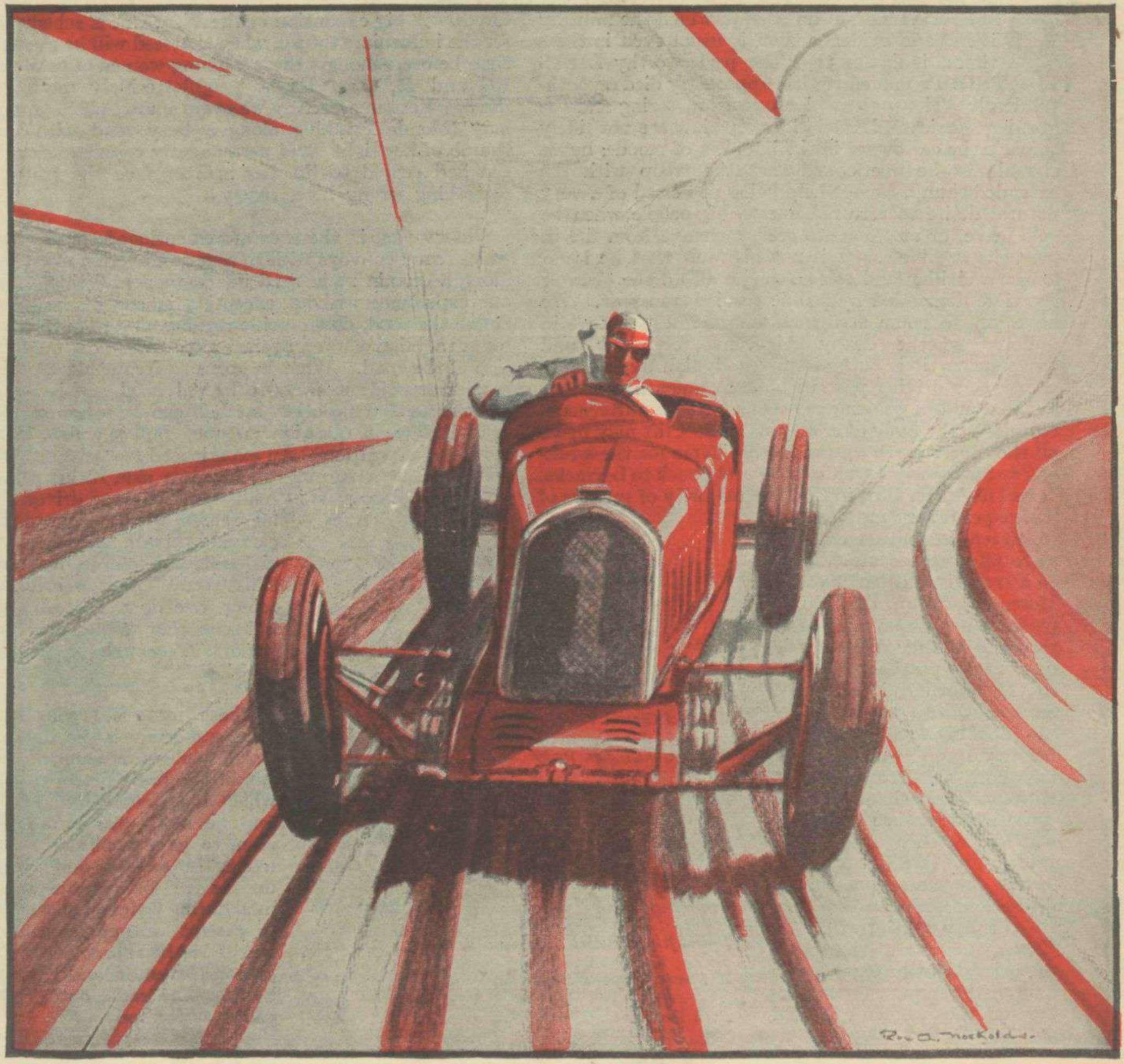
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MOTOR SPORT

INCORPORATING

Speed

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MONTHLY



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INCORPORATING **SPEED** AND THE BROOKLANDS GAZETTE

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OBSERVATIONS

OBSERVATION in an area in which the military is more in evidence than is usual even in these times, indicates that the praiseworthy LIFTS FOR TROOPS movement has apparently died a youthful death. The present high cost of motoring and the growing worries and restrictions certainly are not likely to place the car-owner in the happiest of moods; but it should not be overlooked that the troop with the extended thumb cannot help being possessed of a very natural desire to return home to his people when he gets leave, or at worst, to seek a change from life in barracks or billets. It is not his fault that he is no longer a civilian and can no longer afford the fares or the time demanded by public service transport. We have yet to come across an ungrateful "liftee" in uniform, whether Army, Air Force, or Navy, and consequently it is pathetic to see civilian motorists in empty cars driving past without so much as a glance at the would-be passengers. On a Saturday afternoon, especially, the early offer of even a short lift may make all the difference to a man getting home for the week-end or having to return disconsolately back to barracks. It can no longer be said that the majority of readers of this paper drive sports cars so restricted in passenger-space as to offer no accommodation to a troop in full battle-dress. Moreover, the modern high-performance car on a straight-through journey affords the most useful possible transport to the traveller in a hurry. So let us help whenever we can (drawing well into the side before we stop !) and not leave transport - for - troops almost entirely in the hands of the commercial vehicle drivers—who repeatedly stop their vehicles, particularly platform lorries, for the purpose under discussion, with the best possible display of good will. . . . Even the most hardened motorist might be expected to stop at the request of a member of the women's armed forces. A big expansion of the W.A.A.F. is scheduled for the immediate future, when the need will be greater than before, amongst these "young women of between 18½ and 45," as "Flight" so flatteringly refers to them. Yet only recently we saw a smart A.T.S. young lady (blonde) walking along a busy road with the thumb of her right hand permanently raised, although she had ceased to lift her arm or face the traffic; something wrong here, surely !

* * *

Observation in the area aforementioned shows that when Army convoys wish to reverse direction of travel along a certain main road its component vehicles, in our experience without exception in every case, dive across the road, down a side-turning, and then reverse round a blind corner against the traffic-flow on this side of the road. What happens so frequently at this particular point is likely to be universal, nor is there the excuse that no other method can be followed, for at the place in question an open pull-in exists in a most useful position. An experienced motorist always reverses into a turning on his own side rather than reverse out into a main road, and the army driver, at all events when using roads carrying private and commercial traffic, should do likewise. This seems to constitute a minor oversight in training, but one that is nevertheless important enough to justify revision.

* * *

Those motorists who feel that motoring is no longer worth while on account of the cut in the basic petrol ration which is to come into effect for the next quarter, would seem to have a solution. By letting the tax lapse and laying up the car for a winter overhaul during October, those not in receipt of supplementary petrol will be able to run their cars in November and December for the same outlay per gallon as formerly.

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SCUDERIA CHEMVAMO

[Here is another account, by Driver John MacLagan of the R.S., of joint ownership, and one which portrays very well the spirit of amateur motor-sport.—Ed.]

ALTHOUGH not nearly as widely known as "Scuderia Impecuniosa," "Scuderia Chemvamo" was unofficially formed at school in our push-bike days.

Hubert Palmer, Pierre Bell, Harold Badger and I were the car-crazy boys, who would rather read MOTOR SPORT than Wordsworth or Keats, and irritated our masters by car-drawings on our exercise books. Our hobby in those days was the collecting of car badges, instead of the usual stamps or birds' eggs. The craze spread throughout the school, until manufacturers became really rude in reply to requests for badges. I am afraid that in those days very "tall ones" were told about the different motor cars seen on the way to school, and many a time we were late as we had waited to see a Speed Six Bentley fabric saloon; still, it was worth detention, as the chauffeur used to motor it with great gusto.

Our real birth into the internal combustion world was on meeting Ralph Cooper. He said he knew where a 350 c.c. Douglas twin motor bike could be had for the pushing home. So we set off *en masse*, and the Duggy was pushed home and immediately set about and stripped of everything unnecessary, even silencer. After very much tinkering and syphoning of fuel from parental fuel tanks, the Douglas was persuaded to motor.

Our average age at this period was fourteen, so we were only just able to reach the ground with both feet when astride the saddle. The crashes on account of this affliction on our part were no doubt marvellous training. I remember one incident which was exceptionally funny, especially for the spectators. Hubert Palmer was riding the machine in a large garden kindly lent by an enthusiastic neighbour. While motoring quite fast down one path the clutch wire snapped, and Hubert promptly ran off the path at the next corner and proceeded to wipe up the raspberry bushes, wrapping them round the front forks, very much to the annoyance of the gardener, who had been cultivating them for a year or so previous. We then had a stormy interview with the latter gentleman! Badger had, by this time, moved to a palatial residence which boasted a drive half-a-mile long, so we decided, much to the gardener's joy, to use this drive in future events. The Douglas was duly pushed over to Howarth Hall, that being the name of the Badger's seat. However, on arrival, the old machine became very temperamental, and again while being ridden by the unfortunate Hugh, seized and threw its fly-wheel. After much work in Badger's marvellous workshop, which contains lathes, drills and a surface grinder, as well as a proper forge, we found that the bore was ruined and a con rod smashed, so we decided that another mount was due. We purchased a 250 c.c. two-stroke Ner-a-car. Probably some readers will have owned this weird retainer of the friction drive. The Ner-a-car was ridden with great success by all and sundry, and it was found that, with the draglink type of steering, one could ride over the roughest ground with hands off. Another Douglas and Ner-a-car followed the afore-mentioned steeds. I then paid 6s. 3d. and swopped a golf club for a side-valve 1929 250 c.c. B.S.A., which was at first communal, but, after much persuasion and usage of the parental purse, was taxed and insured for personal use.

By this time Badger had a Calthorpe 250 and Palmer a 350 Calthorpe, and, so mounted, we suddenly realised that there was a place called *Donington*. After visiting that famous venue, we decided that cars were our ultimate aim. This was in 1937, and we felt much annoyed that we had not realised earlier that Donington was such a super place and that motor racing was unbeatable as a spectacle and sport. We were joined about this time by Clifford Lister, who possessed an Austin "Nippy" which definitely lived up to its name, motoring with a glorious note.

In this same year, 1937, we decided to call ourselves "Scuderia Chemvamo," the latter part of the name being formed from the first two letters of our fathers' cars—"CH" from my father's Chrysler; "EM" from Pierre's father's M.G.; "VA" from Mr. Palmer senior's Vauxhall, and the "MO" from Mr. Badger's Morris. The selection of the name, by the way, was quite a show, a meeting being held, and, between consuming enormous quantities of tea, the name "Chemvamo" was decided upon.

Ralph Cooper again was on the scent and found an Austin van, which could be had for 50s., complete with two new Dunlop 90 tyres and recently rebored. I borrowed my father's car, and, complete with some scrounged clothes-line, we set forth to tow in the Austin. On arrival at the garage, we found the Austin, as was stated by Ralph, to be in pretty good fettle, but as we had decided to strip it right down that didn't matter much. The Austin having finally arrived at its destination, it was pushed straight into the garage, a conference was held, and it was decided to strip the body without further ado. During the latter operation we found many odd and interesting things, such as buns as hard as stones and one or two hidden halfpennies. It transpired that the van had previously belonged to a baker. After three evenings' work the body was finally off; then the motor and springs were dismantled and cleaned. We worked out a new fixing for the front spring anchorage, which lowered the front end by 2½ in. In the end, the chassis was between the spring and axle instead of on top. The back springs were straightened, so the whole chassis was brought down to reasonable ground clearance.

After the chassis had been completely reassembled without the motor, we towed it behind my father's car on the main road, to test the springing when cornering, which proved exceptionally fine; so, very pleased with this, we returned home. During the test run we had met another old boy, Ellis Devine, who had become motor-conscious, and who showed great interest in the Austin, so much so that, as a Morgan three-wheeler was in the offing, we allowed him to have the Austin at home in his garage, where we could all go at any time and work on it. He himself put in a lot of work on it for entertainment.

The Morgan was a 1929 three-wheeler 990 c.c., with very sporting body and flared wings, having also two aero screens. It had two speeds, the gear lever positions being straight forward and back. The brakes were phenomenal, the foot brake being connected to an external contracting lining on the rear hub, the hand brake working on both front wheels.

Ralph Cooper and I set off in it for London on Christmas Eve, the distance being 165 miles. We got as far as Newark, when the dynamo refused to charge, and so the lighting system slowly succumbed. However, we were not to be outdone, and we tucked in behind a Newcastle-to-London night coach. The driver of the coach was doing a steady 45 m.p.h., so the old Morgan was lead-footing it to keep up with him. Next a fog descended, so we let the coach draw away, until its rear lamp could just be seen. I remember many occasions when that rear lamp appeared closer in front, and both driver and passenger assisted in attempting to pull the Morgan up—the passenger with both hands on the hand brake and the driver attempting to put his foot through the floor boards. On that memorable night, with only glowing side lamps, in thick fog, we were still following the coach, when a steering wobble developed, and it became so bad in the next 20 miles that the coach left us. Thus afflicted, we pulled into Baldock about 5.0 a.m. on Christmas morning feeling that sports cars were not worth it. We manage to scrounge some bolts from other parts of the car and effected temporary repairs. While we were so employed many an early well-wisher went past, saying "Merry Christmas." Both of us being in a rather low physical condition, with all humour practically gone, we wished them to warmer regions—under our breath, of course.

We finally made London about 10 a.m., with all other road users making mystic signs to tell us we had wheel wobble! After a terrific meal, at which I fell asleep, we purchased new oversized bolts and drilled out the existing holes on the steering, and the wobble was then cured.

The only exciting incident on the return journey was when the driver fell asleep and ran out of the road at the next corner. The Morgan was sold for 50s. about a month after this run, and we then relied again on our motor-cycles.

Harold Badger had seen a reference to a forthcoming Morris Rally at Donington, and obtained his father's permission to enter his 1925 Bull-nosed Morris Oxford in the fray. This car was then 13 years old and had covered 110,000 miles without a rebore, having been de-coked only twice

SCUDERIA CHEMVAMO—continued

in its varied career. We decided that it could do with hetting up slightly, and it was taken to Badger's workshop. The old and voluminous wings were replaced by narrow plywood cycle type, new tyres were fitted and a new and better-conditioned radiator. We procured shock absorbers from a breaker's yard and replaced the old snubbers with these. This fitment did wonders for the front end. A great amount of hard work was put into this. Many a time we came straight home from our daily work in the evening, worked all night, went home for a bath in the early dawn, and thence back to a day's work again. After about two months of work at week-ends and nights the car was taken out on the road, to the great amusement of the population, who do not appreciate vintage motor cars. During this test run the oil pressure, on starting, pumped at 30 lb. and then dropped to nothing. We were told later that this was quite normal, but on its fall our spirits dropped accordingly. The floor boards also became amazingly hot and cooked our feet. We could not understand why, until we decided that the design of the exhaust manifold did not help matters any, all the gases having to escape through practically an inch-bore pipe in the centre of the manifold. So again to a breaker's yard, where we found a 14/40 M.G., the engine design being practically identical with the bull-nose. Off this car we purchased the exhaust manifold and exhaust pipe. This manifold was of a much better design, all the gases being led away forward, the bore increasing accordingly with each existing port. This trophy was carried back to the workshop and was found to fit perfectly, the other exhaust system being scrapped, the alternative being a straight through pipe of a 2-in. bore. The resultant engine note was very reminiscent of a 3-litre Bentley, with apologies to Bentley owners. While employed on this, we decided to de-coke the engine; when the head was removed and the carbon scraped off, there was surprisingly little sideways movement on the pistons, speaking worlds for the designer of those old Hotchkiss engines. The car was then assembled for the second time and, with a couple of suction horns and glorious exhaust burble, another trial run was accomplished with no hot floorboards, the manifold having been well worth replacing.

About three days before the Rally we cleared her up finally, fitting a couple of spot lamps and a stainless steel apron over the front dumb-iron, the latter improving the appearance tremendously. On the Saturday, the day preceding the Rally, Philip Turner, of the E.R.A. Club "Hearsay" fame, came over to stay and to cover the Rally for one or two journals. He brought with him a lovely old 1926-vintage 3-litre Bentley with coupe body. On the Sunday morning the Scuderia packed themselves into the Bentley and Bull-nose, setting forth for their first Rally. I rode in the Bentley, and I shall always remember the sound of howling tyres as the Bull-nose diced round traffic islands after the fleeting Bentley. The Bull-nose was entered in the Rally absolutely for fun, as after all our tinkering it was sub-standard; in fact, we thought —very original. Although the judges were rather amused, she did not stand a chance; during the afternoon, however, she was seen quite frequently motoring at a good speed down towards Melbourne, in a tussle with another enthusiast in a Morris Minor-cum-Austin Special.

We had decided during the run to the Rally that we'd take the Bull-nose with us on our summer holidays, which were then due. We set forth again for the South and, as on the Great North Road the radiator leaked abominably, we procured some Stop-leak, which certainly lived up to its name, the water ceasing to flow after the first application. This was the only incident of the Southward journey, except for a dust-up with a Standard, out of which the Bull-nose came with flying colours. We took her down to Brooklands to witness the last race of the season. During the event we found that if we paid 7s. 6d., and went the right way round, we could use the track, so on the following day Brooklands was our destination! Having paid our 7s. 6d. and gained admission to the course, we motored steadily round to the timing-box on the railway straight. It was decided that Hugh Palmer should drive for the first lap. He set off and was then seen as a speck which appeared to crawl very slowly behind the members' hill, appearing a few seconds later under the members' bridge, to come with a nasty thump over the bump and down the railway straight. The weather was appallingly hot and that first lap had taken the engine temperature up into the 100 sphere, so that on Badger's lap, and on my own, she boiled all her water out before reaching the end of the railway straight and the radiator was filled at the end of each lap by a chain of ginger pop bottles, the water coming from the brook which ran past the timing box. The speed for a standing-start-lap was 47.5 m.p.h., which, considering the high windscreen and the age and mileage of the engine—which, as mentioned earlier, had been de-coked only three times—was quite fair—at least *we* thought so. We set off for home straight from Brooklands, and had a trouble-free run, the old car then being put in retirement, which I think it really deserved. Maybe it will run in another Rally before long, if not destroyed by the Luftwaffe.

On our return from London, Hugh purchased a 1932 "F" type Magna with 4-seater body. The car was run into Badger's workshop and the heavy wings were replaced by thin aluminium ones; the brakes were then checked during this operation, and it was found that the front engine support and chassis cross member were cracked. The radiator was taken off, the engine blocked up, and the chassis prised open, and the cracked member was then withdrawn.

One of the Bull-nose's old axle shafts was turned down to fit into the hollow member. It was driven in with a sledge-hammer, and the effect was that the member was stronger than when manufactured. On the refitment of the member and attention to the exhaust system, the Magna motored very nicely and is continuing to do so.

In 1938 my father took pity on me and bought me a "J.2" 1933-vintage M.G. Midget, which was "the greatest thing in the world," or so I thought at the time, but it appeared that the Midget had been caned good and proper; I really should have had an expense meter on the dash instead of a revolution counter. Lister's Austin, Palmer's Magna and the "J.2" had some wizard runs to Donington. One time I especially remember, when we were returning very late from the Grand Prix and the Magna shed its exhaust system off by the silencer. After that it sounded like an Auto-Union when lead-footing it. I took the "J.2" again up to London for Christmas holidays. The going was carried out overnight in a snowstorm, but as I prefer a sports car as such the hood was not put up. I had many stops to consume pints of tea in transport cafes with drivers of lorries, I thinking their "shop" talk as entertaining as anything known.

On arrival in London without mishap I went to see a friend, C. P. Tappenden, the creator of those wizard little model E.R.A.s, Scalmo Altas and Maseratis. He suggested a trip down to his factory at Brooklands. We decided on arriving to do a lap of the course. Coming off the members' banking at 65 m.p.h. we noticed the oil pressure gauge doing some funny things. On slowing we could hear a very nasty noise—a thump every time the engine revolved, so the rest of the way was done in bottom gear. It was decided to leave the car at Brooklands pending investigation. The next day, by arrangement with my father, a big Chevrolet saloon arrived with tow rope, the driver of which, I think, forgot about his tow, and I had a hair-raising tow through London in a foggy rush hour, the car being finally garaged in a northern suburb. I came home by train to find that the Scuderia had another car to its name. Badger has purchased a Singer Le Mans 2-seater, which he ran on mild dope and Castrol R., the latter smell greatly enhancing a ride in the motor. I persuaded him to tow my "J.2" from London, and at long last he agreed, and we motored South on a Friday night, arriving in London in the early dawn. We ate a large breakfast and began the 165 miles tow back. Things went O.K. until about Stamford it began to rain, my wipers would not function, the screen being folded forward so that I might watch the rope. In so doing one got all the water and grit from the Singer's rear wheels. This continual drenching and the fact that no sleep had been had since the Thursday night did not quite make one feel gay. Going North there is quite a steep hill into Grantham, at the top of which this scribe dosed off to sleep, to be awakened by a resounding thwack as the "J.2" hit a high kerb. This was probably well timed, as otherwise no doubt the "J.2" would have run away into the back of the Le Mans, which certainly would not have improved the rear and frontal appearance of the respective motor cars! Arriving home about 9 p.m. we were both almost "done in." It was agreed that I had enough grit on my face and neck to reinforce a goodly area of the Great North Road. When the "J.2" engine

SCUDERIA CHEMVAMO—continued

was taken down it was found that the crankshaft had fractured at the central throw; why it did not come to bits we would never know. It must actually have been swinging in the centre when revolving. Peter Bell, besides being, with his father, an enthusiastic owner of an M Type M.G. Midget (which, by the way, has covered 120,000 miles without reboring), also had developed a passion for model cars.

He has built, with the aid of Ralph Cooper and his younger brother, a magnificent downhill model track about 160 ft. long. It is constructed of concrete and contains two high bankings reminiscent of the Avus track in miniature. One section of the track went under the lawn by inter-connected piping. When model racing was first started there we ran the Meccano model Mercedes, then independent suspension was experimented with on rear wheels only. After about six months racing there, all the cars had independent suspension. This was well worth the time it took to modify the Meccano and fit them with suspension, as the speeds and track-holding qualities improved 50 per cent. As many as eight cars would start *and* finish a race. They were travelling so fast that on entering the tunnel section they would run right round the pipe, hanging upside down for a second.

It was really a most fascinating thing to see those cars overtaking and climbing right up the banking, etc., within an inch or two of the top.

A new member joined us in the summer of 1938, his car being a Morgan "44," far removed from our old Morgan of our motor-cycle days, and yet it retained roughly the original front suspension. Jack considered, or at least the rest of the gang did, that the Morgan was a little too quiet, so again Badger's shop was the scene of destruction, and a new silencer and pipe gave the Morgan a super note. I should point out, however, that Jack got to know the police quite intimately after the latter fitment.

There was another episode with the Morgan which was rather funny. Jack was motoring home through a built-up area in the dark, when a black T Type M.G. passed him, so he gave chase and on passing gave the old "thumb" signal. The "T" however managed to repass him, with a lit-up notice on the back: "Stop, Police," so the old motto: "Be suspicious of black M.G.'s" pays—around here, anyhow.

Lister came in one day full of life! He was to get a TA Type M.G. from Bridlington in part exchange for the "Nippy" Austin. So a run was arranged, in which all the Scuderia joined. The Morgan, Magna, Singer and "J.2" running in line ahead made a glorious sight and sound. The afternoon in Bridlington was spent dicing in those two-stroke motor boats on quite a large lake. It certainly was super to baulk on a corner without dire results, the one annoying thing was the fact that the engines were governed down.

We left Bridlington in the evening with five cars in line ahead, our ranks having been augmented by Cliffe in his "T." It rained all the return 80 odd miles, but it takes more than rain, or even war, to cool down our joy of having a drive together. That evening we all forgathered at Badger's palatial hall and partook of supper, talking motor cars and racing till the small hours.

About a month after this we—that is nearly all the Scuderia except Cooper, Jack and Peter Bell—were called up to do our month's training in the "Terriers" with the Royal Signals.

Devine, Lister, Palmer, Badger and myself became, as would be expected, drivers. Great plans were made to spend holidays together with the cars when the month was over, but Fate decided otherwise, and on the Sunday when we should have finished our training war broke out.

Thus we stay still together driving Morris Eights, Commers, Bedfords and Morris Commercials. When on leave the work still goes on. Devine has now an Alta head on his Austin, which is practically complete and looks very patent. I now have a 1936 M.G. Magnette in lovely condition; it has never run on anything but puddle, so I don't know how fast it will motor. Hugh Palmer put my 'J.2" body on his Magna chassis, which has been practically rebuilt.

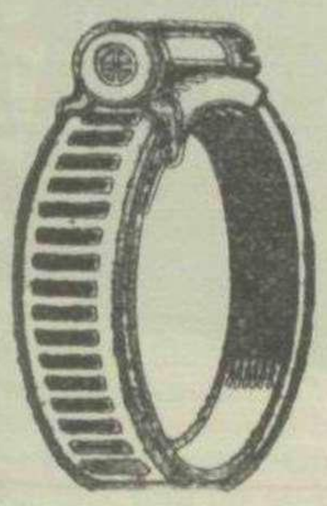
I still retain the "J.2" chassis in the hope that some day it will motor in a speed trial. Lister still has his "T" on the road; having now a deep note exhaust system, this M.G. runs beautifully on Pool. Apparently some motors will! Cooper is working on parts of Rolls Royce engines, Peter Bell is a gunner in the north of Scotland and Jack has some important local post.

On the whole Scuderia Chemvamo has so far weathered the storm very well, all just living for the day when the sound, sight and roar of racing cars will again be appreciated.

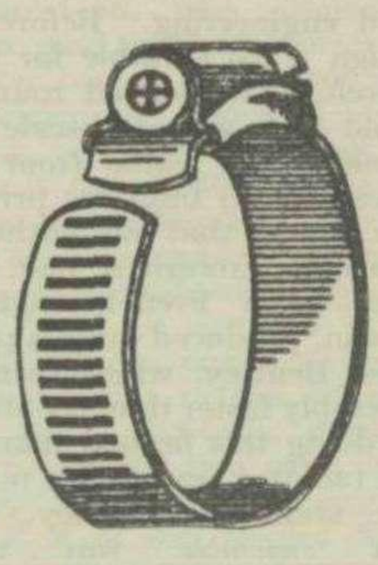
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THE EVOLUTION OF THE "CORNICHE" BENTLEY

Mr. W. A. Robotham, of Rolls-Royce, Ltd., describes the conception and development of one of Britain's most advanced high-performance cars

IN 1931, when Rolls-Royce first took over the Bentley Company, some wind-tunnel tests were made on the first 3½-litre saloon car. The results were illuminating, but not very helpful towards improving the top speed of a motor car which must suit the average Bentley customer. Briefly, it was found that small excrescences such as lamps, horns or mascots on the front of a car have little or no effect on its speed. Making drastic alterations to the front as a whole, however, cut down the drag considerably. The best shape appeared to be something on the lines of the Lancia. The main point about this design is that there are no sharp edges and the gap between the wings and the body is filled in. Unfortunately, in 1931, we particularly wished to retain the original Bentley appearance, and therefore any sweeping alterations to the radiator were out of the question. We found that, unless we altered the front, nothing we could do at the back made very much difference. With the altered front, however, a measurable improvement was obtained by a sweeping back and tail. When we had combined all the improvements (which produced an entirely unconventional-looking car), we got a figure of merit for this and then turned a model of the standard saloon back to front in the wind-tunnel. We were somewhat disgusted to find that a lower drag figure was produced than with our streamlined vehicle! Nothing further was done, therefore, to reduce the wind-resistance of the car sold to the public until just before the war. As soon as the Germans began to build their motor roads, it became evident that a vehicle designed for the winding lanes and congested main roads of Britain would have to be modified if it was to take advantage of this new road engineering. Before we started to design a car suitable for the *autobahnen*, therefore, we looked round to see if we could get any full-scale results which would be of value from cars that had already been built for private customers. We found that an enthusiast, the late Monsieur Embiricos, had, with the assistance of a French engineer, Monsieur Paulin, produced quite a practical streamlined Bentley, which seemed to be considerably faster than the standard product. In doing this he had taken liberties with the radiator, and this in no way resembled the standard Bentley. However, the *tout ensemble* was not altogether unpleasant.

Mr. Embiricos very kindly agreed to lend us the car for experimental work, and we carried out a few minor modifications to improve the power-output of the engine and make the gear ratios more suitable for high speeds. When the modifications were complete, the car could be driven without excessive pinking on any No. 1 petrol available in England, and was free from detonation on Ethyl or any other premium spirit.

The car was fitted with 6.5 in. by 19 in. tyres and geared to give the following road-speeds at 4,000 engine r.p.m. :—

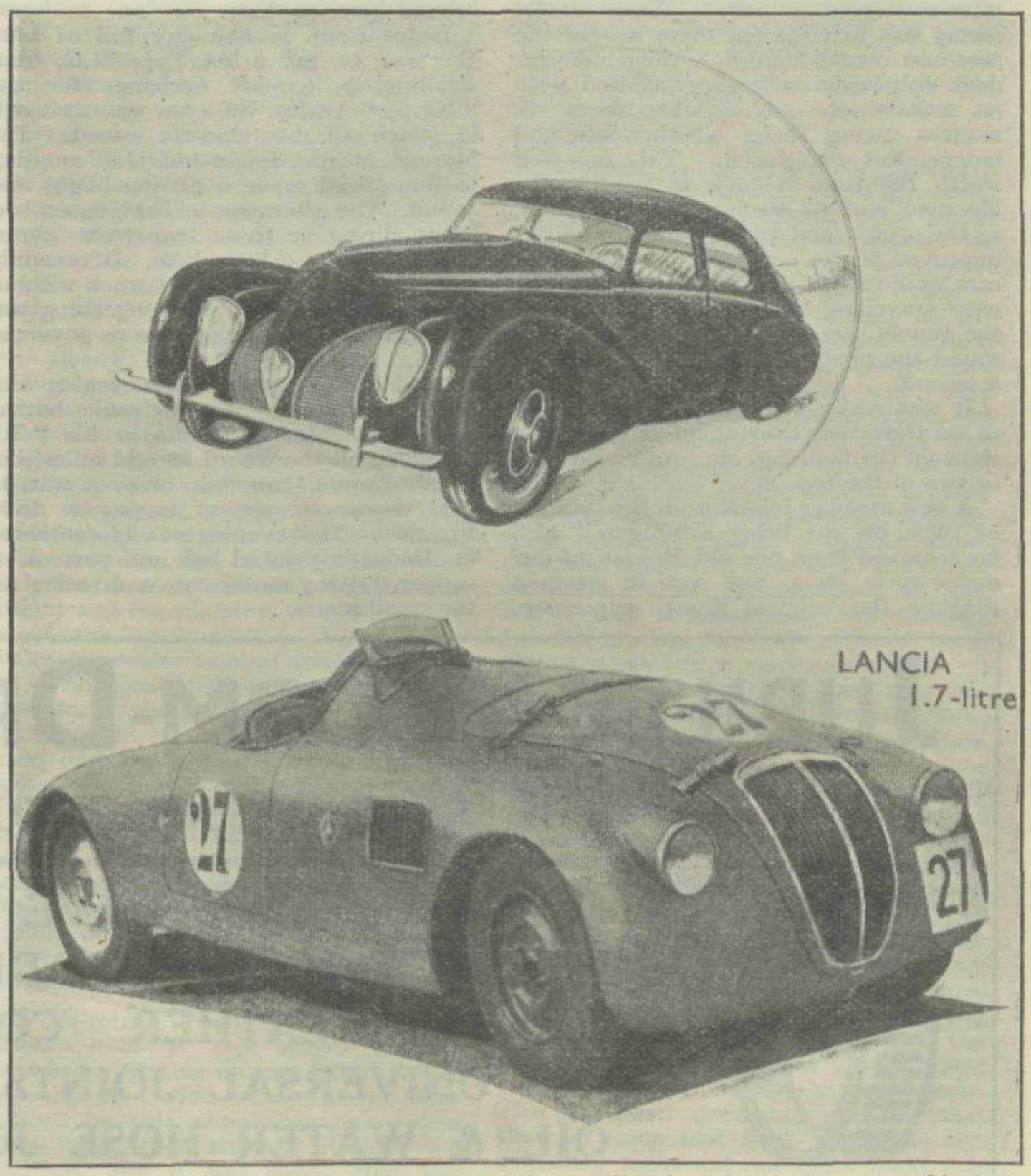
Overdrive	= 127½	m.p.h.
Direct	= 108	,,
2nd speed	= 72	,,
1st speed	= 45½	,,

The body was very light and the high first gear seemed quite practicable for starting and hill-climbing. Indeed, the car was so fast, tractable and economical that an extended continental tour was arranged, to demonstrate these virtues to representatives of the technical press. The car averaged 110 m.p.h. for five miles over German roads, under favourable conditions. It also gave the following consumptions at constant speed on the *autobahnen*:—

40 m.p.h.	= 32	m.p.g.
60 ,,	= 26	,,
80 ,,	= 21	,,
90 ,,	= 17	,,

To demonstrate that, in making this vehicle suitable for the German motor roads, it had not been spoilt for ordinary high-speed touring, some stretches were timed on the French roads between Paris and Metz. Montmirail to Chalons-sur-Marne was covered at an average speed of 76 m.p.h. and 60 m.p.h. was averaged over the 180 miles from Paris to Metz. At the conclusion of these road tests the car was taken to Montlhery and covered 107 miles in one hour, the fastest lap being at just over 110 m.p.h. These results were interesting and a few more modifications were made to the power plant. George Eyston then took the car round Brooklands and covered 114 miles in the hour.

These results were just what we wanted technically, but we were not satisfied with the appearance of the car, and also it was a two-door saloon, with rather cramped luggage-space and rear passenger accommodation. Monsieur Paulin, therefore,



The little "Aprilia" Lancia which suggested streamline form for the Bentley; this had its outcome in the "Corniche" Mk. V 4¼-litre Bentley, pictured above

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WHY NOT CLASS I?

[This article, from Kenneth Neve's pen, enlarges on a suggestion made in the correspondence pages last month. As so many great achievements have originated from two people thinking the same way at the same time without interchange of ideas, the plan seems worth consideration. Our personal objections were expressed in a footnote to the letter and still remain. Untraditional racing cars, like the American Midgets, do not appeal to us, and racing traditionally means handing on something useful to the road car. Thus, if 500 c.c. touring cars come into being, so will factory-built 500 c.c. "Specials." But for a while Neve's ideals might come to something.—Ed.]

TOWARDS the end of August 1939 the writer sat in—or more correctly on—the none too comfortable seat of his home-made motor-car and made a gesture correctly interpreted by the driver of the aged "Morris" at the business end of the tow-rope as "Please proceed." The Morris belched blue and ground its unmusical way forward, the clutch of the "Special" was engaged and, with a couple of coughs and a shudder, the culmination of two years' spare-time work came to life.

You shall be spared details of the car and the initial trials: sufficient to say that having driven five miles without shedding much machinery and having scared driver and onlookers stiff, it was decided that if all the bits that had come loose were screwed up again it would be worth while towing the new recruit to the ranks of "Specials" the 90 odd miles to the Yorkshire S.C.C.'s September Meeting. Then an insufferable little man got uppish and Things Happened, so just how far up the drive at Weatherby the machinery would have progressed must remain for ever a mystery.

The blackness of the past months has given ample opportunity for speculation during the night watches, not only on the might have been, but on steps to be taken if the machine proves, as is probable, to be just not good enough after the war. This inevitably led to a mental survey of the "Specials" which have been built in the years between 1920 and 1939.

The article on sprint cycle-cars in MOTOR SPORT in the July 1940 issue was of immense interest. True, it concentrated on the "V-twin," but it was a masterly survey of genuine "Specials" over some most interesting racing years.

The builder of any "Special" which actually starts in a competition deserves a medal. It is so easy, in the comfort of the bar-parlour, to talk of "getting an old G.N. or Nash chassis from the wreckers and finding a couple of fast bike-engines or an ex-racing engine and marrying them together"—and, before closing-time, to be climbing Shelsley Walsh in about 42 seconds, unblown!

Translate your would be competitor to his draughty garage: Give him his G.N. chassis; give him his 80-h.p. engine—and watch his reactions when he discovers that if the engine is to sit in the chassis at all he must shift the clutch back four inches, alter the steering-box position and drill with his own fair hands and a belly-brace half-a-dozen ⅝ in. holes in the frame. His enthusiasm in most cases withers and dies. All who have weathered the storm will understand; yet "Specials" have been built in the most modestly-equipped garages and run most successfully. Wherein lies the success of the successful and why have the failures failed?

The cynical say that success is spelt MONEY—but this is only partly true. It depends upon the interpretation of the word "success." If success is considered not to have been achieved until Raymond May's time up Shelsley is beaten, then money in large quantities is essential and, be it added, many other things as well! But if success means a class-place at Shelsley or Brighton, or perhaps a "fastest class time" at Lewes or Weatherby, then vast wealth is not an essential.

Here let it be made plain that this article is concerned with "Specials" made *by* the amateur and not *for* the amateur.

The dearth in the number of amateur-built racing-cars during recent years may be said to coincide with the advent of inexpensive and economical pseudo-sports cars—undersized fledglings modelled to suit our taxation system. Some are capable of reasonable performance over a limited span of years if left alone, or, if tuned, are capable of a good performance over a still shorter time. . . . But whoa!—your scribe is almost mounted on his "Vintage" hobby-horse and that long-suffering beast must remain locked in its stable for this article at least. . . .

The paragraph in "Rumblings" in the May 1941 issue of MOTOR SPORT, lamenting the lack of true "Specials," invited the query as to whether they would ever become "popular"—using the word in a comparative sense—again. The answer, if post-war competition is anything like pre-war, seems almost certain to be: "No!" Design has passed the day when the layman's ingenuity can help. Power-weight ratio is such on the average machine that endless hours with drill and file in the amateur's workshop cannot fight even a level battle with the factory's alloys.

The war came just in time to save the genuine "Special" from extinction; competition was getting too fierce. The best of the "Specials," brilliant as they were, could not be expected to compete with E.R.A. and Alta and, with all the enthusiasm in the world, racing for the fun of it palls if before starting you know you stand no real chance of victory. It is reasonable to assume that the war will put a still wider chasm between the home-made and the factory product and that it will be little more than a waste of time and money for the amateur to build his own car to compete on level terms.

Which seems a pity. Are those enthusiasts who cannot afford a larger racing car and who see no fun in buying a stereotype machine to become spectators? Even looking on will become pretty dull when the contestant merely buys a buzzing machine and sends it to a tuning establishment to have special innards fitted to make it buzz the louder so that it may compete with others from other tuning shops with the same innards and different-colour bodies. A dismal prospect, but we were heading that way before the war. Somehow a road back to individuality—inexpensive individuality if possible—must be found. There seems but one way. Why not pay greater attention to Class I—500 c.c.? An immediate reaction is to say "Too tame"—but is it? To begin with, the Class I fastest record stands at over 100 m.p.h. and the Class I standing start mile at 76.09 m.p.h. These are very respectable speeds and be it noted they are above the 750 c.c. speeds of ten years ago. The present 500 c.c. motor-cycle engine can do all that the 1,000 c.c. unit could do in 1925 or so, and no one will argue that Shelsley was tame in the days of the master Davenport. Compare for a moment your "Special" with a motor-bike and side-car. It will have less frontal area and carry no passenger as must the combination. Putting aside all the acrobatics of the passenger, surely the speed and acceleration of a side-car outfit is not lightly to be regarded? Think only of the Brighton Speed Trials! No one who remembers it would call John Bolster's "Mary" in her original form tame, yet that had in it merely a side-valve 4-cam 1,000 c.c. J.A.P. engine. When Bolster fitted the o.h.v. engine, the writer bought, and installed in a solo motor-cycle frame, that same side-valve engine which had climbed Shelsley in 48⅘ seconds. *Without alteration* it was used for journeys from Lancashire to London, times without number. It did this long-distance work at high speed with complete freedom from mechanical trouble, which, incidentally, speaks volumes for the skill of L. W. Hartley, of Plumstead, who originally tuned it. On the road (in the motor-cycle frame) it was often beaten by fast 500 c.c. solos and a converted D.T. Douglas could leave it standing on acceleration up to 65 m.p.h. This is not written to decry "Mary's" engine or her builder, far from it; my point is that the engine, although of 1,000 c.c., was really quite ordinary and its performance could be equalled by a reasonably good 500 c.c. engine. Ingenuity in the construction of the original "Mary" and John Bolster's driving constituted the reason for that car's outstanding sprint success, not engine potency. And if it is still argued that 500 c.c. would be tame in comparison with a *modern* 1,000 c.c., would a little less speed be a serious matter? Remembering certain speed trial courses, a drop in speed would bring an increase in safety, and less power would offer correspondingly greater reward to driving and constructional merit. Too many car owners there are to-day who did not serve their apprenticeship on two wheels, and the tuning of a single carburetter on a single cylinder will provide a valuable initiation into the mysteries of the high-speed i.c. engine. The barrier between many enthusiasts and

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ON THE CHESSINGTON RALLY

DEFINITELY, the Chessington Rally was an immense success, and reflects the very greatest credit on the organising clubs, Vintage S.C.C., Bugatti Owners' and E.R.A., of whom I take it that Sam Clutton, Eric Giles and Rivers-Fletcher were the personnel to whom we should direct our thanks. Heavy rainfall, following something like a month of unbroken hot weather, fortunately gave over after lunch, but must have been both worrying and discomfiting to the organisers. Nevertheless, when I arrived there was already a group of racing cars on view and a number of spectators' cars already parked, evidence of enthusiasm, if such is needed, for the rain was truly torrential; 17-year-old coupes leak like the dickens, incidentally, and drying h.t. leads in the midst of large lakes does not contribute to a party appearance . . . ! By tea-time I almost wished I had not started to make a list of every car present; altogether, I counted something like 62 spectators' cars and two motor-cycles. One of the latter was a B.M.W. ridden by Leslie Johnson, with his wife on the pillion, substitute for his 328 B.M.W., now in store. "Bunny" Tubbs was present and in great form in his somewhat bomb-scarred D.K.W. and Mr. and Mrs. Laurence Pomeroy came in their D.K.W.—Pomeroy had persuaded "The Motor" to issue a most interesting folder about the rally in general, and the exhibited cars in particular. Everyone who was anyone in our world seemed to be there, although actually so many old friends must have been absent that one wonders if the memory is becoming a thought rusty as to what gigantic social functions the peace-time club meetings were. Walter Norton, just back from the U.S.A., came in his "Jabberwock Junior" Fiat 500 and Mrs. Heal, in sou'wester and mackintosh, had braved the elements at the wheel of the racing Ballot; while her husband drove the Alvis "Silver Eagle" saloon towing car. A bearded gentleman ran up the engine of the ex-Malcolm Campbell "38/250" Mercedes-Benz early in the proceedings, but Arbuthnot came along later and Scott-Moncrieff was there, too, just returned from the Balkans. Peter Clark's 1914 Mercedes was admired by everyone and worshipped by lots of us, and Peter himself was also present later. It was good to see Eric Giles again and to hear he has at last let Prescott, and particularly appropriate that he should come in a beautifully-turned-out 3.3-litre Bugatti, of which two other magnificent specimens were present, including the ex-Noel Rees saloon, with notably square lines. Curiously, only one Bentley presented itself, but it was a beautiful specimen; Woods's red-label 3-litre, recently purchased from Breen, with a spotlessly-turned-out, deep red, decked touring body. Brother Gordon, too, was present and correct, his well-known Alpine Trial Frazer-Nash alongside. The lone Alfa-Romeo attracted plenty of attention, being a late specimen 2.3 litre, the actual car, I am told, which overturned at Le Mans about 1934, after which it was given first a fixed head and then the present, very neat, drophead coupe body. Unobtrusively smart was Martin Wells's Type 55 B.M.W. coupe, with 40,000 miles to its credit and pushing it up all the time now, on important official journeys. The three carburetters are fed, incidentally, by pump, in spite of a gravity-tank, to obviate drying-up. Reverting to the Bugattis, the unblown Type 37 Grand Prix, its aluminium-spoke spare-wheel correctly carried in the triangular strap-mounting on the near-side, was a most welcome sight. Rivers-Fletcher was seen closely examining Jesty's 1,100 c.c. 2-seater, twin-carburetter Alta, and was heard to remark: "That's my idea of a motor-car!" after inspecting Joe Lowrey's 1,100 c.c. H.R.G. Lowrey had Lacey with him, and another person from Farnborough was Campbell with his "12/50" Lea-Francis 2-seater; it sounded most healthy sitting on my tail up the hill out of Cobham on the run home. M.G.s there were of all sorts and sizes, including Thursby - Pelham's much-discussed "96 m.p.h." T-type Midget, replete with ash-tray and St. Christopher badge, etc., and a 100 m.p.h. speedometer on which I burnt my fingers on its arrival. One plug grew a miniature bomb during the afternoon, which regrettably failed to go off. Incidentally, I understand that Pelham is going to let Gordon Sutherland, of Aston-Martin Ltd., check his speedometer, and the sweepstake on the percentage error discovered should be quite something. This M.G. rejoiced in the name (displayed) of "Girl Pat III." It is astonishing how nearly every M.G. has something of the sort about it. I found a "J2" with "M.G. Special" on the bonnet, and an open 1½-litre tourer also with some touching nickname (it escapes me now) and a gigantic display of badges, swelled by the addition of a "Redex" Tune-Up Club symbol, a Wembley Lions' Supporters' badge, and a badge proclaiming the owner a member of the "National Society of Expert Drivers"—interesting, that, for expert drivers are not so numerous. I hope the "Lions" are suitably flattered. . . . There were several other M.G.s, mostly late-type "Midgets," quietly parked and free of badgery and comic names.

An "N"-type Magnette looked essentially serviceable, and one owner had hastily deleted "Blue Heaven" from the bonnet on buying his Midget, to his everlasting credit. Harry Ashwood was there with his Lea-Francis and has plans for forming a club-room in South London, *avec* bar, where his friends may congregate; he started motoring with an air-cooled flat-twin Rover Eight and came south from Scotland because there was so little sporting motoring up there. Don't imagine we have yet exhausted the discussable cars at the Rally. Ballamy brought his imitation Alfa, Marshall-blown Ford Ten, which Clutton agreed was "a most workmanlike job," while Vereker had hidden the "Airflow" Chrysler, in which I recently went to Scotland, in an outside park, but was seen to be in keen conversation with Tubbs—about Yanks, I suspect. Hutton-Stott was there, and Klemantaski came in his special-bodied 1,100 c.c. Fiat, quite ready to have his claim to 105 m.p.h. disproved in return for a couple of gallons of petrol! Another black-and-white "Balilla" Fiat displayed some few badges and, apart from Norton, H. L. Biggs came in his Fiat "Mouse" and there were at least a couple more present, one with an "end" gone. Naturally, there were lots of ordinary cars, three Hillman Minx saloons in a group, two more Minx saloons, an Essex Terraplane coupe, a Ford V-8 saloon, two Austin Ten saloons, Capon's Riley "Kestrel" saloon, two more closed Rileys, a cheeky Austin Seven "Chummy," a Standard Eight tourer, a Ford Ten tourer, a Vauxhall "25" saloon, the inevitable Morris and Ford Eight saloons, a rear-engined Mercedes-Benz saloon with Arnott blower and an Opel saloon, amongst them. But I really think it can be said that sports stuff predominated. The marque H.R.G. was additionally represented by a blue Meadows 2-seater, Moon brought his "Nippy" Austin Seven, Mallock his special Austin and Frost his "Ulster" 2-seater. A row of cars modestly parked some way from the rest had a front-drive four-cylinder Alvis 4-seater, once owned by Ken Farley, at one end and a Riley "Sprite" 2-seater at the other. A black Singer "Le Mans," Peter Clark's gas-producer Delage saloon, a very attractive and unusual Riley sports 2-seater, my comic Gwynne Eight, and a saloon "Speed Twenty" Alvis, went to swell the number. An Ariel Square Four rider stayed for a time, and I was pleased to see that the cheery person whom I had encountered the previous week-end riding a tricycle very fast behind the Humberette in which I was being towed had got along; he owns a shaft-drive Trojan and has had a rear-engined Crossley. John Smythe was there, too.

I am only sorry that I cannot record all the interesting snatches of conversation I heard—such as W. O. Bentley's exploits with his autocycle and the famous firms who look like cribbing B.M.W. ideas for their post-war productions. It is quite impossible, also, to mention every one individually—a full list of those who applied for admission will be found in "Club News." Certainly, the celebrities were there: Vaughan, in Guards' uniform; Bolster, Gordon Sutherland, Gordon Wilkins, arriving in a Renault, I believe, McKenzie, and many more. I do not know if H. S. Linfield carried out his threat and came on his bicycle or his flat feet; I believe, actually, he used a car. Mostly everyone looked very party-fied, although those in uniform were easily the smartest, all three Services being represented. I should say the Army predominated. The tea was excellent and the Prescott-like meadow used as a car park just right. I did not stay to supper, so I cannot report the speeches, and I did not go to the film show, so I cannot tell you what George Monkhouse said about German racing cars. But what I did experience was all truly enjoyable.

To all those persons who expressed appreciation of MOTOR SPORT I wish to

ON THE CHESSINGTON RALLY—continued

express my sincere thanks ; and would say, again, that it is all the hard-working voluntary contributors that make possible its continued existence. To hear of more articles that are coming along was truly encouraging.

The idea of staging a simple exhibition of famous cars was as effective as it is praiseworthy. The ex-Campbell "38/250" Mercedes-Benz, Peter Clark's 1914 G.P. Mercedes, Clutton's 10-litre Delage, the John Cobb 4-litre Sunbeam, the Le Mans Lagonda, Monkhouse's sports Darracq, Heal's 1919 5-litre Ballot, and the streamline 2-litre Aston-Martin saloon, gave an almost " Shelsley " atmosphere to the place, even if there were five " enemy " cars to three British. Some technical and historical details appear in " Club News." Everyone was sorry Forrest Lycett did not get along with his 4½-litre Bentley which was to have been exhibited and the 328 B.M.W. and Type 55 Bugatti were also missed. The S.S. Mercedes-Benz went off for a demonstration dice (I gather it is for sale), starting it involved much rapid waggling of the ignition lever by the bearded, homburg-hatted driver. The mounting of the twin rear-tyres is typical, the huge and intricate filler-cap most awe-inspiring and the huge exhaust-pipe extending well beyond the tail no less so. Clark went for a short run in the 1914 Mercedes, but really hadn't room to extend it. Even so, the acceleration is quite breath-taking, although the gear-change seems a brute. I liked the leather covers of the front shock-absorber mechanism and the engine is a work of art. The silencer, I gather, is partly Bedford lorry. Presumably the hastily applied silver finish will in time be replaced by all-white paint. The gas Delage towed the Mercedes all the way save up the final slope to the field. The 4-litre Sunbeam's engine is sombre in comparison, but very, very workmanlike. The traditionally-Sunbeam bulb-horn was not missed, and the tappet inspection-plates are slightly suggestive of Bugatti practice. Twin Roots blowers deliver into vertical pipes which merge beautifully with the inlet-pipe, the forward extension of which houses a blow-off valve with an exhaust-pipe led to an aperture in the bonnet on the near-side. The Le Mans Lagonda is most attractive, although the shining radiator-shell and horns inbuilt in the wings formed a remarkable contrast with the stark lines of the veterans. The quick action filler-cap on the offside valve-cover is retained, although there is a separate oil-tank behind the engine, and the passenger's left shoulder is noticeably out in the slipstream. Even the reverse catch is drilled for lightness. Monkhouse's pale blue Darracq—nothing will make me say that it is the fastest sports car !—is most business-like, with three down-draught carburetters and precious little wasted space under the bonnet, and the hood looked very continental. Heal's Ballot is a picture, period even to white-sided tyres, and the " rippled " inlet manifolds are a work of art. I am glad I did not examine the brake cable layout so closely before my ride in the car at some 96 m.p.h., however. The streamline Aston-Martin naturally came in for loads of comment and is very creditably finished for an experimental effort.

Clutton's V 12 10-litre Delage was almost the most imposing of the racing cars, and the hot-spot arrangement to the four carburetters was well worthy of inspection. The streamline Aston-Martin saloon represented a most interesting contrast to the older cars, and was aptly described in " The Motor's " leaflet as the " post-war " Aston-Martin. I hope to have a chance of testing it in the future, and meanwhile consider it a very stout effort for a war-production, work of a conscientious-objector mechanic, although the appearance, faintly reminiscent of the last Willys, might be enhanced by the employment of wheel-discs, don't you think ?

The only notable absentees amongst the humans were Forrest Lycett, who was expected to bring a 4½-litre Bentley, as I have already mentioned, but failed to arrive, Stuart-Wilton, who was down in the country, presumably with insufficient coupons to get his Talbot Ten to the venue (it is, I believe, rather heavy on fuel), Raymond Watney, and Rodney Seys, who, while hitch-hiking his way home from Cheltenham recently, after he had put away his Talbot, had been fiercely driven by the A.T.S. in a military Humber into painful contact with a R.A.F. owned M-type M.G., being in a London hospital in consequence.

I must apologise to the ladies for not mentioning them until now. They were present, as at any pre-war motor meeting. Married men came with their wives, for there have been no recent divorces in the motoring world, and others brought girl-friends or sisters, all looking charming, and taking an intelligent interest in fast motors. Yes, the Chessington Rally went over big, as our American friends would have it. Whether we shall have another in a hurry is debatable, for an event like this takes a dickens of a lot of organising with a war to win as well. That we have had this worthwhile, ambitious and beneficial break puts us all very much in the debt of Clutton, Pomeroy and Heal, who did all the work, although I am certain they seek nothing beyond our appreciation. It definitely *was* a first-rate show, as those with peace-time experience of the organising clubs fully expected it would be.

WHY NOT CLASS I ?—continued from page 399

speed competitions is lack of money, and the 500 c.c. " Special " scores tremendously here. The motor-cycle T.T. regulations limit engine-size to 500 c.c, and for every fast 1,000 c.c. " twin " to be found there are quite a hundred 500 c.c. engines of real potency. Ex-dirt-track engines give phenomenal output and would be ideal for the job, and the cost is as many shillings as would be required in pounds for a four-cylinder unit in similar tune. Consider, too, the wide variety of engine-types available : 500 c.c. singles of many famous racing makes : vertical twins like the modern Triumph : flat twins, like the B.M.W. or Douglas : V-twins (yes, these were made in 500 c.c., too !) a Scott water-cooled 2-stroke or the Ariel and Matchless air-cooled " Square 4s," or even, perhaps, a V-4 T.T. A.J.S. With so varied a choice of power-units the class could not possibly be dull. The chassis, having to stable horses with legs less hairy than in larger classes, might be of ash, which is easily worked by the amateur. If it must be metal, the ubiquitous Austin Seven would serve, or the evergreen G.N. judiciously lightened, or, perhaps, a fourth wheel might be added to a Morgan, after the manner of Breyer's " Salome." The field is certainly enormous. . . .

Perhaps the most persuasive argument for Class I is low cost in construction, running and repair bills. If anything serious happens, how much cheaper to find one " pot," piston or big-end than four or six ! The engine, with the single exception of lightening the flywheel assembly for which centres are necessary, may be tuned by the knowledgeable amateur, and on the kitchen table at that. Block and tackle are not needed to lift the engine into and out of the chassis. The complete machine can easily be trailed or towed ; in fact, the costs will stand in much the same ratio as those of a motor-bike to a car. More people will be able to compete, and as a natural corollary interest grows and meetings become more frequent.

The yachting people found this out when the International Dinghy Classes were started, and motoring has the added advantage that while boats must be built strictly to dimensions, cars need no restriction other than the 500 c.c. engine-size.

But among all these arguments, important as they are, the main issue must be kept clear. By developing Class I, a class is formed in which amateurs will compete against amateurs without fear of factory-backed entries overshadowing them, [Under what guarantee ?— Ed.] and there will be given a new lease of life to the most fascinating of all types of motor, the genuine " Shelsley Special."

All that remains now is for one of the leading clubs to promise a 500 c.c. class in their first post-war speed trial or, better still, for someone to offer the M.A.C. a cup for Class I at the next Shelsley Walsh meeting. One entry is guaranteed !

[At this stage this suggestion intrigued us so much that we have attempted to get it into some sort of focus by reference to it in " Rumblings " in this issue ; an invitation to readers to submit 500 c.c. data and designs is also set out.—Ed.]

RECALLING THE ROAD TESTS

No. 1 : The 1924-5 Period of MOTOR SPORT Test Reports

SINCE war broke out MOTOR SPORT has relied to a tremendous extent on the enthusiasm and generosity of voluntary contributors, and to these persons, whose motoring knowledge and writing ability has been placed so unstintingly at our disposal, our heartfelt thanks are due. Besides those whose help has been of such a practical and essential nature, we are indebted to the many readers who have written suggesting the policy which the journal should pursue through the difficult period during which Nazi Germany is being repressed. Not all of these suggestions have been workable, but they are appreciated, nevertheless. A frequent appeal has been for the reprint of road-test reports that have appeared in past issues of MOTOR SPORT. We have decided that to reprint in full tests of out-of-date cars, photographs of which are no longer available, would not constitute a sound move from the viewpoint of the majority of readers, but as so much interest attaches to early sports cars, we are presenting a *precis* of past test reports in the form of a series of articles dealing with them volume by volume, of which this forms No. 1. Those who require to see the full test report will usually find that back numbers of the issue concerned are still available and a full index of road-tests appeared in May, 1938. In reading such accounts, it should not be overlooked that secondhand cars must not be expected to handle and perform quite as brand-new demonstration cars do, at all events without extensive reconditioning, while it should also be borne in mind that standards of judgment relating to almost every unmeasurable aspect of car character and construction have been undergoing not inconsiderable change in the passage of one-and-a-half decades. Bearing these points fully in mind, recalling the road-tests of the past is a refreshing undertaking.

Fittingly enough, the very first car tested by this paper (then "The Brooklands Gazette") for the issue of July, 1924, was the 3-litre Bentley. The "Speed Model" was the example sampled, with the 3.53 to 1 rear axle ratio, and it is interesting that 25 m.p.g. at 30 m.p.h. was guaranteed, using a single five-jet Smith-Bentley carburetter—not that anyone ever drove or drives a 3-litre Bentley at 30 m.p.h., of course! This test Bentley must have been a good example, for it did 70 m.p.h. on second gear and, while the top-gear docility is amply emphasised, equally is it mentioned that the gearbox is there to be used ; an especially nice manœuvre, it seems, was changing from top to second at 45 m.p.h., without troubling about third. No criticism of this delectable motor-car, then blushing under the Clement-Duff laurels of Le Mans, was forthcoming, if we overlook a hint that there wasn't an overabundance of seating-room ; the maximum was given as in the neighbourhood of 80 m.p.h.

The next outing partaken of by the scribes of those days was in the 12/30 h.p. Sporting Crouch—the job with the four-cylinder 1,496 c.c. Anzani s.v. engine. It cost £295, or £300 if you wanted the distinction of a polished aluminium body, compared to the Bentley's price of £1,125. Poor old B. S. Marshall supplied these cars, the test version being a 2-seater with a dickey-seat out in a pointed tail, a V-screen, and flowing wings, finished royal blue with red chassis, wheels and wings. The car must have been light, for the Anzani engine would pick up nicely from 5 or 6 m.p.h. on top gear and take the car along all day at 40 m.p.h., with some 5 m.p.h. still to come. Diligent searchers of breakers' yards will surely admit defeat when it comes to the Crouch, of which outstanding features were cone clutch, duplex front and normal rear ¼-elliptic springs, tubular front axle, 12-volt lighting and starting and wire wheels. The marque has long been dead, although the writer came upon one during his apprenticeship ; that was in London in about 1928. Of course, the racing version, "Grandpa," was well known at Brooklands, even in 200-mile races, and a rear-engined Crouch was also raced. Our road-test concludes with a note about the £450 Super Sports Crouch, guaranteed to reach 80 m.p.h. fully equipped and 90 m.p.h. in racing guise, so the Track associations apparently bore fruit. It makes you feel that 100 m.p.h. stripped should be the regular thing from 12-h.p. sports cars of to-day—but is it ?

Then followed a 2-litre, four-cylinder o.h.c. Ansaldo sports tourer from Turin—in these stern times, note, only really rapid stuff bore the simple title of "sports." The actual speed of the Ansaldo was not quoted, but its general performance, suspension and four-wheel braking came in for special praise, although the top gear ratio was apparently on the low side, the three-speed gearbox being, perhaps, to blame. The engine was especially sensitive to the ignition control. This car, which cost £425 as a chassis, was "discovered" by "The Automobile Engineer" some four years later. In the same issue the "12/32" Coatalen-plotted Sports Darracq was effectively written-up, an open four-seater being driven at high speed from Lyons to Paris, while a Weymann fabric saloon was also sampled. The engine of both cars proved unusually smooth and quiet and the chassis-frame very much of the non-whipping variety, while a maximum of well over 70 m.p.h. was reached, and the then almost-unique four-wheel brakes with servo-shoes proved powerful and secure.

That concluded the 1924 year, from the road-testing point of view, and early in the new year Vernon Balls was approached and a sports Amilcar came along for test. This was the splash-lubricated 8.9 h.p. example, in which there was no oil-pump, lubricant being lifted from the sump to troughs by the flywheel. No speed figure, as such, is quoted, but it is significant that the car was stopped from 69 m.p.h. in less than 150 feet by means of the cable-actuated f.w.b.—the guaranteed speed was 75 m.p.h., remarkably good for a s.v. small car. The all-round controllability came in for unstinted praise.

Then, as to-day, the motor scribe carried out an abridged road-test when occasion demanded ; try a car for a week-end and a full report is the accepted obligation, try it for half-a-day, and only a brief account can usually be given, although this hardly applies to the quantity of concentrated praise, penned as often as not by unknowledgable writers for daily and provincial newspaper reports, after a trial extending over a week or more. . . . Now, of course, the topical problem is to get as many and fair impressions as possible in a limited mileage. Reverting to sixteen years ago, we did a brief test of the three-wheeler D'Yrsan, bits of one of which still sit in a certain boat-yard by Kew Bridge. With four-cylinder water-cooled, push-rod o.h.v. 750 c.c. engine, three-speed gearbox, independent front suspension by transverse leaf-springs and front wheel and transmission braking, this little car proved the French once again to have the knack of building utility vehicles of more than utility interest. The touring job cost £150, now with electric lighting, although acetylene had been used only a year previously. What was of more moment in our world was that quite fantastic sports versions, said to do 70 m.p.h. and more, were listed—did the Bol d'Lor teach the Froggie things worth learning, we wonder ?

The next report was on the famous little "Brooklands" model Austin Seven, almost all of which seem to have disappeared, though Roderick Seys ran one not so long ago and we believe that some of the constructional features are retained by a member of the 750 Club in a low-chassis Special. The faired, racing style of bodywork, in conjunction with a drilled crankshaft, twin HK Zenith carburetters, a three-branch external exhaust system, special camshaft, pistons, valves, tappets, and head, resulted in a very "real" little motor, which was sold, for £265, with a Brooklands certificate for 75 m.p.h., stripped—the meagre road-equipment apparently lopped off a full 10 m.p.h. During the test, the gradient from Bisham up to Winter Hill was climbed in second gear, with top before the summit, the engine-speed falling to below 3,500 r.p.m. on the hairpin and rising to over 4,000 r.p.m. thereafter. A successful restart was also reported, on a greasy gradient of some 1 in 4.

There comes up, next, the famous "12/50" Alvis with the classic aluminium 2-seater body and outside exhaust system, of which half-a-dozen excellent pictures were published. It was an expensive car, costing £550, and Twelvetrees put her to it hard. It was, in that age of trapping and the 20 m.p.h. speed-limit, deemed inadvisable to quote the speed attained on the road, but it was stated that the guaranteed 70 m.p.h. could be comfortably exceeded. Brooklands Test Hill was climbed from a standing start in about 12 secs., and Alms Hill was both climbed and descended without chains in

RECALLING THE ROAD TESTS—continued

the depth of winter, after a little help up beyond the Cannons. The exhaust was described as delightfully "musical," but outside opinion, while interesting, did not endorse this view, the opinion expressed being that of a policeman near Chertsey—a fantail was recommended when motoring near Weybridge. The Alvis was pronounced as near perfection, the only criticisms relating to the close proximity of the steering-wheel to the body side when using the r.h. gear-lever, a slightly inaccessible hand-brake and the absence of "motometre" and rev. counter.

The test report which followed was that of a most interesting car, in the form of an "L"-type Mathis Six sports 2-seater, with six-cylinder o.h. camshaft engine of 60 by 70 mm. (1,187 c.c.), with four-speed gearbox—a car forgotten by most supporters of early French sports light cars. The body was a pointed-tail racing shell in the typical French style, and the long bonnet, flared wings, and disc-wheels shod with Michelin "Balloon" tyres, combined to suggest more than 12 h.p. The guaranteed speed was 70 m.p.h. and Brooklands laps, of which seven were done all-out, were timed at around 74 m.p.h., the belt-driven speedometer, calibrated in k.p.h., being all but useless. We showed four pictures of the car at the Track, Parry Thomas, deep in thought, regarding the engine in one of them. Incidentally, no screen of any sort appears to have been fitted. The road-holding was very warmly praised, indeed, was considered the most outstanding feature of the car, the big covers notwithstanding. The four-wheel brakes came on neither too fiercely nor yet too ineffectively and the suspension was excellent once the speed worked up. The Box Hill zig-zag was climbed very nicely and criticism confined to slight clutch-slip after the pedal was home, inadequate bonnet-fasteners, tool-clips and speedometer and loss of lubricating properties of the oil after a 250-mile run.

A guess may well be hazarded that not more than a few readers even know of the car next to be tested. This was a four-cylinder 12/40 h.p. Mercedes 2-seater—a Mercedes rated at 11.5 h.p. and having the famous Mercedes supercharger system. The engine, indeed, was a smaller version of the later six-cylinder units found in the "33/180," "36/220" and "38/250" cars; it had a bore and stroke of 68 by 108 m.m. (1,568 c.c.). Again we put the car through exhaustive tests on Brooklands, and this time showed a photograph of not only Parry Thomas, but George Duller and Gedge also, examining the engine. George Duller also rode beside the Editor for some of the lappery. The car was really a touring rather than a sports car, narrow as to track, and with a substantial, rather-too-roomy coachbuilt body, the price being £775. Yet on the track it did a speedometer "80" and worked hard for an hour without complaint. The top gear performance was good, the road-holding excellent and the acceleration wonderful. The gearbox, giving ratios of 4, 6, 10 and 20 to 1, was intended to be used, and the change and, in fact, the feel of the car as a whole, was described as reminiscent of the old "Sixty" Mercedes. The blower noise is graphically put over and we like the following interpretation: "... the release of the accelerator in throwing the supercharger out of action causes the engine to give forth a prolonged "O-o-o-o-oh!" which almost becomes an appeal to the driver for a further spell of supercharging exhilaration." The car had no shock-absorbers, a rather inconveniently-placed speedometer, and rear brakes only that felt somewhat inadequate at over 50 m.p.h. But would that we could locate an example of this miniature Mercedes to-day. . . .

Hardly less interesting was the Renault Forty-five tourer, which was said to do a happy 93 m.p.h. at a mere 2,600 r.p.m., by grace of 9 litres of six-cylinder side-valve engine. We had it for five days and it went on a round tour of 180 miles to Canterbury and back on the first day and then up to Skegness for a sand race meeting, covering 400 miles in the day. Not only was this big car extremely well made, but it proved a very fast road car. Sunday (yes! Happy days . . .) saw the Renault at the Track, where the best lap was put in at nearly 87 m.p.h. (2,300 r.p.m.), the car going quite high on the bankings, but riding exceptionally well, although the cantilever rear-springs used only five leaves apiece. The Test Hill was ascended fast, and so was the crowded zig-zag of Box Hill, where three large cars had to reverse on the second bend. Pebblecombe was almost climbed on the 3 to 1 top gear, four up, but a momentary drop to second (5.15 to 1) was necessary to complete the ascent at 25 m.p.h. Alms Hill was actually climbed so fast that the Cannons were not even noticed by the occupants! What a remarkable car! Yet we doubt if there was a single example in use in this country at the outbreak of war, although we believe one is preserved in America. The servo brakes were so powerful it was desirable to warn the passengers of their presence, and equipment included oil purifier and cooler and an oil thermometer. Some people, we noted, called the "Forty-five" harsh, but we did not agree, although a lower top gear and four-speed gearbox would have been likeable. Incidentally, in spite of its long wheelbase, fast cornering was possible, and we published one of our classic cornering studies—in this instance the car hurling up clouds of dust on a left-hand bend on a building estate—which were to be a feature of many subsequent road-test reports.

The next car to come up for test was the "11.9" Bugatti four-seater—it would be a modified Brescia model. It actually inspired us to rhyme, as follows:—

"Johnny had a little Bug, it changed gear with a flick—
The guy that wants to catch that Bug has gotta be damn quick."

Be that as it may, the little car reached 52 m.p.h. in second, although that, and an ability to do 10 m.p.h. in top gear if need be, were the only figures quoted. Poor rear-seating, a badly-placed speedometer and lack of adequate weather-protection were offset by very playful acceleration and excellent stability, the "cornering study" on this occasion being, patently, the Brooklands' tunnel approach road.

In September of 1925 we published a lengthy report on the "30/98" Vauxhall touring car, although some considerable space was devoted to touring topics gleaned along the route used for the test, which comprised London to Tunbridge Wells on the Friday evening, a potter round Maidenhead on the Saturday, and excursion to a Brooklands meeting, and a longer run to Malvern and back on the Sunday. However, it is stated that the "30/98" did 40 m.p.h. in second and 60 m.p.h. in third, reaching 70 m.p.h. from a standstill in 26 seconds. As to gradients, it successfully negotiated a grass bank of 1 in 2, while Alms was an easy second gear climb. The steering and gear-change were considered a thought heavy, and the brakes a trifle slow in action, while, as seems fairly common at this period, the speedometer was badly-placed over on the near side of the instrument-panel, but, all in all, it is not surprising that MOTOR SPORT found the Vauxhall "... the closest approach to mechanical perfection in modern automobile design and construction as applied to sporting car practice." One photograph, in particular, is just typical "30/98."

An M.G. Super Sports followed, of the type proclaiming its direct Morris ancestry with bullnose radiator, although the 4-seater aluminium body possessed excellent lines, disc-wheels and flowing front wings helping considerably.

It was frankly admitted that, save for balancing and port polishing, the engine was standard Morris, with the three-speed gearbox giving ratios of 4.4, 7.6 and 14.3 to 1. Nevertheless, 55 m.p.h. was a happy cruising speed and the speedometer showed "65" without undue fuss being apparent. 0–50 m.p.h. took just over 24 seconds. A little-known hill, starting at 1 in 6 and steepening to 1 in 3 for some 80 yards, embracing on the way an awkward bend and a rough surface, was ascended in bottom at nearly 20 m.p.h. Reigate Hill was climbed with four up, at 38 m.p.h. in second gear. The four-wheel brakes worked well with just a trace of "Morris-squeak" and criticisms were confined to a side-brake lever rather close to the door, exhaust noisy and pipe rather close to the ground and rather heavy steering at low speeds. Incidentally, the car submitted for test had gained a "Gold" in the Land's End trial and had an S.U. in place of the normal Smith carburetter. The engine would pull down to 6 m.p.h. in top and the car's price was £375. Enthusiasts might still consider this engine when a biggish unit is wanted for a light "Special," for the M.G. weighed 18 cwt. 2 qrs. and went remarkably well.

Most interesting was the next car to be tested—a side-valve "20/70" sports Crossley. This is a rare model and we doubt if any still exist in this country, although one was mentioned not long ago in a letter from Australia. The engine was outwardly a very straightforward, single-carburetter unit of 90 by 150 mm. (3,706 c.c.), although actually it had tulip valves, carefully devised porting and a sports camshaft. The separate right-hand controlled gearbox had ratios of 3.33, 5.17, 7.93 and 12.5 to 1. This gearbox definitely wanted knowing, although

Continued on page 415

Club News

WE HEAR . . .

Johnnie Green, of the R.A.S.C., is now running the ex-Stuart-Wilton 3-litre Bentley and reports that he is very pleased with it; he would like details of the "19/100" Austro-Daimler, if anyone cares to oblige. The Bentley is a 1929 "Red Label" with "D"-type gearbox, and Hardy Spicer propeller-shaft, in magnificent order. A very keen reader who is in one of the Services, after a four-years' apprenticeship at Rolls-Royce, reports a Big Six or 8-litre Bentley coupe for sale at a yard near Rowlands Castle, Hants. It has apparently done only 57,000 miles and is very sound mechanically, tyres and body needing replacement. A 4-litre Ricardo-engined Bentley saloon was for sale in the same county recently. K. Kirton, the old-car enthusiast, is now a lieutenant in the Bomb Disposal section of the Royal Engineers. A reader with an army address reports that his somewhat tuned "J2" M.G. Midget does a timed 83 m.p.h., but rightly regards with contempt fantastic speed-claims for the marque. What few Mark V Bentleys there are, are all engaged on long-distance journeys in the national interest, which is invaluable development experience for the makers. Mr. Robotham has been heard to remark that he does not know what he would do, these hectic times, if such rapid transport were not available. Can anyone give Mr. Ashwood, Lea-Francis enthusiast, any information about a 1929 blown "Hyper" 2-seater, Reg. No. GU6958, engine No. 9348, chassis No. 14119? In the same vein, does anyone know of a Type 230 Mercedes engine or chassis that is for disposal? At the Chessington Rally we were asked the identity of a supercharged M.G. with cream body and a brief, fabric tail, once raced at Brooklands. The reader in question may be interested to know that this car is probably George Hartwell's Magnette, which began as a special E. R. Hall M.G. Kenneth Neve has acquired a 1914 T.T. Humber, which is in original racing trim, unlike the modified car once owned by Wallbank. It was discovered in South Wales and had been raced until 1924 at Caerphilly, Pendine and other venues by a Welshman, Sgonina, who seems to have ridden in Le Mans motor-cycle contests with the great Graham Walker. Details would be appreciated, if anyone is really well-versed in the marque. There is a beautiful 8-litre coupe de ville Bentley on A.F.S. duties in Salisbury. A reader reports seeing 4½-litre Lagonda "Rapide," 4½-litre 2-seater Bentley; O.M.-radiatored "Special"; a "Montlhery" M.G. Midget; a beautifully-kept 3-litre Bentley 4-seater; the Thrupp and Maberley S.S. saloon owned by the managing director of S.S. Cars Ltd.; and a pale and royal blue D.I.S.S. Delage fabric 4-seater, driven by a private, on the road last month.

Denyer recently bought another Lea-Francis, his sixth, we believe.

Leslie Johnson, now riding a solo B.M.W., is becoming interested in motor-cycle scrambles. Miss Brotchie is a very active member of H.M. Forces—transport section, as is Midge Wilby. Prescott has been satisfactorily let for the duration, with full authority to hold meetings there after the war, thus relieving the Council of the Bugatti Owners' Club of a great deal of worry. There is an "Alphonso" Hispano chassis, with spares, for sale in Herefordshire, and also a "10/23" Talbot 4-seater at £30. A "Grand Sports" Amilcar was for sale in London recently for £8 10s., with good oversize rear-tyres and Marchell headlamps, and generally in going order. News of yet another Gwynne Eight Special comes to hand. Roddy Seys's eldest brother used to own a special-bodied 2-seater with Rudge wheels, built-in panel by a cousin. It was rather like an early Brescia Bugatti and had an aero-screen and close-up wings. A standard Gwynne engine was put in and the car ran well until a rear-tyre burst and it overturned in a ditch at Sunningdale. The chassis then went to make up Seys's Lea-Francis Special, the engine drives a saw-bench, and the body became the shoe of the Old Lady in the Shoe, with covering of crepe paper, at a children's party! There was a "12/50" Lea-Francis 2-seater in a nice shade of blue for sale near Staines recently, the figure on the screen being £30. Lots more car-folk are riding motor-cycles; besides his 1928 o.h.c. T.T. Norton, Brymer has acquired a 1,000 c.c. "Square Four" Ariel, which he intends to ride solo. At a Hampshire breakers' has been found a Precision Junior of very early vintage in indifferent condition and minus magneto and belt, but with horizontal valves operated by most curious vertical levers from the crankcase and a two-speed gear controlled by a pair of pedals on a transverse rocking lever. When announcing Capt. Cowell's wedding we wrongly described him as owning the ex-Winterbottom Alta; actually, his Alta was, of course, once Wakefield's 1½-litre car. A Worcester reader, whose 1934 1½-litre, pre-selector Invicta saloon has been in every way a sound car, is disposing of it, as it is somewhat heavy on petrol. He is prepared to pay a good price for a well-kept 1,100 c.c. Alta, Frazer-Nash, Brooklands" Riley Nine, "Montlhery" M.G. Midget, "K"-type M.G. Magnette, 1½-litre Bugatti, or something similar, if anyone can help. We believe Mrs. Cowell is still seeking a good Frazer-Nash and someone else wants an early small car, such as an Eric Campbell or suchlike, in running order, as a war-hack. Rodney Clarke, invalided out of the R.A.F., and now flying for A.T.A., runs a Fiat 500 and has great plans for rebuilding his two Type 43 Bugattis and 4½-litre Bentley, after the war.

750 CLUB

The 750 Club held yet another highly successful gathering on July 6th, at the Ashdown Park Hotel, Coulsdon. Twenty-seven persons attended, including the Club captain, George Kipps, who made a tricky cross-country train journey to attend; Frost, with his blown "Ulster" Austin Seven; Capt. Moon's "Nippy" Austin Seven; Yates (Ford Eight saloon); Birkett's 1934 Austin Seven saloon with later 3-bearing engine; Childs's Austin Seven 2-seater; H. L. Biggs (Fiat 500); Mallock's Austin Seven Special; Gordon Woods, his well-known Frazer-Nash now fully run-in and motoring well; Gilbert's 1,100 c.c. H.R.G.; Lawrence, with a "P"-type M.G. Midget; Ashwood's Lea-Francis; Oram's Austin Seven "Nippy"; Capon's Riley "Kestrel" saloon; D. S. Jenkinson, and Butler, with an "M"-type M.G. Midget.

The Club again met in pleasant weather conditior s at the Ashdown Park Hotel, Coulsdon, on August 3rd. Amongst those present were Secretary Capon in his Riley "Kestrel," with Frost as passenger; Mr. and Mrs. Charles (Austin 2-seater); Mr. and Mrs. Ashwood in their "12/40" 4-seater Lea-Francis, now with "Hyper" rear-axle; 2nd Lieut. Mallock and Mrs. Mallock in a 4-speed Austin Special 2-seater; Hunter and his wife in a new A.E.W. Austin 2-seater; Lieut. Moon with his "Nippy" Austin Seven; Kipps and Mrs. Kipps, who arrived by train, as did McLean, over from New Zealand (his article appears in this issue) who was royally entertained by the Club; Butler, who came with Ashwood, but later motored in an "M"-type M.G. Midget; Lawrence ("P.A." M.G. Midget); L. M. Ballamy (Marshall-blown Ford Special); Birkett in his wife's special Austin Seven saloon; Gilbert (1,100 c.c. H.R.G.); Biggs and friend (Fiat 500); P. Ansty (unblown "Ulster" Austin Seven); a newcomer and lady friend in a "T.A." M.G. Midget; and Boddy with Jenkinson and blonde, in his Gwynne coupe. Capon provided tea at his flat, where some of the members' wives were awaiting their enthusiast-husbands, after which a club meeting was held to discuss future club policy. The next meeting will be at the same venue, after lunch, on September 7th.

THE CHESSINGTON RALLY

The Chessington Rally of the Vintage, Bugatti Owners' and E.R.A. Clubs on July 13th really was a remarkable success. There were eight famous cars on view, only the 328 B.M.W., Type 55 Bugatti and Lycett's 4½-litre Bentley being absent. These comprised the following:

S.S. Mercedes-Benz: Mr. Arbuthnot's "38/250" 4-seater, once owned and raced

CLUB NEWS—continued

by Sir Malcolm Campbell. Its speed was quoted as 120 m.p.h. and b.h.p. as 220. It was driven to the venue, in spite of a petrol leak which no one seemed able to quell.

1914 *G.P. Mercedes:* Peter Clark's very beautiful car, recently described in these pages, and seen by most people for the first time. She had been hastily finished in silver paint, following complete reconditioning, and presumably the next job will be to give her the authentic white finish. The four-cylinder 4½-litre engine has steel cylinders with welded-on water-jackets and an o.h. camshaft operating four valves per cylinder. The output is about 115 b.h.p., giving some 104 m.p.h. The gearbox has right-hand gate change and every detail of the car was worthy of prolonged study. Presumably Peter does not intend to run her on the road, as the huge asbestos-lagged exhaust system is straight through and no nonsense, although there is a silencer of sorts. New tyres have been fitted, very large section at the rear and smaller, straight-sided covers on the front wheels.

10-*litre V*-12 *Delage:* Sam Clutton's famous single-seater, originally built about 1923 for hill-climbs, at which it was invincible, and holder of the Land Speed Record in the hands of Rene Thomas in 1924, at 143.31 m.p.h. Afterwards it came to Brooklands and was driven by John Cobb, Oliver Bertram and Mrs. Petre. We cannot trace that it ever held the Lap Record, as claimed, but it certainly got round at over 130 m.p.h. and held the standing start lap and ladies' lap records. It is also a most potent sprint car. The V-12 engine has push-rod actuated o.h. valves, separate cylinders, and four downdraught carburetters. The body is a high, imposing single-seater and the Delage appeared with racing tyres on the front wheels, treaded tyres on the rear, and with its radiator uncowled.

4-*litre V*-12 *Sunbeam:* This is the car built in 1926 for the late Sir Henry Segrave to attack the Land Speed Record, which he did successfully at Southport at 152.33 m.p.h., also reaching 140 m.p.h. on the road at Boulogne. Two cars were actually built and were afterwards considerably modified for Sir Malcolm Campbell, who won the first Mountain Championship and set the Class C Mountain lap record at 76.31 m.p.h., a record still standing. K. Don took the Brooklands Lap Record with the car in its old form at 137.58 m.p.h. The engine has twin o.h. camshafts for each bank of cylinders and is supercharged with twin, ribbed Roots blowers driven from the nose of the crankshaft. The gearbox is E.N.V. pre-selective and the brakes Lockheed, and the I-section front-axle passes above the flat-set ½-elliptic springs, in spite of which the chassis is very low. This is a splendid example of advanced construction British racing car.

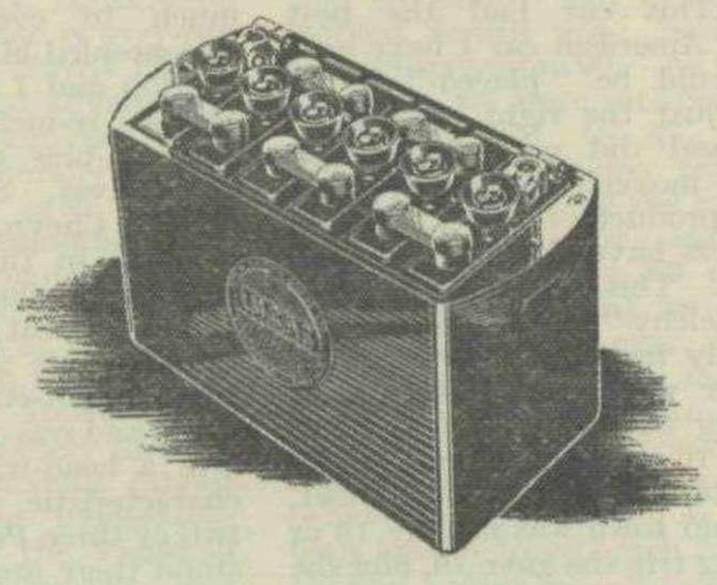
Le Mans Lagonda: This was one of the two Lagondas which ran so splendidly, nobly to uphold British prestige, at Le Mans in 1929, finishing second and third. Subsequently, both lapped Brooklands at over 130 m.p.h. The wide-angle V-12 4½-litre engine has four downdraught S.U. carburetters and a chain-driven o.h. camshaft for each bank of cylinders, and gives over 220 b.h.p. at 5,500 r.p.m. The oil-pressure gauge reads to 100 lb./sq. in. Front suspension is independent and the bodywork just as streamlined as the Le Mans regulations permitted. It was driven to the venue.

4½-*litre Darracq:* Monkhouse's famous sports model, which has performed outstandingly in many events, including Brooklands lappery at 124 m.p.h. The six-cylinder engine has three downdraught carburetters and valve-actuation is by push-rods and rockers. One of the fastest road-cars in the world, typically French.

5-*litre Ballot:* Heal's magnificently reconditioned 1919 car, built in 101 days for Indianapolis, as described recently in MOTOR SPORT. Designed by Mons. Henri, the straight-eight, twin o.h.c., twin-carburetter engine set a fashion in racing-design for many years. Howey and Cook raced them at Brooklands, lapping at over 120 m.p.h. Heal's car has done nearly 110 m.p.h. on the road and has cable-operated brakes and ½-elliptic suspension.

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CARS I HAVE OWNED

[This contribution is especially interesting, being written by a young New Zealand reader, D. B. McLean, while he was on a ship bound for this country to serve with the R.A.F. In thanking him, we would also extend to him a warm welcome, in which readers will join. Incidentally, the Perry was the forerunner of the Bean, and Capt. Douglas once drove one.—Ed.]

MY first motoring experiences began in 1930, when my father purchased one of those old favourites, a Morris Cowley. It had all the usual characteristics, mostly good, but a few bad, so that there is no need to dwell on its history here. It was, however, unique in having a New Zealand four-window saloon body, equipped with a front seat, the back of which could be lowered to form a bed, and I particularly remember, on one of our many camping trips, inelegantly poking my rear-end through the glass of the dome-light when turning the back squab round in the process of making the bed. Just recently this car was for sale in Wanganui, my home-town, having passed through the hands of two other owners, and, in order to revive old memories, I went for a drive in it and found it to be in very good condition ; albeit the dome-light still lacked a glass. . . .

In 1934 we moved from Central Hawke's Bay, where we had been living, into the more difficult and hillier country of Wairoa, and my father, deciding on a more powerful car, acquired a second-hand 1929 Studebaker, which is remembered with great affection by all who had anything to do with it. It was a "six," of about 27 h.p., I think, and was marketed in New Zealand under the model-name of "Director," although in the United States it was one of the first of the long line of "Dictators." This car had the best steering of any American car I have ever driven, and could be "placed" to an inch. It had just the right amount of castor-action and did not require the traction-engine movements usually associated with a product of the U.S.A.—in fact, Studebakers have always been good in this respect. This was indeed a fine car, not "squelchy" in the springing, although slightly inclined to pitch when the rear carrier was heavily loaded, as with a camping outfit. She had a top speed of about 70 and would cruise at 50 all day, despite her weight of 34 cwt. Her m.p.g. round town was usually 16 or 17, but on a long trip she gave 19, and she was blessed with a beautiful gearbox, unfortunately only three-speed. The only trouble we ever experienced on the road was a broken rear-spring, which showed up on a lonely country road one Sunday.

In 1938, after we had returned to Wanganui to live, this car was traded-in for a 1936 Studebaker — another "Dictator," which is still the family hack. Extremely quiet, flexible, and with quite pleasant (although a trifle low-geared) steering, it is a most suitable car for all-round work. It has a distinctive, though not flashy, appearance, being produced before the transatlantic manufacturers really developed the "sheet-metal craze." Its weight is 31 cwt. approximately, it does a sure 20 m.p.g., has a top speed over the 80 m.p.h. mark, and really good Lockheed hydraulic brakes—and the car does not "dive" when they are applied, an annoying habit of so many American suspensions. The front suspension is similar in design to that of the Humber and Talbot and is most satisfactory, although when we first purchased the car we found that one of the arms had taken a smack at some time and was rather out of alignment. We had this straightened and had no more uneven tyre-wear ; it had never been noticeable on the steering, however. This is definitely the best family car we have had and I have spent many happy hours at its wheel. I should like to endorse the statement in your road-test of the Lagonda V-12 (what a wonderful car that must be !) that there is very little wind-noise in a Studebaker.

Turning now to my personal cars, I must admit that there have been only two cars and one motor-cycle, but plead extreme youth as the excuse. However, the cars may be of interest, as, although they were both British productions and definitely vintage, I have never seen either mentioned in your admirable journal. This may be because they were regarded as such poor specimens !

The first was a Perry, Engine No. 978, Chassis No. 1049, purchased, complete with a fine Bosch magneto, and minus differential, for £3—New Zealand prices are high, it must be remembered ! That was in January 1937 and I put in eleven months' work on this old motor much to everyone's amazement and unconcealed hilarity. My friend Norman Carlton and I completely overhauled the engine, re-metalling big-ends, renewing gudgeon-pins and retiming the ignition and valves. Some previous owner had fitted a Chevrolet "4" gearbox, and the bearings in this had to be renewed, as well as the pilot-bearing in the large cone-clutch. Great pains were also taken with the rear-axle assembly, but the noise of the straight-cut gears was never eliminated and was only inaudible when driving into a head-wind. This was, I believe, characteristic, although I have only seen two or three Perrys in my life and understand there are less than a dozen in New Zealand, which is second only to the U.S.A. and the Jersey Islands in its density-of-cars-to-population figure. There are, however, several Beans, though I have never seen a Hadfield Bean. The age of my Perry was a conundrum. Some said 1912, but my own guess was somewhere about 1916. I should be glad of any opinions from English enthusiasts on this point, and on the history of the Perry car generally. It was a four-cylinder model, and, by my rough calculations, probably 11.9 h.p. The steering-wheel was dropped a full 13 in., a handsome new aluminium dash mounted some 9 in. behind the old one, a ring-gear fitted on the open fly-wheel and a Rover Nine starter motor mounted on the chassis, and the rear of the frame considerably weighted down to improve the cornering, and the Perry "Special" was ready for the road. It had a rakish appearance, with its barrel-shaped, long-snouted two-seater body, heightened by the absence of valances and running-boards (which I had removed), which exposed to view the brake-rods, propeller-shaft, and spinning flywheel and clutch-cone, its outside exhaust-pipe (swept out to provide room for the starter motor) and the fold-flat screen above the scuttle, which I had lengthened and swept upwards. After the usual teething troubles common to "rebuilds," the Perry went surprisingly well. We fitted it with a larger variable-jet carburetter, in place of the small Zenith, and this improved both speed and economy. Under favourable conditions the needle of the propeller-shaft-driven Watford speedometer was occasionally persuaded past the 55 m.p.h. mark, but 50 was the normal maximum. I have often regretted since that we never experimented with a four-speed gearbox.

The engine never used oil in any quantity, although the rings we found in her at purchase were put back "as-is." Her consumption was about 26 m.p.g., falling to 29 on a run, and her handling on a twisty road was sheer delight, as she was blessed with a comparatively short wheel-base and almost direct steering. The Paihiatua Track, one of New Zealand's rather notorious "crook" roads, was one of our happy hunting-grounds, being just a nice morning's run from home at our cruising speed of 35/40 m.p.h., and I think it was this constant hammering on bad and indifferent roads (for we always had a wandering inclination and were seldom on the tar) which was responsible for the Perry's rather unhappy finale, which occurred during the Labour Day week-end, October, 1939. She had been running well for months, so I decided on a week-end trip. We loaded all our camp-gear and our three selves into the old car, and set off with a will up the notorious and mostly one-way metalled River Road from Wanganui to Raetihi, via Pipiriki. This road follows the left bank of the famous Wanganui river, and is, from a scenic point of view, hard to beat. However, from the point of view of driving a heavily-laden veteran light car, *circa* 1916, that had already seen much hard service on many of the worst New Zealand roads (probably for tens of thousands of miles before I met it) I realise now, in the sober and revealing light of experience, that it was a trifle hard. But youth is one big adventure—and so was that trip. We left the smiling city of Wanganui (with a broken driving-mirror, which we tried hard to believe was not a bad omen) at half-past three on the Friday afternoon, in perfect sunshine, and at half-past four were improvising a shim for a back hub from a Craven "A" tin, some twelve miles away. Having cured this trouble and declared ourselves even with the driving-mirror, we climbed aboard with a great sense of achievement. Suddenly it seemed as if all the riveters in Hades had gone to work in our clutch,

CARS I HAVE OWNED—continued

The trouble proved to be in the flexible coupling between the heavy cone of the clutch and the gearbox, one of the four bolts tethering the packing having snapped. This entailed unloading part of the car, pulling up the assorted floorboards, dropping the propeller-shaft at the front universal, removing the gearbox, the starter motor and the headlight dip-switch, taking out the six bolts which attached the heavy (very !) outer cone of the clutch to the flywheel, and so removing the " soup-plate " and its (strong) spring, also the broken bolt inside same. This, was replaced by a bolt and nut from the left-hand headlamp bracket, and the whole box was then replaced, the time now being about 11 p.m. on a moonless and extremely wet night. These Herculean struggles had been carried on by the light of the dash-lamp in steady rain, in a gateway off the road, and eternal thanks are due to the roadman who appeared and presented us with a fine hot meal and a wash. He and his good wife deserve gold medals for their work that night. However, we decided not to stay the night, but rather to say good-bye to bad luck and journey on, comforting ourselves with the thought that the pioneers must have gone through worse. " Anyway, we've still got lights," we said. And then, exhausted by the long vigil of the dash-lamp, and never really virile since the addition to the car of the electric starter, the battery gradually let the headlights die. In desperation we took the dangerous bends of the River Road in staggering half-guessed turns and darkness broken only by the sidelights, and occasionally, after a long pull in second gear, the bright glare of the headlights again. But soon even the sidelights grew dim and one member of the crew sat with a sock over his hand to keep the cold out, a torch thrust into the murkiness ahead. And so we struggled on, sliding precipitously down unsuspected sloping turns and jolting occasionally over extra large deposits of metal, always with that torch " like a good deed in a naughty world."

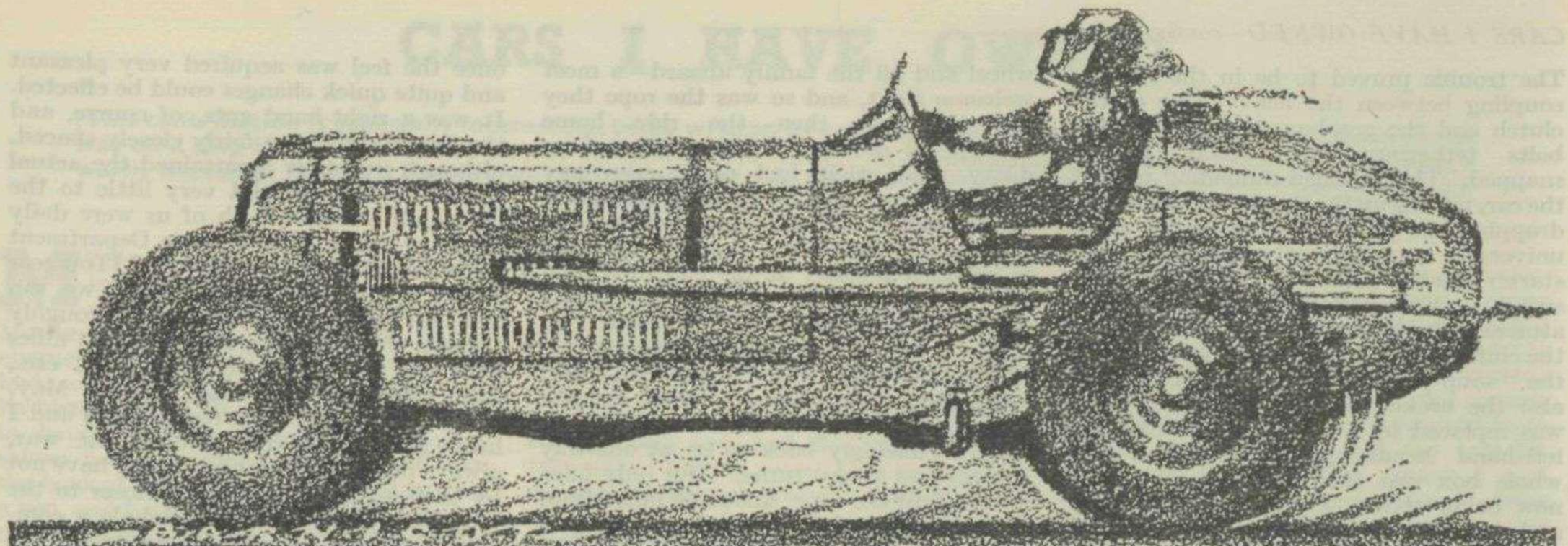
But even enthusiasm has its bounds, and at two o'clock in the morning, being total strangers to the road ahead, from Pipiriki to Raetihi, we pulled in and slept. Dawn next day found us driving on through Raetihi and on the good metalled main road, bound for National Park and, we hoped, the famous Lake Taupo. We were enjoying life, drinking in the morning sun and happily munching biscuits, when a sudden clatter proclaimed the final protestations of a front spring. However, having come thus far we were not to be deterred by a broken spring, and the old out-back expedient of fencing-wire and a block of 3 in. by 2 in. were resorted to.

And so all went well until, the worst of the journey done, we had the misfortune to run a big-end at National Park. On investigating the possibilities of running for home " on three," we found water in the sump. . . . I telephoned home to Wanganui, while the others pitched camp. Norman was still in Wellington, but due back that night, and early the next morning we were awakened in our tent by the wind-tones of the family Studebaker with Norman at the wheel and all the family aboard—a most welcome sight, and so was the rope they brought. And then the ride home started, 81 miles of it, 60 of them over dusty roads that had never seen any vestige of tar, and 56 of them down the once-dreaded and still quite twisty Para Para road. And dust !—imagine 81 miles in an open 2-seater at the end of a tow-rope attached to a wide American sedan with 6 in. by 16 in. tyres. Added to this there was the ever-present danger of fouling the rope, the Perry's two-wheel brakes merely sliding locked wheels while the glaring Studebaker stoplight came menacingly back to us at one-way bridges and tricky turns. But only once did we foul the rope, about 50 miles from home. This led to the Perry doing a series of gigantic skids in typical " doodle-bug " manner, on the brink of a 200-ft. drop. It also meant that I steered the rest of the way home with only half the usual left lock, due to a bent tie-rod, but it was fun while it lasted. Norman and I have often looked back on that tow as one of our best adventures, but at the time I was full of sorrow at the Perry's downfall. However, I loved her yet, and while I was considering the rebuilding of the veteran and was indeed working on the engine, Norman and I had to make a trip to Wellington relevant to our Air Force applications, and we duly went in his Essex. The trip to Wellington, New Zealand's capital city, was a favourite one with us, not merely because of the 126 miles of beautiful straight and tar-sealed road, but mainly because of the chance of meeting up with real live sports cars and their owners, of whom Wellington boasts quite a fair number, considering that New Zealand as a whole is over-run with American sedans and Morris Eights (each of which have decided advantages, certainly, but are far from the real thing) and cars are looked on generally as just transportation. However, each of the big cities has its little community of enthusiasts. We usually made this trip in the Essex, as we had converted her to a " sleeper," but the streets of Wellington were by no means unknown to either the Studebaker or the Perry. However, on this particular trip, I completely lost my heart to a " 14/40 " Vauxhall (about 1926/27) which was quite moderately priced. So the Essex and the Vauxhall came home in line-ahead formation, and the Perry was scrapped, its parts bringing about £10 into the depleted coffers.

This Vauxhall has been my pride and joy ever since, and although by no means hot in its performance, is a delightful car to handle, particularly in the way it answers the helm. We had some trouble at first with the aluminium cylinder-head, which we discovered was distorted and was blowing its gasket round the water-passages, but we put in careful hours on it with a file and a sheet of glass. The only other trouble experienced, although the car was driven really hard, was a binding brake-shoe, due to the adjustments being rather overdone, re-lining being really required, and the equalising system—which was later found to work well with all the shoes in reasonable condition—being thus unable to rectify matters. The gear-box we found very tricky to master, but once the feel was acquired very pleasant and quite quick changes could be effected. It was a right-hand gate, of course, and the four speeds were fairly closely spaced, although we never ascertained the actual ratios—in fact, we did very little to the car at all, because both of us were daily awaiting notice from the Air Department to enable us to join in the war. [Top gear was 4.5 to 1.—Ed.] However, we ran this car enough to become thoroughly trustful of it (actually, I ran up 2,041 miles with the help of pooled resources, etc., from 1st December, 1940, to 15th May, 1941, despite war-time restrictions) and I have great plans for it after the war, always provided, of course, that I have not by then acquired something closer to the " real thing." The plans include a complete overhaul of all chassis parts, the repainting of the fine aluminium body, and perhaps the fitting of a larger engine. She has quite a nice appearance, especially with the hood removed and the tonneau-cover in place. The manufacture of the latter from canvas previously used in upholstering the Perry almost wrecked the family sewing-machine. The engine is, of course, the normal side-valve unit and has some timing-gear noise which I have no doubt will not be hard to cure. The engine number is LM3521 and the chassis number K3542. I always imagined she was a trifle overshod, being on 5.25 in. by 21 in. R.L.P. covers, and I intend, as opportunity offers, to replace these with 4.50 in. by 21 in. tyres. We experimented somewhat with jet sizes, mostly with an eye to economy (of paramount importance these days, of course) and I think, from memory, the combination we finally had in the rather overworked Zenith was : main 80, idler 65, and compensator 90. As this gave about 25 m.p.g. we were satisfied, although the speed dropped to 47, sometimes in favourable conditions topping 50. We found that for speed the compensator was the deciding factor, and with a 110 compensator and a 90 main (speaking from memory again) we attained about 38 m.p.h. on third gear, and close on 60 in top, but only 18-20 m.p.g. I think an ideal compensator would be 120, but I imagine some interesting experiments could be made with choke-tube sizes. I believe that this model in good order has been known to go much faster than mine did and I shall see what can be done after the war. Any ideas from experienced readers about the care, tuning, specification and age of the " 14/40 " Vauxhall would be greatly appreciated. She is at present carefully chocked-up under a dust-sheet in a shed at home.

Before closing, I should like to mention one or two cars which were not my own, but in which I passed many happy hours, and among these pride of place must be accorded my friend Norman's Essex tourer. This is, like my Vauxhall, at present stored awaiting the return of happier days, its owner now being a flight-mechanic with the Royal New Zealand Air Force. This car, famous for its white-spoked wooden wheels and dark blue body lined in white (quite striking), is one of that first series of light " sixes " made by the Hudson Co. after production

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RUMBLINGS

A New Racing Class ?

CLASS I—cars up to 500 c.c.—has formerly existed only in the sphere of record-breaking. Kenneth Neve visualises its introduction in sprint events and possibly in racing, after the war. We have to confess that we are distinctly intrigued by the idea. Our opinions on cycle-car type 500 c.c. road four-wheelers were given in a footnote to Lowrey's letter in the July issue, and because we think the really small-engined road car should be on three wheels, it would be nice to contemplate a sprint class for 500 c.c. tricycles and four-wheelers combined. However, that seems unlikely to happen, so let us confine our remarks to four-wheelers only. In the first place, let us emphasise here and now that we can see little hope of Class I, assuming it ever becomes a reality, remaining the unmolested playground of the impecunious amateur for more than one or two seasons. New fields of endeavour soon attract the specialist with ways and means to realise his ideals, and by spending sufficient money 500 c.c. sprint cars of real potency, with a maximum of better than 90 m.p.h., will be possible. We should expect that money to be spent. And when it is, the amateur-builder of Class I " Specials " will no longer be able to absorb the limelight. However, Neve makes a big point when he outlines the comparative inexpensiveness of the 500 c.c. class car, and this should ensure sufficient entries to keep up the competitive element, even if a few trade, semi-trade and rich-amateur entrants invariably scoop " fastest time." We have always deplored racing which is both feeble and lacking in the tradition that " racing of to-day is to-morrow's touring car designers' homework." If Class I racing merely constitutes a sort of American midget or British C.A.P.A. circus transplanted to such classic venues as Lewes, Brighton, Shelsley Walsh and Prescott, better that it never comes into being. It can be argued that larger-engined " Shelsley Specials " do not line-up with these ideals, but at least they have sufficient performance to require extreme skill in handling at speeds that would be dangerous in ordinary hands, they equal and sometimes beat racing cars possessing many more cylinders, quite different transmission, and things called blowers under metal covers known as bonnets. Moreover, they do this without costing quite what an E.R.A. would absorb. So, even if far removed from the modern conception of a utility car, the " Shelsley Special," as we have known it up to now, is a real racing job, has a dignity of its own in consequence, and a fascination which in the opinion of the John Bolsters, Rupert Instones and E. J. Moors of this world makes it worth while spending considerable sums of money on its development. Neve is rather unjust, we feel, in suggesting that but for the war the " special " would have died a natural death on account of the superior performance of conventional racing machinery. In any case, there is always the " Shelsley Special " Shelsley Walsh Cup to contest. So far as Class I is concerned, doubtless the potency of existing 1,100 c.c. " twins " could almost be equalled by ultra-light dirt-track-engined cars or by multi-cylinder, supercharged ½-litre cars carrying on from where Austin and M.G. (using ¾ of a litre) left off. Such cars are not for the amateur, and before we advocate the universal introduction of a Class I category it must be considered of what quality the bulk of the entry is likely to be. The " Shelsley Special " Cup and the Veteran's Class were instituted because entries do not show up poorly in relation to those in normal racing and sports car categories. Organisers are unlikely to encourage 500 c.c. cars if they perform indifferently and represent both a poor spectacle and second-rate engineering, especially as big entries would be likely. If it can be ensured that even quite inexpensive examples can be endowed with reasonable potency, and if it can be proved that half-a-litre can go very nicely on the road in the ordinary way (albeit always at a disadvantage in cycle-car form to the three-wheeler for reasons we have given before), then we are all for universal inclusion of this new class in sprint events ; and we think Mr. Leslie Wilson might not look unkindly on the idea. It is even possible to visualise, especially if good road-performance 500 c.c. cars come amongst us, these vehicles (fostered by

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CLUB NEWS—continued from page 405

2-litre Aston-Martin: The experimental streamlined saloon produced by Aston-Martin Ltd., in spite of other pressing activities. The 2-litre engine, with twin Zenith carburetters, is retained, driving through a plate clutch to a Cotal electromagnetic epicyclic gearbox. Combined body and chassis is an outstanding technical feature and there is independent front suspension of the Armstrong coil-spring variety. The body is streamlined on modern rather than "futuristic" lines and the maximum speed is estimated as around 95 m.p.h., with excellent fuel consumption.

The rally attracted over 160 people, amongst whom were numbered H. Ashwood, Arbuthnot, H. L. Biggs, A. Brooke, J. Baldock, W. Belton, John Bolster, J. Brockmann, L. M. Ballamy, A. W. Butler, W. Boddy, Cecil Clutton, Peter Clark, W. H. C. Cook, R. Clarke, C. Campbell, S. H. Capon, Dawkins, J. E. Davies, L. H. C. Davenport, C. Dunn, I. Eastgate, Frost, J. F. Fall, Eric Giles and Mrs. Giles, D. Greig, Gibbons, J. G. Gilbert, E. R. Greig, J. P. Grosscurth, Anthony Heal and Mrs. Heal, F. W. Hutton-Stott, C. W. P. Hampton, Harold Hastings, B. Hindes, Leslie Johnson and Mrs. Johnson, J. B. Jesty, L. Klemantaski, A. Ley, J. C. Lawrence, J. Lowrey, Lacey, H. S. Linfield, George Monkhouse, Michael May, T. McCann, L. C. McKenzie, J. S. Moon, M. R. Mallock, F. Mertens, Walter Norton, John Ogle, Laurence Pomeroy and Mrs. Pomeroy, C. H. Pringle, Mrs. Pyrcroft, G. D. Pibel, N. M. Riddle, A. Rivers-Fletcher, R. Gordon Sutherland, Georges Roesch, Short, Sedgwick, J. M. Smith, R. Steele, F. E. Salbreux, B. Scott-Moncrieff, J. Smythe, B. Salmon, Douglas Tubbs, M. Thursby-Pelham, Peter Vaughan, Eric Vereker, Gordon Wilkins, Martin Wells, Gordon Woods and his brother, J. T. Woolsey, J. A. Wells, C. A. Ward, and C. Y. Yates. After tea George Monkhouse gave his famous film-show and supper followed, the party finally breaking-up after 10 p.m. There is rumour of a repeat gathering later and we sincerely hope it comes to fruition. The war effort is materially furthered by breaks of this order, of that we are certain.

GENERAL NOTES

With the prospect of reduced fuel later on, motoring somehow has a background of depression these days, albeit one carries on and contrives to enjoy every mile. For our part, there was the great run to Scotland from south-west of London in the "Airflow" Chrysler, and over from there to the east coast, a journey all the more pleasing as it was unexpected and, being on official duties, aroused no pangs of conscience over the quantity of fuel used. How fantastic it seemed to get right up north again, on a sunlit, perfect evening. That was Scotland seen at its very finest, dusk closing in as the speedometer trip unfolded magically from the 300th to the 400th mile! There returned that sense of deep satisfaction arising from hurried meals amongst the lorry folk, before climbing into the car and restowing the gear, with the thought that it was again evening and with 200 miles or so yet to do. That is motoring-as we used to know it and unlikely to be experienced again for many a long day. Meanwhile, one's thoughts turn to reliable economy cars and an escape from war-toil for a few brief hours amongst the beauty of the home countryside, the ability of the car to transport one to fresh scenes and new cafes and hotels on a few gallons of "basic," offsetting dismal knowledge of how exorbitant is the cost of every precious mile. A very skeleton Austin Seven has towed a 1913 Humberette from town to a nearby garage in the heat of the July sun, thereafter making haste homewards, tiny globules of oil coming back round the "bulkhead," that the writer could return in great form and greater dignity in his special Gwynne Eight coupe, having gone up in it that same morning immediately after finishing a fire-watch. The Gwynne also provided a good run to the eminently satisfactory Chessington Rally, although one lost count of quite how many times the h.t. arrangements had to be dried out after negotiation of flooded roads during the morning's thunderstorms. The Mercedes badge did vanish from the radiator, it is true, but it came back later by parcel-post as yet another jest of a memorable day. Folk are apt to burst into uncontrolled laughter at the sight of the Gwynne, but then, in our opinion, their bird-cage fronts are every bit as funny as our rear view. . . . As a break—what a break!—there was a short run in the V-12 Lagonda demonstration car, not very far from home on account of fuel-saving, but producing 90 m.p.h. on the "clock" once again, and a wealth of technical interest; the sixty miles to the works and back in an "1,100" H.R.G., too, was an experience of the sort one would not miss for anything. . . .

Then, one wet evening, four persons went through some very nice scenery in what seemed to the rear seat occupants a highly unstable three-wheeler, a Bugatti in a barn being the objective. After various adventures the car was located and turned out to be none other than the long-chassis, modified Brescia which B. H. Austin once drove so successfully prior to 1924. The faired front axle, racing tyres, undershield so carefully cowling the engine, and the special aluminium body brought back memories of those early days, and Mr. Austin's son kindly produced a scrapbook of Press cuttings from the motor journals of the early twenties that made such hazy memories really vivid. Brescia Bugatti, G.N., side-valve Aston-Martin, A.C., Wolseley "Moth," Carden, Gwynne . . . they were all there, and many more besides. There was a letter from the great Ettore himself and the rules, in French, of a fantastic club called "La Corrida," which explained the wording on the Bugatti's pear-shaped radiator. We left the barn where this once-famous racing light car keeps company with an early Hudson sedan and some traps and motored thoughtfully and respectfully on our way. . . . Had we only been born a little earlier. Ah, well!

CORRECTIONS

In deleting a reference to the *unblown* G.P. Sunbeam of 1923 one sentence remained behind in "Rumblings" last month, which suggested that we thought the *supercharged* 1924 car won the French G.P. Actually, we have always known that it was the 1923 car which did so. The old Sunbeam owned by Myles Rothwell, in which a "20/25" Rolls Royce engine was installed, seems to *have been broken up, incidentally.* Was this a 1921 straight-eight chassis? Yes, we certainly *did* drop a big one over that Indianapolis-start picture!

EXTRACTS

From an American motor-racing paper: "The snow lining the edge of the track looked like a huge diamond bracelet, all studded with chrome-plated hub caps from every make of car ever dreamed of." And another: "The recent appearance of new racing cars . . . has caused a wave of uneasiness amongst the doodlebuggers . . ." We have never dared to be as rude to dirt-track aces as that!

RUMBLINGS—continued from page 408

enthusiasts) interesting manufacturers, when four-cylinder, conventional transmission 6-h.p. models would emerge, to be publicised and developed, one would hope, by the extension of Class I to races of Le Mans and T.T. calibre, or even by a 200-mile Class I race on its own, put over, obviously, by the Junior Car Club. That, however, is outside the province of the present discussion. If we agree that the prospect of building and functioning Class I sprint cars is interesting technically, and because the comparative low cost should keep competition healthy even when specialised cars are taking all the plums—if we agree on that score, it merely remains to be seen whether 500 c.c. "specials" can be made sufficiently potent to lift them out of the cinder-shifting-midget or C.A.P.A.-fun-car category, and so make them worthy of the attention of enthusiasts and organisers alike. Perhaps readers may care to submit possible designs and say what performance they would expect from them, which should prove a most interesting technical study. Should sufficient material come to hand, we will review the Class I outlook again in a single article, for consumption when the evenings draw in and there is even less petrol about than is the case now.

CARS I HAVE OWNED—continued from page 407

of the famous Essex "Four" ceased about 1923, and is, of course, a two-wheel brake job. This model was looked upon all over New Zealand as a proper rattlebox, and in the United States as a "gutless wonder," but we found that, given proper attention and a strict watch kept on the big-ends, it was really quite a good car, and we travelled some 20,000 miles with no holdups at all. The secret, as I say, was regular attention to details, and the least squeak was soon accounted for. The performance was quite fair, though it would have benefited from a four-speed box. The R.A.C. rating was just 16 h.p., this being the smaller Essex engine, later models being stepped up to 18 h.p. We always had dreams of having this engine rebored, as the aluminium pistons suffered from rather excessive slap. Oil-consumption was extraordinarily light and, in Norman's hands, the car almost always returned about 29 m.p.g. on a long run, never dropped below 25 to my memory, and on favourable occasions was known to exceed 30 m.p.g. Our cruising-speed was usually between 40 and 45 m.p.h. (although when the spirit of the chase was upon us, as on Motor-Cycle Club runs, we were often over the 50 mark) and the maximum was a genuine 60. Altogether a much more interesting car than at first sight it appeared.

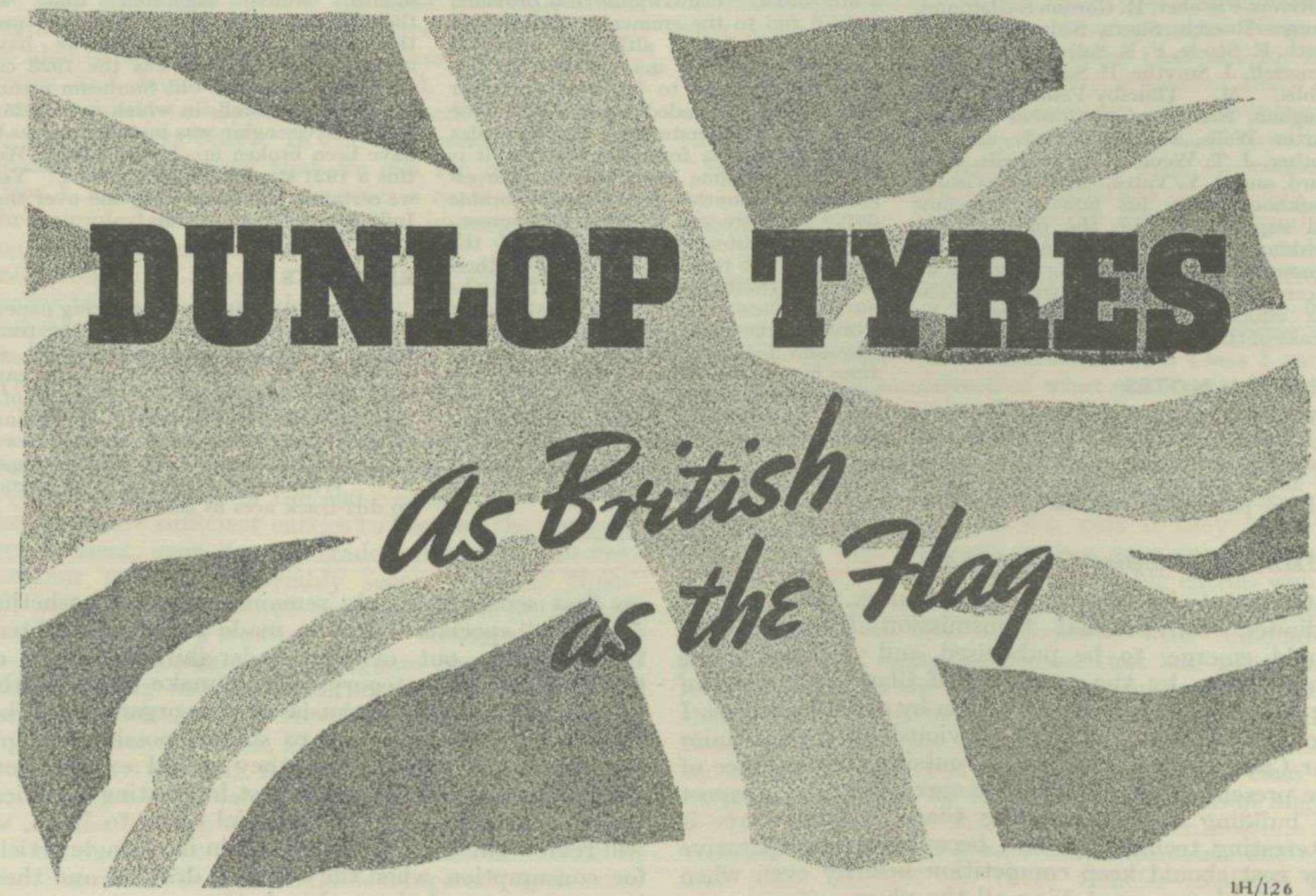
I shall not bore you with accounts of an elderly Austin "Twelve" in constant use on a bush track, a bedraggled but surprisingly fast Jowett, two most exhilarating Morgans, the rollicking times spent with a happy-go-lucky cobber and his two lorries—a Chevrolet 3-tonner and an ancient Morris, or the divers Austin Sevens and Morris Eights that, at various times, came into our lives; but I *must* say a word or two about "our" M.G.

This was a car we took pity on when its owner was called away from home for some time, and as we have been M.G. enthusiasts for many years, we were extremely glad of the opportunity of looking after one, although it was in pretty terrible condition, the brakes and tyres being badly "shot." However, it was an M.G. . . . It was an "F"-type Magna, suffering from all the defects described by Mr. Peter Clark in his "Cars I Have Owned" article some time back, and yet remaining, as he said, "a jolly fine car." We found the gearchange a joy and loved the quick response from the motor. I might also endorse Mr. Clark's remarks about the firm. Mr. Kimber sent us everything we could wish for, from valve-timing charts to booklets dealing with the S.U. Petrolift, and valve-end caps. Unfortunately, the car was not with us long enough for much to be done to it, but all praise be to the M.G. Car Co., who have always treated us royally, not only in connection with this car, but just as enthusiasts ever since 1933.

Another friend of mine drove one of those much-maligned cars, a "Eustace Watkins" Wolseley Hornet Special. This particular car was in black, with cycle-type wings and red wheels. I do not know its maximum, but should guess about 80.

We are also lucky enough to be friendly with the owner of the only 4½-litre low-chassis Invicta in New Zealand. He is a fine sportsman and a real gentleman, highly respected in motoring and motor-cycling circles in Wanganui and, in fact, all over New Zealand, and before acquiring the Invicta, was renowned for his "Red Label" Le Mans Bentley, which must have been easily the best-kept Bentley in New Zealand. The present owner of this car is carrying on the tradition and it is a picture that would please the most rabid enthusiast, being in "the green" with the approved red trimmings and no "ornaments" in the way of badges, etc., which, to my mind, so often spoil a good car. It was the greatest day of my life when I was permitted to drive the "Red Label" a short distance. Returning to the Invicta—this is in black and is being looked after with the same meticulous care that was lavished on the Bentley. I have enjoyed some long and really fast runs in this car, in the company of real enthusiasts.

I could go on for hours describing the motoring of enthusiasts in New Zealand, but I am afraid that many of the cars we took such a great interest in, and went to such great pains to track down, would be tame to you lucky people in England. But, believe me, there are some "dinkum" enthusiasts in New Zealand and nowhere is MOTOR SPORT read with more relish. And so we say "thank you," and "Carry on, MOTOR SPORT!" [Thank *you*!—Ed.]



Letters from Readers

Sir,

In 1931 I did the usual thing by buying my first motor-cycle, a Norton, which did 99.5 m.p.h. on a wet road. I rode the Norton for 15 months without a licence, as the age in Victoria is 18 ; I got my licence on my 18th birthday. As time went on the bike got faster and faster ; when the compression ratio got up to 11 to 1 something happened to the works, and while towing it home what was left of the engine fell out of the frame. I had to buy a new engine to get it together again—it taught me a lesson in many ways.

In 1933 I bought a G.P. Salmson that had just been imported from England. In the two years I had the car I never had a moment's trouble in 30,000 miles, and the car was one of the fastest in its class in Victoria.

Then I bought a 3-carburetter Wolseley Special, a 1934 model, and it really was "Special." As far as I know it still holds the ¼-mile record for its class at 104 m.p.h. and the standing ¼ in 18.2 secs. The first race I entered it for was the Centenary Road Race at Victor Harbour in South Australia. I finished fourth after leading by ½ mile in the last lap till the distributor gave trouble. It was a handicap race, like all Australian races, and I had a very good start, but the car had a bad reputation for handling, which I found was quite true ; at least it taught me something about driving.

At the end of two years the car had been in nine races and plenty of hill climbs and trials, so was getting a little worn out when I saw the 5-litre Ballot, sister-car to Anthony Heal's, so I bought it ; it did not take me long to find out that it was not buying the car that was the expense ; it was making it go properly. Before I finished I found I could not look at the car unless it cost me £5 or so. It took two months' hard work before it was in its original condition. During this time I had a 1926 Morris with which I won a 12-hour trial—a good motor car. I then traded in the Wolseley on a Black Hawk Stutz Roadster ; this, unlike the usual Black Hawk, had a side-valve 8-cylinder engine ; it had a beautiful aluminium body with cut-down doors. I was still finding out what some of the gadgets were when I sold it. I bought the Stutz to tow the Ballot with and it did a marvellous job. The first time I really tried the Ballot out it did 110 by the rev. counter. It really was going.

While racing at Lobethal the engine fell apart in a big way, but I will never forget lapping the circuit at 88 m.p.h. with a top speed of 126. I towed the Ballot over to Adelaide and back in a day each way (500 miles) ; the Stutz was never the same car after that.

After looking at the remains of the Ballot I decided the cheapest thing to do is what everyone does out here, instal a Yankee motor. I was offered a super-tuned V8 Ford engine and bought it thinking the worst was over, but after altering the body and chassis, brakes, fitting two radiators and new wheels, I think the motor was the cheapest part ; the finished car weighed 18 cwt. and has won a trophy in every event it has ever started in. In the last article I wrote the Editor remarked that 108 m.p.h. was fast for a V8 engine ; the car has since done 114 m.p.h.

While I was building the "Special," which I still call the Ballot, I had quite a number of small English cars, but gave them up in favour of an Oldsmobile Roadster, but I will buy the first good Bentley that comes along.

I am, Yours etc.,
JAMES GULLAN.

Victoria,
Australia.

* * *

Sir,

I was very interested in Mr. W. F. S. Wike's outburst directed against me in your March issue.

Actually, I am getting a little tired of him extolling the virtues of his H.R.G. at the expense of other equally good marques.

What he conveniently (?) forgets about it is that the 9-h.p. H.R.G. has :—

(1) The ordinary Singer "Le Mans" engine. No doubt he sneered at the Singer "Le Mans" as a sports car.
(2) The equipment is light (e.g., cycle-type mudguards) so as to keep up the performance.
(3) All road-tests refer to the springing as "unnecessarily hard."
(4) I am sure everyone will agree that the dashboard does not befit a sports car.
(5) The brakes, which he praises so much, can be found on many mass-produced cars.

Thus the H.R.G. is just a plainer version of a Singer "Le Mans."

As to the Ford V-8 versus Mercury V-8 battle, I cannot do better than refer to "The Autocar" road-tests :—

FORD V-8 :

1st gear ...	Maximum	38 m.p.h.
2nd ,, ...	,,	65 ,,
Top ,, ...	,,	84 ,,
Petrol consumption ...		17–20 m.p.g.
Weight		... 27 cwt.

MERCURY V-8 :

1st gear ...	Maximum	41 m.p.h.
2nd ,,	,,	72 m.p.h.
Top ,,	,,	95 m.p.h.
Petrol consumption ...		17-20 m.p.g.
Weight		... 28 cwt.

Maybe I was a little too outspoken regarding the Bentley versus S.S. question, but we never got the promised 108 m.p.h. from the 1939 overdrive Bentley, did we ? Also Cecil Clutton did not seem very pleased with the Bentley in his "Vintage-Modern" article in the August 1940 issue.

The Mark V "Corniche" Bentley should be a marvellous car, but I am sorry to see that it hasn't got a real radiator.

I was very pleased to see that K. N. Hutchison pointed out that a lot of rubbish was turned out from continental car factories. The British family car has a marvellous engine and finish, and as soon as it gets better springing and steering, it will be leader of the world.

Many thanks for keeping MOTOR SPORT going, and making it so interesting.

Why doesn't Mr. Tubbs buy a supercharged 1½-litre Alta ? If he did, he would get a guaranteed 120 m.p.h. for only £575.

I am, Yours etc.,
DAVID L. GANDHI.

Stockport.

[The 1,100 c.c. H.R.G. has the three-bearing engine, whereas the "Le Mans" 9-h.p. Singer had a two-bearing crank. The H.R.G. has, in our opinion, better lines, and probably handles better and is higher-geared. Otherwise, we leave the argument to Singer and H.R.G. owners. The "Corniche" Bentley is considerably streamlined, which is probably why it "lost" a real radiator.—Ed.]

* * *

Sir,

In the last few months the weekly motoring journals have devoted quite a lot of space to readers' descriptions of their own individual sports cars : on the whole, these articles and letters have been both interesting and informative, but inevitably there have been a good many performance figures claimed which, being based only on speedometer readings, are of extremely doubtful accuracy. Generally speaking, the modern speedometer is probably never more than 3 per cent. in error as far as its manufacturer is concerned, even allowing for the effect of variations in tyre-pressures, and the same applies to the rev.-counter, but deliberate errors are quite another matter. Of recent years it has been the practice of most motor firms to specify speedometers reading 5 per cent., 10 per cent., 15 per cent., or even more, fast, or to obtain a similar effect by modifying the drive to an accurately-calibrated instrument. When this tendency began, the rev.-counter was not usually faked in this way, and the more knowledgeable motorist came to put added trust in it, but naturally it soon became standard practice to fit a rev.-counter with similar "flatter" to the speedometer. Most drivers are aware of this fact by now, but one still finds credulous persons who, seeing that the readings of their speedometer and rev.-counter agree, think that both are accurate, and cannot be convinced that it is a simple matter to incorporate the same degree of deliberate error in both instruments.

All of which led me to try to discover just what order of sustained speed it was

LETTERS FROM READERS—continued

reasonable to expect from various vehicles, sporting and otherwise, recently on the market in this country.

It is, of course, quite impracticable for an outsider to go into all the details of a large number of different cars, to obtain exact information on bearing-loads and the like, but such information as gear ratios, wheel sizes, and general engine dimensions, is readily obtained from such sources as "The Autocar" buyers' guide. Also, there is a fairly widely-accepted "rule of thumb" doctrine that a normally-built internal combustion engine should not be expected to maintain a mean piston speed greater than 2,500 feet per minute. Like all such rules, it is far from being absolute, but it does give very reasonable results for a wide variety of engines; it makes full allowance for the extra revs made possible by the use of a short stroke, though not allowing for the difficulty in making a poppet-valve operate at abnormally high r.p.m., and it seems well worth while to put on record the road-speeds which various cars attain at this specified piston-speed.

Car	Top gear ratio	Wheel dia. in inches	Stroke in mm.	R.P.M.	M.P.H.
				At 2,500 ft./min. piston speed.	
Lagonda V-12 short w.b.	4.27	31	84.5	4,500	97.5
Atalanta V-12	3.6	29	95	4,000	96.0
Bentley 4¼-litre overdrive	3.6	30	114.3	3,330	82.5
Ford V-8 30-h.p.	4.11	28	95.25	3,990	81.0
Alta 2-litre s/c	4.0	28.5	100	3,800	80.5
Lagonda 4½-litre 6-cyl. ...	3.58	30	120.6	3,150	79.0
A.C. 16/80 short w.b. ...	4.25	29	100	3,800	77.5
Alvis 4.3-litre	4.11	30	110	3,450	75.0
H.R.G. 1½-litre	4.0	26.5	100	3,800	75.0
Rolls Royce Phantom III	4.25	32	114.3	3,330	74.5
Daimler Straight Eight ...	4.38	32	115	3,310	72.0
Aston-Martin 15/98 ...	4.4	28.5	102	3,730	72.0
Alta 1,100 c.c.	4.66	28	95	4,000	71.5
Wolseley 25 short w.b. ...	4.2	29	110	3,450	71.0
S.S. Jaguar 3½-litre ...	4.25	29	110	3,450	70.5
H.R.G. 1,100 c.c.... ...	4.55	26.5	95	4,000	69.5
Railton Straight Eight ...	4.1	28.5	114	3,340	69.0
M.G. 2-litre	4.75	29	102	3,730	68.0
Rover Sixteen	4.7	28	100	3,800	67.5
Morgan 4/4	5.0	26	90	4,220	65.5
Humber Super Snipe ...	4.09	28	120	3,170	64.5
Riley 16/4	4.25	29	120	3,170	64.5
M.G. Midget series T ...	4.875	28	102	3,730	64.0
B.S.A. Scout	5.2	26	95	4,000	60.0
Sunbeam-Talbot Ten ...	5.44	26.5	95	4,000	58.5

For purposes of comparison, I also looked up the publicly-released figures for maximum continuous power of various modern aero-engines, and allowing for the remarkably high standard of design and workmanship of these engines I found the 2,500 feet/min. rule to be very nearly correct. The Napier Dagger VIII is rated at 4,000 r.p.m., giving 2,500 feet/min.; the Rolls Royce Merlin II at 2,600 r.p.m., giving 2,600 feet/min.; the Bristol Pegasus XVIII at 2,250 r.p.m., giving 2,800 feet/min.; and the Bristol Hercules II sleeve-valve at 2,400 r.p.m., giving 2,800 feet/min.

Those, then, are the figures I obtained by this simple method for the highest speed at which sundry vehicles can be expected to travel without undue wear and tear: they may displease some people, but on the whole I think they give a very good idea of the potential cruising speeds of a wide variety of cars. No account is taken of how well-made each particular type of engine is, but as all inertia loads increase in proportion to the square of the engine-speed, no very big increase in continuous piston-speed can be expected on this account: also, no account is taken of the throttle opening needed to maintain the specified speed, so that a high-geared car which might need full-throttle to hold 2,500 feet/min. piston-speed may be credited with a cruising speed at which troubles due to heat-flow would occur before mechanical trouble. With these two slight provisos I present these figures as a not altogether unreliable guide to the relative merits of the respective vehicles, sports, ersatz sports, and touring, solely from the aspect of probable high-speed reliability. If sports cars as a whole are not presented in as favourable a light as might be desired, then I can only hope that post-war models will have a more decided advantage over their touring counterparts.

I am, Yours etc.,
J. L.

Loughton,
Essex.

* * *

Sir,

I cannot resist the opportunity to rush into print once again, because a recent leave from the R.A.F. enabled me to look around the local breakers' yards. Thus, great was the excitement when my brother and I discovered a 1928 4½-litre saloon Bentley—in fair condition and with five practically brand-new covers. The engine was partially dismantled, but all the bits were there, plus quite a few useful extras, such as P100 head-lamps, rev.-counter, etc.—and all for the modest sum of £10.

The breaker obligingly towed us home for 10s., our own 3-litre not being taxed at the time, and we parked the bargain on a neighbour's land for the time being.

Due to the fact that we feared the blitz, and that we could not find a garage, we decided to dismantle the car . . . and followed many hours of exceedingly hard labour, the high-spot being when we lifted the bare chassis away from the engine, after which it was necessary to wheel the engine on a small trolley along to our house, and up two planks over the door-step—no mean engineering feat!! The neighbours were very interested, and even the local vicar stopped and said "Good-morning," notwithstanding the fact that we were practically unrecognisable under our layer of filth!

Having stored the various parts in nooks and crannies all over the house, and in the cellar (mothers are very tolerant) our next task was to get the engine to start, with the object of finding out what sort of condition it was in.

Some enterprising "mechanic" had attempted to dismantle it with the object of replacing one of the oil-trays just under the valve gear, which had corroded right through; with the result that the sump was full of a nasty oil-water mixture. Said "mechanic" had attempted to remove the tray by means of crowbars, consequently it was in a very sorry state.

Having removed the block we noted that the pistons were quite clean underneath, and were marked +.040 in., which suggested that the engine had been rebored recently.

My brother volunteered to clean the sump out (he enjoyed himself immensely) while all pipes and odds and ends, plus the crankshaft, were taken to the nearest garage, to be blown out with compressed air.

It did not take long to reassemble, and in lieu of an oil-tray a flat plate was fitted, just to cover the hole.

Our worst task was the usual one—putting the block back, which took place by means of blocks of wood of varying thicknesses, hours of patience, and not a little profanity.

The compression when fitted up was terrific—we could hardly turn the engine at all. Nevertheless, after fitting one of the magnetos and filling the carburetter floats with petrol, we were rewarded (?) with a terrific backfire—a little retarding and off she went. We soon deemed it discreet to fit the exhaust-pipe and silencer, and were rewarded with a most exciting burble. We also discovered that it was perfectly quiet mechanically with no valve-gear noise.

Thus ended a very satisfying leave, and a letter from my brother informs me that he is toying with the notion of fitting that engine into our own chassis, or alternatively, discovering a short 3-litre frame somewhere. He has also managed to obtain an 8-litre barrel-type gearbox and a Hardy Spicer prop-shaft, which he says is short enough for a 3-litre.

Incidentally, if any reader knows of a short "Red Label" 3-litre Bentley which

Continued on page 414

A SPECIAL GWYNNE EIGHT

SO much interest has been aroused by recent references in these pages to the Gwynne Eight, which shares with the "8/18" Talbot the distinction of being the only well-known vintage car of eight rated h.p., that some more notes, together with a description of the coupe example owned by the present Acting Editor of MOTOR SPORT, are published herewith. It is curious that vintagents have all passed by the Gwynne, while unearthing even rarer vintage cars. Produced shortly after the last war by the concern responsible for the Albert, the Gwynne was introduced as a utility small car costing just under £200. It was commonly regarded as the first small car to achieve a genuine 60 m.p.h. The four-cylinder engine had a bore and stroke of 55 × 100 m.m. (950 c.c.) giving a rating of 7.5 h.p. The cylinder-block was separate from the crankcase and the vertical o.h. valves in the detachable cylinder-head were actuated by wick-lubricated push-rods and rockers. The pressed valve-cover was held by two studs. The crankshaft ran in three bearings and lubrication was by an external oil-pump set high up on the front of the crankcase, and feeding via external pipes. Cooling was thermo-syphonic with a very large-bore off-take pipe, while the radiator had a big header tank. The plugs were inclined at 45° on the inlet side of the head and fired by a magneto on the near side of the engine driven from the timing-gears by a vernier coupling. The h.t. leads were led round the engine through a conduit attached to the water-inlet pipe. The ports were on opposite sides of the head, the exhaust push-rods actually passing through the exhaust ports. An S.U. or Solex carburetter fed through an external manifold, and this was cunningly arranged to be water-jacketed in summer and exhaust muff-heated in winter, a conversion carried out at the end of the season if the owner wished by the Chiswick works. The unit is very like a "12/50" Alvis. The engine drove through a leather cone-clutch and twin-fabric universal-jointed shaft to a 3-speed gearbox mounted integral with the propeller-shaft torque-tube. The engine was three-point suspended and final drive was by spiral bevel in a live axle. The high chassis was suspended on ½-elliptic springs, long and underslung at the rear, and the expanding rear-brakes were cable-operated. The shock-absorbers were B and D, as on the early 3-litre Bentley, and the gear-ratios were 14.25, 9.2 and 4.83 to 1. Thus the Gwynne Eight, made by the Gwynne Tank and Pump Co., and sold, in 1923, for £207 9s. A popular body was the bath-like 3-seater, with which the marque is usually associated. However, an aluminium long-tailed sports 2-seater guaranteed to lap at 65 m.p.h., we believe, was also listed, costing £265, and a saloon and even a fire-engine emanated on the 8 h.p. chassis! The early models had a wheel-base of 7 ft. 3 in. and a track of 3 ft. 6 in., but by 1927 the wheel-base had grown to 8 ft. and the engine-size had increased to 57 × 100 m.m. (1,021 c.c.), although the taxable h.p. was still eight. The top gear ratio, too, had gone down to 5.0 to 1. A "ten" and a "fourteen" had also come on the market, but with them we are not concerned. The Gwynne seems to have faded out about 1927. Chinery and Turner had, amongst others, driven these cars with success in trials and high speed events, and Turner ran a well-streamlined example in the 200-mile races, although this car may have been a "Ten." In the 1927 race it finished the course, but was completely burnt out the next year. Eaton also raced a Gwynne-engined G.N. in a few short handicaps at Brooklands, contriving to build a streamlined body with a seat *behind* the rear axle. Of more recent times, the Emeryson Special put up some good performances in speed-trials, powered with a hotted-up Gwynne Eight engine, later replaced by an A.C. Six unit. Quite a lot of Special Gwynne Eights have been constructed. H. L. Biggs had a twin-carburetter "hip-bath" and a Nottingham enthusiast rebuilt at least three long-tail 2-seaters, one as recently as three or four years ago. Then C. W. Moss built-up a twin-carburetter, "J-2"-pattern 2-seater some years ago, and a fabric 2-seater with slab-tank, disc-wheels and high-pressure tyres was at a South London motor-trader's in 1938. A mechanic in the employ of Altas ran a neat 2-seater with cowled radiator, which was to be seen at the competition-venues, a sports 2-seater was broken up very recently, and many other people have owned non-standard Gwynnes. Cyril Peacock had two, a "hip-bath" and a 4-seater, for towing his racing motor-cycles about, the latter being a 1924 car with quite a rare body-style, the original price being £235. The present Acting Editor of MOTOR SPORT acquired this car as a hack after the first year of the war, and it gave very good service, difficult starting from cold excepted, until the piston-rings suffered due to continual over-heating from bad and incurable radiator-leaks. This car nevertheless covered some 2,000 miles with no attention of any sort, and is likely to be relicensed by another enthusiast this quarter. The Gwynne Eight now owned by the Editor commenced life as a sports 2-seater and was rebuilt some years ago by Mr. Gould, in charge of the engine test shops at the R.A.E. He disposed of it to a test-pilot, who used it regularly until he went to America on Service duties at the beginning of the war, the car, in fact, taking this gentleman to Euston to catch the boat-train. It has a comic, but practical and very well-constructed, 2-seater fabric coupe body. There is a sloping V-screen, with opening panels, and the peaked roof has cunningly-devised guttering and a roof-ventilator. Long sweeping front-wings join tiny, cut-away running-boards. The wooden floor-boards are well made and there are door-locks, sliding windows, door-pockets carrying an "Eight" emblem, a map-case in the roof-peak, and plenty of luggage-space behind the cloth-upholstered, pneumatic seat. The radiator-cap now carries a big Mercedes mascot, behind which the late R. O. Shuttleworth once sat, and this blends well with the light, rivetted and louvred bonnet and block radiator. The mahogany instrument-panel carries a Smith 80-m.p.h. speedometer, aeroplane water-thermometer, dash-lamp, ammeter, dynamo, head-lamp and side-light push-in switches, roof-lamp tumbler-switch, mag.-switch, mixture-control and oil-gauge. The engine is not entirely standard, having dural push-rods and special valves, and twin Amal motor-cycle carburetters. These latter have very neatly designed slide operation, two rods carried on mountings attached to the carburetter mixing chambers bearing trunnions which operate the throttle and mixture slides via short lengths of Bowden cable. The inner throttle-rod is turned by the accelerator or hand-throttle control, the outer mixture-slide rod by the rotatable mixture-control on the dash. The carburetters clamp direct to flanges on the ports and there is a very small bore balance-pipe between them, from which is taken the screen-wiper suction-tube. There is an oil-filter of the external drum pattern beneath the sump and the normal oil-pressure is 40 lb./sq. in., varying a little with engine-speed, until a tap near the gauge is turned to permit feed to the valve-gear, when pressure is approximately halved. By just swinging the engine it is possible to wind up 12 lb./sq. in. The three-branch rear offtake exhaust manifold on the near side feeds via flexible tubing to the silencer, and this and the whittle-belt-driven dynamo mounted above the magneto are standard practice. A four-speed A.B.C. gearbox has been mounted on a clever adaptation of the original Gwynne brackets, to bring it into line with the clutch-shaft, which is appreciably lower than that of the two-cylinder unit to which the box was originally mated. The *vertical gate* change is tricky, especially as reverse, first and second gears all lie in the same plane and there is no reverse stop. But the performance is appreciably enhanced, and the indirect gears, third particularly, are notably quieter than those of a worn Gwynne box. The cone-clutch is retained, likewise the torque tube transmission. The front axle has had cable-operated Morris brakes added, the back-plates being adapted to suit. When a battery was installed everything electrical functioned, although a starter is not at present fitted. The engine starts easily on the handle, has an excellent note and is full of life. Third and top ratios seem very close and a small burst of throttle when double-declutching to change down effects a most pleasant gear-change. The ratios are now probably 4.83, 6.98, 10.14 and 14.78 to 1. No performance figures have been taken, but Mr. Gould mentions 60 m.p.h. in top, 50 m.p.h. in third, and 40 m.p.g. when driven hard, which a 100-mile trial suggests should be easily possible. The artillery-wheels carry 4.50 in. by 19 in. Englebert "Cadet" tyres.

STOP PRESS

The next article in the Mercedes-Benz versus Auto-Union series, mentioned last month as due to be resumed this month, is held over until the September issue on account of pressure on space. A detailed road-test report on the V-12 Lagonda will also appear in that issue.

BOOK REVIEWS

"Dick Seaman," by Prince Chula of Thailand (*G. T. Foulis & Co., Ltd.* 8s. 6d.).

Prince Chula of Thailand deserves warm congratulations from every angle on his latest, and long-promised, book—the biography of the late Richard Seaman. He tells a very readable story of the whole of Dick's life, from childhood to his racing days, from exploits with Bugatti, M.G., E.R.A. and the famous rebuilt 1927 Delage, to the great days with the Mercedes-Benz team. Apart from the motor-racing element, very detailed descriptions are given of Seaman's habits and surroundings. Prince Chula does not flinch at disclosing intimate facts about the great driver's life and many hitherto unknown matters are seen in their proper perspective for the first time within the covers of this book—covers so gaily decorated by "Bira's" black and silver folder. It would be unfair to the author to quote all these revealings, but the first is that Seaman raced his M.G. as an independent, and not as a member of Straight's stable, although Straight entered him so that his family should not know that he was personally preparing a car for racing events. Dick's immense resolve to win the German Grand Prix was fantastically fulfilled—he should have been an entirely happy young man. Yet Prince Chula's biography is a sad account, and one realises as it unfolds how far from perfect human life may be, in spite of health, wealth and ability. Read this unquestionably great book and you will understand. You will realise, too, just how much this completely unassuming and cultured young man did, not merely for motor-racing, but for his country. Prince Chula pays nice tribute to Mrs. Beattie-Seaman's part in her son's achievements. To say that this is the book of the year when it is the only motoring book likely to come out this year, may sound redundant, but it is a very great and remarkable work. There are 382 pages and 17 excellent photographs, including two of Dick with Erica—now Mrs. Tongue. The foreword is by the Rt. Hon. the Earl Howe, P.C., C.B.E., etc., the epilogue by Monkhouse; both have done their work as well as Prince Chula has done his much lengthier task. In memory of Seaman you should read this book.

"A.A.S.F." by Charles Gardner. (*Hutchinson & Co. Ltd.* 7s. 6d.)

So many enthusiasts for rapid motoring now play, or work, in the air, that no excuse is needed for reviewing Charles Gardner's great book, which gives a very vivid account of the Advanced Air Striking Force in France during the early days of this war. Gardner was observer for the B.B.C. at this eventful period in the history of the R.A.F. and he tells a most interesting story, equally of flying and news-recording over the ether. The only motoring references concern his 1934 9-h.p. Mathis, bought in France for official journeys for the sum of £30, and his later f.w.d. Citroen, which saw some adventurous runs. Nevertheless, this is a book all of us should read and one which parents and friends of R.A.F. personnel might very well have ready as on-leave reading-matter. It is interesting to note that most of Gardner's best broadcasts are written in a quite impromptu style, the English good, but with no apparent attempt to choose particular words or phrases, or to seek brevity. A number of printers' errors has crept in, excusable in war-time, but the standard of production is very high and the 30 photographs are very well presented, in motor-racing volume style. Personalities are splendidly picked out, some excellent jokes put over, and the book is, throughout, a clever balance of detailed historic facts and modern-as-the-minute anecdote. Enthusiasts in and out of the R.A.F. will find it a ready means of topical enjoyment.

LETTERS FROM READERS—continued from page 412

can be broken up for spares, 1926—7, we should be glad of the tip. My brother is now engaged in making new shackle-pins from the solid bar, by means of a hand-die. We have no equipment beyond spanners, not even a vice—we love hard work. . . .

We should greatly appreciate some further information on Bentleys; we have thumbed Mr. McKenzie's articles until the print is almost worn off the page. For instance, can the compression be raised by fitting longer pistons and not touching the base of the block, and is it possible to do away with backlash in the rear axle without causing more noise therefrom? We appreciate the mesh-adjusters on the gears in the final drive, and on the valve-gear, but it seems that adjustment of same brings new surfaces into contact which cause a different sort of noise.

MOTOR SPORT continues to be vastly interesting—it is a wonder to me how you do it; it is still the best "bobsworth" there is on the news-stands.

Thanks a lot, anyway, for a most intriguing journal.

I am, Yours etc.,

R. BAWDEN.

R.A.F.

[If anyone can supply the required information, please send it to Mr. Bawden, c/o 23, Greenleaf Road, Walthamstow, London, E.17.—Ed.]

* * *

Sir,

I have unearthed an engine which baffles me. It is a four-cylinder of about 2-litres capacity, with an aluminium plate on the side bearing the name Rover. The valves are at 90° and are operated by a camshaft running along one side of the cylinder-head, the inlet valves through rockers and the exhaust valves by push-rods which lie horizontally in the head and rocker arms similar to those of the 2-litre Lagonda. The camshaft is driven from the rear of the crankshaft via skew gears and a long vertical shaft, and the valves, springs, and rockers are absolutely enormous in view of the small size of the manifold openings. Screwed on to the front of the head is an amusing little plate which states that if the fan-belt is not kept tight the engine will "thrash."

There is a tremendous amount of tinware on the roads in this part of the world, nearly all uninteresting, notable exceptions being a very well-kept 3-litre Bentley with the original long sports wings and 3-seater pointed-tail body, a very nifty Alta which doesn't seem to like traffic, also a 1½-litre Singer "Le Mans" with a "Le Mans" 24-hour plaque on the dash.

My own conveyance these days for economy's sake is a 7-h.p. Austin—1929 vintage, which has been persuaded to motor reasonably rapidly, the recipe being: Reduced frontal area; body lowered 6 inches so that a starting-handle will not go in as the radiator is in the way; new bearings right through; crank reground and ends re-metalled with decent metal; rods polished, pistons by Wellworthy, aluminium high-compression cylinder-head, valve-springs by Terry, valves by K.E.; carburation by a large downdraught S.U. through a special manifold and polished ports; flywheel turned down somewhat and clutch backed by stronger springs, and ignition by Scintilla. The crank and rods are of the later, 1932, pattern. According to the rev.-counter, which is a new 6-in. Smith's M.A., the engine will hold 5,500 r.p.m. without coming apart, but since the car was intended to go places and get there the 4.9 to 1 rear-axle is retained, so that the maximum speed isn't anything to boast about. She steers fairly well, thanks to an extra set of Hartfords at the hinder end and an extra Austin shock-absorber at the front. If one contemplates going up trials hills it is advisable to slacken off the front shockers, as otherwise the crankcase is torn asunder by the twist of the chassis. The seating position necessitates a remote control 2 feet long, but she is quite comfortable to drive. I brought her home from Scotland to Sutton Coldfield with a passenger and all our kit after a fortnight at an R.A. camp, 358 miles, in exactly 10 hours by two good watches and I didn't feel tired when I got home. She is built largely from bits scrounged, and panelled with alloy from an old Sunbeam and a few bits of old zinc poster-board. She only cost me £12 to buy and rebuild, including four new tyres.

Wishing you the very best of luck, and hoping that the next "Donington Days" may not find us old, old men.

I am, Yours etc.,

K. H. MILES, Bdr.

Blackpool.

[The engine is one of the "14/45" Rover units designed by Poppe and, we imagine, of about 1925 vintage. A "15.8" example was used in the single-seater Rover raced by the designer at the Track around 1926. We believe the production engine had a capacity of 2,121 c.c. (75 × 120 m.m.) and went off the market in 1927.—Ed.]

RECALLING THE ROAD TESTS—continued from page 403

the clutch-stop could be adjusted to assist snap changes; the lever moved a trifle stiffly. The front-wheel brakes worked on the Perrot system, and the inner wheel automatically freed when cornering. They worked extremely well, as did the suspension, while a 1 in 3½ gradient with a chalky surface, taken with zero-run, did not stop the Crossley. A very docile car, the "20/70" nevertheless had a lap speed, guaranteed, of 75 m.p.h., unstripped. It will be remembered that Leon Cushman was running two of these cars at Brooklands at this time.

The concluding test of the 1925 season was concerned with a rather unexpected car, in the form of a sleeve-valve "16/55" Daimler with 2-seater boat-shaped body; we again had the pleasure of testing a Daimler last year and memories of its quality and useful performance still linger. The 1925 Daimler was not by any manner of means a sports model, but it did 10-35 m.p.h. in second gear in 8 seconds for all that, and did a very easy 65, or 70 when pushed. The engine was said to run up to 4,000 r.p.m., and certainly the car did 45 m.p.h. on middle gear of the three-speed box. There was ample engine-power low down, the suspension was excellent, and at high speeds the transmission brake, operated by a push-on side lever, was quite useful. An unusual fitting was hand-control of the mixture flow through the carburetter jets and a lack of equipment, including absence of an automatic screen-wiper, was attributed to the rush necessary to complete the car in time for the Show. The engine ran very cool after colonial going, the four-wheel brakes were good and fuel-consumption was 30 m.p.g. The bodywork was truly luxurious. Brockley Hill was ascended in top gear at a good 45 m.p.h. with no effort at all, while Kop was climbed first in top, and then fast in second gear, when the speed over the steepest portion was 38 m.p.h.—owners of modern cars may care to make comparison with the hill-climbing feats of sixteen years ago.

That, then, was testing as the motor-scribe of 1925 found it. With a further cut in petrol-rationing likely, we would gladly slide back those sixteen summers right now, were it not a stipulation that we revert to our then age of twelve years! In case any of these demonstration-cars still exist, it may be mentioned that they were loaned by the following firms and bore the following registered numbers—we quote for 1925 only, as in 1924 the photographs appear mostly to be of other than the actual test-cars: Austin Seven: Gordon England, Ltd. (——); Amilcar: Vernon Balls (——); Alvis: Henlys Ltd. (trade plates); Mathis: Atom Motor Co. Ltd. (trade plates); Mercedes: British Mercedes Ltd. (Y4139); Renault: Renault Ltd. (XY5614); Bugatti: Charles Jarrott & Letts Ltd. (AT8803); Vauxhall: Vauxhall Motors Ltd. (——); M.G.: The Morris Garages (FC8004); Crossley: Charles Jarrott & Letts Ltd. (NE802); Daimler: Statton-Instone Ltd. (——).

THE EVOLUTION OF THE "CORNICHE" BENTLEY—continued from page 398

set to work to redesign the appearance and convert the body into a commodious four-door saloon, with plenty of luggage-room. The result of his efforts was what the company's engineers considered to be a very good-looking motor car, and a wind-tunnel model was made. The drag tests were most encouraging since, in spite of the increased body dimensions, the wind resistance figure was exceedingly low. A full-size car was built and confirmed the wind-tunnel tests. Since it had been decided to put the car on the market as a definite model, no liberties could be taken with the power plant at all. Nevertheless, the car in full touring trim, with a driver and passenger, lapped Brooklands at 109½ miles per hour.

The car was then taken to France and the continent, where every new Rolls-Royce chassis has been subjected to a run of at least 15,000 miles of high-speed continental motoring. As this car was intended to be especially suitable for the new motor roads, a considerable amount of this run was carried out on the *auto-bahnen* and *autostrada*. The major problem which immediately presented itself was that of tyre life. It was almost impossible to get a standard tyre to last more than a few miles if the car was driven flat out. Another disconcerting result was that, if one indulged in a short spurt of speed and then came back to 90 m.p.h., the tyre never got over its high-speed treatment and, if these speed spurts were repeated, it was found that the tyre burst after exactly the same number of miles as would have been the case if the same distance had been covered continuously. With the assistance of the tyre companies, we at once started to do the necessary development work to get a tyre to suit these extreme conditions, and were well on the way to success at the outbreak of war. Unfortunately, even our experienced test drivers took some time to get accustomed to the very high maximum speeds, and the first "Corniche" was completely smashed up just before the war started. This was the only example in existence, and it will, therefore, be some time after the war before anyone can once again handle one of these rather surprising vehicles. It seems improbable that there will be any basic difficulty in accustoming the average Bentley driver to speeds of between 100 and 110 m.p.h. on *auto-bahnen* specifically built for the purpose. The danger lies in such speeds being used without discretion on normal roads. One other point is worth emphasising. Speeds of 100 m.p.h. are frequently claimed for conventional standard touring-cars. Such speeds are very rarely attained. In reviewing the march of progress, it is interesting to remember that the Rolls-Royce "Phantom I" had a top speed in still air of something less than 70 m.p.h., and its engine dimensions were 50 per cent. bigger than those of the existing Bentley. There is no doubt that this streamline Bentley is the forerunner of a new breed of motor-car built to take advantage of the changing road-conditions.

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A SELECTION OF MOTOR SPORT ROAD TESTS

THAT HAVE APPEARED IN PAST ISSUES

If you do not see the road test that you require write us a letter. We may have it in stock, but not published below.

Make of Car	Issue
A.B.C. 11 h.p. 2-cyl., 2-seater	Feb. 1926
A.C. 2-litre, short-chassis, 15.7 h.p. 2-seater	July 1936
A.C. 2-litre, 16.40 h.p., 3-seater	Oct. 1927
A.C. 2-litre, 16.66 h.p., 2-seater	March 1926
A.C. 2-litre, 16.66 h.p., 4-seater	June 1934
A.C. "Ace" 16/80 h.p.	July 1937
Alfa-Romeo, 1½-litre supercharged 6-cyl. Charles 2-seater (1929)	March 1934
Alfa-Romeo 1½-litre supercharged 8-cyl. "Zagato" 2-seater (1932)	July 1934
Alfa-Romeo 2.3-litre supercharged 8-cyl. "Zagato" 2-seater (1933)	Aug. 1936
Alfa-Romeo 2.3-litre supercharged 8-cyl. 4-seater (1931)	Aug. 1932
Alvis 11.9 h.p., 4-cyl., "Firefly" saloon	Feb. 1933
Alvis 4-cyl., 12.60 h.p., 2-seater	July 1931
Alvis 6-cyl., "Silver Eagle" 4-seater coupe (1929)	Aug. 1931
Alvis 6-cyl., "Silver Eagle" 4-seater	June 1930
Alvis 3½-litre saloon	Feb. 1936
Alvis Speed Twenty Vanden Plas saloon	Feb. 1935
Alvis Speed Twenty Charlesworth saloon	Feb. 1934
Alvis Speed Twenty 4-seater	June 1932
Alvis 12/70 4-door saloon	July 1938
Ansaldo 2-litre, 4-cyl., o.h.c., 4-str.	Sept. 1924
Armstrong-Siddeley 20 h.p., 6-cyl. 4-seater	July 1933
Aston-Martin Mark II, 11.9 h.p., 2-4-seater	Jan. 1935
Aston-Martin Ulster 11.9 h.p., T.T. 2-seater	Oct. 1935
Aston-Martin Le Mans 11.9 h.p., 2-4-seater	June 1933
Aston-Martin International 11.9 h.p., 4-seater	Aug. 1932
Aston-Martin T.T., 11.9 h.p., racing 2-seater	Dec. 1931
Aston-Martin 11.9 h.p., 2-seater	Jan. 1930
Aston-Martin 2-litre Speed model	May 1938
Aston-Martin 1935 Ulster	Aug. 1937
Auburn 30 h.p., 8-cyl., supercharged 2-seater	June 1935
Austin Seven Boyd Carpenter 2-str.	Sept. 1930
Austin Seven "65" 2-seater	Jan. 1934
BENTLEY 3½-litre, 6-cyl., Vanden Plas, 4-seater	Nov. 1933
Bentley 4¼-litre, 6-cyl., Park Ward saloon	June 1936
Bentley 6½-litre, 6-cyl., long-chassis saloon (1928)	Dec. 1936
Bentley 4¼-litre Vanden Plas coupe	Aug. 1938
Bentley 8-litre sports 2-seater	April 1938
Bugatti 3.3-litre 8-cyl., Type 57 saloon	May 1934
Bugatti 2.3-litre 8-cyl., Type 55, supercharged, 2-seater	July 1932
Bugatti 2.3-litre, 8-cyl., Type 43, supercharged 4-seater (1930)	Dec 1932
Bugatti 2 3-litre 8-cyl., Type 43, supercharged 4-seater	May 1930
Bugatti 3-litre, 8-cyl., Type 44, saloon	July 1928
CITROEN, Twelve f.w.d. saloon	July 1938
Crossley 20/70 h.p., 4-cyl., s.v. 4-str.	Nov. 1925
Crossley Ten. 1¼-litre "Regis" saloon	Jan. 1936
Crossley Ten, 1,122 c.c. 4-seater	April 1932
Crouch Anzani 12.30 h.p., 2-seater	Aug. 1924
DARRACQ 12.32 h.p., Weymann saloon	Sept. 1924
Delage 14 h.p., 2-litre, 2-3-seater	June 1927
Delage 8-cyl., sports saloon	April 1930
Delage D.8 120, drophead coupe	May 1938
Delahaye 3.5-litre "Coupe des Alps" drophead coupe	Aug. 1936
Delahaye 3½-litre drophead coupe	Dec. 1937
D.K.W. "Special" saloon	Feb. 1938
ESSEX Terraplane 8-cyl. 4-seater	Sept. 1935
Excelsior 5½-litre, 6-cyl., super-sports test chassis	Sept. 1927
FIAT 20.70 h.p., 6-cyl., 2-4-seater	April 1933
Fiat "Balilla" saloon	May 1934
Fiat "Ardita" 17 h.p., 4-cyl., saloon	Feb. 1934
Fiat "Balilla" 10 h.p., 2-seater	Jan. 1935
Fiat 6 h.p., Type 500, coupe	March 1937
Frazer-Nash 6-cyl., 1½-litre (Blackburn) 2-seater	July 1933
Frazer-Nash 4-cyl., 1½-litre T.T. Replica push-rod o.h.v. 2-3-str.	Nov. 1931
INVICTA 4½-litre low chassis, 4-str.	March 1931
Invicta 4½-litre Weymann saloon	June 1929
Invicta 4½-litre saloon	Dec. 1929
Isotta-Fraschini 45 h.p., 4-seater	Oct. 1926
LAGONDA 2-litre, 4-cyl., twin o.h.c. 4-seater	Jan.-Feb. 1928
Lagonda 2-litre, 4-cyl., twin o.h.c. supercharged 4-seater	Oct. 1930
Lagonda 4½-litre, 4-seater	May 1936
Lagonda 4½-litre Rapide 4-seater	May 1935
Lagonda 4½-litre, 4-seater	Jan. 1934
Lagonda Rapier 10 h.p., 4-seater	Sept. 1934
Lagonda 16.80 h.p., 6-cyl., 4-seater	Jan. 1933
Lagonda 3-litre, 6-cyl., 4-seater	March 1932
Lagonda 2-litre, 4-cyl., twin o.h.c., 4-seater (1928)	March 1931
Lancia Aprilia, Type 238, saloon	June 1938
Lea-Francis 1½-litre supercharged T.T. 2-seater (1929)	June 1934
Lea-Francis 1½-litre supercharged special T.T. 2-seater	Sept. 1933
Lea-Francis 1½-litre supercharged "Hyper" 4-seater	Aug. 1930
Lea-Francis, 14 h.p., 6-light saloon	Dec. 1938
Leyland Eight (1929), 2-seater	Feb. 1938
MERCEDES-BENZ Type 540K, 5.4-litre, 8-cyl., supercharged, 2-str.	April 1937
Mercedes-Benz Type 500, 5-litre, 8-cyl., supercharged, 2-seater	Nov. 1934
Mercedes-Benz 12.40 h.p., supercharged 2-seater	June 1925
Mercedes-Benz 36.220 h.p. supercharged, 2-4-seater	April 1928
Mercedes-Benz 33.180 h.p., supercharged, 4-seater	Aug. 1927
Mercedes-Benz 2.3-litre, saloon	April 1938
M.G., 6-cyl., Mark I, 4-seater	May 1931
M.G. Magna, "L" 2-seater	Nov. 1933
M.G. Midget "P" 2-seater	Aug. 1934
M.G. Midget "J3" supercharged, 2-seater	May 1933
M.G. Six Mark I, saloon	Aug. 1930
M.G. Midget Double-Twelve racing 2-seater	June 1930 & Aug. 1930
M.G. Midget "J1" 850 c.c. 2-str.	Sept. 1932
M.G. Magnette "N" 4-seater	Feb. 1935
M.G. Midget "PB" 2-seater	April 1936
M.G. 14/40 4-cyl., 3-speed, 4-seater	Oct. 1925
M.G. Midget "T" 2-seater	Jan. 1937
M.G. 14/40 h.p., 4-cyl., super-sports, 2-seater	May 1927
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RAILTON Terraplane 4-seater	Oct. 1934
Railton Light Sports tourer	Dec. 1935
Railton Cobham 28.8 h.p. saloon	Sept. 1938
Riley Nine "Monaco-Special," two-carb. saloon	March 1931
Riley Nine, 4-seater	June 1931
Riley 16 h.p., Big-four Kestrel saloon	June 1938
SINGER 1½-litre, 6-cyl., Le Mans 2-seater	March 1935
Singer Nine, 4-seater	March 1933
Squire 1½-litre, 4-cyl., 2-seater	Aug. 1935
S.S. I special-bodied 2-seater (1933)	Feb. 1934
S.S. I coupe	June 1933
Steyr Type XII, 14.35 h.p., Weymann saloon	Aug.-Sept. 1928
Stutz "Black Hawk" supercharged 4-seater	Jan. 1930
Stutz 5-litre, 8-cyl., 4-seater	Dec. 1927
Sunbeam 3-litre 6-cyl., (twin o.h.c.) fabric saloon	Nov. 1927
Sunbeam 6-cyl., 21 h.p., (push-rod) Speed Six saloon	Dec. 1933
TALBOT "90" Brooklands-bodied 2-4-seater	April 1931
Talbot "105" sports saloon	April 1934
Talbot 3½-litre saloon	March 1936
Talbot Ten "Rally" 4-str.	Oct.-Nov. 1936
Talbot "105" Vanden Plas 4-str.	Nov. 1932
Talbot "90" 4-seater	Nov. 1930
Talbot Ten sports coupe	June 1938
Tatra 4-cyl., 1,154 c.c., coupe	Dec. 1932
Terraplane, 8-cyl. 29 h.p., 4-str.	July 1935
Triumph 2-litre "Vitesse Six" saloon	April 1935
Triumph 10 h.p. "Gloria Southern Cross" 2-seater	June 1935
Triumph 10 h.p. "Gloria" saloon	Jan. 1934
Triumph Nine "Southern Cross" 4-seater	June 1932
Triumph Eight "Gnat" 2-seater	Aug. 1931
Triumph Eight, supercharged 2-str.	Dec. 1929
Triumph Dolomite 14/60 saloon	June 1937
VALE-SPECIAL 832 c.c. 2-seater	Aug. 1933
Vauxhall 30/98 O.E. 4-seater (1925)	Jan. 1936
Vauxhall 30/98 O.E. 4-seater (1924)	Dec. 1930
Vauxhall 20/60 h.p. "Hurlingham" 2-seater	Feb. 1930
Vauxhall 17 h.p., 6-cyl., "Cadet" saloon	Sept. 1931
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WINDSOR 4-cyl., 11 h.p., "Special" 2-3-seater	Nov. 1926
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