertens

If anyone had told me six months ago that for the sum of £5 I could buy a Bentley in serviceable condition I should hardly have credited their statement—but there it is; I have, and the motor car in question has been used by me for the last three months, and over 1,000 miles have been covered without any mishap or breakdown. It all came to pass as follows:—

My favourite "4½," which has been my constant mount since 1937, started to make sounds of slight protest when returning one day from Effingham—the domain of Mr. Shortt. The big-end bearings, or at least one of them, put in by McKenzie in 1939, had at long last "had it." They had stood up to constant pounding up and down Western Avenue for nearly five years which, to my way of thinking, proves that Mr. McKenzie had certainly put the right stuff there. However, there it was—trouble in the offing.

Mr. Shortt had my other "4½" in many pieces—the same remark applying to my wife's 3-litre—and not much chance of getting them put back into one workable piece for several moons to come. Nevertheless, something had to be done, and although I did several journeys to the works with sounds of protest coming from the bottom half—Mr. Shortt having decoked and fitted oversize valves and guides to the top half quite recently, this was in excellent fettle—I was most unhappy. The top half of the engine wanted to go and the bottom half did not like it. At last, after about six weeks of this unhappy state of affairs, I took the car to Mr. Shortt to have another engine put into it, and also for a re-line of brakes. Unfortunately, owing to a variety of circumstances, the work was held up. Week followed on week and I was getting really pressed, when a friend of mine billeted at a farm near Salisbury reported that there was a 3-litre in the barn which, so he thought, the farmer would sell for about £20. It was very dark in the aforementioned barn, and the Bentley was more or less covered in straw, but he thought it was a "Red Label." My friend (who, incidentally, flies an "Auster" and is the proud owner of a Lagonda-Rapier), on further investigation reported that the Bentley was a "Blue Label," but that it appeared to be intact except that it had no tyres and the farmer had pinched the plugs for an Austin of advanced age to which, also, the missing tyres had been fitted.

My friend having had a spot of leave, I returned with him to the wilds outside Salisbury. The farmer I found to be a delightful fellow, who was most pleased to see a possible purchaser, and stated that "I was his one and only chance of a buyer," which surprised me somewhat.

Down the hill to the barn we went together, to plunge into the gloomy interior. There under the straw was the Bentley; everything was bone dry, and with a little effort a casual examination was made, results being as follows: "Blue Label," fitted with twin S.U.s. Flywheel teeth almost unmarked, aluminium water-jacket plates absolutely sound, clock "won" by the Army, the usual "4½" strut-gear for stiffening the chassis fitted, one of the six wheels missing, upholstery on front seat almost unmarked grey leather, windscreen, three-piece type, quite O.K., engine turned over by my friend (strict medical orders preventing me from doing so) reported free; naturally, with no plugs in, one could not say what the compression was like.

After extricating myself from the straw and spiders I told the farmer that I was interested. His reply was somewhat staggering: "Personally, I do not consider it worth five shillings, but would you be good enough to give me five pounds for it?" My thoughts turned to certain traders, and I wondered if I should say three pounds ten was my limit. However, feeling most generous, I replied that I would certainly have offered more than that as, in any event, the body was in excellent condition, all doors shutting firmly and everything being perfectly rigid—therefore I would give *seven* pounds. This pleased the farmer no end, and my cheque for this sum was exchanged for the Registration Book.

The problem then was how to get the "Blue Label" to London. In the first case it was necessary to find out if it really would go without any major repairs. It was decided that the Bentley should be moved from its nest amongst the hay to open stabling where the Austin reposed—this meaning there would be plenty of light and room to work. My friend had a fitter at the aerodrome who in his spare time consumed beer. It was decided that the consumption of beer should be condensed into the minimum of time while the wherewithal for purchasing fair quantities of the beverage should be earned by the aforementioned fitter by

diligent work on the "Blue Label." There were eight gallons of what had been petrol in the tank, but as it had remained there since December, 1939, we decided that it should only be used for cleaning purposes—its smell and the gummy substance in the bottom of the tank confirmed our decision.

I returned to London and promptly sent off five tyres and a set of Lodge CV plugs. Long reports were given me—cleaning of tank, soldering of autovac, fitting of new carburetter gaskets, cleaning of magnetos, draining and filling of gearbox and back axle, and so on. Then the great news per telephone: "It went." Indeed, everything worked; even the battery, which had been left on the car since 1939 full of acid, appeared to hold its charge. All lights worked, the electric windscreen wiper worked, the dynamo worked, both magnetos worked, and even the radiator did not leak. The car was driven around the aerodrome and the farm for about 80 miles or so—not much power, but no trouble.

So forthwith I repaired to the D.P.O. and asked to have my "4½" coupons changed. There was no trouble here, but first I had to get permission from Bristol to bring the car up. Coupons came back from Bristol within three days—I certainly thought that this was real service, and although it is hardly likely to be read by the Bristol people, I should like to express my appreciation of their very prompt attention to my request.

As all leave was cancelled, my friend only had his usual 24 hours off, and it was fixed that I should meet him at Andover. The Bentley had a fracture in the water pipe from the pump to the water jacket, and although a piece of hose had been fixed around it, we decided that a new pipe would be useful, so a visit to Mr. Shortt, at Effingham, was to be made on the return journey, to get a pipe off one of the two 3-litre engines of mine reposing there.

With another friend (also a Rapier enthusiast) I started out for Andover by the "alternative means of transport." Although Salisbury races were on and the train stopped at several stations not scheduled in order to pick up racegoers (the policy of the railways is complex), we arrived at Andover only a few minutes behind time, although, of course, somewhat compressed by hordes of humanity bent on gaining bags of gold without working for it.

Arriving safely at Andover we eagerly passed the portals of the station expecting to see the "Blue Label." Nothing like it in sight, only many Americans, Jeeps and such like. Sitting on a low wall we both started our pipes when, to our horror, we saw the breakdown lorry of the nearby garage start up and amble off in the direction of Salisbury. However, there was no need to fear, for within ten minutes the "Blue Label" appeared—coachwork shining and radiator glistening in the sunlight.

After much discussion on the general position, I climbed into the driving seat and headed for Guildford, where we intended to lunch. The "Blue Label" steered perfectly—we touched over 60, and when having to slow down at some cross-roads, the brakes seemed quite adequate. Watching the thermometer fixed in the radiator cap we noticed it was rapidly getting to boiling. After some low gear work, owing to tanks and such like taking up 90 per cent. of the road, things were really boiling. We got out and discovered that the hose joint we had made was leaking badly and that almost all our water had gone. However, a kindly old lady at a nearby house provided the necessary and told us the route for Guildford, which was made safely and petrol put in, as we did not dare run on "reserve," because this sucked through the dirt which, in spite of flushing, was still in the bottom of the petrol tank. After a good lunch with liquid refreshment we headed for Effingham, having first refilled with water because the leak around the hose was a steady stream. On arrival at the "Old Barn House," madame informed me that her husband had been called North, that her telephone was out of order, and that she had written me on the previous Thursday (this was Saturday) saying that I should save my petrol. However, we explained what had happened to the pipe, whereupon Mrs. Shortt took charge of the operations, and with some blackout material, plus a Jubilee clip, a water-tight repair was made. This repair is still functioning in a perfectly satisfactory manner.

There is not much more to tell—the "Blue Label" is still being used and no trouble has been experienced. After a somewhat hot "4½" the 2¾ miles past Northolt is irksome, and the B-type gearbox is not pleasing; coupled with no power on the indirects this causes some gloom. However, in top the "Blue Label" will go down to 15 m.p.h. quite happily, and go right up to 71 (on the clock) given enough time and suitable conditions. The other morning Mr. Anthony Heal had the audacity to pass me—however, thanks to the lights being unkind to him, we were able to tag along on his tail until we parted company. I might add that Mr. Heal was mounted on one of those dangerous conveyances boasting but two wheels. I have got so attached to the "Blue Label," and the body is in such good condition that I think it would be worth doing up—the fitting of an A- or C-type box and a new propeller shaft being essential. I shall be delighted to get my "4½" back, but I shall always remember the "Blue Label" as having filled the breach when badly needed. Moreover, as I have to visit "doodle-bug" infested areas the possibility of the loss or damage to the "Blue Label" can be contemplated, whereas the loss of the "4½" would be most difficult to bear—attachment from old association (I have done just on 100,000 miles in her), plus all Messrs. McKenzie's and Shortt's work make her very valuable to me. The "Blue Label" is a 1925, chassis No. 963, engine No. 968, Reg. No. XX9358.

★ *The Film Show at the "Rembrandt"*

THE enthusiasts' gathering held at the Rembrandt Hotel again saw every available ticken taken, and some 150 people sat down to lunch, which was a very good affair, the "pit work" by the waiters being excellent.

At the "top" table were Marcus Chambers, Klem, George Monkhouse, Mr. and Mrs. Pomeroy, Anthony Heal, Sam Clutton, Lord Brabazon, Kay Petre, Mr. and Mrs. Rivers-Fletcher, and Mr. and Mrs. Peter Clark. Sam Clutton, who took the chair, opened the after-lunch proceedings by announcing that Earl Howe, George Eyston, Raymond Mays, "Bira," and the motoring press in the shape of Eric Findon, H. S. Sinfield and W. Boddy had all sent messages regretting they could not attend, and wishing the meeting every success. Clutton continued by proposing a toast to "The Sport," and pointed out that the last time he had to do this, at the beginning of these Rembrandt gatherings, he had urged that something should be done by all enthusiasts to get motor-racing on a better footing in this country, but that, apart from continued gatherings, nothing had been done at all. He expressed a need for a continuation of these gatherings after the war, and suggested that the R.A.C. should take over the organisation of such things, and that if we were to have improvement, it was up to the R.A.C. to lead. He proposed that a telegram or letter on behalf of all those enthusiasts present be sent to the R.A.C. Competitions Committee expressing the view that we looked to them for a lead, and urging them to make a move. This was put to the vote, informally, and carried unanimously. [An excellent scheme, but did the majority of those present take it seriously or appreciate it?] Sam made mention of the enormous latent enthusiasm he had encountered since being in the Service, which only needed some sort of lead to ripen it, and gatherings such as these were an excellent way of getting these people into the movement. Raymond Mays was mentioned as having a scheme for a number of clubs to encourage this latent enthusiasm, and he had been doing good work by displaying his E.R.A.

Lord Brabazon of Tara, in replying to Sam's toast, divided motorists into two classes, those to whom motoring was merely a means of getting about, and those who derived pleasure from handling a thoroughbred. He said how pleased he was to be amongst such a splendid gathering of the latter class. He assured us that he would prod the R.A.C. as much as he could to make them move, but if we were really going to have any effect we simply must make ourselves heard and fight for ourselves. Enthusiasts had to struggle in the old days, and he felt sure we were just as keen these days as they were then, and they certainly were keen in those days. He then made a plea for some changes in car design, and said we must keep the American type of car out of our country as, excellent though it was in America, it had no place over here. A low-geared, small-engined, large-bodied, all-purpose car was long overdue in this country, he thought. He then went on to a subject on which everyone agreed, namely, better post-war motoring. Write to your M.P.s, he said; the effect on an M.P. of numbers of letters on the same theme was quite surprising, as he had experienced it; and one thing that was vitally necessary at once was a basic ration, no matter how small, as it would allow the Motor Industry to get its wheels turning again. Improvement in small-car design, especially with regard to weight, was necessary, and we should not let our manufacturers be influenced by the Government or we should get nowhere at all. He concluded by emphasising again the need for really good cars after the war.

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Among those present were:—

John Bolster and Mrs. Bolster; Brian Ashworth; Bance; L. Ballamy; Sub-Lt. P. Clark and Mrs. Clark; S. H. Capon and Mrs. Capon; Flt.-Lt. Crook; Marcus Chambers; Dr. Edisbury; Representative of *Daily Mail;* Representative of *Daily Telegraph;* H. R. Godfrey; Anthony Hume; Dowson; Imhoff; J. Jesty and Mrs. Jesty; C. Kimber and Mrs. Kimber.; Lawrence.

G. C. Monkhouse; Mallock; Mrs. Elwes; Merrilees and Mrs. Merrilees; Metchim and Mrs. Metchim; Rex Mundy; Flt.-Lt. D. Parker; L. Potter and Mrs. Potter; H. Heath; A. F. Rivers-Fletcher and Mrs. Rivers-Fletcher; R. G. Sutherland; H. G. Symonds; D. B. Tubbs and Mrs. Tubbs; N. Orlebar; Partridge and Mrs. Partridge; G. Watson; McNab; Julian Fall; F. H. Nicholl;

Lord Brabazon; R. Buxton; Holland Birkett; Staff-Sgt. Corn; Creswell; J. Cooper; Griffiths-Hughes; C. T. Delaney; C. Clutton; Mrs. K. Petre; Sir Roy Fedden; Hornby; Isiginos; Anthony Heal; R. R. Jackson; D. S. Jenkinson; L. Klemantaski; J. Lowrey; McCann.

P. Monkhouse and Mrs. Monkhouse; Alan Best and Mrs. Best; Mertens; H. MacLagen; Ian Metcalfe and Mrs. Metcalfe; Laurence Pomeroy and Mrs. Pomeroy; E. I. E. Rumfitt; G. Roesch; D. Scott Moncrieff; Seth-Smith; Anthony Brook; D. Axelburg; O. Moore; Sqn.-Ldr. Stone; Rodney Clarke; R. Arbuthnot; E. R. Nicholl.

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Laurence Pomeroy was the next speaker, proposing a toast to the chairman and organisers. He praised Clutton for the great work he has done for the Sport and reminded us that it was Sam who started these meetings with the Chessington Rally in 1941; the subsequent "Rembrandt" gatherings and the formation of the advisory panel, known now as "this organisation," were indeed praiseworthy. But what now? Should they continue, would they serve a useful purpose? He thought they definitely *should* continue, but they should not rush away and become too organised. He said he would have liked to have thanked Rivers-Fletcher for all the work he had put in, but that he believed it was Mrs. Rivers-Fletcher who had really done all the work.

In reply, Rivers-Fletcher agreed that his wife had done most of the hard work, dealing with all the correspondence, etc. He continued, making a plea for greater recognition of the Sport, widening its field of activity, racing on the roads, etc. The "Rembrandt" meetings would continue, and before the next one on December 3rd, an announcement would be made regarding the forming of a Motor Racing Association, with a small subscription fee, to run these meetings and similar gatherings, perhaps twice a year, after the war, as he felt that if they were to continue the organisation should have an entity and be properly run. In conclusion, he expressed his thanks to the members of the lay press, the *Daily Telegraph*, *Daily Mail* and *Daily Sketch* being represented, for coming along, and hoped they would give their support to furthering our cause.

Finally, Sam Clutton pointed out that we owed a debt of gratitude to Lord Brabazon for the excellent example that he was giving us in running the streamlined "1,100" Fiat for his business purposes, and thought that it was a most praiseworthy motoring propaganda effort.

A short break was then announced, and this enabled people to chat amongst themselves, or to wander outside and study the many interesting cars that had managed to attend, thanks, in most cases, to that friend of the enthusiasts, the motor trader. Ian Metcalfe had his Couper Talbot-bodied 4½-litre Bentley present, a vintage car turned out absolutely 100 per cent.; Peter Monkhouse displayed the ex-B.O.C. Type 51 Bugatti, complete with sketchy aluminium wings, and notices requesting the over-enthusiastic not to enter the seat of government. Oscar Moore, of Purkess, Ltd., opened the "alligator" hood of his 2-seater blown Cord that the works might be inspected. Other cars present were John Bolster's gas-producer Twenty Rolls, Anthony Crook's ex-Thomas 328 B.M.W., Ashworth's 3-litre Bentley, Leonard Potter's B.M.W. coupé, Lord Brabazon's Fiat, and Rodney Clarke's billowy Lincoln "Zephyr" coupé.

Eventually everyone was seated back in the luncheon room and George Monkhouse proceeded to show a first-class selection of his motor-racing films from 1933–1939, in which he endeavoured to cater for all tastes and which he did admirably. The Le Mans signature tune was played in the interval.

After tea, those remaining patiently waited until Peter Monkhouse drove away, with Anthony Heal as passenger, in the Type 51 Bugatti, and then the proceedings closed.—D. S. J.

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WHAT HAD THE HISPANO?

—continued from page 205

kept the bigger car company, and the truly magnificent "45" did not come out until 1929. In 1932 a 4½-litre six and the "square" 9½-litre V12 joined the range—but that is another story. Those who have motored for any distance behind the famous Hispano stork mascot know well the charm of the earlier models. It would be extremely interesting to know how many "37.2" and "45" cars are still among us. With this query in mind we called on Gaston Chevrollier, the London concessionaire, but he was not able to help us very much, although we did see his own "37.2" saloon, another car to which Lancia "Dilambda" or similar suspension was being fitted, and a beautiful V12 that he was servicing.

THE ULSTER BRAINS TRUST

THE first of a series of Combined Motoring and Motor Cycling Film Shows and Brains Trusts was held at the Grand Central Hotel, Belfast, on the afternoon of Sunday, August 20th. The 130 enthusiasts who attended included many well known in Irish Motor Sport before the war. Many members of H.M. Forces, who had read of the meeting in the motoring press, also attended. The large room was decorated with some fine photographs and paintings of motor and motor-cycle racing, while at one end were displayed Mr. Rex McCandless's special Triumph motor-cycle which had been developed for grass-track racing and was fitted with a special system of rear springing designed and constructed by its owner, and Mr. Arthur Bell's special trials machine of the same make. Between them, a highly polished B.S.A. Gold Star engine also attracted considerable attention.

Mr. John Patterson opened the meeting with a short welcoming speech, in which he explained that the two chief aims of the organisers were the bringing together of the motoring and motor-cycling enthusiasts, and the keeping alive of enthusiasm for Motor Sport in Ireland.

The film show began with the projection of some reels lent by Mr. Charles Agnew, which included some excellent news-reel shots of racing at Cork in the rain. It was very heartening to see E.R.A.s, Alfas, M.G.s and other cars cornering once again to the tune of the blare of open exhausts, which sounded like music in our ears after being silent for so long. As some light relief, the next film showed the locating and curing of a squeak at a garage run by the combined genius of Mickey Mouse and Donald Duck, whose methods seemed just about as startling as those of some other well-known service stations in these parts. A film on the care and maintenance of aircraft sparking plugs was followed by "The Pace that Thrills," a documentary film dealing with the design and construction of those famous little overhead camshaft Austin racing cars. The silent version was shown, as the sound one could not be got through the censors in time. The organisers felt a trifle envious of their colleagues across the water who are not troubled by this particular bother, which was responsible for many of the films they had hoped to show not being available in time. [Nevertheless, London was long without a motor-racing film show until the "Rembrandt" gathering on September 17th.—Ed.]

After an interval for tea, Mr. Charles Gray projected some of his films, which also included many fine news-reel shots of racing in Ireland and elsewhere. The film show concluded with the showing of a documentary film dealing with the training of Canadian Army despatch riders in England, which was of great interest, especially to the many D.R.s of the Ulster Home Guard and National Fire Service, who were present.

The members of the Brains Trust then came forward to take their places at the top table. They were Mr. Stanley Woods, who has raced both motor-cycles and cars; Mr. Arthur Bell, another motor-cyclist who has competed in races all over Ireland and the Isle of Man, and in many trials; Mr. Rex McCandless, who is well known for the outstanding spring-frame machines he has designed and built, and who has also competed in motor-cycling sport; Mr. Charles Neill, the secretary of the Ulster Automobile Club, and a frequent competitor in Irish races and hill-climbs with a Bugatti; and Mr. John Patterson, who has played a prominent part in the organising of many Irish races, and who has been Major A. T. G. Gardner's riding mechanic on various occasions. The Question Master was Mr. Philip A. Turner, the motoring journalist.

The first question received from the audience asked for advice on the snags to be avoided when starting motor-cycle racing. Mr. Woods said that it was a very comprehensive question, but he thought one of the most important things was to avoid the other fools. He thought it important to learn to ride really well on the road before attempting any competition work. He said it was much easier to make a beginning when he started, as the gap between touring and racing speeds was not so wide as it was to-day, when it was necessary to go very fast indeed to do any good. Ulster in the past had catered for the beginner by running small and relatively unimportant road races, which were a very valuable training ground for the newcomer to the game, and he strongly hoped they would be revived after the war. To prevent inexperienced riders from competing in big events and being a possible danger to others, he wondered whether it would be a good thing to introduce the system of dividing the riders into two classes, licensed and unlicensed, only the former being allowed to compete in first-class events. This had been tried with some success in Germany before the war. Mr. Bell said the only point which he thought Mr. Woods had not dealt with was the choice of a machine. The beginner usually has to keep a close eye on the financial side, and he would do well, therefore, to acquire a well-known make, one that had proved itself over the years, and to prepare it very carefully with the help of his enthusiastic friends. Mr. McCandless said that one point which had not been touched on was grass-track racing. He thought it a very good way of starting, as there was a lot of useful knowledge to be learned if the beginner could hold the machine and learn the art of proper balance. He had always noticed that after he had been competing over a slippery grass track, riding on the road, even over greasy tramlines, seemed comparatively easy. Another point in its favour was that even if the rider did come off he did not get so severe a fall on the grass as he did on the road.

The next question to be dealt with was the possibility of car and motor-cycle clubs getting together more, and of their running joint meetings after the war. Mr. Neill thought it was a very good thing for the two sides of the Sport to co-operate more closely than they had done in the past, but as to running joint events, the chief difficulty lay in finding a course suitable for both cars and motor-cycles. Mr. Woods agreed with this so far as trials were concerned. He added that he had raced motor-cycles over a road circuit on which a car race had just been held, and had found it highly dangerous, as the cars had left oil droppings and shreds of rubber from their tyres on the corners.

A member of the audience then asked whether the Brains Trust thought there would be any events held soon after the war. Mr. Neill said the outlook was not too bright, mainly owing to the fact that before the Government would permit a road race to be held they required unlimited insurance cover for it, and this was, somewhat naturally, impossible to obtain. He hoped there had been a change of heart during the past five years. Mr. Woods said the resumption of racing in the Irish Free State depended entirely on the tyre and fuel situation; there were no worries about closing the roads. It therefore all depended on how soon the British Government would allow these two necessities to be exported. One suggestion he would like to make, and that was the closing of all approach roads to a circuit after the war in order to be in a position to make the public pay to watch the racing. The next question, "Did the Brains Trust think that entry fees for Irish races were too high?" found the general opinion to be that they were not. In answer to the question, "Why are road races held?" Mr. Woods said most races were run with the object of giving pleasure to the organisers, public and competitors. Some, however, were run for profit, while others were held to develop design. The next question dealt with the vexed subject of handicapping. A member of the audience said that road racing of recent years had become so specialised that the layman stood no chance at all in a scratch race. His only hope of gaining any success was in handicap races; would these be continued after the war? Mr. Bell was of the opinion that they *should* be continued. Mr. Patterson agreed, pointing out that in a 1,500-c.c. scratch race, for instance, there were very few cars which stood any chance of winning, with the result that a very small field came to the line. He thought this was a bad thing from the spectators' point of view, for he did not think a field of ten cars or so produced a satisfactory race and that, within reason, the bigger the field the better. A handicap race was not altogether satisfactory, but it did seem to be the only way of obtaining a decent entry. Mr. Woods was in favour of handicap events, but had some pertinent things to say about handicappers and the way they treated the scratch men. He was in favour of class rather than individual handicapping. It did not seem fair that, if "A" and "B" both owned identical 'bikes or cars, "A" should be penalised because he was a better rider or driver than "B." He also protested against the tendency of handicappers dealing lightly with entries about whose potential performance they knew nothing. He

thought it was a great mistake to give the "dark horse" the benefit of the doubt. [Even class racing used to be abused by certain organisers, who did not use a straight-line graph, or who changed the requirements for one group only because of the previous year's good showing by cars in that group.—Ed.]

Mr. Neill said the only really successful race run in Northern Ireland was a handicap event, and it was the only way of giving everyone an equal chance. He was in favour of handicapping the car and not the driver. The next question dealt with post-war grass-track racing. The questioner said he had heard talk of a scheme to hold really big grass-track events after the war and to charge the public for admission. He said he had experienced difficulty in selling programmes even for the Ulster Grand Prix, which led him to wonder how much support would be forthcoming for such a scheme. He was also interested to know how they managed to attract such large crowds to motor-cycle racing on the Continent. Mr. Woods said motor-cycle racing had more prestige, and attracted far more public attention on the Continent. The Continental crowds got used to the idea when they were young that they would have to pay if they wanted to watch the racing, and they were far more used to discipline than we were. The only way to make a motor-cycle road-race a financial success was to close the approach roads to the circuit. The Continental crowds would agree to this, whereas the Irish crowds would begin to talk about their rights. He could not see the large-scale grass-track idea working. It would have to be run like the dirt tracks, with weekly meetings and visiting teams, and he did not think the country big enough to supply the necessary number of teams. A member of the audience suggested that the motoring interests ought to have a representative in Parliament. While the Brains Trust agreed, they could not see it happening. The next question was, that if it could be shown to the satisfaction of the Government that the crowds would be controlled, would they not be satisfied with a lower insurance premium? Mr. Neill said the control of crowds was a very difficult matter, and he had his doubts about it.

"Would a revival of the Irish End-to-End Trial be possible after the war?" was the next question. Mr. Bell said the idea had been much discussed of late and he hoped it would be. Mr. Woods said that the success of failure of these events depended on the entries received. If there were enough people interested, he thought the clubs would join together in running it. Trials were the subject of the next question: "Would the post-war events be short and severe, or would they be like the 1933–4 events?" Mr. Woods said he thought they would be short, as long trials were apt to include rather dull rides along a road to the next section. Whenever trials are discussed, someone is bound to raise the eternal tyre question, and the Brains Trust grappled with the "competition or standard" problem, deciding in favour of the competition type. The question of tyres having been raised, someone then asked whether it is better to fit a large or a small-section tyre to a machine with a spring frame? Mr. Woods said he was all in favour of the large section, and mentioned that, when riding the Guzzi, he used a larger section than the rest of the team and ran at a lower pressure. The questioner then asked if there is any danger of roll with a large-section tyre. Mr. McCandless said he thought there was, but Mr. Woods disagreed, saying the danger of pushing a back wheel out from below one was greater with a small tyre. Mr. McCandless said that while he hesitated to disagree with Mr. Woods, he had found in the course of experimental work with touring machines that a small-section tyre effected a considerable improvement in the handling. He thought it was all a question of unsprung weight. The only way to keep this low was to use either an alloy wheel or a small-section tyre, and he thought the latter was preferable. It was suggested that the large tyre might be necessary on racing machines to transmit the power, just as the Germans were compelled to use huge rear tyres on their Grand Prix cars for the same reason.

Somebody then wanted to know whether there was any great snag in getting possession of a redundant airfield after the war and laying out a racing circuit over its perimeter tracks and runways. Mr. Neill thought the chief snag was a financial one. It would be necessary to provide safety fencing and a staff to control the crowds. The cost might be offset to some extent by letting the arable land inside the circuit to farmers for grazing, etc. Mr Woods said he thought it would be cheaper to start from scratch, buying up some place like Donington Hall. Before an airfield could be used, many of the buildings would have to be pulled down and all the roads would have to be rebuilt to stand up to racing speeds. [Surely the same, as far as the road is concerned, applies to most country parks?—Ed.]

The next question concerned the eligibility of supercharged cars for the T.T. Mr. Neill said he hesitated to answer, for once superchargers were fitted, there were so many ways in which the scrutineers could be hoodwinked. Mr. Woods thought that, provided standard cars were used as a basis, blowers should be permitted. In his opinion, the faster the car could be made to go the better. [The difficulty is that if superchargers are allowed on engines not normally supercharged, every other modification must be permitted those who engine normally aspirated cars, whereas the T.T. regulations expressly limit the modifications permissible from standard.—Ed.]

A member of the audience pleaded for closer co-operation with the Army. They took a keen interest in motor-cycling, and he asked if they could not be represented by an officer at club meetings and events. Mr. Neill thought it was possible with motor-cycles but not with cars. Mr. Woods was in favour of it and the Irish Free State Army and the motor-cycling clubs had co-operated to a certain extent in the past, although the enthusiasm for motor-cycling was not so widespread in the South as it was in Ulster. Mr. Bell said it had been tried in 1942 before the basic ration came to an end. The Ards Motor Cycling Club, for instance, had helped to organise a few Army trials and had provided instructors at these trials. He did not think, however, that the Army would be interested after the war. [Four-wheeled vehicles played as great a part as two-wheelers on all fronts, in general, so why the Army should forget this with the peace we cannot comprehend.—Ed.]

The discussion was then closed and a hearty vote of thanks passed to the various members of the Brains Trust for their contribution to making it such a success.

What Had The Hispano?

IN his masterful survey of sports-car evolution in the June MOTOR SPORT Cecil Clutton pointed to the 6-cylinder Hispano-Suiza as the outstanding car of the early nineteen-twenties. This leads to the query: "What had the Hispano that others did not possess?" remembering that this was an age of large, luxurious cars having, in quite a few instances, quite decent performance. In an endeavour to supply the answers we travelled to the village of Godstone, situated in pleasant Surrey country not far from Caterham Valley, some 19 miles south of the metropolis, to inspect a 1923 37.2-h.p. Hispano-Suiza, now preserved as a breakdown ambulance at a garage recently taken over by the genial brother of Leslie Ballamy. This Hispano is something of an heirloom, and is neither for sale nor destined to be broken up. We were able not only to examine it carefully, but to borrow a book of instructions appertaining to these cars made under the Birkigt Patents—a beautifully written and produced work, incidentally. From it we learn in a picturesquely-worded, if technically vague, introduction that the Société Hispano-Suiza, makers of motor cars, marine sets, aviation engines and commercial vehicles, with French offices in the Rue du Capitaine-Guynemer, Bois-Colombes, made an engine, the design of which "is evolved from our aircraft engine, and it embodies its most distinctive and best features, based on the experience gained by us in the course of manufacturing nearly 50,000 models in a period of four years, and of intensive service on all fronts; such distinctive features are: the set of cylinders, the valve gear, the vertical overhead drive of the latter, the lubrication system, etc. Let us delve into the specification of a grand car evolved from last-war service. The cylinders (100×140 mm.) were steel forgings screwed into an aluminium-alloy water jacket made corrosion-proof by enamelling under pressure. The valve gear was especially laid out for silent operation, whereas, the book reminds us, "hitherto all solutions of the problem of fitting engines with o.h. valve gear and drive by means of tappets or tumblers were noisy in working, and could not be fitted to cars de luxe."

Birkigt let his camshaft operate tangentially on the valve discs, and clearance was altered by screwing up or down the disc on the end of the valve stem with a special key. The crankshaft had fully circular webs with the flywheel bolted to the rearmost disc, and ran in seven white-metal-lined gun-metal bearings. It was drilled for lubrication purposes. The lubrication system was straightforward, and employed an immersed pump with rotary valves. A double carburetter on the off side fed a set of three cylinders independently and was fed by autovac from a 24-gallon rear tank, an injection device to the inlet manifold being incorporated to facilitate starting. The cooling system held approximately seven gallons, and the pump fed about 12 gallons per 1,200 r.p.m., a belt-driven fan being set close behind the handsome honeycomb radiator. Each cylinder had a plug on both sides, fired by dual Delco distributors and coils, the vertical shaft driving the o.h. camshaft also driving a cross-shaft from which these vertical distributors were driven, the near-side extremity of this cross-shaft driving the water-pump. Ignition timing was automatic with hand over-ride, and the dynamo, driven from the nose of the crankshaft, commenced charging at 400 r.p.m. and had an output of 18 amps at 12 volts. Early cars had one 75 amp.-hour accumulator and an auxiliary 25 amp.-hour accumulator, arranged so that this latter accumulator could not be employed to light the headlamps; later cars had two 75 amp.-hour accumulators. There was compensated voltage control. The lamps each had a separate fuse and were specially waterproofed, and wiring was by Monofil cables, each bearing an ebonite identity ring, a special distribution box providing for the klaxons, ceiling lamps, etc., and, on late chassis, for external battery charging.

Up to chassis No. 10,310 the clutch was an inverted cone type, but from chassis No. 10,311 a single dry plate was used, the drive going *via* a 3-speed gearbox and two-piece propeller shaft, to a Gleason spiral-bevel rear axle having wrought-iron casing and tubes and a 4-pinion differential. The chassis had four cross-members and relied on the engine for further bracing. The brakes were, of course, in large ribbed drums on all four wheels, operated *via* the famous Hispano-Suiza gearbox driven mechanical servo and steel cables. Worm and nut steering was used, and the tyres were Michelin cords of 895×135 or 895×150, run at from 52 to 70 lb./sq. in. pressure according to section and load. The engine could be fitted with a mechanical tyre pump which was driven from the starting handle clutch at from 4–500 r.p.m., inflating a tyre in four minutes.

Examination of Ballamy's car revealed the very clean design of the engine, the components grouped at the front and driven from the timing gears by the cross-shaft, and the beautiful linkage from the minor controls. On the near side is an immense trap-door in the crankcase flange, which acts as the oil filler, with a float oil-level indicator adjacent. The six-branch tapered exhaust manifold is on this side, and on the opposite side the low-set carburetter feeds *via* a single circular-section external manifold with hexagonal inspection plugs in the ends. The aircraft practice is evident in the camshaft drive, and the very shapely, narrow, black-stoved valve cover. The leads to the plugs run in long metal conduits. The dashboard contains a fine array of Hispano-Suiza instruments, including a rev.-counter reading to 3,600 r.p.m. driven from the rear of the camshaft, and a 115 k.p.h. speedometer and a 115-litre Nivex fuel gauge. This car was an open 4-seater, and the body has not been much spoilt in accommodating the crane. The disc-shod wheels carry 895×130 covers, and most of its heavy towing work calls only for top gear. Somehow its lines, the radiator graced by the famous stork mascot, seem superior to those of contemporary British high-performance cars of similar dimensions.

Incidentally, fast as these cars undoubtedly were, the makers advised a cruising speed of 50–55 m.p.h., which "allows one to enjoy the scenery, and works out at an average of 38 m.p.h."

The "37.2" Hispano was followed by the 110×140-mm., 7,983-c.c., 45-h.p. sports chassis, which Glen Kidstone and Zborowski favoured, amongst others. Actually, in 1927, a 27-h.p. 6-cylinder

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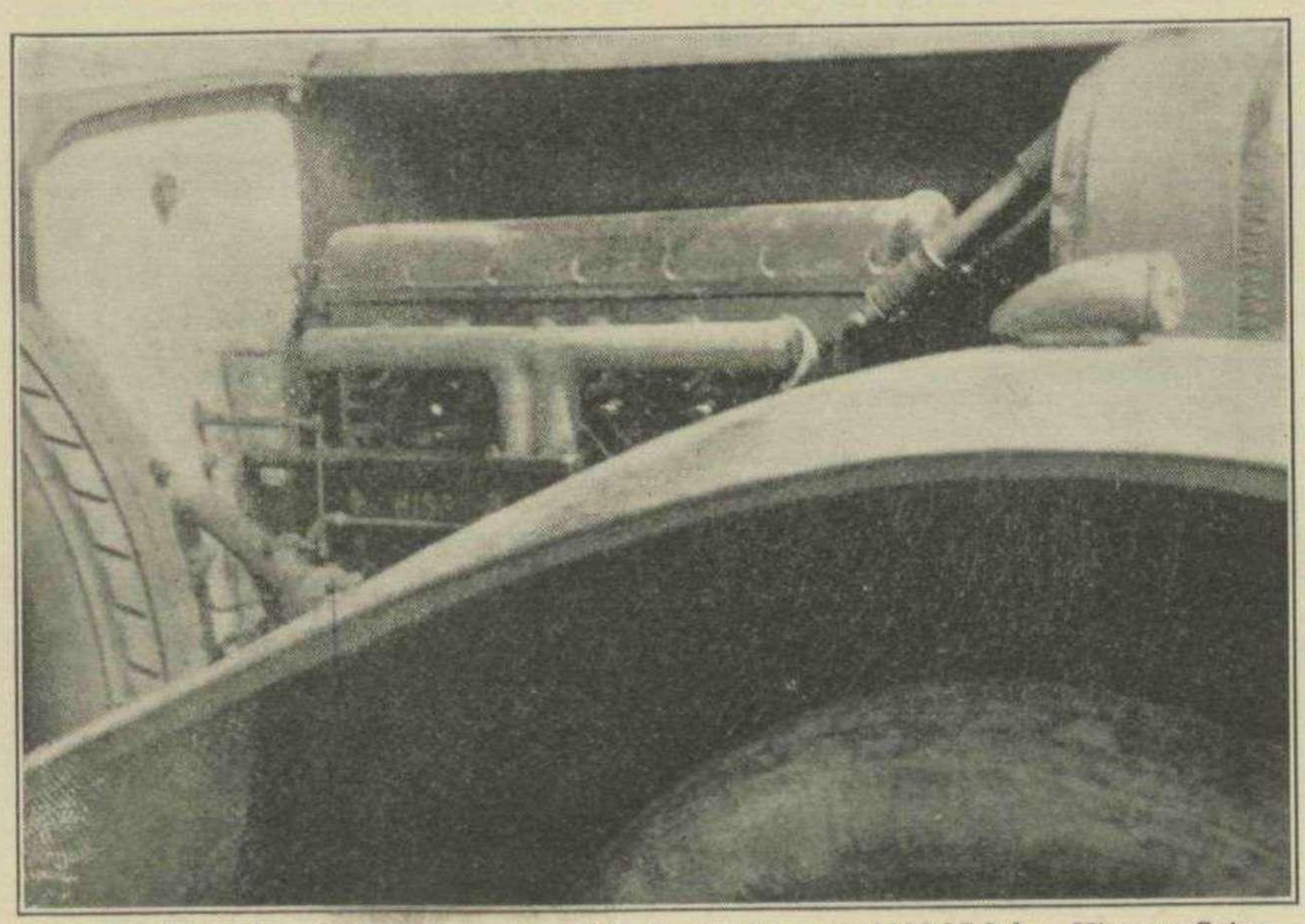

Clean! The exhaust side of the engine of the Ramm Garage's 1923 37.2-*h.p. Hispano-Suiza.*

THE OUTER CIRCUIT "200s"

SO we come to September 20th, 1924, and the last, and in many ways the greatest, Outer Circuit 200-Mile Race of the J.C.C. A record crowd attended, and when the starting semaphore fell, 39 starters (out of 50 entries) left the line in three rows, in a deafening roar of sound and action. The 1½-litre non-starters were a Warwick, the Ceirano, one Thomas, two Bugattis, an Aston-Martin and a Riley, while amongst the 1,100-c.c. cars only Newton's Newton defaulted, while the baby class was deficient of Selby-Brigge's and Samuelson's Austins and the Vagova. The Alvis driven by Harvey held the lead for 50 yards, when Guinness went ahead with his Darracq, followed by his team mates. Most of the 1½-litre cars got away sluggishly, however, and Peacock (Warwick) stalled his engine, while Kaye Don (A.C.) lost half a lap, stationary. In 100 sec. Guinness had completed his initial lap, followed by Segrave, Duller, Joyce (A.C.), Halford (Alvis), Cushman (Bugatti) and the rest. Lap 2 the Darracqs did at a cool 106 m.p.h., leaving the A.C. fully 300 yards behind the last of the trio. 200 yards behind Joyce, Thomas had come up to 5th place. The 1½-litre story is fairly soon told. Guinness, Duller and Segrave settled down to perfect formation-lappery at 108 m.p.h., and did so throughout the race. In three laps they were lapping the 750-c.c. cars. The only thing near them after the early stages was Harvey's Alvis, and that was lapping at a mere 95 m.p.h. Don's blown A.C. stopped after four laps for a change of plugs, and left still troubled. Thomas experienced temporary misfiring on his 4th lap, which cured itself automatically, and Coe's blown Horstman, hastily prepared, was in a dire predicament. After 14 rounds the formating Darracqs slowed from a regular lap speed of 106 m.p.h. to an equally consistent 103. Thomas lost his off front tyre coming off the Byfleet, Harvey running over it, and thereafter the Marlborough-Thomas had repeated bootmaladies. On lap 8 Calder lost 5 min. in his pit working on his Horstman, and Densham retired his Bugatti. Blackstock (Bugatti) was going round at 88½, and by 22 laps Joyce, a lap behind the Darracqs, was holding over 96. A splendid show was being put up by Eaton, whose standard 3-seater s.v. Aston-Martin was only four laps behind the Darracqs at this stage of the contest. Coe had fallen back badly, lapping at under 90, and Purdy, on a sister car, retired on lap 24.

Blackstock (Bugatti) changed plugs on its 26th lap, Gillow's Aston-Martin also stopped, but Joyce had averaged 99 m.p.h. for 100 miles with the unblown A.C. Eaton went steadily round at 81, Katon (Marseal), many laps to the bad, had an elusive carburation bother, and Don and Blackstock were at the pits, the former with chronic plug oiling. Thomas had a narrow escape from ramming Coe when yet another tyre flew off his car as it crossed the Fork. The Darracqs, equally spaced, as healthy as ever, and absolutely consistent, completely dominated the race. On lap 50 they clocked

THE 1924 RACE

(*Continued from the September issue.*)

105 m.p.h., shortly afterwards Harvey had a brief pause at his pit, having pushed the Alvis in. The Eric Campbell was going unexpectedly well, at a lap speed of 86, but Don, Katon, Hall (Aston-Martin) and Purdy were out for good. The first three places were assured, but Halford and Joyce were fighting for 4th position, the A.C. stopping to check the fuel, whereas the Alvis was lapping at 93. After 67 intense laps the Darracq team were taking it easier, at 102 m.p.h., and six cars had fallen out. Harvey's Alvis was doing 90, the Marlborough-Thomas was in danger of losing the top of its scuttle and its exhaust system, and the end came almost before the crowd realised it. The three Darracqs slowed to 94 m.p.h. for their final lap, turned off at the Fork, and closed up to run-in in a row, undisputed victors. There was little cheering at first; the performance of these wonderful little cars was so un-

Previous articles in this interesting series appeared in the February, March, April, May, July, August and September issues, when the races of 1921, 1922 and 1923 were dealt with.

spectacular as to arouse little appreciation until times came through. Actually, Lee Guinness had taken 10 m. 7.4 s. less time than the previous fastest race winner, completing the course in 1 h. 58 m. 30.2 s., at an average speed of 102.27 m.p.h. Duller came home 1.2 s. later, at 102.25 m.p.h., with Segrave 3rd, 0.8 s. behind Duller, at 102.24 m.p.h. In the course of the race Guinness took the 50, 100 and 1 and 2-hour class records and the 200-Mile World's record, the "Hour" at 101.93 m.p.h. The team went through non-stop to a pre-arranged plan, and the drivers are believed to have drawn lots to settle the finishing order. Magnificent show! Joyce got away from Harvey and slowed up, doing only 75 m.p.h. on his last lap, the A.C. thus being 4th, while Cushman's Bugatti was 5th, a minute ahead of the Alvis, with Miller's Alvis 7th, Harvey's Alvis 8th, the Eric Campbell 9th, Montant's Bugatti 10th, Coe's Horstman 11th, and Eaton's semi-touring Bamford and Martin's Aston-Martin 12th, the last-named averaging a very creditable 79.55 m.p.h. The Alvis team was the only one to finish intact, apart from Darracq.

Amongst the 1,100-c.c. cars, O. Wilson Jones led his group from the line, followed by Hawkes in another Salmson, Norris (Morgan), Zborowski (Salmson) and Ringwood (V-twin Frazer-Nash). Zborowski and Hawkes were rumoured to fear trouble. Ware's Morgan proved a difficult starter, and Ringwood did not seem to have his engine warm enough for speed work right away. Jones went right out ahead, lapping much faster than Hawkes, and Zborowski and Norris duelled in the rear. Poor Ware lost much time replacing a broken top-speed dog, while Jones, right out ahead, lapped at nearly 89 m.p.h.—on a 1924 "1,100" with aeroplane elastic in lieu of shockers! Ringwood changed plugs, and Hawkes retired when his magneto coupling broke. The Morgans, after a good start, were dogged by ill-fortune. Ware pushed to his pit, Beart came in on a flat rear tyre, and Norris free-wheeled in with a broken top-speed chain. Only three 1,100-c.c. cars were in action at this time, the Frazer-Nash now managing to lap at 82 m.p.h. Excitement! Just when Jones looked like winning by 20 or 30 miles his mechanic extended an arm, and the Salmson slithered into the pits. In a quick stop water was put into the radiator and the leader resumed, lapping at 86 m.p.h. Zborowski also came in for water, and Beart, having replaced a rear tyre, found that his engine quite refused to re-start. Ware, however, was in the race again, lapping at nearly 90 m.p.h. Came disaster. On his 33rd lap the Morgan's rear wheel was seen to wobble and Thomas, on a pit-stop, reported smelling burning rubber when he passed this car. On lap 35, as it was crossing the Fork, the car swerved and crashed into the iron fence by the Vickers sheds. Both occupants were flung out and pieces of the car were scattered about the track. Ware sustained a compound fracture in both arms and severe concussion, and Allchin, the mechanic, was seriously hurt. Apparently the low-speed chain had become entangled in the rear wheel. Beart got away again but pulled in after two laps to hack away the wood round the rear wheel, probably a more cautious man after seeing Ware's accident. After 57 laps the Frazer-Nash stopped with a flat rear tyre, and Zborowski retired when the oil filler cap flew off, shorted two plugs and seized the engine. It looked as if three 1,100-c.c. cars would finish, but at the very end Norris had to make another pit stop and could not complete the course within the three hours. Thus O. Wilson Jones won the class at 85.7 m.p.h., having taken 2 h. 21 m. 24.6 s. This was slower than the 1922 time, but faster than Bueno's time in 1923. Ringwood was 2nd, 20 min. later, at 74.06 m.p.h. Jones took the 200-Mile and 2-Hour records in Class K, at nearly 86 m.p.h.

Amongst the 750-c.c. cars, six Austins retired, but Gordon England had a wonderful non-stop run, taking 2 h. 40 m. 15.2 s., an average of 75.61 m.p.h. This was just over 1 m.p.h. slower than his 1923 average. Gordon Hendy was 2nd, only just in time to complete the course. All the other Austins appeared to retire from lubrication shortcomings, and even England's car was smoking badly from the 69th lap onwards. A nasty noise also developed, but proved to be part of

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A Ranelagh-Bodied "1,500" Fiat

Geoffrey Battersby's special drophead coupe reviewed by Harold Biggs.

THOSE who know of my admiration for the motor cars produced by our "co-belligerents" will appreciate with what pleasure I accepted an invitation from Geoffrey Battersby to inspect the then latest addition to his stable of a "1,500" Fiat.

This model is less well known than either the "500" or "1,100" cars, and is exceedingly interesting technically. The chassis consists of a single central "tube" of box-girder construction, splayed out fore and aft in a "Y." The forward "Y" carries the power unit and a solid beam carrying the Vauxhall-pattern suspension units, while the rear "Y" mounts ½-elliptic springs, shackled at their after ends to the extremities of the "Y" and at their forward ends to a cross-member running across the point where this "Y" meets the central box-girder. The chassis layout gives a wheelbase of 9 ft. 2 in., with a forward track of 4 ft. 3 in., and a rear track of 4 ft. 4¾ in.

The wheels are fitted with 15-in. by 5.25-in. tyres, and the brakes, as on most Fiat products, are Lockheed, and are well able to cope with any demands. Shock-absorbing is by inbuilt hydraulic absorbers incorporated with the front suspension units, and by Delco piston type at the rear, aided by a torsion stabiliser.

As for the power unit, it is of straightforward design. The 6-cylinder push-rod o.h.v. engine of 65 by 75 mm. (1,493 c.c.), has a compression ratio of 5.75 to 1 and produces 45 b.h.p. at 4,400 r.p.m. A 4-bearing crank, fitted with a vibration damper, makes for extremely smooth running, further aided by flexible engine mounting. Lubricant, from a 6-pint sump, is circulated by a gear-type pump drawing through a submerged filter, and water circulation is aided by a pump driven by the fan belt and equipped with a thermostat and by-pass. Ignition is by coil, with a centrifugally-controlled distributor which has, in addition, an over-riding manual adjustment. Carburation is by a single choke downdraught Zenith, fed by a camshaft-driven fuel pump.

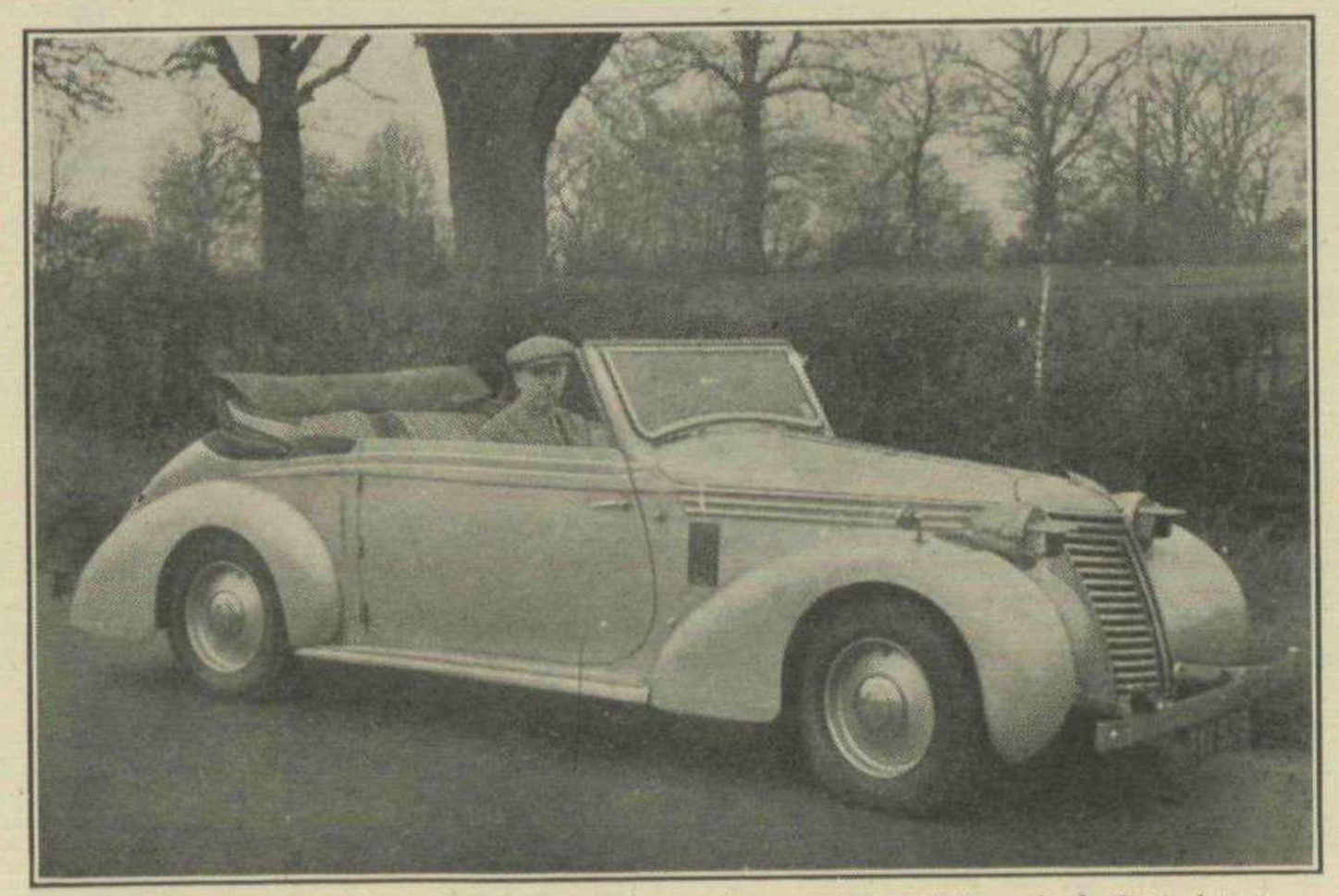
Via a single-plate clutch the drive is through a 4-speed gearbox to a divided propeller shaft, allowing the floor of the car to be kept clear of the obstructing propeller-shaft tunnel, as the front shaft is inside the box-girder member, at the rear end of which is the steady bearing and the second universal joint, vertical movement only occurring in the rear half of the divided shaft. The standard axle ratio is 9–40.

On arriving at Battersby's I was immediately struck with the resemblance of the car to those bodied by Farina, but was assured that this was a Ranelagh product, and was in steel, and not light-alloy, making for a heavy, albeit strong and durable, job. Further examination reveals "M.E.C." engraved on the magna hub discs, and I was informed that the model had been treated at the Melbourne Engineering Co., under, it is said, the supervision of Peter Berthon. The compression ratio had been increased to 8 to 1, giving a reputed b.h.p. of 70 at 5,650 r.p.m. This, no doubt, is safe by virtue of a special Laystall crankshaft running in Glacier-metal-lined bearings. During my somewhat short investigation of the alterations from standard, I noted the popular Fram oil-cleaner, which is an addition of proved merit.

I was fortunate in having a short run with Battersby on his official A.T.C. duties, and was able to handle the car for myself. I was impressed with the extreme smoothness of the engine; it would pull down to 15 m.p.h. on top, and would accelerate without snatch or miss. The acceleration was discounted by the weight, some 23 cwt., but was satisfactory for a town carriage. Steering was accurate and light, but I should have appreciated a wheel of greater diameter and thinner rim.

As the car had not been run in, no attempt at maximum speed was made. Wear in the needle rollers of the front suspension units gave occasional colossal wheel flap, with which drivers of Fiat "500s" are accustomed, but this has since been attended to. I noted that the gear-change was considerably more rapid than on my own hack "500," but extremely definite. Summing up, I should say that, with its modifications, the car is one of great promise.

I will not attempt to describe the bodywork, save to point out that it still seems difficult to make a drophead in which the head can be easily stowed and which does not spoil the lines of the car when so stowed. On my return to the house I was able to re-acquaint myself with Battersby's stable of "Vermicular"-chassised-cars—the Tatra and the Hansa—both of which I have had the pleasure of conducting. Fellow sportsmen will remember Battersby's performances in J.C.C. events with Salmsons and blown and unblown O.M.s and may, no doubt, know of his Salmson-G.N. "Special," which has, so far as I know, yet to make its debut. He has recently obtained an 8th Series Lancia Lambda, which is in perfect condition after 70,000 miles. This latest acquisition he humorously describes as "Mad, even for a hatter." I wonder how many agree?



Geoffrey Battersby, an enthusiast for modern Continentals, at the wheel of his latest—a Ranelagh-bodied "1,500" Fiat.

ODD SPOTS

Taso Mathieson is on active service, Morris Goodall is in the West Country, and Arthur Dobson has to do with radio in a works of his own. The *Star* recently referred to a member of the A.T.S. as a former racing driver—they meant Mrs. Biggs, who drove twice at Brooklands, in a Riley Nine, winning a short handicap at the 1936 Easter meeting on her second appearance.

A Useful Tool

Thanks to a set of Plastilite magnetic "pick-ups," retrieving lost wheel parts or tools from hitherto inaccessible places is no longer a tiresome, time-wasting job. Retailing at 4s. 6d. each, this handy instrument (which consists of a permanent magnet and flexible wire that can be bent to any shape) will shortly be obtainable from Plastilite Patents, Ltd., 25, London Road, Bromley, Kent. Every workshop will find it a real boon that soon saves its low cost by its labour-saving handiness.

CARS I HAVE OWNED

J. O. Cunliffe, brother of May Cunliffe, *who held the Ladies' Record at Shelsley* Walsh in 1927 and 1928, tells of the cars and motor-cycles he, his wife, and his famous sister have used and raced.—Ed.

I SUPPOSE that it all started through finding a copy of "*Motor-cycles* and How to Manage Them," printed in 1902, with a picture on the cover of a man in a Norfolk jacket, on the latest model motor tricycle.

This publication started a craze for motor-cycles, and eventually I managed to purchase what was then the latest model Scott. Just after the Armistice I was a Norton fan; most agents had long waiting lists, but after a search I was able to obtain one of the single-speed B.R.S. Nortons (guaranteed speed 70 m.p.h.). It was at this point that my education really started, as the Norton was hotted-up and carted to hill climbs whenever pocket money ran to entry fees. The old B.R.S. stuck it well until I got one of the first o.h.v. Nortons for the 1923 Senior T.T. This o.h.v. job was most reliable, as during two years' continual racing the only trouble was one dud condenser.

Some time prior to this my father decided that a sports car should be taken into the family, the choice finally resting between an A.C. and a "*Speed Model*" Hillman. Our house was at the end of a cart track with a gradient of one-in-three, and it was finally decided that whichever car climbed the hill the farthest should be the one purchased. The driver of the A.C. took one look at the hill and departed for home. The Hillman made a valiant attempt and got about three-quarters of the way up. It was a grand little car with a 1,500-c.c. side-valve engine, and for those days quite fast, with a maximum of about 60 and a most satisfying exhaust note from its 3-in. copper exhaust pipe.

Quite unknown to father it made fastest time at several speed trials, the increase in speed after hotting-up being put down by the family to careful running in!

At the end of 1922 we decided that the new 3-litre Bentley was the only car, and placed an order for a Van den Plas 4-seater. About this time the family began to take an interest in racing, and at one Southport meeting there was a class for sports cars which my young sister, May, entered with the Bentley.

After this the car was gradually hotted-up until its maximum on sand was in the region of 85 m.p.h., and eventually May began to look round for something faster.

About this time one of the I.O.M. Bentleys, with the flat radiator (FR 5189), which had been very much lightened and hotted-up by Porter, of Blackpool, came on the market, and after a try out at Southport, May bought the car. Almost everything on the car had been drilled, and the most interesting feature was the three carburetters—one whacking great Claudel in the centre, aided by two small replicas at either end of the induction pipe.

May won quite a lot with this car, *including the Women's Record* at Shelsley; she would have won more than she did at Southport but for the beaded-edge *covers leaving the rims on corners* in spite of numerous security bolts. Well-base wheels, with well fillers, later made their appearance.

The red Bentley was, I think, the nicest handling motor car I have ever

driven, apart from Bugattis, and really was fast, the body consisting only of a shell with two seats, and a tank mounted on top of the chassis.

The car was badly damaged in a crash at the Blackpool speed trials, and went back to the works for repairs; whilst it was there I believe that most of the 24-Hour Record engine was fitted (98 *m.p.h. for 24 hours at Montlhèry by Duff* in 1924), and a huge Roots-type blower was fitted between the front dumb-irons. *A Solex similar in size to the blower* supplied the gas.

May and my father only used the car *in this guise* at seven or eight meetings, as it was suffering from various teething troubles, the biggest being incorrect mixture. In spite of this, the car broke the Women's Record at Shelsley in 53.4 secs., and also Basil Davenport's Frazer-Nash record over the standing third-of-a-mile at Stalybridge.

Incidentally, the engine was turning over at five thou. two in third across the finishing line at Stalybridge!

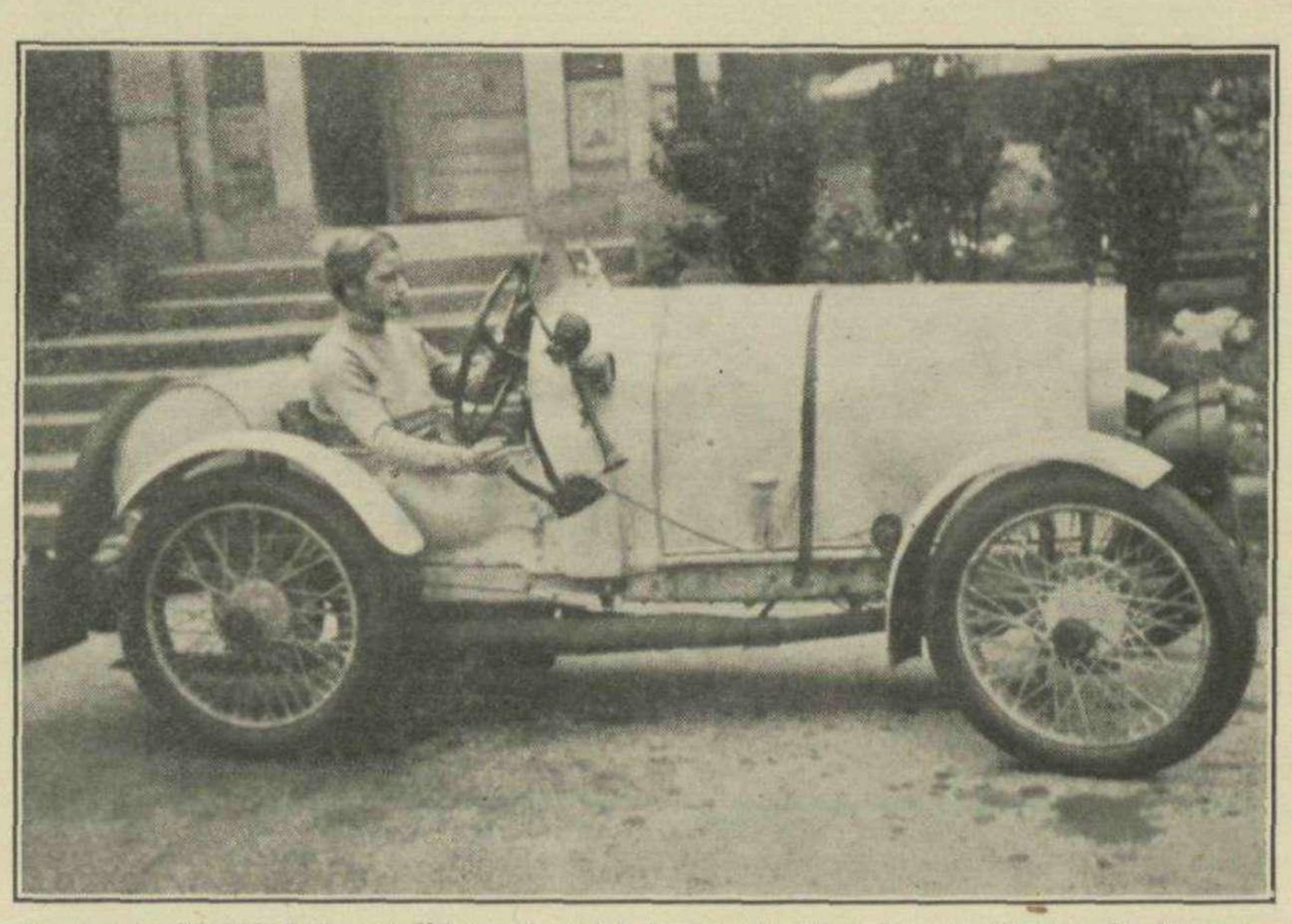
I imagine that father got fed up with sending the car to Bentleys for tuning, as it seemed to mend rather worse as far as the carburation went, so a visit was made to the Sunbeam works, and finally one of the 2-litre blown G.P. cars was purchased.

When May got used to the car she was very successful with it; but it was a bit tricky to get off the mark on sand after the Bentley, with its (comparatively) heavy flywheel, and, personally, I thought the performance of the Sunbeam was no better than could be obtained from the blown Bentley if it had been persevered with. However, May liked the car and managed to beat Segrave's time up Shelsley with a similar car, taking the Women's Record again in 1928 in 51.2 secs.

I regret to say that I took very little interest in the Sunbeam, which was a beautiful engineering job; my chief recollection was that it had a gear-change similar to a Cubitt, and I still covet the rev.-counters, which were the expensive sort which tick for some time after the engine has stopped. At the time I put in quite a bit of work on the blower Bentley, and had got it really cracking when May decided to sell it.

In the meantime father had bought another 3-litre Bentley fitted with a Cooper all-weather body, to act as a tender for the Sunbeam; the sight of this motor, loaded to the roof with spare wheels, etc., being cornered at its absolute *maximum in an attempt to keep near* the Sunbeam, was something to be remembered. This, I think, was the most *uninteresting Bentley I have known*, being a long chassis and very much over-bodied, the amusing thing being that father, who liked open cars, always wound all windows up, whilst mother, who preferred "greenhouses on wheels," always wound them down.

Having had a very good year with the bikes in 1927, I was all set for the best season ever. I had a Brough, which had clocked well over the hundred at Southport, as a spare, and a *new big-twin* A.J.W. with distinct possibilities, to say



Cunliffe's Modified Brescia Bugatti which he bought after his marriage. It does not appear to have quite such good lines as other bolster-tank Brescias of its period.

nothing of greatly-increased bonuses (of which father did not approve ; he did not believe in professionalism in any sport), when the Sunbeam turned over at Southport and he was killed.

This rendered me too busy to spend much time on the bikes, and I only managed to race occasionally, and I am afraid the machines suffered from lack of preparation, quite apart from the fact that there was not the same fun in comparing experiences after the meetings. After a lot of consideration the bikes were tucked away and I looked for something more " pansy " than a two-wheeler. After some time I found one of the 1928 Alvis T.T. cars, reputed to be the blown f.w.d. which Cushman drove into second place in Ulster, 13 secs. behind Kaye Don (whom I remembered very well from the old T.T. days when he was usually known as Don of Avons).

There was no doubt that this Alvis was, to say the least of it, a pretty good motor ; the only trouble, with the big-ends, was cured by running on Speedwell " White Ideal." I have heard many opinions about the F.W.D. Alvis ; mine was, like all Alvis cars, on the heavy side, and the straight-toothed bevel was rather noisy. However, the steering, roadholding and brakes were excellent, and the car was reasonably fast (a speedometer 90, which was probably a genuine 80–85), while acceleration was about in keeping.

I kept this car until after I married Pauline in 1933, when, being a bit hard up at one time, the Alvis was sold. We were then carless for three months, after which period the urge became too great, and we bought our first Bugatti, a Modified Brescia (OM1643).

This was one of the jobs with a huge bolster petrol tank and a 2-seater body bulged out to fit one's hips ; fortunately, both Pauline and I were on the slim side and so were able to squeeze into the seating department. The chassis was in pretty poor condition, but after getting the leverages somewhere about right on the Whitehead front brakes, fitting new gear wheels, and generally doing the motor up, it made one of the nicest and most interesting cars that I have ever driven ; the maximum speed was 65–70, with 40 miles to the gallon on a long run.

A journey during which we sat in pools of water for about six hours decided us to have a change, so Pauline left for London to get something more weatherproof than the Bugatti. She returned complete with an S.S., always referred to as the " Sexual Six " ; it was one of the early models, which looked like a snail with its house at the back !

The S.S. rather amazed us, as it gave no trouble ; at the time we were using the East Lancashire road quite a lot, and the poor thing was driven flat out for miles on end, and seemed to thrive on the same treatment which would be given to a boot scraper.

One day I dropped into one of the showrooms at Southport to see a friend, and heard one of the salesmen bewailing a deal in which they had taken a Vauxhall in part exchange. It certainly looked horrible with the hood up, and eventually I bought it for £12, which I should think is a record low price for an O.E. " 30/98 " in good mechanical condition. The paint was bad, so we re-sprayed it. Unfortunately, the dark navy cellulose turned out to be Reckitt's blue, and I think it was the colour which persuaded us to part with the car to Peter Wike for £35. It was a grand car apart from the brakes (which had the comic compensating mechanism on the front stoppers), and we had a very good 5,000 miles in the car before parting with it. We never had the motor down, and it was funny to hear later that the cylinder head joint was made with a brown paper washer.

The S.S. was now showing signs of old age, and Pauline, who, thanks to old copies of *The Brooklands Gazette* and Motor Sport, had developed into a real car enthusiast, departed to find something Bugatti. I was still too busy to get away and she was quite competent, as one bright spark who gave her a trials run on a Brescia Bugatti found out. The Brescia had gone manfully on three cylinders, and he had decided that the wreckage was as good as sold when Pauline removed the oil filter. As she said afterwards : " It might have held a shade more white metal, but only a shade," and her remarks were very terse and to the point.

Bachelier's was her last hope, where she really wallowed in real Bugattis, and having enquired prices, said in a small but hopeful voice : " You don't happen to have an old Brescia anywhere ? We might afford to buy that." Alas, they hadn't.

Shortly afterwards we heard that Lane Jones was selling his Type 37, so, having raised the wind in every way possible, we bought our first G.P. (YO53). We were both delighted with the car. It was quite fast, and it handled like a Bugatti. It was in grand condition, and we had a long period with no trouble until a valve dropped in, probably due to over-revving a few days earlier along the Ashbourne road. According to the rev.-counter the maximum speed was something over 90 ; probably Lane Jones could supply the actual maximum, as he did very well with the car at various speed trials. The only time the petrol consumption was checked was on a run to Shelsley, when it was just over 35 to the gallon. I am glad to say that I still have this car and am busy rebuilding it in odd moments free from Home Guard duties.

In the meantime Pauline's father had presented her with a Riley Nine saloon with a self-changing gearbox ; it was a nice little car but was not blessed with very much urge, though it handled very nicely indeed.

I then discovered May's racing Bentley near Macclesfield ; it seemed to be owned by a syndicate who hoped to make their fortunes out of it, so we did not bother any further. A few months later it came into the possession of a friend in the Trade, and I managed to buy it at a quarter the price I had been asked previously.

Some previous owner had fitted an ugly 2-seater body, sundry imitation oil filters and tanks, and lots of flexible pipes which looked imposing but led nowhere, and had fitted the petrol tank with a huge quick-action filler cap, leaving the hole where the original filler cap had been still as small as ever !

The car now sported a Crossley front axle which made the steering simply horrible (from lock to lock in half a turn of the steering wheel). The first thing we did was to remove about a hundredweight of old iron and the Crossley axle, plus the imitation trimmings. We were lucky enough to pick up a long chassis from which we obtained a front axle and brake cross-shafts, a couple of Lucas P.100s, and innumerable spares. The engine was stripped and rebuilt with a couple of S.U.s, the blower having been wrecked at some time. It was quite a job drilling the chassis on the short model (wheelbase about 8 ft. 9 in.), the material being far tougher than the long chassis ; it took about a week to drill and file the holes for the brake cross-shafts. The old car, when finished, was grand, with a maximum of about 90 in third, but owing to the high axle ratio for use with the blower, only about 85 in top, which was very pleasant on long straight roads, second and third being able to take care of any car normally met on any of the runs we did.

Pauline had now changed her Riley for something a bit meatier, in the form of a 2-litre Frazer-Nash B.M.W. This was a grand car in most ways, having a maximum of about 75, good steering and brakes, and bags of acceleration which used to surprise owners of big Yanks. Carburation was troublesome. It was the two-carburetter job, and I have always thought that fitting three carburetters would have cured the trouble we had with the car.

Early in the war these cars were packed up. In the meantime, a friend wanted to sell his 3-litre Bentley which had made fastest time at a West Hartlepool speed trial before the war. The price was attractive, so I bought the car for spares. It was, I imagine, a long chassis which had been shortened and had a very small and cut-away 2-seater body, with huge cowls, rather on Mae West lines, and lots of instruments, even including a blower gauge. The oil gauge worked !

The beast annoyed me every time I looked at it, and eventually it was traded in part exchange with " Bentley " Metcalfe for a "Speed Six." I have not had the chance of much mileage on this, as we broke a fibre timing pinion when doing a speedo. 79 on third. After decoking, even unto the sump, and building up the engine, the car seems really good and handles far better than I expected such a big car could handle. Incidentally, any notes on the shortening of these chassis would be very welcome.

The "Ulster" T.T. Alvis, which I mentioned previously, came home to roost a short time ago and is being rebuilt ; it has still not reached the 30,000 mark and has a lot of mileage left in it.

Until the present bother is finished I am reduced to using either a " Silver Star " B.S.A. or one of Noel Pope's I.O.M. Nortons for Home Guard use, and when the weather is really bad, as it is sometimes in Buxton, I crawl into a Standard Nine (which runs with the absolute minimum of attention), and decide that I am not as young as I used to be.

I regret to say that I still have not ridden a motor tricycle.

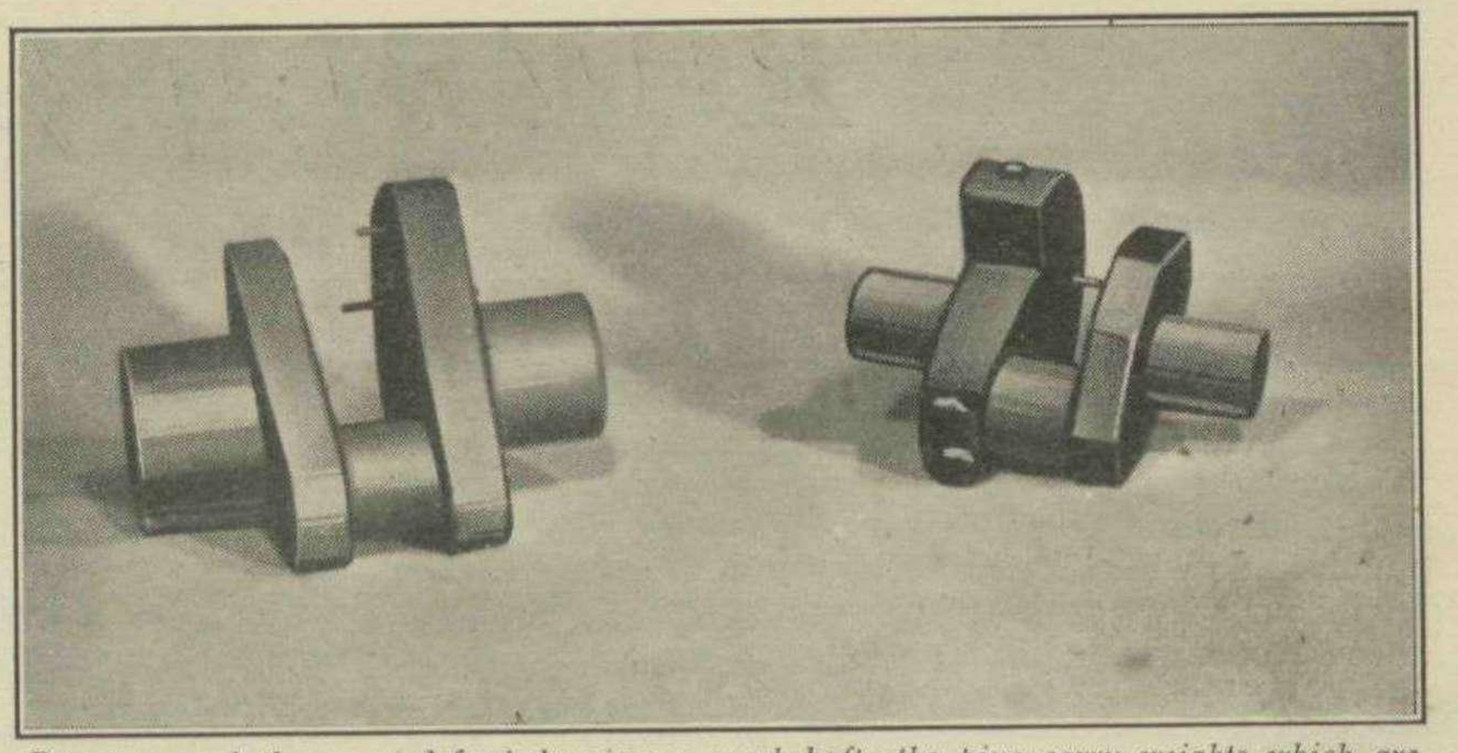
Instilling the Magic

ALEC FRANCIS, who has tuned many fast cars in his time, has sent us some notes on the methods he used, and as the results he achieved were very successful in more than one instance, let us examine his hints for instilling the magic. It is essential, Francis emphasises, to strip right down at the commencement of operations, replacing all worn bolts with new when re-assembling. Expense can be saved by remembering that ball-bearings need not be replaced if there is a little side play ; it is different, of course, if they are journal bearings taking a thrust load, but otherwise it is radial up and down movement that it is important to avoid. Francis used to clean off all parts and run his engines with paraffin in the sump for ten minutes before finally draining off and dismantling. Road springs should be re-tempered and re-set if a change of shape is required, but instruct the smith to err on the soft side, or broken leaves may result.

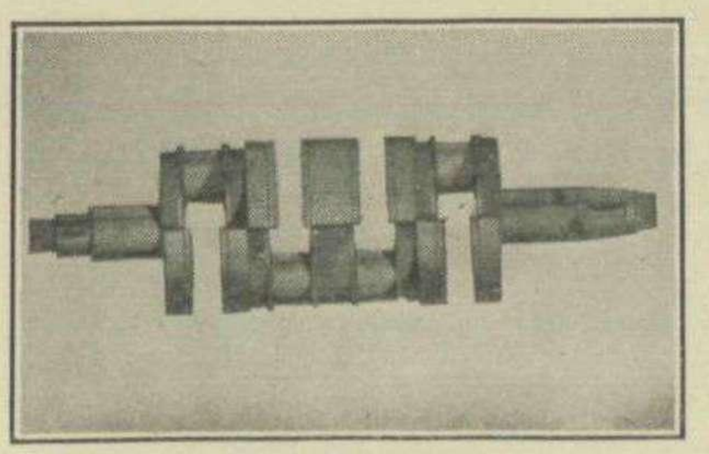
Crankshafts were balanced by treating each throw as a single-cylinder job, using a dummy shaft with a single throw to which the new con.-rod and piston were attached. The necessary balance was obtained on this, and the same weight then applied at the correct place on the throws of the actual crankshaft. Francis used this method for 20 years, commencing with the Shelsley Walsh Beardmore, which, with a two-bearing crank and a 114 mm. stroke, ran at 6,000 r.p.m. without trouble. Widengren's Amilcar Six, which ran up to 7,000 r.p.m., Bartlett's Salmson and Dobbs's Rileys had crankshafts balanced in this manner. Cooling fins on big-ends are recommended and our informant believes in normal white metal lining, as separate shells are said to overheat, due to an oil film forming behind them and reducing heat dissipation. Engines designed for supercharging should have heavier pistons and con.-rods, etc., than normally-aspirated engines, and consequently it is important not to change one's mind when once it has been decided to supercharge. It will be remembered that Hodge's Singer Nine, described last month, was run unblown, although originally designed for supercharging ; the special crankshaft had a long extension at the front, intended to drive the supercharger. Bearing failure and valve bounce are the worst evils of adding a blower to a fairly normal engine in such a manner that it functions at greatly increased crankshaft speeds. Even a new crankshaft in the existing crankcase is unlikely to obviate the former trouble, and often there is insufficient space to fit stronger, multiple-valve springs. The solution is only to supercharge to increase output at moderate r.p.m. Port and combustion chamber polishing can occupy many hours, and while a grinding wheel driven by a flexible shaft will help, remember that a very high final finish is essential ; even an average machine-finished surface can expose to the gas flow obstructions twice the area of those existing on a properly-polished surface. Inlet ports are especially deserving of attention, of course, and valves should be treated with chamfering cutters, files and scrapers to leave a blended valve and seat of $\frac{1}{16}$-in. depth. Finish by polishing. It is possible to radius the seat so that light grinding-in will leave a narrow seat very nicely blended, but this is best done when valves and seats are new, as the valves will then accommodate themselves should any slight distortion occur.

Francis did not like split-skirt pistons, but gave .014-in. to .015-in. clearance at the top, tapering to .004-in. at the skirt. If valve clearance pockets are necessary in a piston crown they can be cut by forming a cutter from an old valve, having case-hardened teeth formed round it, which can then be inserted through a guide and operated by a hand brace while the piston is held at the t.d.c. position. $\frac{1}{8}$-in. over the calculated clearance should be cut. So far as the valve timing is concerned, an average fast camshaft should give : inlet opening 30° before t.d.c., closing 65° after b.d.c., and exhaust opening 60° before b.d.c., closing 35° after t.d.c. This timing will not give much result below 2,000 r.p.m. The cam base should be eccentric to give .014-in. to .015-in. tappet clearance at 10° before opening and closing point, and about .040 in. to .050 in. when the valve is shut. High temperature and the elongating effect of strong valve springs play havoc with clearances ; for example, Widengren's Amilcar started its Hour-Record run with 21 thou. clearance on the exhaust tappets and finished with an average of 3 thou. per valve.

Special crankshafts for small engines cost, before the war, about £20 for a slightly strengthened, balanced shaft, and about £45 for a shaft suitable for a highly supercharged engine. Special con.-rods enable larger diameter journals on the special crankshaft. They should have a rough right- and left-hand screw-thread finish inside the big-ends to key the white metal, which should be cast directly in the rod, to a depth of not more than $\frac{1}{32}$ in. When fitting it is a mistake to attempt to get 100 per cent. on the crankpins, because .002-in. clearance is required. This is obtained by making up a dummy pin .002 in. greater in diameter than the crankpins and fit each big-end to this. Use a spare set of bolts when fitting so as not to pre-stress the ones to be used on final assembly. Check also that each big-end has .002-in. side clearance. Oil pressure will invariably drop when running at these clearances, but if the pump teeth can be increased in width by $\frac{3}{16}$ in., using a packing piece to take up the body clearance, it can usually be restored. The area of the filter gauze must also be increased. Aim at a sustained oil temperature of 60° C., using an oil-cooler if necessary. In conclusion, Francis emphasises the need for extreme cleanliness when dismantling and assembling a competition engine.



Dummy crank-throws used for balancing a crankshaft; the pins carry weights which are adjusted until correct balance is obtained.



A crankshaft used in one of Dobbs's Rileys

Appeals

We have received an appeal from S. D. Farndell, 32, Elmpark Gardens, Selsdon, S. Croydon, Surrey, for back issues of MOTOR SPORT dated August and September, 1940, and June and September, 1941, which he requires to complete his files. Farndell, a close friend of Ralph Venables, is confined for a long period with illness, and we hope someone will be able to help him.

◆ ◆ ◆

Will the reader who told us of an early racing car for sale, the engine of which might be put into a boat, please let the Editor know the whereabouts of this car ? It appears to be a German 1½-litre designed by Hornsted and raced at Avus and Brooklands in the early nineteen-twenties.

RUMBLINGS

Quite what form motor-racing in this country will take after Germany has surrendered or been vanquished is not very clear, and depends on so many factors as to be virtually unpredictable. But, with the end of hostilities now really near at hand, there is every reason to consider all suggestions and possibilities. For this reason the views of Alec Francis, who had much to do with the old J.R.D.C., are of interest, even if, in our view, optimistic in the extreme. Francis's idea is one which aims at offering regular racing to more enthusiasts than could afford to participate before the lights went out all over Europe in 1939. He points out that few suitable racing cars have been produced since 1930, and foresees, to start with, a shortage of cars. Rebuilding a production car is an expensive business if a really fast car, reliable throughout a long race, is required. Francis thinks that support from manufacturers may as well be forgotten, and adds that the advertising value of racing is finished. Basing his reasoning on the high cost of racing, he suggests proper organisation to be essential. A car run in only a few races, even if it escapes a major blow-up, is likely to cost its owner £250 a year for its " keep." The scheme, then, is to spend this money, not on a privately-operated racing stable, but to support a central controlling body, which would not only organise races for various groups of drivers around the country, but which would design and build, as it were, a " utility" racing car. Francis has in mind a standard racing engine which could be assembled in various sizes, such as 500-c.c. 4-cylinder, 750-c.c. 6-cylinder, or 1,100-c.c. 8-cylinder, and installed in various forms of chassis. Each group, under the aegis of the controlling body, would, in its own workshops, undertake to assemble cars for its members. Given 1,000 enthusiastic amateurs, ten groups of 100 enthusiasts each could be formed. If each driving member paid an entry fee of £25 and a subscription of £100 a year, each group would have an income of £12,500 a year to play with, of which Francis suggests that £5,000 could be devoted to building clubrooms, workshops and meeting labour and material charges, while the balance of £7,500 could be paid to the controlling body. This would give the central organisation an income of £75,000 per year for the production of chassis and engine components, in a fully-equipped workshop manned by a skilled staff. This, it is considered, would result in 200 sets of component parts a year, enabling each group to operate 20 cars, which number would increase season by season. Putting down 60 per cent. to 70 per cent. of the cost of a racing car as attributable to hand fitting and assembly, a car normally costing £500 could, with this semi-mass production and assembly by members, be produced for about £200. Francis considers that with such ample funds and so many well-matched, reliable cars, racing could not fail to prosper, and successful meetings ensue at Donington, Brooklands and the Crystal Palace. This scheme has a little in common with Laurence Pomeroy's suggested one-make racing, but, as with his plot, we cannot see quite eye to eye. The crux of the whole thing, apart from whether such stereotyped racing would appeal sufficiently to British spectating and competing enthusiasts, is financial. Would 1,000 people be forthcoming who would give £2 a week in return for working on the cars, remembering that they would have to find, in addition, £250 for a car and presumably meet some running costs if they desired to drive? Francis certainly " has something " when you balance this outlay against that of buying a £700 car and gambling on a minimum of £4 a week operating expenses, to race occasionally, probably against continual stiff opposition. And, admittedly, before the war there must have existed, if not 1,000, at any rate many hundreds of people anxious to race, and to ask them £2 approximately a week to do so sounds very reasonable. However, when you pare down this number by excluding those who spent more like £15 a week on racing, those who only wish to drive and not to work, those who want to work, but voluntarily on an individual car, and those who only want to drive if they can drive an individual car, your 1,000 enthusiasts in ten strong groups could well become two or three hundred enthusiasts with only forty cars in all, or one car per five members. If this is the case we are back at the stage where organisers have to be approached to put on special races for one-make cars—and, as we have said before, they are likely to judge such events of insufficient interest to the gate to merit much encouragement. Against this, of course, Francis's proposed cars should be able to compete successfully with existing cars, and they would be far more spectacular than 500-c.c. cyclecars or unblown 750s. And with a balance of a mere £5,000 in the central pool much could be accomplished in the way of hiring circuits, etc. Personally, while we have had quite enough of State control in this war, it seems this communal racing scheme is worth consideration. What do you think?

Utopia ?

* * *

While any suggestion that motor-racing is especially dangerous is to be deprecated, it is certainly not a soft pastime, and there is much in the philosophy expounded by the late Lt.-Comdr. Robert Peverell Hitchens, D.S.O., D.S.C., R.N.V.R., to commend it, at the present time and age. In his excellent book, " We Fought Them in Gunboats " (Michael Joseph) he expresses the following opinion: " Searching back into those early days I wondered why I had needlessly sought discomfort and danger in that little boat. It was clear to me that I had been groping unknowingly towards a philosophy that was now deeply embedded. Security, life without risk; it was all wrong. In seeking for these humanity was following a false god. Life was inherently insecure. Why fight the inevitable? Why not outface it and dare the worst? That was at bottom the philosophy I had developed, through lonely days in small boats, and later at the wheel of a racing car. The advantages had soon become apparent. Living an ordinary secure life ashore in peace-

Philosophy

time, I had found that small things often loomed large, out of proportion. Little annoyances assumed the aspect of real grievances, fleeting, unworthy pleasures ranked high with the real treasures of life. True values were getting mixed. I may have been specially prone to this; certain it is that I often found myself in a rage over a minor inconvenience, or unduly cast down because I had been deprived of some trifling amusement. I had found that the most decisive way to clear the head, to regain proper values and humility, was to experience a real whiff of danger. Some may use religion, some music, others drink; for me danger. It is unforgettably effective. To feel real, instant fear of death; to contemplate the infinite, not from the security of a comfortable armchair, but as something imminent, pressing, that may engulf you now or before to-morrow's sun has set. That gives you to think. Values sort themselves out as if by magic. Petty anger, pride, worthless ambitions take a nasty knock. That this point of view, the necessity for living dangerously, is fairly generally appreciated, is shown by the popularity of dangerous sports. Sailing, hunting, big game shooting, motor racing, all bear witness to this philosophy. Each can be made dangerous and, in my opinion, the value of a sport can be measured in direct ratio to the danger involved." Hitchens used, of course, to prepare and race his Aston-Martin at Le Mans, and he owned for a time the ex-Zborowski 16-valve Bamford and Martin Aston, which he drove in an M.C.C. "Exeter" trial, only to break the back axle; he refers to his racing more than once in his book. In this war he did a very great deal to get the motor gunboats established, and he won the D.S.O., the D.S.C. and two bars, and was thrice mentioned in despatches. A stray enemy shell killed him on April 13th, 1943. Men of his calibre, so often regarded as headstrong and foolish in peacetime, are those who prove their quality unquestionably in war. Let back-room personnel for ever remember this.

* * *

At the Touch of a Switch

In these days of keen price competition, few sports-car manufacturers care to embark on the expense of making their own gearboxes, and they often buy one of the proprietary brands. These excellent appliances have to appeal to as wide a market as possible, and are therefore seldom ideally suited to the sports car.

Clearly, the ideal would be a proprietary box in which the ratios could be altered to suit varying requirements. This may sound a rather unattainable ideal, but a means of securing it has been devised by Dr. J. R. Edisbury and Cecil Clutton, working in collaboration, and they have covered their design by a provisional patent.

The scheme arose from an article in MOTOR SPORT on gear ratios, by Clutton, in which he extolled the Cotal gearbox, but regretted the very wide ratios which it supplies. This article was followed by one from Edisbury, explaining why the normal Cotal inevitably suffered from this disability. Clutton and Edisbury then got in touch and concluded that if a variant of the Cotal were to be constructed with three trains of gears instead of the Cotal's two, a wide variety of ratios (eight all told) would at once become available, according to the manner in which the box was wired up electrically.

Other designers have produced multi-ratio boxes in the past, but they have not met with success; there is no doubt that the public is not prepared to operate gearboxes with more than four forward ratios. In the Clutton-Edisbury device the gear-shift is similar to the normal Cotal visible gate, providing only four forward ratios, but in addition, there is also a three-way switch by means of which the spacing of the ratios may be varied, and it is this switch that is really the subject of the provisional patent. What the switch does, in effect, is to alter the wiring up of the electro-magnets which bring the epicyclic trains into action. It is not, therefore, to be confused with the twin gearbox idea, as is found on many vehicles from Jeeps to Jensens. In these cases *all* the ratios are shifted up or down, but the *spacing* of the ratios remains the same.

In a typical Clutton-Edisbury design the three-way switch gives a choice of the following sets of ratios :—

Close :	1, 1.3, 1.7, 2.2 to 1
Normal :	1, 1.3, 2.0, 3.4 to 1
Wide :	1, 1.7, 2.6, 4.45 to 1

For use when fitting to existing cars with a rather low axle ratio, a variant is available, which provides practically the same set of eight ratios with an overdrive of 0.77 to 1 in place of the 2.2-to-1 reduction.

Closer or wider "fundamental spacings" are possible, a matter of changing the number of gear teeth, but the above, based on a 30 per cent. drop from top to 3rd and 3rd to 2nd is probably the most useful.

Such a box would clearly meet the demands of a wide and varied range of manufacturers, and would have a special appeal to the enthusiast. A make such as the H.R.G., for example, is sold to people who want to use it for reliability trials, others who intend to participate in road racing, and others who just want a fast tourer. There are even those versatile bodies who use the same car for all three. Let us see what ratios they will have available, at a touch of the finger, for each purpose, using the standard H.R.G. axle-ratio of 4 to 1.

Racing :	4, 5.2, 6.8, 8.8 to 1
Touring :	4, 5.2, 8.0, 13.6 to 1
Trials :	4, 6.8, 10.4, 17.8 to 1

For each purpose it would be hard to devise a more ideal set of ratios, yet all are instantly available from the same gearbox.

While the inventors consider that their device is most suited for application in conjunction with the Cotal form of electric operation, it is nevertheless applicable to other forms of variable gear, whether normal spur pinions or internal gears, chains, epicyclic trains, frictional devices and whatnot. Equally, the three-way selector switch may be electric, pneumatic, hydraulic, mechanical, etc., either operating singly or in combination.

It certainly seems that Clutton and Edisbury have got hold of something which should have a very strong appeal to anyone setting out to buy a proprietary gearbox, and to sporting drivers in particular.

The number of their provisional patent is 16186/44.

WE HEAR

As reported last month, the Editor has gone North—temporarily. Alan Skerman did this journey in a Morris with caravan on tow, and his " 16/80 " Lagonda saloon also went up. In Harrogate fires are sometimes put out by a magnificent Magirus fire-engine, which is of German origin and of 1925 vintage. It has a Morris water-tower, and its engine has Bosch dual ignition, and develops 70 b.h.p. at 1,000 r.p.m.—a 4-cylinder of 100 by 130 mm. Apparently when this was a new toy drivers were dubious about the gear positions, because a *huge* key to them adorns the facia. Other notable points about the town are rain, Austin taxis in great profusion, and an incredible collection of antique Dennis, Leyland, A.E.C. and Bristol 'buses, in which every inch of space is invariably occupied. Cobbing finds the veteran he was hunting, thought to be an Iris, is actually a Winton —even more interesting. John Seth-Smith has left a sick bed with a groggy leg, but still contrives to test-fly Fairey aircraft. Congratulations. He seeks a 1926-9 Type 61, 2-litre Hala, if anyone has such a thing lying around. Moreover, he has been using the ex-Lycett " Alphonso " Hispano-Suiza on the road recently, but will probably be putting it into storage until better times. Then Robert Newell thinks he has found a 1912-13 G.W.K. in Co. Dublin, and is hot on the scent. He has 1902-9 bound volumes of *The Autocar* and the *Motor* for sale if collectors are interested, and his beautifully reconditioned Lancia " Lambda " is up on blocks. Ralph Venables recently unearthed some interesting postcards of cars in the 1914 T.T., the Humber entries and Bianchi's Crossley being much in evidence, while J. A. Fawcett is thinking of selling his Type 40 Bugatti to a soldier man, but is regularly using his Brescia Bugatti, to the tune of 250 miles a week and an engine speed of 2,600 r.p.m. at 60 m.p.h. He also has a 4-seater N-type M.G. Magnette for use when a Bugatti might seem a trifle anti-social.

J. G. Peter, of Liverpool, is now restoring to good order the 2-litre Mercédès mentioned recently. It appears to be the car which won the 1924 Targa Florio, at 41.02 m.p.h., driven by Christian Werner. The full-roller bearing crankshaft and the crankcase are stamped 26/11/23. The car is said to have been bought by Lord Tollemache and to have run at Southport. If the latter is correct, we believe Mayner was the pilot. Peter would naturally like any additional information he can get ; two sister cars appear to be in the U.S.A., according to a letter from Josef Rentersham, of New Jersey, published in the *Motor* of August 30th. The latter enthusiast also has a 1910 6-cylinder Delaunay Belleville—we wondered if any of this elegant make were left.

Neville Houldsworth intends to strip and rebuild his 1934 " International " Aston-Martin ready for the peace, and in the meantime he uses a Fiat 500, as does Douglas Tubbs while his faithful D.K.W. is being overhauled. In Harrogate there is a very well-preserved 1899 Benz which, however, is *not* for sale, as its owner intends to have it on the road after the war. Ellis seems to be selling all his Bamford and Martin Astons, Charles-worth is running the ex-Handley " Montlhèry " M.G., and Turton is putting his 4½-litre Bentley together, and has acquired the single-seater G.N. " Tiger III." Gandhi has a " 16/80 " Lagonda saloon, which is all ready for the afterwards, and wants to sell the 1909 Minerva. Hutton-Stott bought the early Daimler at Newbury (which is a T.J., the type Daimler used in sprints in 1904-5), and Currie wants to sell his very perfect ex-Mangoletsi " Hyper " Lea-Francis for around £150. There is an open " Blue Label " Bentley for sale in the Midlands for about £65.

The ex-Hodges Frazer-Nash with " Shelsley " front axle and brakes and 328 B.M.W. engine was seen motoring in Bristol, and Bickerton still uses the coupé H.R.G. daily. C.A.P.A. hope to recommence activities in the fields after the war. Lomas toys with the idea of a Straker-Squire Six engine in his " Blue Label " 3-litre Bentley, and work progresses nicely on McCormack's supercharged, Meadows " Nurburg " Frazer-Nash. Trowbridge now runs a blown 2-litre open Lagonda, and D. S. Rayner is having a " 30/98 " Vauxhall completely rebuilt by A. C. Molyneux, who also has a Lagonda.

Club News

[*Strictly speaking, this section of the paper should be devoted to announcements of club meetings and reports of club activities, but since the war all manner of notices, news items and varied matter have appeared under this now false heading. We feel that the majority of readers would not wish this to be otherwise, until peace is achieved, and we would remind them that reports of the " Rembrandt " party, and of the Brains Trust held in Belfast last August, appear elsewhere.*—ED.]

BUGATTI OWNERS' CLUB

The Bugatti Owners' Club was due to hold its annual general meeting on September 27th at the R.A.C. To remind us of good times to come, as it were, the club's films of Prescott were shown, and dinner was available afterwards. The balance sheet shows investments and bank deposits totalling nearly £1,500, and £191 was received from subscriptions last year, compared with £163 taken in 1942, so that this club can be regarded as being in a very sound position, as it well deserves to be. Hon. Secretary : E. L. Giles, 2, Queen Street, Mayfair, W.1.

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REGULARS

The Bristol enthusiasts, the Shepperton enthusiasts, the Bar None M.C.C., the Midlands Motoring Enthusiasts' Club, and the Yorkshire Sports Car Club still have their gatherings. In the Middle East the Bar None Services Club has become established, and has opened a branch in Palestine. L/Bdr. J. H. Innis, its secretary, hopes it will become affiliated with the R.A.C. and A.C.U. after the war, which is the right spirit. In Ireland, as reported elsewhere, a big effort was made recently to bring car and motor-cycle enthusiasts together.

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GOOD FORTUNE

The flying bomb menace has subsided at the time of writing and, whilst being duly thankful for the immunity which the City Road offices have experienced, we would likewise congratulate the *Motor* and *The Autocar* on uninterrupted publication through a decidedly difficult period.

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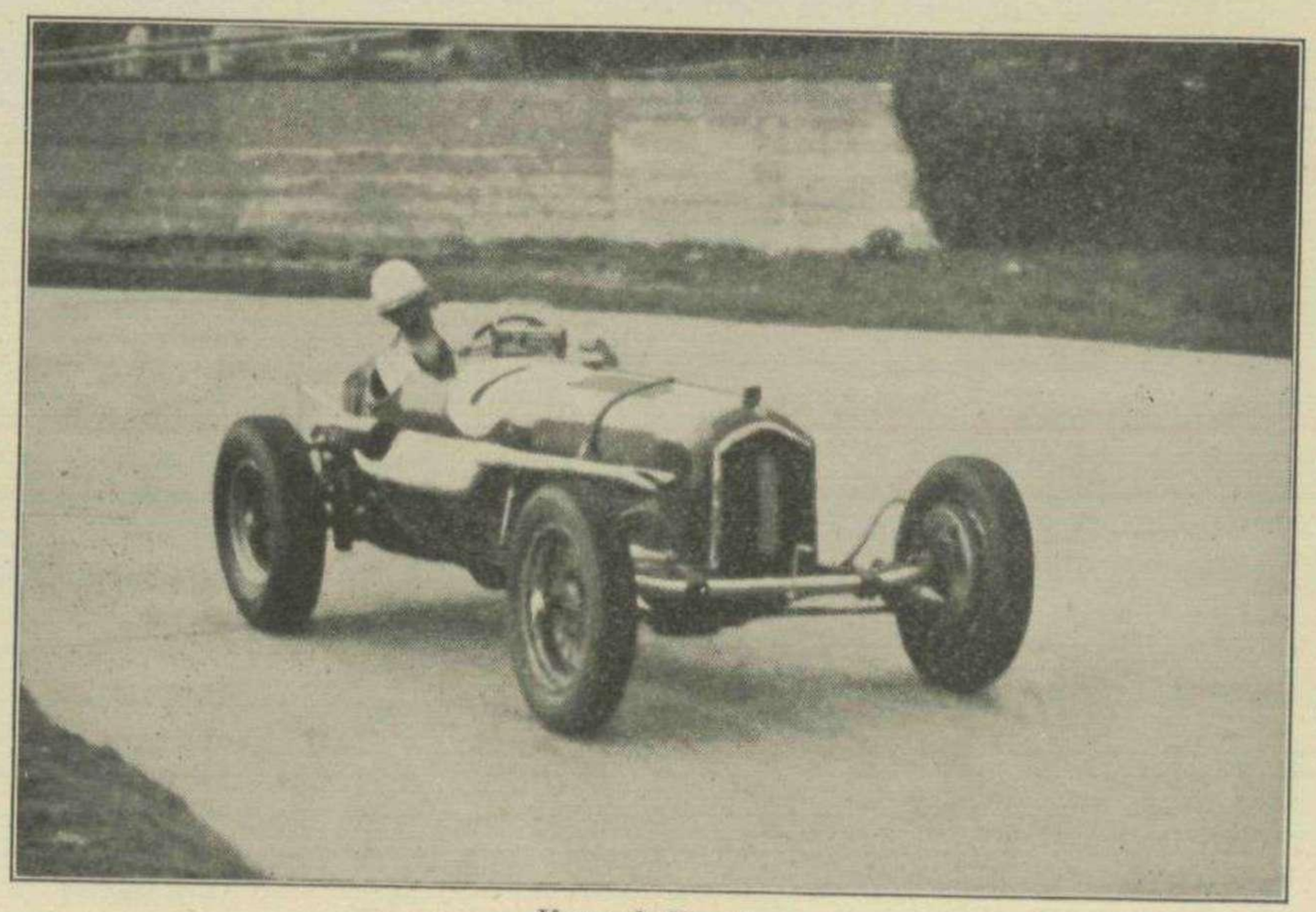
THE S.C.C. OF A.

We have received two more issues of the *Sportswagen*, official organ of the Sports Car Club of America, proof of its healthy development. The membership qualifications, outlined in our July issue, have now been revised to embrace all



Kenneth Evans

open cars built in 1915 or later that had a factory list price of $2,000 or more. By June the list stood at 23 members, with 81 cars, Frank Mayer (1931 "36/220" Mercédès-Benz Saoutchik coupé) and Lt. Oliver Hempstone, U.S.N.R. (1930 model 734 Packard Phaeton Speedster) having come into the fold. The club's first meeting was scheduled for July 9th, being a meeting on basic petrol, at the home of Chaplin Wallour. The notice concludes: "The zero hour should be about 2.30 p.m., but if you wish to come earlier, bring a picnic lunch and make a day of it." Are we jealous? Transport could be arranged for car-less members. The June *Sportswagen* contained a long account of Peter Hampton's well-known 1922 Targa Florio Mercédès-Benz, as a model for contributors to base their own write-ups on, acknowledgment being given to *The Autocar*—actually MOTOR SPORT had the self-same story many years earlier. Minerva, M.G. and S.S. have appeared in the club, and L. Bothwell has a 1915 o.h.c. 16-valve Stutz, of the type which averaged 101 m.p.h. for 350 miles on the Sheepshead Bay track in October, 1915, and which finished 3rd and 4th at Indianapolis that year. Bothwell's car was driven in the latter race by Eddie Hearne.

Hon. Secretary: E. M. Dickinson, 142, Chestnut Street, Boston 8, Mass., U.S.A.

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NORTHERN EXILE

The Editor's northern exile has proved to be not at all a bad thing. The country—real country—is once again practically on the doorstep. In the first few days after arrival a secondhand bookshop produced copies of Owen John's "Towards the Sunshine—a Guide for Southbound Daimler Cars" (1919) and Filson Young's A.C. adventures, "Cornwall and a Light Car" (1926), for the personal motoring library. Then rumours of a great French racing car in the town led to the discovery of the rebuilt Cottin et Desgouttes, which Hornsted drove at Brooklands in 1925, in a local garage window. And Harrop sent up a copy of "I Bought a Mountain," by Thomas Firbank, which is a very excellent book containing odd references to Baby Austins, old Morrises and Bentleys, which please an enthusiast and endear the author-farmer to the reader as only understanding of real motoring can. Very different was an appalling novel, "Portrait in a Windscreen," that a local library produced, in which Gawen Brownrigg deals with fictitious Alfa-Romeos, G.P. Mercédès, X-wagens, Ewelme, a Chilterns' circuit, and things, and, audaciously, Bryan de Grineau, Gordon Crosby and Roy Nockolds and other real characters. And already there has been an incredible expedition in search of a £30 old-school Bentley, involving rides in seven country 'buses and a train, not to mention a long walk which involved crossing a surging river by a very curious and uneasy bridge, what time a 2-4-2 L.M.S. tanker thundered over one's head. One 'bus was an ancient Leyland double-decker with a central stairway and entrance, like a parting in the middle, and another single-decker Bristol, crammed full with standing, swaying humanity, actually averaged over 24 m.p.h. for 14 miles between two towns, many stops, and some very formidable hills included. Alas, the Bentley turned out to be a very old "Blue Label" landaulette with high-pressure tyres.

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R.S.C.C.

A new club, known as the Radcaps Sports Car Club, has come into being in London to encourage rebuilding of interesting cars, discussions, and, after the war, inexpensive club functions. A meeting is scheduled for October, to be held at the "Rembrandt."

Secretary: C. Bance, 13, Selvage Lane, Mill Hill, N.W.7. (Mill Hill 2596.)

★

THE N.Z.S. & R.C.C.

The May issue of the New Zealand Sports and Racing Car Club journal is to hand. It was hoped soon to hold a hill-climb at Wellington, as a recent midget car meeting organised by another club realised over £90 in gate money. The A.G.M. showed that membership had increased to 31 (tribute is paid in the *Bulletin* to new members obtained from publicity in MOTOR SPORT) and the financial statement showed the cash in hand to total nearly £13. Easterbrook-Smith has sold his Ansaldo and now favours a 1926 T.E. "12/50" Alvis, and Sharrock has a 2-litre high-compression Ansaldo once raced by John McMillan. Several members seek decent sports material. Hansen has a Type 38 Bugatti, and Trevor Wickham uses a rather decrepit Fiat, but, having had three Bentleys, he hopes to acquire something better.

Secretary: G. Easterbrook-Smith, c/o Sergeants' Mess, R.N.Z.A.F., Nelson.

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V.M.C.C. OF A.

The July issue of the *Bulb Horn* is pretty staggering to a country in which endeavour in some directions is seriously curtailed by war. This excellent magazine, organ of the Veteran Motor Car Club of America, runs to 48 pages and contains excellent pictures. Club meetings go on apace, and there is intense enthusiasm for veteran cars, really well restored, in America. There is an article on early Stutz, a history of the Pittsburgh Motor Vehicle Co., Joe Tracy's reminiscences of the 1904-6 Cup Races, notes on restoring a 1913 35J Mercer, the history of a 1908 Franklin, and many news and historic items. Since April one new life member, three active and 20 more associates have been elected. The first rally since Pearl Harbour was scheduled for August 6th at Peter Heick's country place. This club deserves a long and successful existence, encouraging as it does enthusiasm for veterans in a country not especially queer-motor conscious.

Secretary: Vassar-Pierce, 133, Brooklin Avenue, Boston, Mass.

★

BRITISH MODEL CAR CLUB

This club is being formed to further interest in the building and racing of petrol-driven model cars throughout the British Empire. Three classes are approved: (1) up to 6 c.c. and 9-in by 15-in. track/wheelbase; (2) 6–10 c.c. and 11-in. by 20-in,; (3) unlimited. A race meeting was to be held in London last month, and Mr. Russell has given £20 in prizes. Associate membership costs 7s. 6d., and full membership 15s. per annum, respectively, for those under and over 21.

Hon. Secretary: D. B. M. Wright, "Beverley," Bawtree Road, Uxbridge, Middlesex.

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FRAZER-NASH "BIBLE."

B. R. Martin and D. S. Jenkinson have received some 15 enquiries *re* their scheme to compile a list of Frazer-Nash owners and spares. They now hope to issue a "bible" of owners with full details of their cars, spares, special tools, etc., and of Frazer-Nash cars for sale, etc. A circular letter setting out their ambitions will be sent to anyone who supplies a stamped envelope to Jenkinson, 99, Park Road, S. Farnborough, Hampshire. (Farnborough 266.)

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"200" FLASHBACK

Since writing the article on preparations for the 1924 200-Mile Race, published last month, the Editor has come upon some excellent photographs of the Alvis cars, which reveal some additional data. The engine had tubular bearer arms at the front, attached to the crankcase on each side by four bolts. The gear-lever was central, working in a raised gate, and the tiny brake lever came just to the left of it, the latter's pull-off spring being exposed and linked to the gear gate. A stay ran from the radiator header tank to the water outlet stub on the head, and there was a firewall close behind the engine and over the clutch housing, a square-shaped oil tank being carried on its rear face. The facia, some way aft, was braced to this firewall. An ignition distributor was mounted at right angles to the crankcase on the near side, presumably having a right-angle drive from the camshaft, and the coil was set behind it; the usual timing case was modified in consequence. The frame was liberally drilled and the rear wheels were larger than those on the front. Engine, steering wheel, minor controls, etc., were typically Alvis. The car appeared in Harvey's hands at the May, 1924, Ealing and D.M.C. Brooklands meeting, with a very skimpy body. It beat Miller's Bianchi by half-a-wheel, at 75.57 m.p.h., and then won another race at 85.43 m.p.h. A big Brooklands silencer on the off side received the three exhaust leads, and it bore a small tablet giving the capacities of engine and silencer. Later in the season the car was somewhat modified.

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COVER PICTURE

This month's cover picture, taken through the windscreen of a car travelling fast down a tree-lined Continental road, is a reminder that such motoring may quite soon be possible again in good British cars—thanks to the fine showing of British and Allied Forces fighting in Europe. The car is a 4½-litre Lagonda which T. G. Moore, late owner of MOTOR SPORT, was taking through a Monte Carlo Rally.

LETTERS from READERS

Sir,

I have the July issue of your very excellent paper MOTOR SPORT, but there are one or two inaccuracies which occur in it which I feel should be drawn to your readers' attention.

In your first article—a most intriguing account of, as it were, behind the scenes of the development of the Rolls-Royce R-type engine, you state that the normal fuel consumption was 14 gallons per hour —page 136. This is, presumably, a misprint for 140 gallons per hour.

The next point, and this, in my opinion, a serious one, is your reference to Flt.-Lieut. E. G. Brettell, D.F.C. You will note the spelling and award which differ considerably from your own, and I should have thought that since he was fairly well known, such details would not have escaped you.

Another, and final, point is in reply to Jack Lawrence's letter concerning a possible duel between Hampton's Bugattis and P. F. Whalley's Talbot and Alta. While I, too, am a Bugatti enthusiast, Mr. Lawrence should not allow his enthusiasm to blind him to the fact that a 1½-litre Alta, in proper condition, has very considerably superior performance in every way, except possibly roadholding, to that of a Type 37A Bugatti, and if Whalley's Alta does lose this race with the Type 37A Bugatti, it will only be because the car is not being properly driven, or is not giving its best performance.

Regarding the Talbot duel, I would personally say that it was a foregone conclusion in favour of the Bugatti, Type 57 S.C., and do not consider it to be a fair match, since, presumably, the Talbot is not supercharged.

In conclusion, I heartily endorse your editorial remarks in "Rumblings" regarding the present inflated prices charged for vintage sports cars. Although I am a trader myself, I fully realise the very great damage that would be done to the sports-car fraternity if one was foolish enough to take advantage of the fact of the great rarity of these cars and the possibility of people having a little bit more money than usual these days. This state of affairs will not last for ever, and a trader who ruins his market for the sake of what he can make to-day, and probably cannot keep, has only himself to thank if his future clients mysteriously desert him when better times come.

I am, Yours, etc.,

Watford. P. R. MONKHOUSE.

[The Editor has no particular desire to reiterate the very difficult conditions under which he prepares MOTOR SPORT these days, in his spare moments from a war job—many readers would probably consider such conditions almost fantastic; no typewriter, no secretary, bad light, air-raids, etc. But he must defend himself from critic Monkhouse by repeating that *he doesn't see proofs*. Some people are truly unappreciative. Nevertheless, the fact remains that 14 galls. per hour oil consumption for the R-type engine *is* correct.—ED.]

* * *

Sir,

Your April issue has just arrived—and what a wealth of fascinating reading! The article by Gordon Jones, "Mainly Frazer-Nash," is really the tops, and his experiences add much hope to another impecunious enthusiast. The local flavour is very strong for me, too (being a Birmingham man); the mention of the Austin "bull" brings home very near.

This article has especial appeal to my friend Arthur Hull, who I know has been in contact with you. We have had many and lengthy chats on the Sport and of our great hopes with the peace.

By some queer twist of fortune I have met more people interested in motoring Sport than I thought possible since I came abroad. The hot sands of Egypt brought me two bosom friends, fanatically keen, and we are impatient for the time when we shall meet in the right atmosphere—bags of Castrol "R" and all that.

At present but one of the trio is suitably mounted ("P" M.G. Midget), and the rest rely on that small creation of Mr. Morris—the inevitable "8."

Naturally post-war cars feature largely in our discussions. Arthur is a rabid 'Nash fanatic, and my ideal reads H.R.G. But I have little hope of possessing one, with prices so high, and so interest in this marque is inclined to pall a little. Probably a case of " the grapes are sour ! "

The " 12/50 " Alvis holds out a strong appeal, although old, and, of course, the Type 37 Bugatti. The latter would seem to be a pleasant, but highly expensive in the maintenance line, car.

The aluminium-bodied Gwynne Eight Sports is, I suppose, very rare these days. They went out of production about 1925, and I well remember a model, with polished body not unlike the 1923 2-litre G.P. Fiats, to be seen regularly in Birmingham. Spares would be a not inconsiderable problem, but I would cherish one of these cars.

Equally, I wonder if any reader knows, or knew, the whereabouts of a 1923 Gwynne Eight " Hipbath " 3-seater, OK 6698, or a 1924 4-seater, OM 4711 ? Both of these were owned by my late father, the latter until 1932—eight years of yeoman service.

The " Ulster " Austin also holds out a wide appeal—also a rare type now, and among the larger cars we have great regard for the " International " Aston-Martin.

We wonder what the outcome of all these hopes will be. Probably—horrible thought—all the worthwhile cars will have been snapped up long before we arrive back in England, or else prices will soar right out of our limits with the coming of peace.

A great pity the Morris Eight has but a 3-speed box—at least mine, a 1935 2-seater, is in that unhappy state. I wonder if the Series " E " engine could be fitted without much trouble ? Or, maybe, a Ford Ten unit—more power even if triple cogs. These modifications, plus a mild boost, might make the Eight into quite an exciting little bus, but really—is the expense warranted with so normal a car ?

Anyway, even if not either fast or exciting, the Morris should still provide reliable transport for a considerable time to come. And let's hope that during that time prices will have become a little more comparable with pre-war ones to enable the long-exiled impecunious enthusiast to find a soul-satisfying motor car.

With best wishes to MOTOR SPORT.

I am, Yours, etc.,
KENNETH N. TEASDALE.

R.A.F.

* * *

Sir,

You can't imagine the interest R. P. Gordon Jones's article, " Mostly Frazer-Nash," in MOTOR SPORT for April, 1944, caused here in Burma. As a matter of fact I was the proud owner of the " Leaf " he mentioned would do " 97 on its P. and C. radiator thermometer " ! However, that is beside the point.

It is remarkable, though, here in Burma, with the war over five years old, that an article such as this can stir up such interest in the Sport. I have many a friend here, scattered about in different formations, who manages to drop in and discuss all the articles in MOTOR SPORT each month, the Jap permitting !

Congratulations to your staff for keeping such a high standard of publication going in these hard times.

A point of interest to 3-litre Bentley owners. I fitted modified Lancia " Lambda " front suspension to my " Red Label " before the war, after much hard work, with really outstanding results.

I am, Yours, etc.,
J. PANKS (Major).

S.E. Asia Command.

* * *

Sir,

Opportunity, so we are told, knocks but once. For some years past, it seems to me, there has been loud and persistent knocking, seemingly quite unheeded, signifying that the time is ripe for enthusiasts, in all branches of motoring Sport, to write and provide themselves with a representation to the world at large.

First let us consider this " spirit of enthusiasm." It runs into so many diverse branches. We have motor-racing enthusiasts, trials enthusiasts, veteran enthusiasts, vintage enthusiasts, motor-cycling enthusiasts and so on, each operating separately, but each equally keen and ready to defend their ideas to the last.

Should I be wrong, therefore, if I made bold to suggest that, however widely spaced their individual interests, *the spirit that moves them is one and the same* ?

That spirit has been, during the past 4½ years, of very real value to our country. We do not care for war-making at all, but when some men start throwing their weight about and knocking innocent people about with rubber truncheons, then our enthusiast puts his E.R.A. or his " Manx " Norton aside quite resolutely and takes to a " Spitfire " or a " Tpyhoon " like a duck to water.

He takes his priceless sense of humour and his natural love of good machinery with him, too, and no matter what the odds against him, he makes war for long enough to teach silly men not to be stupid any longer. Quite frequently he gives his own life in the effort.

As a rule, he doesn't care for sentimentalities, at least not on the surface, but we who are left will miss many cheery faces when we can all " go dicing " again in our brave new world.

The spirit of enthusiasm, then, was always most estimable, but the past 4½ years have shown it to have a rather deeper meaning, both for ourselves and our country, than we at first thought.

When we come back from war-making we shall need a lot of things. We shall need fairer treatment in the matter of a reasonable road policy. We shall need assistance to sell our motor cars all over the world.

We shall want to race our vehicles, no matter whether 2- 3- or 4-wheeled. We shall want to run trials and veteran rallies, and forgather over large pots of ale and be ourselves again. Older and sadder, perhaps, but still ourselves, and still *enthusiasts*.

Now I count myself fortunate, if the personal pronoun can be excused, that I love motor cars. I also love motor-cycles. I am a confirmed veteran and vintage enthusiast, but before the war I had to live two separate lives, one on two wheels and one on four, so to speak. Wherever I went, however, to the Donington Grand Prix, or to a " Motor

READERS' SALES AND WANTS

To meet the repeated demands for something on the lines of the old Spare Parts Announcements, we have instituted a system of inexpensive advertisements. Each announcement must be limited to twelve words, plus the advertiser's sufficient postal address, and the charge will be 1s. 6d. per announcement, payable at time of posting. The system will be governed by the following rules :—

(1) Each announcement to cost 1s. 6d. and be limited to twelve words and the advertiser's address. Box Numbers cannot be used.

(2) The publishers accept no responsibility for loss of advertisements, non-publication, late publication, or incorrect wording, but will endeavour to insert announcements in the next issue, if posted within eight days of the publication of the previous issue.

(3) No advertiser may submit more than **two** announcements per issue and each must apply to a separate article. Only spares for sale, spares or cars wanted, or **really cheap** cars for sale, should be announced. Prices should normally be quoted.

(4) The proprietors of MOTOR SPORT offer this scheme for the mutual benefit of enthusiasts and can take no responsibility of any sort whatsoever. All transactions must be made to the published addresses and no correspondence can be entered into in respect of announcements, transactions or any other matters arising from the scheme.

(5) Announcements should be sent within eight days of the publication of the current issue of MOTOR SPORT, accompanied by stamps or crossed postal orders to the required amount. Cheques or coin cannot be accepted.

FOR SALE

GRAND PRIX BUGATTI
SPARES AND SERVICE

F. O. CLEVELAND HARMER
Bugatti Specialist
83, Old Oak Road, Acton, W.3
Shepherds Bush 5022.

A NUMBER of " 12/50 " Leaf parts. R. G. Phillips, Peatswood, All Stretton, Salop.

PRE-1914 4-cyl. 10-h.p. M.A.F. car, partially dismantled, engine overhauled, £10. Seen near London. Lambourn, 230, Broadstone Road, Heaton Chapel, Stockport.

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.

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.

P.100 or 80 Headlamps and Stoneguard for 1934 9-h.p. Riley Lynx. Musson, 19, Arlington Road, Derby.

12/50 Meadows Brooklands camshaft and bearings. R. G. Phillips, Peatswood, All Stretton, Salop.

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

Cycle " Clubman's Day at Brooklands, I found the company different, very different, *but the spirit behind each show was identical.* Now I do not advocate at the moment a wholesale mixing of the motor car and motor-cycle fraternities all at once, but I do suggest, in all seriousness, that the problems that beset them are common problems in their essence, and that there should be co-operation on a broad basis.

I do not happen to care for trials ; I love motor-racing. A friend of mine doesn't care for racing, but goes wild about trials, but that doesn't mean that we are not both quite genuine enthusiasts and equally concerned about such questions as the insurance rates for sports cars, and whether Sunday sporting events are advisable or not.

I could go on enlarging for a long time on this point, but hope that it is clear enough already.

Now where lies the solution ? I can only suggest the broad lines along which we should proceed.

Supposing, as a start, that every club representing the many varied aspects of motor Sport were asked to send a representative to a preliminary conference to settle vital matters of post-war policy as soon as possible after the end of the war ? The following problems are bound to be pressing at that time :—

(1) The whole question of racing, bearing in mind that there will be thousands of new recruits from the forces, who have learned to ride or drive since September, 1939. We must not have countless haphazard events all over the place.

(2) The old, old problem of racing upon the public roads.

(3) Sunday events. A policy should be laid down representing all interests.

(4) British representation in Grand Prix and T.T. racing.

(5) The establishment of " nursery " tracks.

(6) The problem of the impecunious enthusiast. Can we help him ?

(7) The collection and preservation of documents, records, etc.

The most important thing would be a whole-hearted resolution that *all* forms of motor Sport should be encouraged. The science of high speed will play a great part in the future. Its disciples need and, I hope, deserve a united representation as soon as possible.

There must be *no circus stuff.* The whole thing must be treated as something of real importance to the nation.

I regret that my suggestions are so vague. I am no expert, but I do realise that after this war we shall have two outlooks to deal with. There will be the old, old outlook of " Encourage the railways," " Preserve the beauty spots," and " The roads for the pedestrians," and, I hope there will be our own progressive outlook, strengthened by its war record, going forward, backed by each and every enthusiast for aeroplanes, motor cars and motor boats.

Unquestionably we need a united front. Will someone come forward and set the pace ? Already there are signs of co-operation on a great scale between the motor clubs, and for that we should be deeply thankful, but the thing is bigger than that. Readers of MOTOR SPORT are amongst the most enthusiastic of any. It is peculiarly " our " paper. What do you feel about it ?

I am, Yours, etc.,

" SIMPLEX."

* * *

Sir,

Regarding the question of 500-c.c. and 750-c.c. racing for amateurs raised in previous issues of MOTOR SPORT, one of the main troubles is the virtual non-existence of any standard road car but the Austin, and the very rare 750-c.c. M.G. in the 750-c.c. class. This precludes most people from racing anything but hotted-up Austins on the score of expense, and it has the effect of making everything rather dull for both competitors and spectators, while if drivers have to build their own 500-c.c. cars, it is going to cost a lot of money and again bar the impecunious.

If there really is sufficient interest in ultra light-cars, then it would pay some of our manufacturers to produce something to meet the demand, and I think that anything that would encourage a return to something like the pre-last-war cyclecar days, with all the tremendous enthusiasm associated with those grand little cars and their drivers, is to be heartily commended. Remember the G.N., the G.W.K., the early Morgan, the wonderful little Baby Peugeot of 1913, and dozens of others, some very good, some not so good, and the remainder very, very queer !

Recent " Shelsley Specials " are our nearest approach to the early cyclecars—not forgetting, of course, the three-wheel Morgan, but surely there *would* be a demand for more such cars ? With the reappearance of standard road-worthy cyclecars there would be great opportunities for amateur racing and competition driving, and providing courses were limited in size there would be no reason why very great enjoyment and excellent racing experience could not be obtained by all.

Incidentally, is there really any need for people to poke fun at small cars ? Your contributor, Sqdn.-Ldr. J. R. M. Boothby, in his " Cars I Have Owned," says nasty things about an Austin Seven. After all, they are basically rather woolly little touring motor cars, and even super-tuned they *would* be rather tame after riding things like T.T. motor-cycles, an SW.5 Douglas and driving a 3-litre Sunbeam !

In case it may be thought I am prejudiced, it should, perhaps, be said that I have never owned a car under 1,100 c.c., and at present have a 2-litre Lancia " Lambda."

I am, Yours, etc.,

ROBT. E. NEWELL.

Shankill,
Co. Dublin.

* * *

Sir,

I should like to congratulate you on the very high standard that MOTOR SPORT has maintained throughout this war. At present I have a standard 2-seater P.A. M.G. which is awaiting my return, and although I realise the limitations of this car, I intend to modify it and try to improve the performance. I think that as several other enthusiasts must be in a similar position, an article written by someone who has information on tuning the various types of M.G.s would be most acceptable. My own ideas on the subject are based on the normal amendments as detailed in MOTOR SPORT, with the addition of a supercharger blowing at about 7 lbs. per sq. in. I am particularly interested to hear about other readers' experiences along these lines, and would like to buy a suitable supercharger, racing crankshaft and rods and any other parts from a " Q " type or racing M.G. that may be available.

I am, Yours, etc.,

PETER STANTON (Capt., R.E.).

Lloyd's Bank,
Bombay.

THE OUTER CIRCUIT "200s"

—continued from page 206

the seat fouling the transmission. England took the 100-Mile and 1-Hour class L records, at nearly 76 m.p.h. R. E. O. Hall led off, with Waite and Kings behind. Cutler retired on lap 2, Dingle on lap 10, the leaders meanwhile lapping at over 70 m.p.h. Hendy was getting round at 68½ m.p.h. Kings went out on lap 21, Hall on lap 63, and Hendy had gone up to 70 m.p.h.

Of the fastest race laps, Duller and Segrave achieved 106.55 m.p.h. in the 1½-litre class, Jones 88.78 m.p.h., and England 80.33 m.p.h.

That, then, is the history of the Outer Circuit " 200s." They were the most important long-distance events in England in their day, and the cars constructed for them, as has been seen, were unique in their diversity and constructional interest. Theirs was a very formidable task and they performed astonishingly well ; the following table is a reminder of how these Track light cars went and of how they were developed in the course of four short years. For 1925, 1926, 1927 and 1928 artificial corners were introduced for this race, and in 1936, 1937 and, at Donington in 1938, very different circuits were used, calling for road-racing-type cars. Which is entirely another story.

YEAR	1½-LITRE		1,100 C.C.		750 C.C.		
	Race Average	Fastest Lap	Race Average	Fastest Lap	Race Average	Fastest Lap	1½ litre 3rd place average
1921	88.82	93.09	71.54	77.45	—	—	86.27
1922	88.06	95.78	81.88	—	—	—	85.55
1923	93.29	99.61	82.83	92.57	76.84	—	88.40
1924	102.27	106.55	85.70	88.78	75.61	80.33	102.24

(*Concluded.*)

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Telephone : MUSeum 0522

RATES (prepaid) 1/3 per line
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6 Words to line

Copy required by 20th of the month

FOR SALE

HILLMAN Spares and Repair Specialists. Reconditioned engines and chassis components. Large stocks of new and secondhand spares for "Minx" and "Fourteens." Blanchflowers, "The Motor People," Kettering. Phone: 2359.

MONOMARK Service. Permanent London address. Letters redirected. Confidential. 5s. p.a. Royal patronage. Write BM/MONO6V, W.C.1

C. C. TURPIN, LTD., 222, Gt. Portland Street, W.1, have a selection of Austins for sale. Competitive prices. Euston 5677/8.

DISMANTLING 200 cars, all parts cheap Albert Motors Albert Avenue, Albert Square, Clapham, London. Rel. 3256.

TWO Lucas Passlights, all chrome, £3 each. Farm Cottage, Middleton, Sussex.

WELL-KNOWN Trials car for sale. Alvis "12/50," personal property of advertiser. This car has been lowered and crab-tracked. The engine has alloy clutch, dural con. rods, etc. Body built of steamed ash, covered with plywood, cotton wool and fabric. Close ratio gearbox has recently been fitted. Many extras and spares available. What offers? Box No. 150, MOTOR SPORT, 15, City Road, E.C.1.

FOR SALE—*continued*

AUSTIN Seven Nippy crankshaft, 1937 Austin Seven axles. Hillman straight-eight engine, Lanchester engine and self-change box, axles. 1932 2-seater Morris Minor. Offers, Nicholls, 622, High Road, Chiswick, W.4.

FOR Sale. Large quantity bits M.G. J.2 and P-type engines, gearbox, blocks. Steering, axles, diffs., ball races, shockers, etc. Wanted 2- or 4-seater body, or bodywork Midget spares. N-type Magnette. Also a good Midget. £75 to £150 offered. Curtis, The Butts, Rodborough, Stroud, Glos.

1934 Ulster Austin Seven. Full road equipment, supercharged. Excellent condition, ready for immediate use. Best offer over £100. Phillips, Red Lion Hotel, Tarvin, Chester.

1930 2-litre Lagonda saloon. In daily use. Overhauled, decoked, valves ground in. Mains and big-ends taken up. Instruction book. Spares. £75. Powell, Meadowfield, Rochdale Road, Middleton, Lancs.

FOR Sale. Three volumes of MOTOR SPORT, years 1932–33–34. New condition. Offers to McNeill, 17, Ranfurley Road, Dungannon, Co. Tyrone.

WANTED

SPORTS CARS. T. & T. interested in purchase of good sports cars. Thomson & Taylor (Brooklands) Ltd., Portsmouth Road, Cobham, Surrey.

WANTED. MOTOR SPORT, Vols. 5, 7, 8 and 14. Bound or unbound. Heath, Peira Cava, Yardley Park Road, Tonbridge.

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