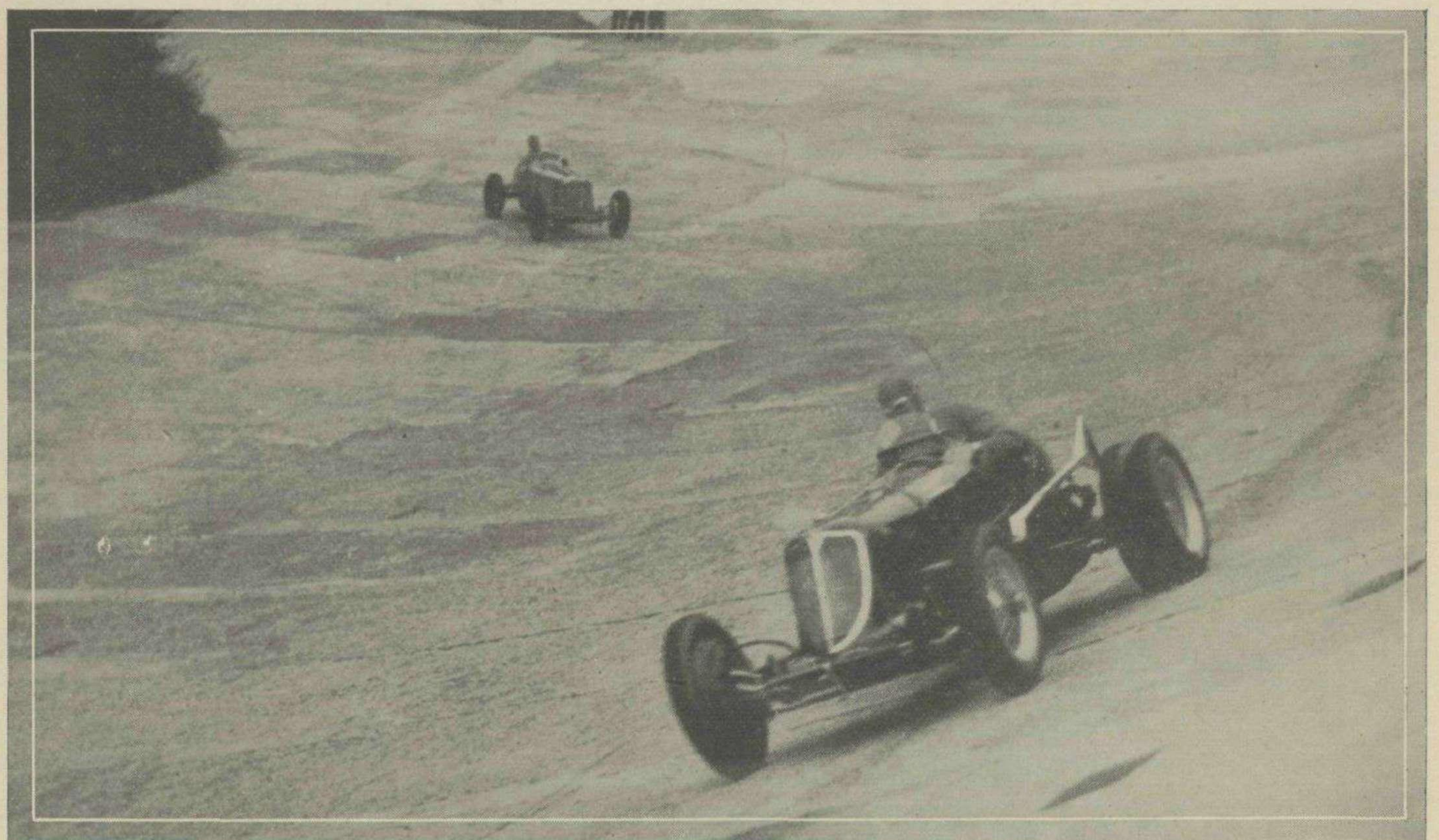
MOTOR SPORT

INCORPORATING

Speed

Founded by W. Boddy

ONE SHILLING MONTHLY



CONTENTS

A Veteran Collector in South Africa ... Inside front cover
The Fair Sex Should Race—A Defence 136
Emphasis on Economy 137
Models 138
A Rebuilt M.G. Magna 139
Cars I Have Owned 140
Rumblings 143
Miscellaneous Aspects of Design 146
Club News 147
Letters from Readers 149
Scrap-Book—continued 152
Bolide in a China Shop 153

VOL XIX. No. 7 JULY, 1943 PRICE ONE SHILLING

SUBSCRIPTION RATE 13/6 PER ANN. POST PAID.

MOTOR SPORT

OFFICIAL JOURNAL OF THE BRITISH RACING DRIVERS' CLUB

INCORPORATING **SPEED** AND
THE BROOKLANDS GAZETTE

ADVERTISING AND EDITORIAL OFFICES

21, CITY ROAD, LONDON, E.C.1

Telephone: CLErkenwell 1128

A VETERAN COLLECTOR IN SOUTH AFRICA

AT the outset I must ask English readers accustomed to the glut of veteran cars which appears to be an inherent part of English motoring, to realise that in South Africa there were relatively few cars before the Great War and there are certainly very few of those now left—still fewer in any condition which would justify their forming the subject of an article. To the best of my knowledge the pre-war cars still "alive" in South Africa number less than thirty, of which I propose to write concerning my "First X."

During the Empire Exhibition in Johannesburg in 1936, a local newspaper, *The Sunday Express*, decided to organise a race for cars at least twenty years old, to be held on October 3rd. The route, a total of about 35 miles, was to be from Johannesburg to Boksburg and thence back to Johannesburg via Germiston, the finish to be in the Empire Exhibition grounds. My brother and I heard of the race one afternoon, and simultaneously of the existence of a Ford "T" touring car old enough to enter. The owners of the car, two enthusiastic young people, were prepared to loan the car, but later decided to enter it themselves. On this sad blow my brother and I started a hike through Johannesburg in an unsuccessful effort to locate a veteran. Eventually we heard through a friendly scrap dealer of the existence of a Mrs. Engel in Turffontein who had some old cars. We rushed out there immediately, and in a large garage met a fantastic pair of cars, one a large red touring Italian "Diatto a Clement," and the other a light American Metz 2-seater, both cars perfectly preserved, having been under cover and very little used. We were, however, badly disappointed to discover that Mrs. Engel, whose husband had imported the cars before the Great War, was reconditioning them for the race herself, the Metz, in fact, to be driven by her daughter, a university student. Seeing our disappointment, however, she offered to contact another daughter, a Mrs. Slabbert, of Krugersdorp, to whom they had given a sister Metz some years previously.

Some telephoning elicited the information that this second Metz existed still, but had been abandoned to the elements in a field about three years previously.

A visit to Krugersdorp followed, and to our horror we found a rusty chassis, bonnet and engine, and not much else. However, we had gone too far to feel like giving up, so we arranged to obtain equipment and tow the car in the odd twenty-two miles or so, in very cold weather, with the feeling that it was unlikely that the chassis would stand up to the journey. My costume consisted of an overcoat and various improvised mufflers, one carefully arranged to enable me to breathe the horribly cold air. A flash-light provided illumination of a sort, and so we brought home our first veteran—a Metz of 1913 vintage, engine No. 29196, a "doorless" 2-seater with a 4-cylinder rather conventional engine, but with friction gearing beneath the seat, embodying a differential in the transverse shaft, and with a double chain drive to the rear wheels. The friction wheel had rusted securely to its shaft, and required the help of a blow-lamp to produce the much-needed sliding action which varied the ratios. We were interested to discover when the engine had been dismantled that the gudgeon pins were held in position and their ends separated from the cylinder walls by a piston ring about ⅜ in. wide.

A thorough reconditioning followed, rather crude in so far as bodywork was concerned, since the seats had disappeared and had to be replaced by a pair of Austin Seven bucket seats.

The great day of Mitzi's maiden voyage dawned, and my brother and I set off through Greenside to carry out tests, I on Mitzi and he playing "equipe" car in my 1934 Austin Seven saloon. Having frightened myself thoroughly with the controls, which were very unusual, we cleared the congested area. The clutch was engaged when pressed down, being held by a ratchet arrangement and was disengaged by being kicked downwards with the heel to release the ratchet. To its right was the foot brake, also complete with a similar ratchet affair, while in the centre of the floor-board was a further foot pedal operating a transmission brake. A hand throttle was added for good measure. There loomed my first hill, and I opened up, to find a few minutes later that the Austin was completely out of sight. This was most reassuring, although somewhat damped on the return journey by the wearing away of the friction surface on our old friend the sliding wheel. This brought about the first of a number of relining experiments, brake lining proving quite satisfactory if held on with enough countersunk wood screws. It also became apparent that the brakes, even when both pedals were used simultaneously, were far from efficient. Mitzi on the road was quite docile up to about 25 m.p.h., but from there upwards displayed a remarkable aptitude for hopping from kerb to kerb with little regard for the driver's best efforts at restraint, or, for that matter, any other user's ideas as to his rights.

The day of the race dawned and we set off, the trip being punctuated by the feminine costume which my brother had donned for the day, becoming entangled with the drive-shaft. He was fortunately wearing football shorts as well, since after he had been cut loose the skirt was present as far as a "hello" went, but very absent as to a "goodbye." After rather a hectic trip back through Johannesburg's Saturday afternoon traffic we finished fourth behind the sister Metz.

This impressive result was due to incredibly bad handicapping and arrangements generally.

After this effort Mitzi came home with us and provided amusement at odd weekends, her acceleration on more than one occasion proving superior to moderns, to the horror of their owners. One of her best stunts was to start from cold on two swings in an incredibly effortless fashion.

Mitzi's next public appearance came on a Sunday, November 21st, 1937, when the Junior Car Club held a sporting event at the Howe Circuit which included 60 minutes on the Circuit at exactly 30 miles per hour, a modification of the normal reliability trial idea. I entered Mitzi, who suffered from fuel starvation, managed about 27 miles, and gave a lot of fun to all and sundry, including some plutocratic citizens who sat in and on a S.S. 100 drinking beer while doing their 30 m.p.h. with enviable ease.

Incidentally I discovered that completely undamped fully elliptic springing was a lot of fun when given a chance to play with bumps at speed. I've seldom slept better than I did that night!

Mitzi subsequently made another appearance on the Howe Circuit when the J.C.C. ran a veterans' race as a light interlude to a day's serious racing. On this occasion a spring steel strip on the flywheel snapped at full speed, neatly severing the throttle control, so that my passenger had to lie alongside the engine and work the carburetter butterfly by hand. It is fortunate that he was too busily engaged to notice our pace.

My only veteran remained Mitzi until 1939, when a friend of mine came into my office with the news that he had seen "the oldest car in the world" on a Main Street scrap heap. I scoffed at the idea, having scoured the scrap dealers pretty thoroughly. A visit, however, showed the car to be no other than a 2-seater German Adler of about 1909 vintage.

Protracted negotiations ended in the car becoming mine in August, 1939, for the sum of £4 10s. She was in very bad condition as far as bodywork went, having spent about thirteen years in the open. I arranged with some cartage people to tackle the by no means simple job of getting the car down off a ten-foot high heap of second-hand piping and on to the truck. The feat was eventually achieved over the summit of the corrugated iron fence, the car being gradually levered down and finally run down a sort of improvised slipway. I warned the cartage men that the affair would finish up with a wild rush, which duly happened, the cab of the truck providing quite a fair buffer.

After a certain amount of cleaning up the engine started, but ran erratically, and seemed to indicate the need for a major overhaul, which was commenced. Simultaneously the bodywork was attacked and with the aid of a good Hollander carpenter, was made rather more presentable. A great deal of new timber and plywood had to be used, and the job at the present time is far from complete although proceeding slowly. The Adler's engine is No. 3490K and is quite straightforward and in line with the design of that time—a 4-cylinder, non-detachable head, originally twin-ignition—plugs, magneto and coil, of which the latter had been discarded The gearbox is a four-speed job with gate change outside the dummy right door. Beneath the usual massive brass radiator hangs a still legible number plate bearing the Germiston number TG 254. Among its more interesting points can be numbered a camshaft with separate cams individually screwed on, and a genuine Stepney wheel—well rusted. The Adler's arrival did much to promote family interest in veterans, and many wild-goose chases followed.

One fortunate day I mentioned a trip in search of a model "T" Ford, to Tiny Hindle the Bugatti enthusiast, who staggered me by saying that his next-door neighbour in Sandown, a Mr. Rheinold, had a veteran standing in a shed, which seemed to him worth while investigating.

A quick trip out revealed a 1911 G.W.K., TJ 2745, which was added in August, 1940, to the stable at a cost of

One good effect which the war has had is that of enabling us to learn something of the enthusiasm that prevails overseas for real motor-cars, in countries and continents where conditions are less nostalgic than they are here. In the article which follows, Jeffs Watson, of Johannesburg, describes his collection of ten veteran cars which he has got together. Incidentally, it may interest German spies to know that his MSS. arrived safely on twelve separate air-graphs during the height of the African campaign. In view of the increasing interest in veteran motoring in this country and the number of persons now preparing or preserving such cars for after-the-war events, Mr. Watson's remarks will be read with interest. It is significant that he reckons to have saved one-third of Africa's pre-1914 cars, whereas over here we have over 180 pre-1905 cars alone registered with the Veteran Car Club.—Ed.

£2. She is a light English rear-engined 2-cylinder, 2-seater, Type "B", chassis No. 60, made by G.K.W. Limited, (Grice, Wood & Keller), Home Works, Datchet, Bucks. The engine is an 8.6-h.p. twin, set across the chassis, its flywheel providing one surface for a friction gear, which drives an offset propeller shaft to a spur gear differential, and a very pretty piece of rear axle—much beautiful aluminium. The car was dirty and rather weather-beaten in spite of being under cover, but it was obviously worth an effort, so I arranged with a fellow enthusiast to obtain, legally or otherwise, a builder's truck belonging to his firm. The G.W.K. was duly loaded and we set off for home, the car swaying happily on its springs and occasionally lurching forward as the Diamond "T" braked too hard. Once home and safely off-loaded we set about trying to get the engine going: in spite of more water than oil in the sump, she started, but knocked rather a bit, so once again I felt a "teardown" called for.

Most of the bits were in fair condition, but the crank-case needed a great deal of welding as there were signs that a connecting rod had been unduly curious to see the outer world. The case was turned over to one of our local wizards known far and wide as "Juno," who did some commendable patching. The crankshaft ran in two large ball-bearings which I replaced as they appeared somewhat loose. I also replaced the camshaft drive and magneto drive chains which were slack. I noticed the rear axle felt a bit stiff, so opened up, to gaze in horror on a pinion minus about 1½ teeth, and a crown-wheel with two cracks in it. These were promptly hurried into Juno's care, and more careful welding done. On my rebuilding the axle, it turned perfectly freely and without noise, which was a great relief.

Turning to the front end, I found that if the car were raised on a jack the wheels feel inwards a couple of inches. Here again Juno's magic came into evidence, and I had both stubs built up at the points where the wheel bearings ran and where the kingpins passed through.

In between these major operations much sandpapering and repainting was proceeding, and finally, with two of her original tyres on the front wheels, the G.W.K. was tried out. This voyage introduced me to the sump arrangement, which was common practice in those days, in which only about one-half pint or so was left in the engine at a time, more oil being pumped in every mile or so.

My first half-mile looked much more like a destroyer laying a smoke-screen! Handling the G.K.W. is at once unusual and pleasant in the extreme. The clutch pedal disengages the friction drive when depressed, the drive being kept engaged by a spring. The "gear-change" is a right-hand lever in a progressive gate giving four forward positions, neutral and reverse. Her handling is, however, complicated by a Bowden controlled air-valve at the driver's right hand which has to be opened and closed more or less as the throttle is varied. Failure to co-ordinate results in either an over-rich mixture at any appreciable throttle opening, or a stall when the throttle is closed. The clutch pedal also actuates a transmission brake when fully depressed, there being no separate brake pedal. The hand-brake is, of course, outside the body against the dummy right door, and works on the rear wheel drums. The steering is light, high geared and accurate and makes the car very pleasant to handle. The stubby bonnet, of course, provides merely sufficient foot-room for the front compartment, while behind the driver is the unmistakable "putter putter" of a side-by-side twin, which gradually becomes a soft clank when one has absent-mindedly forgotten to pump any oil for a mile or so!

The G.W.K.'s performance as regards hill-climbing is quite good, being from what I can recall about equal to that of the 1934 Four-speed Austin Seven sedan, which I mentioned earlier.

While these operations were progressing I had been keeping a watch on another ex-Engel Metz then owned by E. G. Williamson's garage, painted red, named

"Fire Chief" and used as a decoy in their showroom. The firm eventually went out of business and through the good offices of one, Bernard Cronin, "Fire Chief" became mine for £4, in March, 1941. Her specifications are exactly the same as Mitzi except that the bodywork is very complete and includes a hood and windscreen, the latter a large American cloth affair with celluloid window. The engine number is 28835. The car has remained "Fire Chief" and has an astonishing turn of speed in the region of 55 m.p.h. Her brakes at the moment do not stand up to more than 5 m.p.h. with any consideration for the public! Her condition is so good that the only other item needing any attention is the friction wheel which suffers from a flat spot. I have never quite discovered the reason but "Fire Chief" possesses amazing compression which is quite apt to catch out an unwary would-be "cranker" who finds himself unable to pull "over-compression."

A trip to Port Elizabeth had resulted in my meeting a magnificent veteran in the shape of a 1911 Model "T" Ford 2-seater owned by Mr. P. J. Landman, whose daily transport it had been up to the end of 1936, when the authorities objected to re-licensing on the grounds that she had only two-wheel brakes. My efforts at the time to add her to my stable were not successful, but in October, 1941, following gentle pressure from time to time by Harold Clark, of our Port Elizabeth branch, Mr. Landman weakened and gave me the car. With the assistance of the S.A. Railways, "Mrs. Grundy" made the 600 odd mile journey here safely, a black 2-seater, about the first model with front doors, much brass work, registration CAB 3. She had been bought by Mr. Landman, Senior, and remained in his family until she passed into my care. The engine is the famous Model "T" 4-cylinder 22.5 h.p., No. 87448, epicyclic gearing, foot control to the gears and hand throttle. Her handling of any hill is masterful in the extreme, and she appears to get up into the 40-50 m.p.h. region in most effortless fashion. I had only to do a certain amount of polishing up and cleaning of the carburetter before she could be used. Actually I have since discovered that the rear axle emits some rather distressing growls on over-run and I am now planning a close investigation. An astonishing feature is a rear exposed cylindrical fuel-tank with a capacity of no less than twelve gallons. Her epicyclic gearing is, of course, a most satisfying affair—the technique for getaway being to tread hard with left foot and yank the throttle. The resultant roar is music!

After the G.W.K. and Ford had been put on their wheels, I was asked to assist a "War Fund" Show, which meant a journey of about seven miles across the city. I drove the G.W.K. and Bernard Cronin the Ford. We proceeded in fairly orderly fashion, much comment from all and sundry attending our passing. At our destination the event was to be a triangular race of a few laps round a midget car track, the third car being Tommy Ellis's 1910 Flanders. I had, of course, arranged that the first lap or two would be "pulled," to put up an interesting show from the point of view of the public, but it was not long before it developed into a flat-out race, the Ford winning comfortably with the G.W.K. a gallant third, her 8.6 horses having done the best they could.

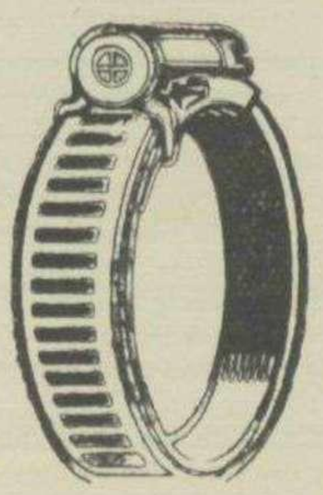
About this period I had been making some efforts aided by my father to get possession of Mr. Charles Whitehead's 1898 Albion Dogcart. He would not part with the car, but gave the name of a Mr. Wood, of Maritzburg, who had a steam Toledo of about the same age. Unknown to me, my father entered into negotiations with Mr. Wood, and with the assistance of our Durban manager, Freddie Mathews, the car was sent up "on indefinite loan."

The Toledo arrived here in February, 1942, a buggy type outfit with tiller steering, single-tube tyres, boiler under the seat, more cocks and taps than one could ever credit, and a twin-cylinder engine driving a central chain to the rear axle. I have in mind the idea of trying to save the tyres by injecting raw rubber to seal the numerous indications of porosity, but how successful this will be remains to be seen. It would be a pity to discard the single-tube tyres, as they are naturally irreplaceable.

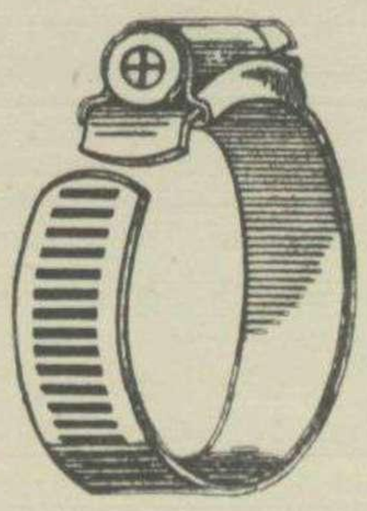
I have not made any appreciable headway in getting the car running, partly on account of great ignorance of steam arrangements and partly as my efforts are confined to week-ends, shipping keeping me fully occupied at other times. A contemporary handbook, however, has a great deal of data on this car and similar light steamers of the period, such as the Locomobile, which it resembles closely, so there is every likelihood that the resurrection will be achieved some fine day. I have in the interval been dosing the leather hood with neatsfoot oil in the hope of softening it sufficiently to avoid complete replacement. Incidentally, I may mention that these steamers

JUBILEE WORM-DRIVE CLIPS

THE BEST POSSIBLE TO GET



MAKE SURE YOU HAVE THEM FITTED ON YOUR RADIATOR JOINTS, LEATHER COVERS, ON UNIVERSAL JOINTS, AIR, OIL & WATER HOSE JOINTS.



ALL IN ONE PIECE. NO PARTS TO LOSE.
EASY TO FIT. GUARANTEED NEVER TO LEAK.

A KEEN MOTORIST WRITES: *"I cannot understand anyone using any other pattern, as yours are the last word in satisfaction and efficiency."*

STOCKED BY ALL GARAGES & ACCESSORY DEALERS

MANUFACTURERS
L. ROBINSON & Co.,
2, London Chambers
GILLINGHAM, KENT.

PLEASE MENTION "MOTOR SPORT" WHEN CORRESPONDING WITH ADVERTISERS

averaged about 7 m.p.g. on petrol and about 1 m.p.g. on water, so that any ideas of being useful under petrol rationing conditions are optimistic in the extreme!

In the scouring of city's scrapyards for beaded-edge tyres I encountered a dealer called Goosen who reported two old cars in Pretoria. Investigation revealed these to be two twin-cylinder Renault 2-seaters in appalling condition, lying out in the open, where they had almost taken root. They had been the property of a Dr. Koch, and were sister cars, although there was a difference in ages of about two years. I could not resist, and in February, 1942, for £6 10s., became their proud owner. The one was TP 215, a 1909/1910 model, type AX, chassis 17825, made by Renault Freres, 15, Rue Gustave, Billancourt (Seine), France. The bodywork was almost non-existent, but the engine and gear-box had been removed presumably for repairs which had not been carried out; one front wheel had also yielded to some over-vigorous cornering.

The other car is TP 323, a 1910/1911 model, also type AX, chassis 25182, complete in all respects including hood, but in a very badly weatherbeaten state. Both cars have an interesting looking drip-feed arrangement as their sole dashboard "ornament."

A problem here arose in that about 38 miles separated my home from the cars. However, I did some scrounging and finished up with permission to use a mattress merchant's flat truck which was taking a load to Pretoria and was due to return empty. I met the truck in Pretoria, went out to the site, and started the job of loading. I found to my horror that the cars were about 3 to 4 ft. longer than the width of the truck, and a great deal heavier than I had thought. However, by much heaving and bribing of passing native boys, we managed the loading. The cars lay side by side across the truck with about 1 ft. 6 in. or so overhanging on each side! When I viewed the outfit loaded I had visions of long years behind bars. It was too late to change plans, however, so we set off by back roads to dodge the gendarmes; a steady drizzle did its best to make matters more cheery, but we survived the trip and got the cars home. I have not done much towards rebuilding, but am quite confident about the better of the two cars, although I foresee a great deal of labour before the other car is likely to run. Incidentally, the "complete" car produces a fair spark if cranked energetically enough. Cranking in itself is a feat, as the compression is very much present. The plan of the car is a 2-cylinder in-line engine leading into a "progressive gate" gearbox. The famous Renault bonnet covers the works, followed by a typical rear-mounted radiator, and a 2-seater body with a hood but no doors or windscreen. The car has its tyres and tubes still mounted, but time and weather have done them little good. The weight of aluminium between engines, gearbox and rear axle must be incredible and gives the car a very Grand Prix sort of look (in spots!).

A chance encounter one Sunday at tennis led my father off on the trail of a 1912 Humberette Twin, then the property of Natal Motor Industries, the Humber agents in Durban. They had intended to use the car for advertising purposes, but abandoned the project. The car was bought for £10 in April, 1942, and railed up to Johannesburg. "Hubert" is a neat 2-seater air-cooled twin, made by Humber Ltd., Coventry, with conventional gearbox (progressive gate) in good general condition, but rather neglected and needing a windscreen repair. Registration is NDE 27, engine E6442, car No. E6443. The engine will start from cold on two swings of the crank, day or night. The gearbox appears to need attention, one or two gears feeling very vague, but the car generally is rather intriguing and has great possibilities. A large Air Force friend of mine took "Hubert" out for a run, and returned with the gearshift lever held aloft. However, he was forgiven, as an obvious bit of bad brazing had been the cause and not mere ham-handedness.

After the Humber episode the year passed off without further additions to the stable, although much fruitless investigation was carried out. However, 1943 started out by the acquisition in January of a 1910 Fiat touring car with flush-sided torpedo body, which I had met in 1936 in the *Sunday Express* race, driven by Peggy Shepherd. The car had retired to Sandhurst, where it lay under a shed on Mr. D. J. Grant's place. In exchange for a £7 cycle, to be given to an old native retainer, the car became mine. The intention was to drive her home, but a leaky water pump and a sump full of water necessitated a tow. The car, TBE5, is a Fiat, engine No. 13432, made by Fiat, Torina, Italy. General condition could hardly be better, the engine starts with a swing and tyres are astonishingly good. The wheels are not original, having been altered at some later date by someone who could appreciate the convenience of the Sankey "steel detachable." Electric lighting has been added and the fuel system changed from pressure feed to vacuum, a piece of vandalism to be done away with if it is possible to get the pressure system working again.

I have since done quite a bit of cleaning and polishing, and readjusting of mixture; a longish run was made only a week-end or two ago with every evidence that "Edward" was enjoying the run as much as his passengers.

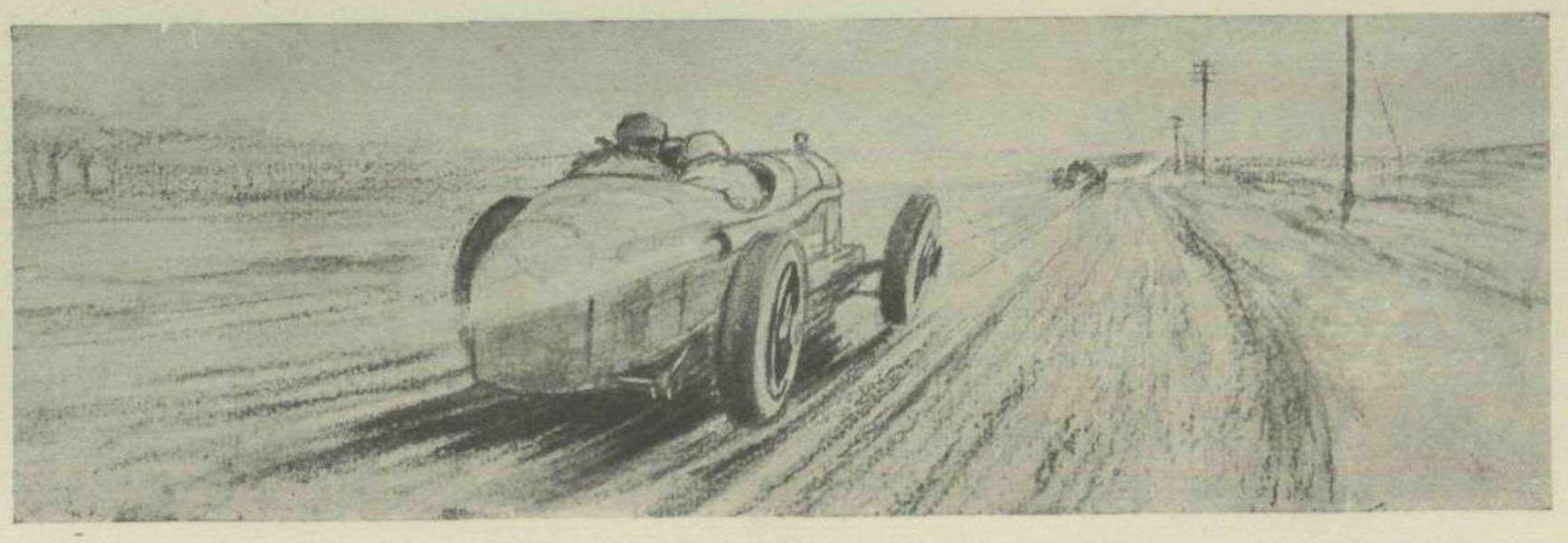
The clutch, a cone affair, is one of the smoothest operating one could ever wish to find, although it resents overmuch slipping and revving. The gearbox is perfect, each gear buzzing pleasantly and completely smoothly, a pause of about 5 to 10 seconds in between changes appearing to suit the scheme of things admirably. Her hill climbing is very satisfying, although acceleration is slow. The engine seems to pull steadily at what seems about 100 r.p.m., each power impulse thoroughly audible and able to be felt.

This is a record of the "First X," quite likely to extend further with favourable luck, but at the moment providing a major headache in finding accommodation for so large a family without encroaching on the "spare bedroom."

I have, however, found with the passing of years that people who can really appreciate a veteran are very few and far separated. Comments vary from opinions that mental decay has set in, through friendly tolerance to appreciation by an isolated few, but I am continuing undeterred and in the hope that one day a band of veteran enthusiasts and collectors will exist out here, as it does in England, Europe and America.

I would be grateful if any readers of this article who may be acquainted with any of the types of cars mentioned would write giving me any information they may have at their disposal. I would also be glad to hear from any veteran collectors who have the energy to put pen to paper.

I would finally mention that if any fellow enthusiast sees this article and is in Johannesburg, I would be more than happy to meet him (or her!). My name and address are unmistakable in the Johannesburg Telephone Directory.



THE FAIR SEX SHOULD RACE—*A Defence*

At the Second Brains Trust most of the assembled brains thought that women should either not race at all or should do so on their own. In this outspoken article a girl enthusiast, who has spectated frequently at British and Continental races, and who wants to see more women competing after the war, defends her sex.—Ed.

THERE was so much nonsense talked on the subject of women in motor-racing at the Second Brains Trust at the Rembrandt Hotel, last March, that it really seems time a girl showed these learned gentlemen where they were wrong. According to the Trust, women should be *allowed* to race, but not in the same events as men. As the reasons put forward to support this view were so terribly lame it will not take long to deal with them.

Raymond Mays holds the view that women are a queer species of humanity, and he said they are " a race apart, and so should be left to race apart." As women form over half the population of the world, I think one can safely say that the converse of this statement is true ; anyhow, I'd jolly well like to see how he could get on without us ! Another Truster seemed to think that motor racing was a man's job alone. Obviously, women have amply demonstrated in this war that they can successfully do jobs that have hitherto been confined to men, and men, it is well known, excel at the " woman's job " of cooking. Personally, I think all this bunkum about what should and what should not be a woman's job is a sheer waste of time. If a person wants to do a certain job, and is capable of doing it, then obviously it is both futile and silly to tell him or her that he or she cannot do so because it is a job for the other sex.

Then—" Chivalry " ! ! No better excuse existed for the treatment of women as fragile objects. Perhaps the Brains Trust had something like this in mind : A man driver tearing along is just finishing the seventh lap. There is a woman behind slowly but steadily gaining on him. At the end of the tenth lap she has caught up to him and for a time they roar along abreast. Suddenly the man looks round and, seeing his fair competitor, is streaked with beetroot purple at not having remembered the first thing his mother taught him at her knee. He turns towards her and, gracefully doffing his crash-hat, says in a vibrant, gooey, but obsequious tone, " Pray step in front, madam. Ladies first, you know ! " Speaking seriously for a moment, the thing which is really surprising when one looks back upon pre-war racing is not how few girl drivers there were in racing, but the lamentably poor standard of driving amongst the men. As a spectator at many races at Brooklands and Donington—and such events as Le Mans, I was in despair at the number of young men whose only qualification for holding a competition licence was a fat pass-book. The result was a crowd of rich young nincompoops with fast cars, over revving, running out of road, and spinning round on corners, whom I personally would not allow to drive my car from London to Donington —much less race it when (and if) it got there.

It was a great shame that money was such an important factor in racing. Lack of it kept many keen and skilful girl drivers from racing, just as it kept good men from doing so. Bearing this in mind, and the inevitable fact that racing is not every girl's cup of tea, the surprise is not how few and how bad girl drivers were, but what a good show they put up.

There can be only one sound reason for wanting to exclude women from racing, and that would be if they were not capable of handling a car as well as the men. I notice that not one of the Brains Trust suggested this to be true, in fact, Mr. Pomeroy mentioned several really first-class women drivers, for example, Mme. Junek, who led the most difficult race of all—the Targa Florio—from men such as Fagioli, Divo and Connelli, and was the equal of any man on any road. What is more, she ran her husband's pit right up to when he was killed in a Bugatti. It is a thousand pities that this tragedy made her give up racing, although she still kept in the game as an organiser at the Masaryk circuit.

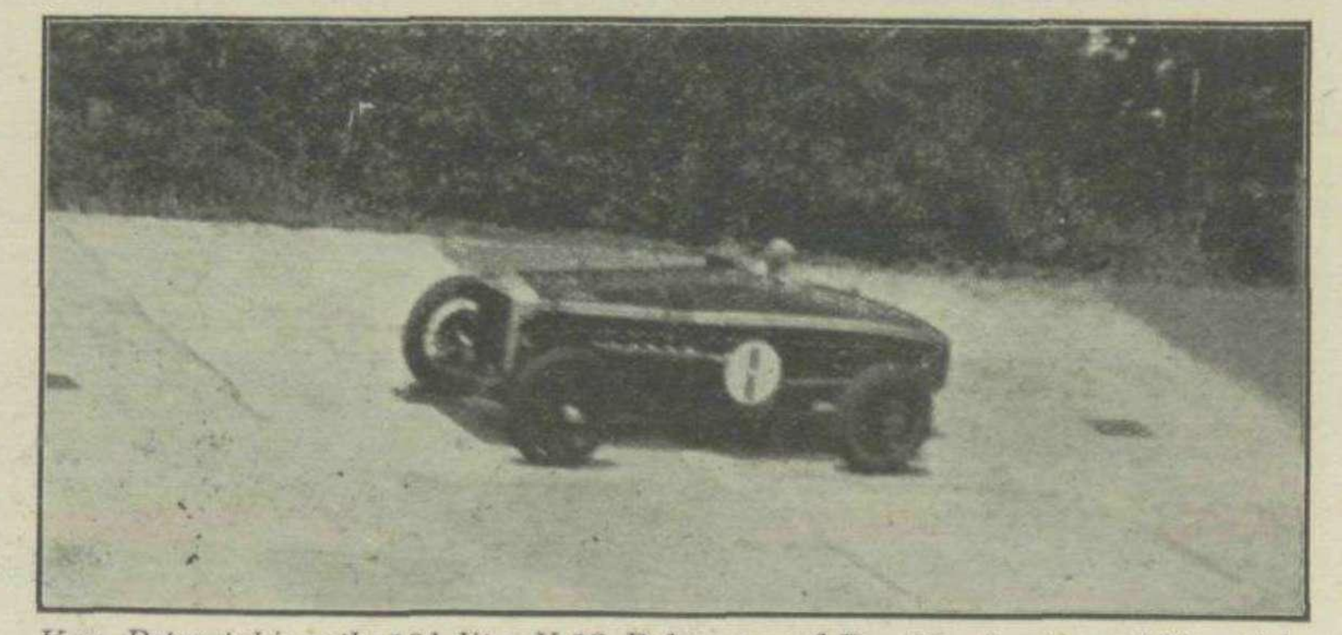
In track events women did more than hold their own. Besides taking many International records in the 2-litre class, Gwenda Stewart held the out-and-out lap record at Montlhèry for many years with the Derby-Miller at 147.79 m.p.h., only losing it to Raymond Sommer just before the war, and she also holds the Brooklands Ladies' Lap record with this car at 135.95 m.p.h., a Class E record. At Brooklands, too, Mrs. W. B. Scott (formerly Jill Thomas) did terrific work with Sunbeams and other very fast machines. " Bill " Wisdom handled the Leyland Eight like nobody's business, and she and Joan Richmond won the J.C.C. British 1,000 Miles Race in 1932 against all comers in their Riley Nine at 84.41 m.p.h. Joan Richmond, incidentally, not only drove an excellent race on that occasion, but did a great deal of first-class but inconspicuous driving in rather slow cars on other occasions. It was a great shame that war broke out just as she was finding her form at the Crystal Palace in faster machines. And it will be realised that she was quicker up Shelsley Walsh than Waddy, driving his incredibly unorthodox and difficult four-wheel-drive Fuzzi. She also did great work in trials and rallies, including the Monte Carlo Rally, and it should not be forgotten that she *drove* to this country from her native Australia in a Riley Nine !

On road circuits, too, the few women who were really keen (and had the funds) did remarkably well—witness Mesdames Mareuse, Siko and Itier at Le Mans and elsewhere, who still kept on when their men rivals had crashed or stopped. Eileen Ellison, too, could handle a car, and her racing tours of the Continent with Cholmondeley-Tapper were some of the best bits of motoring by an English girl of recent times.

Doreen, of that racing family of Evanses, was far faster and better than either of her brothers in the same cars, and her racing career was only stopped when she married and went to live in America. Consider how many men develop their skill as quickly as did Doreen.

It is worth noticing, too, that although these women were undoubtedly " tough " they still retained their femininity, even if they found overalls convenient when driving. Dorothy Stanley-Turner, holder of the Ladies' Record at Shelsley Walsh with an Alta, is certainly no " tough." Margaret Allen (now Mrs. Christopher Jennings), with her Lagondas and Bentley, has every bit as good a Brooklands record as any man with comparable motor-cars. Then there is Mrs. Kay Petre's round the Mountain lappery with the White Riley. Mays took 55.4 secs. (76.03 m.p.h.) in 1934, whilst when Mrs. Petre had the same car the following year, she lapped at 77.87 m.p.h.—*i.e.*, she clipped 0.38 of a second off Mays's time. And she actually lapped the Brooklands Outer Circuit faster (at 134.75 m.p.h.) than either John Cobb or Oliver Bertram in the V 12 Delage—

—continued on page 139



Kay Petre taking the 10½*-litre V* 12 *Delage round Brooklands at over* 130 *m.p.h.*

Emphasis ON ECONOMY

Further reductions in petrol rations prompt the inclusion of these notes on two cars which, if not of sports type, are of some topical interest to the enthusiast—Ed.

Geoffrey Deason writes of the Jowett—

CERTAIN cars, whilst not ranking in the sports category, nor even in the luxury class, lay claim to Vintage status by reason of their peculiar merits and characteristics. Such a car was the stubby and uncompromising little 7-h.p. Jowett of 1923/25. It did not invite you to rebuild it as a "Special," it refused to respond to amateur tuning, and with its "austerity" body lines, snub nose, and "semi-detached" looking axles it was not beautiful. Yet few cars have inspired their many owners with such fierce loyalty and partisanship as these sturdy little Yorkshiremen.

I have owned four specimens; a short and a long 2-seater, and two long-chassis 4-seaters. Each had been consigned unjustly to the breaker's yard, and each was rescued on sight. Not one of them knew a covered garage during my ownership, but summer and winter alike they started on a pull-up, their reliability was proverbial, and their m.p.g. varied from 40 to 50. Their unlovely square-cornered bodies were all aluminium-panelled, the paint stayed put, and the hide upholstery shone the seat of one's pants but refused to wear out.

I have always considered that the old fixed-head engines were in many respects to be preferred to the later models, and at least one of my cars had covered 90,000 miles without a rebore. An enormous crankshaft ran in bronze bearings, renewable, so I was told, for about 4/9, though I have yet to meet an owner who has replaced one. The earlier models occasionally gave some anxiety due to the failure of the oil-pump to prime, but nothing ever seized, and one simply refused to look at the oil-button on the dash for the next 20 miles, by which time one had forgotten about it. The gears were changed by a delightful little right-hand lever operating split selectors in the gate, and went home with a satisfying click when well judged, otherwise emitting a horrible scrunch of protest.

The brakes were fun. A foot transmission brake behaved in the manner of its kind, and the hand-brake was used as an emergency measure. As the errand-boy darted from his side road you yanked heartily on this appendage, the car said "Yonk," or "Gluck," depending on the general tightness of everything, and forward motion ceased if the road was dry. If not, subsequent directional control depended on one's reflexes and the high-geared steering.

The Jowett had other advantages; the snootiest insurance company would cover them for a song, on the assumption that dicing was unlikely to take place in so venerable an equipage, and ten shillings taxed them for a month and bought a gallon of petrol into the bargain. It was thanks to these clemencies that many of my trips to Donington and Shelsley were possible at all during numerous financial crises of the early 1930's.

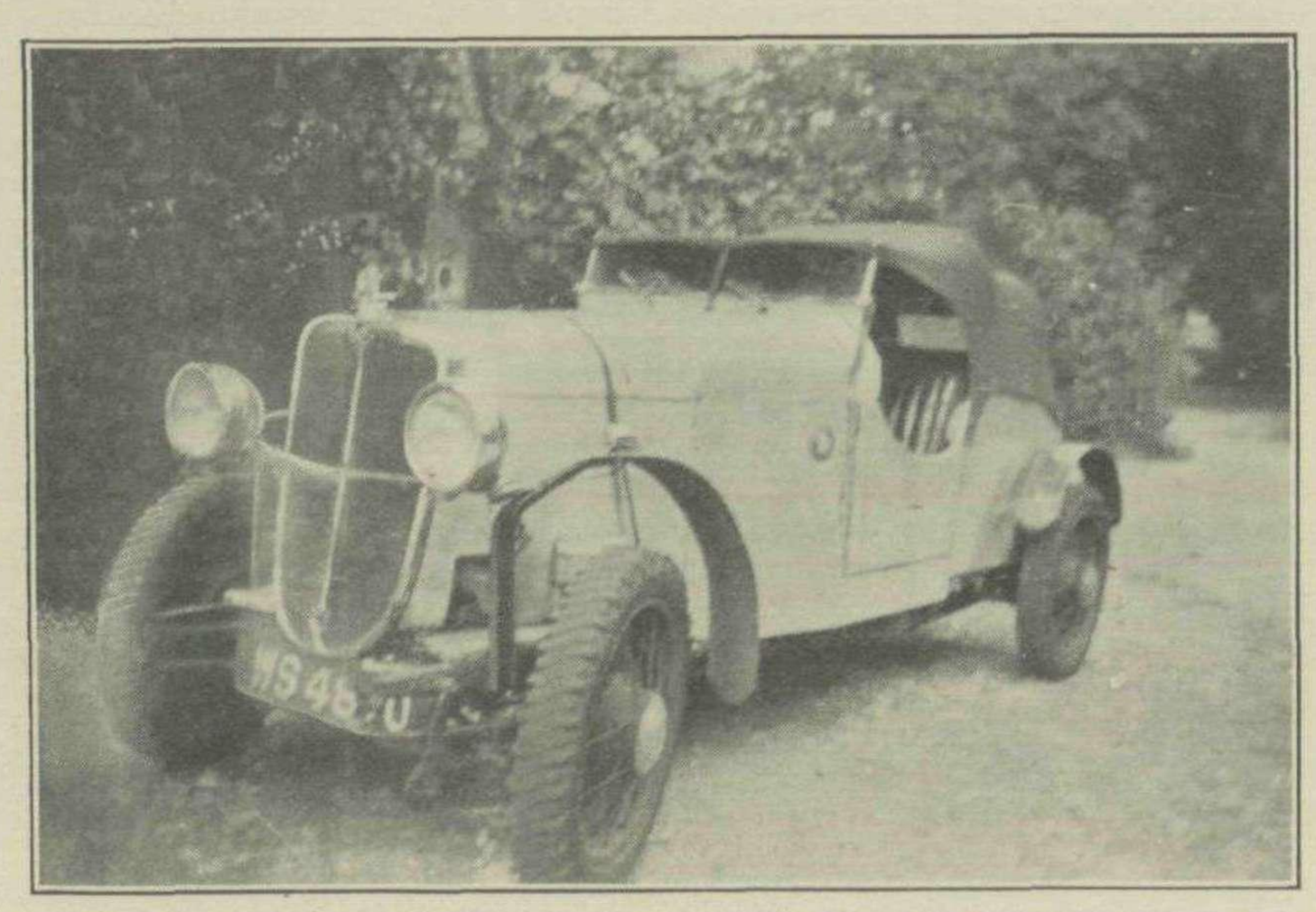
The acquisition of my last long 4-seater was inspired by a discussion with the Editor of MOTOR SPORT on *really* cheap long-distance motoring, and I determined to embark on a fortnight's holiday in an equipage costing no more than fifty shillings. I had recently acquired a mongrel o.h.v. Morgan-J.A.P. for £1, but since my crew was to number three, complete with female luggage, this entrancing vehicle was out of the question, and a capital outlay of 47/6 produced a 1924 Jowett, devoid of battery, horn, spare cover and rear upholstery of any kind. I took delivery of my bargain the evening before my leave started, borrowed a battery, fitted a scrap cover, and filled the rear seats with an assortment of sitting-room cushions, before gingerly introducing her to her horror-stricken crew.

We upped anchor at dawn, averaged 26 m.p.h. over the 100 miles to Doncaster and then, with her foot on her native heath and the crew's apprehensions partially lulled, the machinery commenced to boil. And she boiled regularly at ten mile intervals for the rest of our association with her, despite frantic efforts to trace the cause and pounds of soda in her cooling system—by the time the west coast of Cumberland was reached at least one member of the crew had shown real talent as a water-diviner. Her powers were unimpaired, however, and she coped with the really trying gradients of those mountainous parts in a manner that endeared her to us all, completed 1,200 miles with no other fault than her chronic thirst, and on the return journey covered the final 30 miles in 55 minutes, non-stop, finishing, bone-dry and glowing cheerily, in the dusk.

About that time I was associated with a much speedier edition of the marque. A Jowett-minded friend, a keen driver with some trials experience, bought the wreckage of a 1935-6 "Kestrel" saloon, which had only 4,000 miles to its credit when it crashed badly, wrote off its body and put some nasty kinks in its frame. The bodywork was scrapped, the frame straightened, the compression raised and special Terry valve-springs fitted. A downdraught carburetter was fitted to each cylinder, the steering rake altered, and the suspension slightly stiffened. A quite attractive close-coupled 4-seater body was built of ash and aluminium sheet, and a neat hood was made professionally.

This car, though not fast by modern sports-car standards, would stand more prolonged caning than any 7-h.p. car I have known, and on an illicit run down to Starkey's after a Donington meeting clocked 68 m.p.h. Incidentally, the addition of a special exhaust system produced such a frightening animal-snarl on the overrun that it was hastily discarded as a breach of the peace.

The idea of supercharging by belt-driven Centric was toyed with, in view of the generous margin of safety given by the engine's main components, but I believe that the House of Jowett evinced such shocked disapproval on being lightheartedly approached for advice that the plot was abandoned! The car was invariably and savagely over-driven on all gears, but it took everything it got and gave its owner many thousands of miles of reliable motoring at 33 m.p.g., for a capital outlay of about £50 and some interesting hard work.



The sports Jowett built up from the remains of a "Kestrel" saloon—it gave 68 m.p.h. and 33 m.p.g., and stood up well to very hard driving.

—and Ralph Venables on the B.S.A. Three-wheel

IN a short article appearing in MOTOR SPORT for July of last year, I mentioned that I was then compulsorily laying up my Aston-Martin in favour of a three-wheeler, and I will readily confess that the prospect seemed anything but inviting. I had not, at that time, actually taken possession of the B.S.A., and I must admit straight away that my first experience of "tricycling" was an absolute revelation. That, of course, is not to say I wouldn't have preferred to keep the Aston motoring, but in the twelve months during which I have run the three-wheeler I have come to the conclusion that this type of machine is possessed of a peculiar attraction, and I am now seriously considering the permanent addition of a tricycle to whatever sort of post-war stable I may be able to afford. I might add that the old Aston-Martin will be retained, and that a Jeep will be acquired within a few minutes of the armistice having been signed.

The Editor's request for some general notes on my experience with the B.S.A. has, in a way, come at an unfortunate time, for it coincided with a disconcerting visit from a Petroleum Officer—the aftermath of which was a polite but firm request from Tunbridge Wells for the immediate surrender of my meagre three units—the consensus of official opinion being that I could walk instead. So, as I pen these notes, my motoring days are numbered, and in future I shall have to make my journeys by bicycle, bus or Fordson tractor. (P.S.—The Petroleum Board has suddenly seen the error of its ways and has doled out a fresh supply of units in something which amounts almost to a spirit of abandon. Now I can stop pretending that I didn't mind laying up the car.)

I formally took possession of the tricycle on July 1st, 1942, and, in common with all other owners of two- and/or three-wheelers, was blessed with a basic ration for use until the last day of November. Only three gallons per month, admittedly, but on this the B.S.A. has carried me down to the Dorset coast twice and to Wiltshire and Gloucestershire on three occasions, and has, in between whiles, transported many heavy loads and made innumerable journeys in Surrey, Sussex and Hampshire. During my twelve months of ownership I have covered well in excess of a thousand miles—always entirely free from trouble—and my affection for this slightly ludicrous little vehicle has increased with every mile. It still amuses me to catch sight of the darned thing reflected in a shop window, and it is worth mentioning that I have yet to pass a Canadian or American without suffering the humiliating embarrassment of seeing him convulsed with merriment. I once gave a Canadian soldier a lift down the Portsmouth road, his only comment being to the effect that the folks back home would never believe it!

My particular model is of 1931 vintage, and is, of course, f.w.d. Violent acceleration imparts a fascinating sort of "whip" to the steering which I shall definitely miss when I return to more orthodox transmission. The engine is an air-cooled o.h.v. twin, and is automatically lubricated by a rotary gear pump at the end of a vertical shaft driven through spiral gears by the crankshaft. The o.h.v. gear is lubricated by oil mist forced out of breather grooves cut in the four tappet guides, despite which they are very noisy. Oil pressure starts at about 25 lbs./sq. in. when cold, and falls to between 5 and 6 after about ten miles of hard driving. I succeeded in seizing the engine on my initial run, but this trouble has been completely overcome and the compression is still admirable.

Suspension is definitely on the whimsy side. A shock-absorber is fitted to the rear wheel arm, but at no stage of adjustment is it entirely effective. Keeping it tight, and the rear tyre well inflated, proves to be best, but although this largely overcomes the tendency to pitch and roll, it produces a marked desire on the part of the rear wheel to dance sideways when travelling over any but the smoothest of roads. Low pressure in the back tyre only overcomes this fault at the point where steering has become more than a shade vague.

A special bridge piece is provided to enable both front wheels to be jacked up together, but this is absent on my car, and the procedure is simply to lift one wheel clear of the ground and slip a chock under the axle. Here, of course, is one of the great advantages of lightness (the car weighs under 7 cwt.), and it is due almost solely to the excellent power/weight ratio that one obtains such phenomenal acceleration and top-gear hill climbing. The triangular frame twists pleasantly (I dislike the "dead" feel of a rigid chassis) and the rear wheel is supported on one side only (by a strong arm), the rear spring being enclosed in the frame member.

My model is blessed with five lights ahead and two astern, and it sports two screen-wipers—suction on the left and electric on the right. The varying speed of one to the other tends to be distracting, and I normally deny my passenger the luxury of being able to see through the glass on a rainy day. What's the good? It only terrifies them all the more.

The brakes are really fine, and a spring box to ensure evenly balanced braking is fitted to the rear brake rod. Descending steep hills, however, one is well advised to apply the pedal with caution, otherwise there is a definite tendency for the back of the car to lose contact with the ground. And talking of hills, the front wheels are very prone to spin when climbing rough surfaces and I have several times been forced to scale a muddy slope in reverse.

On the average trials-section a three-wheeler is unsatisfactory, mainly on account of the aforementioned wheelspin. But there is another disadvantage, this being that the back-wheel has a sort of complex. No sooner does it find itself on a slippery surface than it commences sudden and spasmodic attempts to get around to the front of the car, and it occasionally succeeds. No amount of twirling of the steering-wheel will discourage it, and the only sure method is to stop the car and start all over again. This may sound a little far-fetched to many readers, but any tricycle exponents who chance to see these words will read them with a sigh of sympathetic understanding.

I have, however, stressed the bad points rather than the good, and the latter certainly far outweigh the former. The urge is nothing short of inspiring and the figures from 0 to 50 wouldn't disgrace many a large car of far greater reputation. I must admit, though, that at about 55 I feel for a fourth gear which just isn't there, but this is obviously the result of nearly ten years' experience with the Aston-Martin (where 55 m.p.h. is about the most effective speed for changing into top gear). One rarely drops to first, and I have yet to find a main-road hill which couldn't be climbed in top without effort.

Several well-known trials sections have been tackled with the B.S.A., and I shall not readily forget the amusement of some locals when we dug in on Hatch Farm and proceeded to lift the back clear out of the mud and turn the car completely round. This is the sovereign method of turning in a narrow space, of course, and a person of average strength can just manage it alone. Also at Hatch Farm I contrived to turn the car on to its side, but a gentle push against the bank with my hand brought us back on to an even keel. The hackneyed question, "Have you turned it over yet?" as applied to all owners of three-wheelers is, I feel, entirely without justification. I have poked the B.S.A. round corners in a quite outrageous manner, and I find that the point at which sliding sets in occurs prior to any signs of wheel-lifting.

So much for the B.S.A. tricycle. With such a performance from an elderly model, one wonders why the potent Morgan was not more popular. One also wonders why production of the B.S.A. ceased in the middle thirties, and it can only be supposed that there is a groundless prejudice against three wheels. That view, I suggest, could be held by nobody who had any experience of these fascinating little vehicles, and I certainly have the war to thank for introducing me to the tricycle. In the immediate post-war period a lively car doing 50 m.p.g. and taxed at a mere £5 per annum is liable to be an uncommonly useful possession.

◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆

MODELS

THE results of the *Aero Modeller* petrol-driven model car contest have been announced. Models had to be timed over ten flying laps of a circuit measuring between 50 and 70 ft. in diameter, and were divided into Class A for cars not exceeding 6 c.c. and 9 in. track by 15 in. wheelbase, and Class B, for cars of 6 to 10 c.c. and not exceeding 11 in. track by 20 in. wheelbase. Class A was won at 36.7 m.p.h. by T. Cruickshank, of London, with an M.G. Midget powered with a 5 c.c. Kestrel engine. Class B went to F. G. Buck, of Stoke-on-Trent, at 40.5 m.p.h., with a car having a 7½ c.c. Givin Aero motor. Details and photographs of these model cars are given in the *Aero Modeller* for June. Mr. Cruickshank's car bears a fair resemblance to the "Magic Midget" and has a wheelbase of 10¾ in. and a track

Continued on page 153

A REBUILT M.G. MAGNA

Gilbert Stiles tells how he bought a 50/- M.G. and converted it

IN early 1937 I found myself the happy owner of a very much decayed and battered M.G. Magna (1,271 c.c., 57 by 80 mm. bore-stroke, o.h.c. 6-cylinder) for the munificent sum, so I thought at the time, of fifty shillings. Little did I know what I was letting myself in for. After a hectic towing trip, much enlivened by broken springs and lack of anchoring material, it was finally brought safely to rest in my private auto-wrecking department.

My next move was to demolish the body, which was a derelict close-coupled coupé. This turned out to be the shortest job of the lot, as the body simply fell apart when approached with a heavy hammer and a determined air.

The engine unit, axles and steering, etc., were all removed and stripped. The axles presented no bother except for the usual renewals. The road springs were re-set, polished and bound. The braking system was in a bad way and had to be extensively overhauled including the fitting of a set of new brake cables. The only modification to the chassis, other than paring down weight wherever possible, was the filing back of the wheel stops on the front axle, thereby giving a much sharper lock.

I then turned my attention to the 60 m.p.h. part of the job. After deliberate and painful consideration (as costs were already galloping way past my modest estimate of the cash involved), I had the block sleeved back to standard size, the crankshaft reground and mains and big-ends remetalled undersize and bored out in line; also, the head was machined down $\frac{1}{8}$ in. The inlet ports were opened out 2 mm. and, together with the exhausts, carefully polished. The combustion chambers were given much attention at the cost of many hours of "midnight oil," while bronze guides and special valves and springs were fitted and the head copperised.

Blue print and technical advice were very kindly given by University Motors, Ltd., and by their guidance I effectively reduced the fly-wheel to a mere shadow of its former self and lightened the various reciprocating parts. The crankshaft, rods and pistons were balanced, the pistons being Aerolite and of slightly higher compression ratio than standard.

The M.G. exhaust and inlet manifold was discarded as having too many tight turns, and a separate outside exhaust system was built up, using seamless steel tubes arranged with long, downswept bends, welded to a $\frac{5}{16}$-in. steel backplate and running into a larger diameter pipe which was carried along the outside of the car into the existing flat type silencer situated immediately beneath the near-side door. Here a further modification was necessary, consisting of a sheet of brass, chromium-plated and suitably shaped to act as a guard against the hot exhaust pipe and high price of silk stockings. The inlet manifold was made by cutting an old Wolseley Hornet inlet in half, fitting the two sections with the carburetter flanges cut from the M.G. system and coupling the sections with a $\frac{1}{2}$-in. balance pipe. The assembly was then fitted upside down.

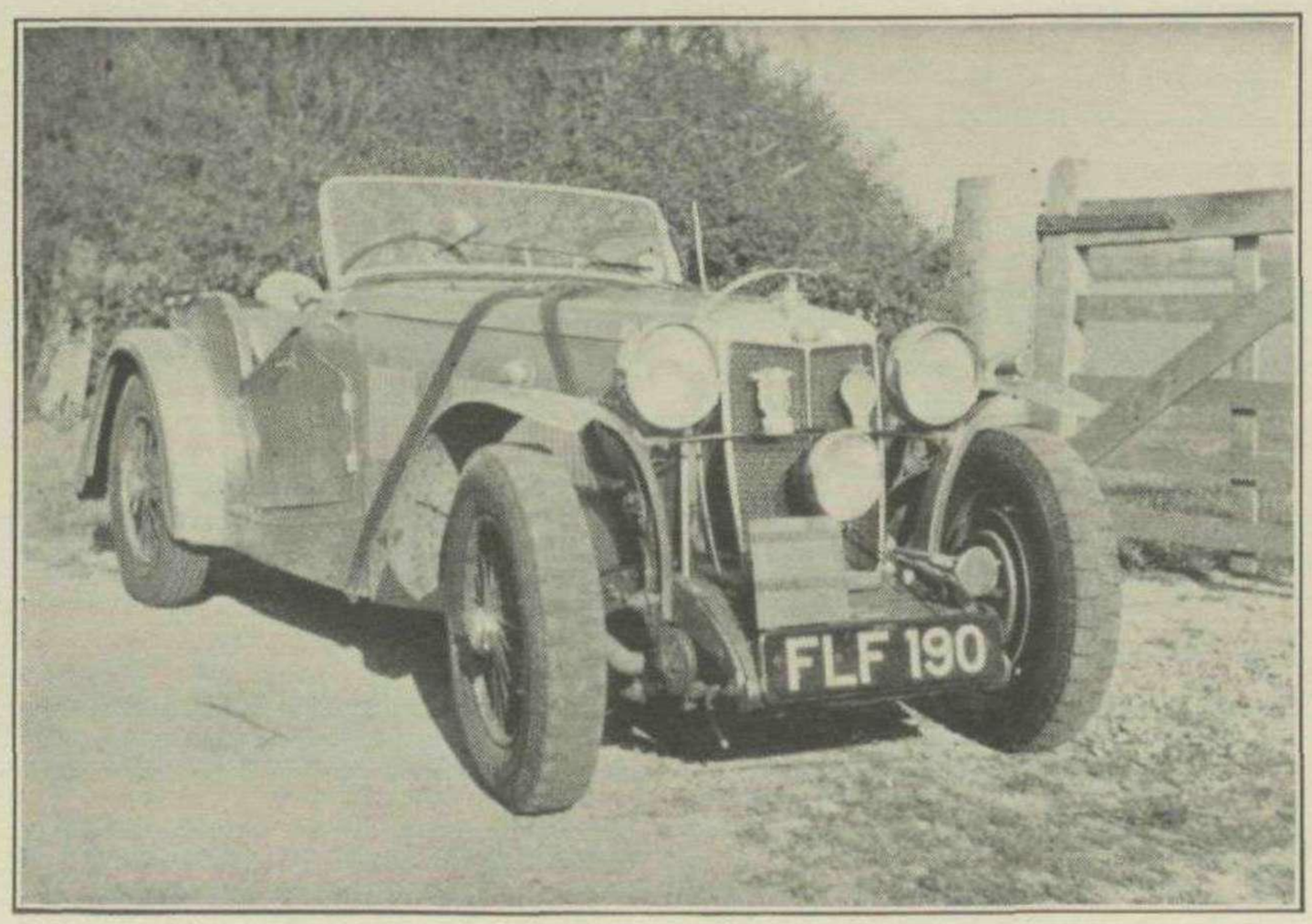
At this point I should like to mention that I feel certain the careful attention given to the manifolds was responsible for a large part of the extra performance obtained. The body was found—as all good special bodies are—in a breaker's yard, and came from a badly crashed 1937 Morgan "4/4" for the price of 10/-. After cutting the cross-frame down 4 ins. and closing the body in by this amount, it was found to be a perfect fit on the existing mountings attached to the chassis. The rear was sheeted over, covering the two slots for the Morgan wheels, and the spare wheel bolted on flat by means of a dummy hub and supported by brackets built up on the inside from the rear of the chassis.

With an eye to slime-storming and extra wheel adhesion, the 19-in. rims were duly swapped, with cash adjustment, for a set of 16 in., complete with large-diameter, low-pressure tyres; this entailed alterations to the axle ratio.

Finally, after many further visits to the haunts of special builders, the car was completed, having taken just on a year to build with extensive aid of the proverbial midnight lamp!

The roadholding, cornering and acceleration were excellent, and the steering very positive in spite of the low-pressure tyres. The braking, however, when used at high speeds, was conspicuous by its absence! Unfortunately, I have no performance records with me and am therefore reluctant to say anything further than that the comfortable cruising speed was in the region of 70 m.p.h., and flat-out speed around the 90 m.p.h. mark—not too bad for a 1931 car, I thought.

As the car was re-registered in 1938 it carries a licence plate of that year.



Gilbert Stiles's 50/- M.G. Magna after extensive re-building.

THE FAIR SEX SHOULD RACE

—continued from page 136

moreover, 135 m.p.h. odd has only been beaten by some half-a-dozen men—Cobb, Birkin, Don, Bertram, Marker, Staniland and Straight, if I remember rightly—and it was done by Kay Petre when all the others thought that the old Delage was finished!

No, gentlemen, before you say you hate racing with women, because you don't like to get tough—or because they drive so well—or because of "ladies first"—or because you "don't like to think of girls getting hurt"—or because it interferes with what your idea of a lady should be—or because you just can't keep your mind on the job when they're around—just count up how many *men* you'd *choose* to race with!

A good many girls have raced without success, but a higher *proportion* of girls have made good than men. If few women have driven in Grands Prix, just think how few *Englishmen* have done any good in that sphere.

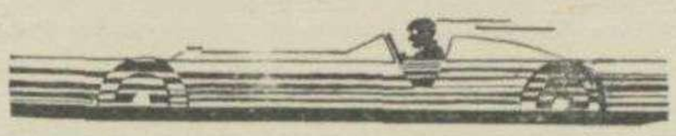
Probably girls are kept out of the game because (*a*) most of the family money is inherited by men under present conditions, and (*b*) a girl's racing career, if she wants to get married and have children, is liable to be short, so that she gives up just as she is getting good.

If the men object that there has never been a female Nuvolari or Caracciola, I reply thus. In considering the "First XV" of front rank men drivers who formed the series in *The Motor* in 1941-2, it has to be admitted that literally thousands of throw-outs have failed to make the grade, and that many reputations have been made only by buying good cars and driving them badly and by drinking with the right journalists. It takes hundreds of men to produce a single Nazzaro or Caracciola, but out of the very few women that have ever raced the names Petre, Stewart and Junek readily spring to mind as drivers of really top order.—P.D.B.

[If the mere male wishes to protest, our columns are open.—ED.]

CARS I HAVE OWNED

Holland Birkett, Captain of the 750 Club, has his say in the matter of personal motor-cars.—Ed.



FROM the age of twelve I had been systematically conditioning my parents to my proposed motoring career, and so at sixteen I was sent off on a train to a place forty miles distant, to buy a *motor-cycle from a friend of my* father's and ride it home. This scheme was hatched spontaneously in the parental bosom and showed that they were prepared to bow to the inevitable with good grace. Although primarily car minded, and a fervid Lancia Lambda enthusiast since early childhood, I surveyed my newly-acquired 1922 chain-cum-belt, 2¾-h.p. Douglas with a fierce pride and joy. I soon found the 40 m.p.h. cruising speed intensely boring, however, and repeatedly seized the rear cylinder trying to maintain 45. When this happened I would take the engine to pieces, clean everything up, and reassemble it, taking either piston at random and fitting it into either cylinder. Once the rear big-end seized for a change, and not being white metal, the con. rod wound itself round the crank until it got to the piston, whereupon the engine, but not the flywheel, stopped.

Then I left school and got a job as a grease boy in a high-class motor works. For this I was to be allowed a car, but of not more than 10 h.p. The situation called for some little subtlety, so I located in turn all the worst and most horrible little boxes I could find, and dragged my poor father round to see them (in 'buses), lamenting the while that Mr. Lancia had not thought to make a car less than 14 h.p. He held out for a week, but caved-in in the end when I arranged for him to be taken out in a Lambda so that they could demonstrate the suspension. He paid Mr. Nardini £45 and a ten-year-old, reconditioned First Series Lambda was mine.

Now to me the Lambda represented the pinnacle of motoring ambition, the focal point of five years of schoolboy enthusiasm, and yet I was in no respect disillusioned. It seemed to have every desirable property. The high-pressure tyres gave incredibly accurate steering, and rather more speed than some cars of the later series. The brakes were fantastic; the wheels could all be locked at any speed on a dry (or on a wet) road. It would always start easily and cruise at any speed up to 70. Although driven with all the verve and lack of understanding of my seventeen years it did not seem to wear out at all. In spite of the three-speed box the acceleration was quite respectable. And the cornering powers are, of course, proverbial; I was saved from a nasty accident when showing the car off to a sceptical acquaintance by being able to get round a roundabout at about 55 m.p.h. without overturning, although damaging the hubs and wheels to no small extent in the process. I have always driven fairly carefully since that occasion.

The many critics of the Lambda hold that they are sadly lacking in speed, but it is this car above all others that so clearly demonstrates the unimportance of this particular attribute on all but the *autobahn* type of route. When going from A to B (I am particularly fond of B) I used to put up excellent averages without exceeding the normal speedometer-maximum of 72. On a certain 200-mile drive up A5 before the speed limit came into force my passenger kept a careful log of places and times, and we found we had covered one fairly unfrequented stretch of 45 miles within 45 minutes. In average conditions, a point-to-point speed of 45 m.p.h. should be well within the capabilities of any Lambda with no great exertion on the part of its driver.

My career as a grease boy having drawn to a conclusion, I decided against the motor trade, and was given the choice of a college training or a motor-car, and if the latter, something cheaper to run than the Lancia. Not feeling disposed to any anti-climaxes, I chose college, and endeavoured to dispose of the car to the trade at a price in keeping with its value in my eyes. Like many another, I discovered that in the interval between buying and selling a car the fickle public executes a complete *volte face* in their demand for the type, so that the motor vendors can hardly be persuaded to have the thing cluttering up their premises! I got £15 in the end, and was allowed half of this sum to buy a motor-cycle on which to go to and from college. After deep consultation with Mr. Bourne, of *The Motor Cycle*, I bought a very bad example of a good make, a 1930 coil-ignition 350-c.c. o.h.c. Velocette, and I did no better for myself than if I had bought a good example of a bad make. Still, I suppose it was something to have had the right name on the tank. After getting concussion when doing less than 20 m.p.h. I sagely sold it to a man who exported it to Australia, and bought a slower and lower machine, in the form of a 250-c.c. G.T.P. Velocette, followed by another Velocette with 4-speed foot-change. In spite of being nearly 6 ft. 5 ins., and about 14 stone, I got on very well with the latter machine, provided I kept away from arterial roads. It was little faster than the Douglas, but enormous fun in traffic or in the rough.

During this motor-cycling period my father and sister both awoke to the fact that I had completely monopolised the Lambda, and that they, in order to keep abreast of progress, should learn to drive. A local taxi-driver offered us a 4-seater open Fiat Eight, of about 1927 vintage I suppose, and my father spent his share of the proceeds of the Lambda on this. The phenomenally low price was soon explained by the repeated melting of big-ends, which, after dismantling, was located to an obstructed feed to the front main. Having settled this little trouble, my sister must needs come shooting out of a blind side turning and get the front end all smashed up by a Morris. Discouraged, my father had the car repaired and sold it for £13, this being the only occasion that anyone in my family has ever made a profit on a transaction.

Finding motor-cycles to be somewhat unstable on wood blocks and also lacking in social amenities, I decided that a car was, as ever, a necessity, although it would have to be run almost entirely out of fare and lunch money. Anyway, the G.T.P. Velocette was traded for a 1927 Chummy Austin Seven, and there began a season of desperate maintenance work to keep the car from gravitating to the breakers, whence it was years overdue. I contrived to make it work reasonably well and even fitted a remote-control gear lever and special dampers. When the car eventually returned to earth I was flattered to find that the breaker man who had bought it wanted *quite a lot of money for these two items.*

Followed a 1929 coil-ignition Chummy Austin Seven in like condition, and representing a similar problem. Being now more familiar with Austin Seven technicalities, I was able to keep this car motoring intermittently, but at maximum performance, for over a year, during which I covered about fifteen thousand miles. During the Easter vacation of 1937 I contrived to average almost 100 miles a day for five weeks in this and another Austin Seven. Hence the expression "good old days." This mileage was in pursuit of that curious hobby of collecting fresh roads over which one has not driven before, and marking them in *ink on a map. This practice arouses the* greatest rivalry between fellow collectors, and accounts for some incredibly bad averages between two given points.

The period of derelict Chummies was considerably relieved by my being given almost completely free use of a current model Wolseley Fourteen saloon, belonging to a lady who automatically bought a new car each year and who preferred travelling by train, on the understanding that I used it to facilitate the social activities of her daughter. This meant frequent trips to their country house in Wiltshire, and soon I developed a distinct taste for fast night driving. In recent issues of *The Autocar* there has been *much controversy about the average* speed potentialities of what Forrest Lycett refers to as cars "but little removed from mediocrity." Assuming the Wolseley to fall in this class, I can state that, given reasonably empty roads, averages in excess of 50 m.p.h. are possible. There was an evening when I had reason to suspect that a certain gentleman, whose middle name should have been Casanova, might be making undesirable advances to the young lady of my choice, in the country mansion aforesaid. Leaving Golders Green cross-roads at 11 p.m. precisely, I motored 108 miles by milometer in 1 hour and 55 minutes by the dashboard clock—and found my fears groundless! This works out at 56 m.p.h., and considering the excellent lighting set, the almost deserted roads, my good night-vision, and a mood not to be trifled with by any arbitrary considerations such as speed limits, I hope Mr. Lycett will be convinced. The Wolseley, though far from being a sports

car (whatever that may be) had certain advantages over the general run of production saloons. There was a distinct attempt to keep the centre of gravity low, and cornering had only a trace of the nautical roll. Third gear was reasonably high, and brakes and lamps were excellent. Valve float occurred at a speedometer reading of 70 m.p.h., and I made a practice of cruising at just below this speed, which caused great consternation amongst the L 10 plugs.

Then the second Chummy fell finally to pieces and the Wolseley party broke up, and I had to cast about for some form of inexpensive fast motoring. There was a pathetic lack of interest amongst the other students at college, but a certain young lady whose home was in southern France had been a great exponent of ski-ing and had suffered the misfortune of a broken ankle. She was anxious to take up a new sport, and my experiences with Chummies and a fair stock of spare parts prompted me to suggest joining forces and buying an "Ulster" Austin Seven. This plan was carried out, and we obtained a very battered and neglected example which had been either a T.T. team car or a replica. It was without its blower and generally in a parlous condition, having a high axle ratio, low compression ratio and non-overlap camshaft. It would do almost 50 down hill, but, even so, felt very much the real thing. We fitted a standard engine so that the other could be properly (we hoped) rebuilt, and changed to a 5.25 to 1 final ratio. The 4.9 to 1 axle had stripped on the first day, having been run without oil by the previous owner. Then I settled down in earnest to rebuilding the engine so that it would be sufficiently reliable to take to France on each summer vacation. I found that the crank was pressure fed but with 1⅛ in. diameter journals, evidently from one of the old "Brooklands" cars. Quite unsuitable for my purpose, of course, but it had to stay owing to the usual shortage of funds. It was compensated for in a sense by the most beautiful set of con. rods I have ever seen in any engine, but too small in big-end diameter to fit any man-size crank. I should warn Austin enthusiasts that though they may be wizards with standard engines, considerably more magic is required to build a good "Ulster" engine from separately acquired bits. I find I always learn a lot each time I build it up, and also that I knew more at my mother's knee than the man who assembled it before me will ever know.

The first trip to France was the best, in spite of the ill-prepared engine. The car was a sensation in Paris, and looked a real treat, all covered with mud, parked between an Isotta-Fraschini and a Bugatti in the Champs Elysées. It did not go particularly quickly, but with a little practice I could dice with, but not outdice, the Parisian taxi-driver. From a centre near Lyons a circular tour of the French Alps was ventured, and we found that the high second gear exactly suited the constant gradient on the passes of 1 in 10, and, had I known enough to alter the jet sizes to suit the rarefied air, the water pump would have taken care of the cooling. As it was, the engine ran weak at altitude, and boiled busily, almost failing to surmount the Col du Galibier in consequence. Still, a lot of quite exciting motoring can be obtained on the descent of the passes, particularly as they thoughtfully provide a loose top dressing on the hairpins, so that the tail can be slid round in the approved style. (Approved by whom ?)

The funny little crank was a nuisance, too, because it had a violent vibration period at 40 to 42 m.p.h. in top gear, which was the natural speed for the sometimes 20-mile-long uphill approaches to the passes. And we thought the 4,500 r.p.m. necessary to jump this speed in second unwise in the circumstances. But all these little worries were more than compensated for by the scenery, which is beyond description.

We had the car rebored in France, because of the favourable rate of exchange and because the local *garagiste* gave us full facilities to work on the car, including red wine of the district *ad lib.* But instead of replacing the perfectly good fully-floating gudgeon pins, some standard Rosengart ones with the central notch were fitted, with circlips in the pistons. Soon after returning to England one of these quite justifiably broke, miles away from home, and we had to motor with one rod and piston removed—not recommended with baby crankshafts. The rod was straightened, rebushed, and a set of Specialloid pistons made. About this time we did the obvious thing and got married, and, it being the close season for France, decided to motor from John o'Groats to Lands End, starting and finishing in London, by way of a honeymoon. It is hardly necessary to state that the crank broke in the most remote part of the Border country. We had to send home for the spare engine before we could go on motoring. But the trip was completed, after some further difficulty with aged magnetos, and some precious black lines were added to the collection on the map.

With only the duration of the summer term to do it in, some intense rebuilding had to be done. We managed to acquire a Laystall built-up crankshaft, looking like a row of flywheels and obviously incapable of perceptible vibration. It was a terrific job wangling it into the crankcase, but once it was spinning happily on new bearings we felt that Lyons was no distance at all. "Blown Ulster" rods, a high-lift camshaft with cams like thumbs, and a downdraught S.U. carburetter were also added. A reliable box of sparks being no less essential, Mr. Scintilla was approached not once but many times, and in the end he supplied a brand new type-PN4 magneto for a mere song, obviously to get rid of me. The Alta head was placed in the tail as a spare, and replaced by one giving a compression ratio of almost 8 to 1. A cunning bracket was made, and a pair of Zeiss headlamps and a spotlamp mounted, so that night would be as day. The chassis had been box-sectioned, Hartford dampers put on the back, and the 19″ wheels replaced by 17″ wheels, with new tyres (wedding presents, these). Then, barely able to scrape together the money for the steamer fare, we felt we had done the car proud, and, after all, studying for exams could always be done some other time ! And in fact the car motored extremely well, cruising consistently at between 60 and 65 m.p.h., though not boasting any great maximum speed. With a 5.67 to 1 axle it would have been much faster, but would undoubtedly have buzzed itself to a standstill by being driven flat out for hundreds of miles on end. We found it quite unnecessary to exceed 4,500 r.p.m. in the gears, and it is my firm opinion that most of the talk one hears about unblown Austin Sevens and fantastic engine speeds is ill-considered and exaggerated, or at least refers to freak rather than average performances.

This second trip to France boasted neither a visit to Paris nor to the Alps, and terminated with a desperate drive back to Calais through the most frightful thunderstorms to get home before the war started, which we achieved by a narrow margin.

The next car was purchased by my wife in the early days of the war, when we were living apart during the week and both needed a vehicle. It was a very battered and permanently dirty 1932 Austin Seven saloon, to which I had fitted, on behalf of the previous owner, a new 1937 three-bearing engine and 4-speed gearbox. This type of hybrid is always very amusing, because hitch-hikers insist that it must be supercharged and I am sure that people who thought they could accelerate away from traffic lights must often have gone home and taken more water with it. One such gentleman was dicing his Standard Nine down a slight incline (myself in the passenger's seat) with his speedometer registering 70, when my wife motored past in the Austin ! It never had a speedometer, but I am morally certain it could not possibly have exceeded 60.

With two Austins in the stable, and having acquired parts from various specials never proceeded with, I had accumulated a formidable array of spares, so I bought the body and registration from Phil Hunter's A.E.W. open 4-seater Austin, known as the 750 Club Secretarial Chariot, and started on a special myself. Now every home-made car ought to have a *raison d'etre*, an excuse for its existence, and a good one at that. Mine had everything except this one thing. In specification it was a nondescript all-purpose (which is the same thing as a no-purpose) hack. I lavished 15 months' precious spare time and ingenuity on it, and never really enjoyed driving it when it was running—I won't say finished. It comprised a 1934 long-chassis van frame, with dropped front axle and spring rather as on the "Ulster" but not quite. The rear axle had a 1929 screw-adjustment torque tube and differential housing, with 1932 long half-shafts and casings, and a 1936 5.623 to 1 crown wheel and pinion. By the rules of Austin interchangeability this pinion shaft cannot be mated with the 1929-type torque tube, but by highly unofficial methods I made it work satisfactorily. The gearbox was the so-called close-ratio 4-speed type from a "Nippy." Third is 1.49 of top gear ! The rear dampers, a serious weakness in the average Austin Seven, were made

with short arms from an old front damper and twice the usual number of friction plates, so that they were both smooth and really effective.

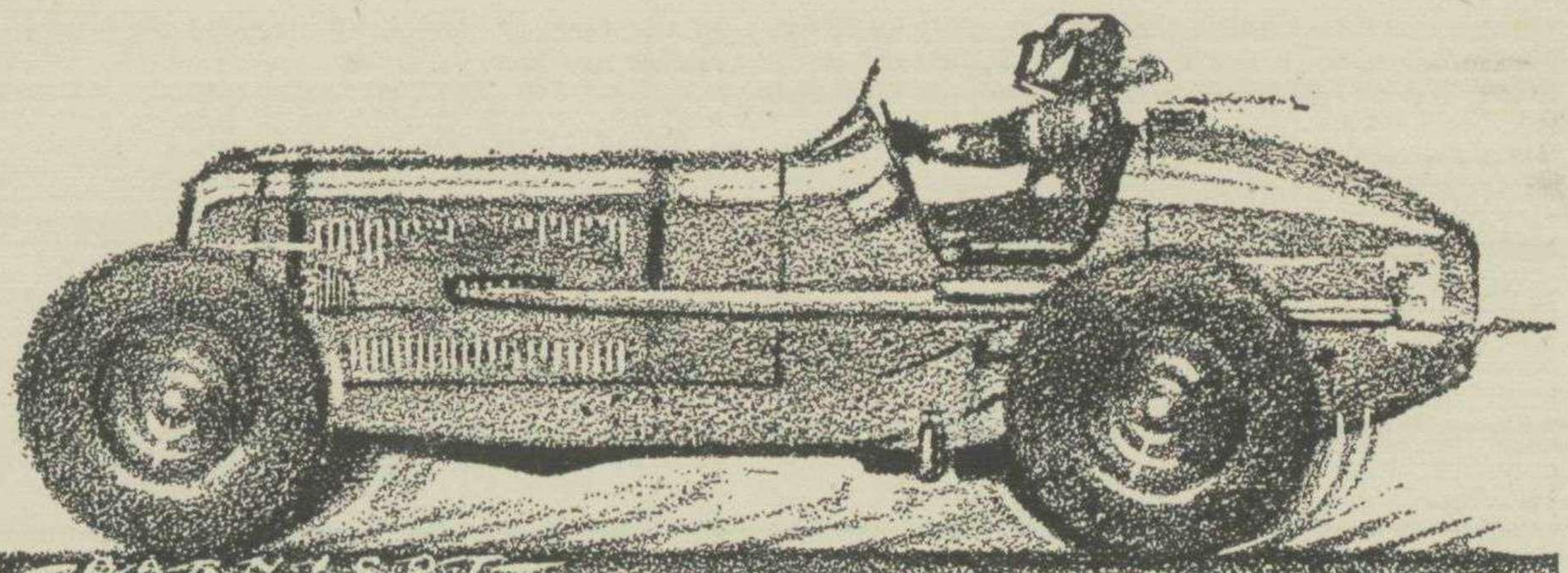
The engine was based on the standard 1932 crankcase and crank originally in the saloon, but fitted with a "Speedy" camshaft, "Nippy" valve guides and springs, and "Ulster" con. rods and cut down tulip valves. A hole was cut in the side of the crankcase, and a Ford Eight petrol pump mounted over it on an Elektron block, engaging with the eccentric on the camshaft. The head was Whatmough-Hewett in R.R.50 and ignition was by Scintilla Vertex, the automatic advance of which was specially made to suit the power curve associated with the camshaft. There was a down-draught Zenith carburetter and a four-branch downswept exhaust manifold by Ballamy. With surprisingly little trouble this heterogeneous collection of bits was persuaded to work completely in unison, and it pulled the 4-seater body along quite briskly.

About this time my wife's health became too bad for her to carry on our business (for which the car was used) and so I had to leave the war job I had been doing and take it over myself. This gave me a huge increase in spare time, and considering the relatively liberal ration of 3 gallons per month to motor-cycles, I decided to build myself a three-wheeled Austin Seven in the shortest possible time, and so reap the benefit in the last two or three months of motor-cycle "basic." I bought a Raleigh van chassis without engine or back axle for 25/-, cut off all but about 3 ft. 6 ins. of the side members, and installed three cross-members. On these I bolted four lengths of Austin chassis channel, two to carry the Austin rear springs, and two to carry the engine. An Austin rear axle was fitted in the normal way, and was coupled to the gearbox by a 6-in. prop. shaft. An Austin steering column was coupled to the Raleigh steering box on the top cross tube (which also carried the steering head) by a leather flexible coupling, *a la* Bugatti. Driver and passenger sit more or less on either side of the engine, and the clutch, instead of the gear lever, had to have remote control! The body was made of glue and plywood like a Miles "Magister," and is very strong for its light weight. It can carry four at a pinch. Bonnet top and sides are 26-gauge corrugated iron, beaten flat with a mallet. There are the usual hood, tonneau cover, folding screen and instruments. As used every day it weighs almost exactly 7 cwt. This funny machine was then insured on the strength of an engineer's certificate (he runs a Raleigh "Safety Seven"), licensed as a Raleigh tricycle with an Austin Seven engine, and motored to the September, 1942, Rembrandt meeting just ten weeks after the keel was laid. Then, after a few teething troubles were overcome, I went with my wife for a fairly considerable tour, she being out of hospital between two operations. We found that the most outstanding feature was the excellence of the steering. Of course, a motor-cycle fork obviously has perfect geometry, and no part of the steering linkage is unsprung. Moreover, there can be no question of inaccuracies of parallelism or Akermann angles. The car naturally rolled on corners, about as much as the average box, but was nevertheless perfectly stable. It is possible to lift a wheel deliberately and drop it again. This may also be done inadvertently, for one dark night I motored round a bend on two wheels and the frame, which means there is about 3 ft. of fresh air under the third wheel. The passenger (Phil Hunter) was asleep at the time, but suddenly woke up. As in almost every other road special ever built, the tyres rub against the body. The three tracks, always said to pick up half as many bumps again, have certain advantages. You do not get that unpleasant pitching movement that is caused by the back and front wheels of a normal car running over the same bump at certain speeds, nor do nails, etc., turned up by the front wheel get a chance to puncture a rear tyre. An even greater advantage is that over rough and muddy tracks the rear wheels are permitted to follow the irregularities of the surface without being influenced by the front axle acting through the torsional stiffness of the frame. Just as a tripod always stands firm, so the weight on the two rear wheels of the tricycle is always equal. This naturally tends to negative wheel-spin, and I have found that quite a horrid morass can be negotiated with no subtler technique than by just motoring through it. Considering this, and the fact that the rear two thirds of the wheels drive it should be a useful trials device. For this purpose it will have to have the wider rear axle and a much more efficient cooling system, but meanwhile it is being used as the second car in my professional work, and has proved popular with the D.P.O., and extremely useful generally.

Returning to the chronological sequence of affairs. Soon after the tour in the tricycle my wife returned to hospital for a second operation, from which she did not recover. For some months I lost all interest in motor-cars and everything else. Gradually, I became aware of the need for some new and absorbing study; the Austins now all had unhappy associations, and I had little inclination to work on them. My disappointment in the 4-seater special grew to a positive hatred, and the saloon was too weatherbeaten ever to be used again, even had I wanted to do so. So it was with all defences lowered that I was struck down with Bugatti-fever in its most virulent form. And without any great expenditure I contrived to make a satisfactory adjustment to the stable. The 3-bearing engine and gearbox were taken out of the saloon and put into the 4-seater, which was then sold back to Phil Hunter who wanted it for a trials car. My very special engine then went into the tricycle, surprisingly enough making the cooling very much better than with the standard engine previously fitted. Then with the proceeds of the sale in my pocket, I packed up a huge crate of tools, batteries, string, wire and insulating tape, borrowed a pair of trade plates and went off by train to Torquay, where I had located, but never seen, a Type 40 Bugatti 4-seater. This incredible trip was written up in MOTOR SPORT last March, by the Editor himself, who accompanied me, and whose back-seat driving was faintly audible above the rush of wind most of the way home. [Libel!—ED.] The car was in generally good condition, but I knew from reading back numbers of MOTOR SPORT that used Type 40's are liable to break an exhaust valve at any time, so I was determined to have some specially made out of KE 965 steel before using the car for business runs. Unfortunately, this calamity occurred on the way home, ruining a piston. I had managed to buy a complete spare engine, so I was not unduly worried, and at the time of writing I am waiting for Messrs. Standard Valves, Ltd., to deliver the goods so that I can go Bugatting again. It is interesting that on dismantling the damaged engine I found another valve head and some bits of piston in the crankcase, relics of an earlier such episode. And on exposing the inside of the sump, which means lifting the rest of the engine off the base, I found more than an inch depth of black sludge—and the oil pipe to the pump came from below the level of it! Being all mixed up with the cooling tubes, this was a bit difficult to clean out, but some hard work with an A.R.P. stirrup pump did the trick in the end. I shall not use the car again without fitting a Fram or other chemical oil cleaner.

My impressions of driving the Type 40 over a mere 120 miles are only provisional. Expecting something like a glorified "Ulster," I was very surprised to find I was driving a typical Vintage motor, and at low speeds it reminded me strongly of a 3-litre Bentley or a "12/50" Alvis, speaking in broad terms, of course. At 50 to 60 m.p.h. on the open road, however, it became what I take to be typically Bugatti, in that it seemed to "eat" corners and the steering was taut and accurate at all times, while the divers noises were also in keeping.

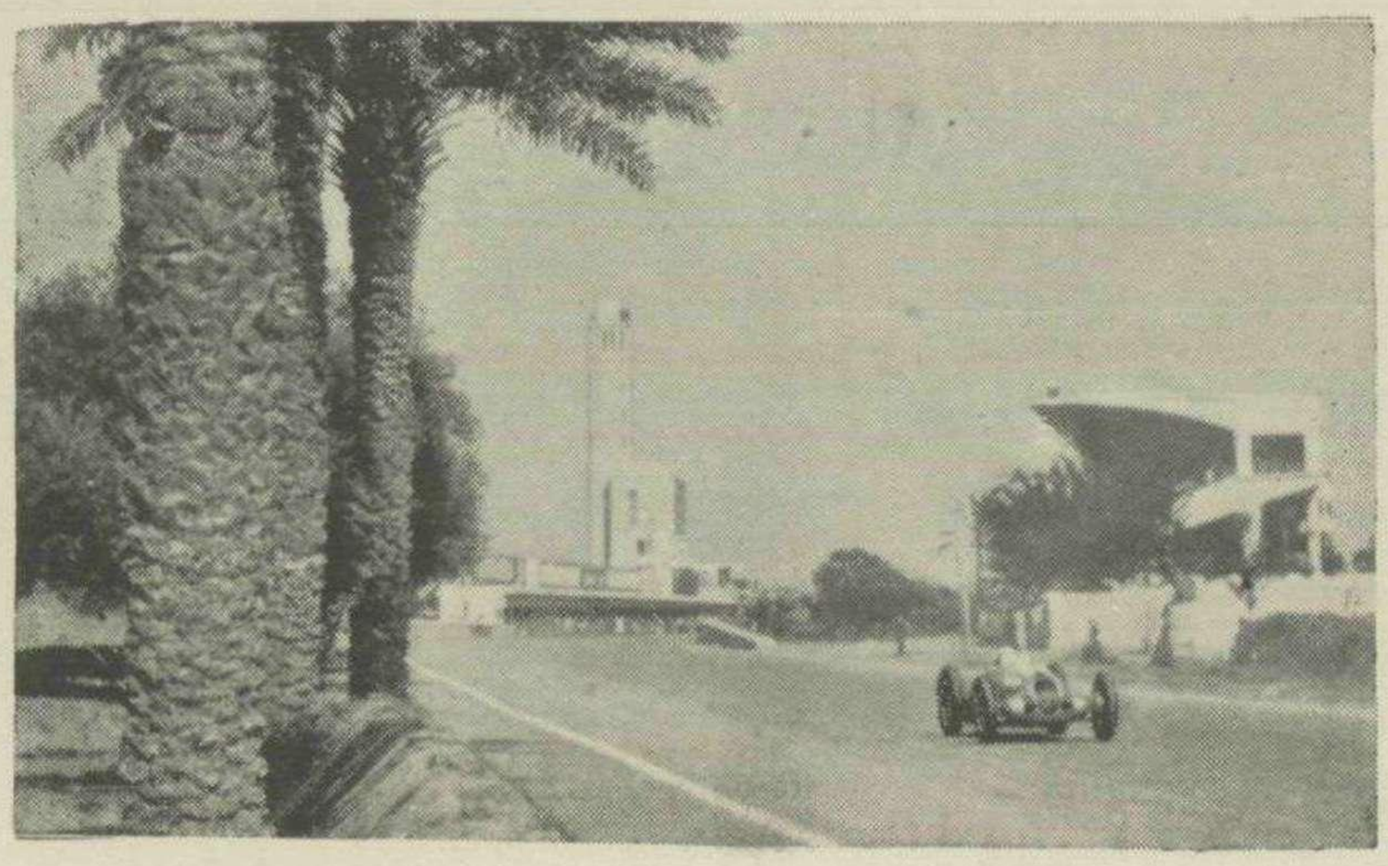
Owners of Type 43, 55 and 51 Bugattis whom I have met lately have tended to hold the Type 40 in contempt, as being intolerably slow. But if one remembers that it has been called the "Molsheim Morris Cowley," and changes up at not more than 3,500 r.p.m., does not try to exceed 70 m.p.h., has good exhaust valves, and contrives to make the lubrication system work, I see no reason at all why one should not have a reliable and extremely pleasing touring car. I must admit that I think the "Brescia" Bugatti had a sounder engine, and that the Lancia Lambda is a better car taken all round, but I regard my Type 40 as a sort of apprenticeship to bigger and faster Bugattis. The stable which I would like to have after the war would comprise a Lambda for work, the tricycle for trials, the "Ulster" for unblown class H racing (if the 750 Club manages to organise any), and a Type 55 Bugatti for real motoring. I never anticipate being able to afford to race Bugattis, nor am I convinced that they are most suited to it. But I have gleaned that the Type 55 when in good order is fast, reliable, easy starting and everything that a road car should be, and it is now my ambition to own one. How to pay for it is another matter, but perhaps Father Christmas . . . !



RUMBLINGS

Aston Lore

The article by F. W. Ellis on the pre-Bertelli Aston-Martins, which we published in the May issue, has brought forth some additional very interesting facts, by no less an authoritative motoring historian than Laurence Pomeroy himself. It seems that the side-valve Aston-Martin engine and also the rare single o.h.c. 16-valve engine were both designed by a Mr. Watson, who had formerly evolved engines for a well-known proprietary-engine concern. The latter unit had vertical valves set in a very poor shape of head and it is reputed to have developed less power than the s.v. job. Zborowski tried it in the 1921 200 Mile Race, but Kensington Moir's s.v. was more rapid. This led Clive Gallop to persuade Zborowski to contact Henri and ask him to design a new cylinder block and head assembly that would mate with Watson's bottom-end and camshaft drive. Henri saw that what was virtually one of the 3-litre Ballot cylinder blocks would be the very thing, and he sportingly sold the idea to Count Zborowski for the modest sum of £50. Thus was born the sixteen-valve Aston engine, which Bamford and Martin used in many of their famous racing cars, including "Razor Blade." The immortal "Bunny," the s.v. Aston which made history as the first 1½-litre car to establish *world's* records, was given one of these twin o.h.c. engines in 1923 and sold to the Hon. Brian Lewis. However, Lord Essenden, while quite prepared to buy a racing car for his son, did not consider an Aston-Martin of sufficient worth for his son's use, so the car was taken back by Bamford and Martin, and, still with the 16-valve engine, ran in the 1924 200 Mile Race, driven by E. R. Hall, and was also driven in hill-climbs by Holford. The o.h.c. 8-valve engine shown at Olympia in 1925 was the work of the Hon. Geoffrey Benson and was used in a specially-bodied car by H. W. Cook in the 1925 200 Mile Race, for which it was given a Roots blower in front of the radiator. A mechanic unfortunately forgot to adjust the brakes before the race and, coming down to the barrel-hairpin, Cook lost control and slid across the track into the railings on the very first lap. Incidentally, Benson later experimented with a Zoller supercharger on one of the 16-valve engines, it is believed with some success. To-day, apart from Ellis, Grosscurth is making quite a corner in the Bamford and Martin cars, and has just added a spare s.v. engine to his collection, for spares. One wonders where all the older cars have gone and, for that matter, where are the earlier Bertelli-type Aston-Martins of 1927-30 ? —they were well in production between these dates, but of recent times we only recall one Aston-Martin of this vintage coming on the market. By the way,



"*Tripoli.*"

Pomeroy reminds us that there was actually an Aston-Martin before the 1914-18 war, the very first car of the breed having ¾-elliptic rear suspension. Not that *that car is likely to come to light !*

* * *

A Regular Veteran ?

Although we are quite aware that some people think that we overdo vintage and veteran topics in MOTOR SPORT—a matter we will endeavour to rectify in the future or, at least, contrive to strike a reasonable balance—we make no excuse for presenting in this issue an account of a collection of veteran cars in South Africa. In this country, where all kinds of motoring enthusiasm takes such a genuine and complete form, lots of folk are saving veteran cars for post-war runs and rallies. Which leads one to wonder whether anyone will decide to use a veteran or Edwardian tourer regularly as serious transport over an appreciable period—remembering that the late Col. Clutton did so with his 1909 Fafnir for very many years. Put into 100 per cent. mechanical condition and shod with modern tyres, the better pre-1914 touring cars of medium horse-power could give excellent service and not so very low point-to-point averages, at all events in the less congested parts of the country. Cars such as Shakespeare's Mors and Enfield-Alldays, now stored in a garage in Surrey, and Peter Hampton's recently acquired 1911 Sunbeam Sixteen, come to mind as eminently suitable vehicles, not to mention Hutton-Stott's truly remarkable 60 m.p.h. 1912 Lanchester. Dare one ponder on whether an "Alfonso" Hispano in really nice order might not prove a thorn in the flesh of certain 3-litre Bentleys and other similar marques. . . ?

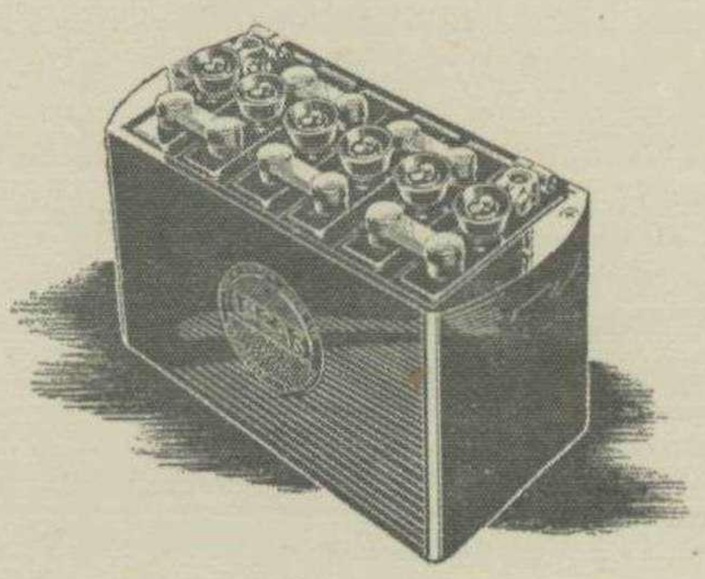
* * *

Far Flung

MOTOR SPORT continues to reach the far-flung parts of our Empire in spite of the Nazis. An airgraph from E. Chalenor Barson informs us that he is busy in Capetown these days, driving in the 1st Cape Armoured Car Commando in any spare moments he has. He uses a 1934 Riley Nine nowadays, and when he wrote in May there was still a petrol ration worth 200 miles a month to run it on. He read with interest the account of Keith Salmon's specials, and is sending us details of his *eleventh* Barson Special. He requests that any enthusiasts passing through or stationed in Capetown will contact him either at Nugget Polish Co. or at "Beulah," Welteveden Avenue, Rondebosch, Capetown ('phone 64526). He would particularly like to hear from Clutton, John Clarke, Waddy, Joan Richmond, Bolster, Fitz-Patrick, Harry Fowler and Ted Batten, and concludes: "Special regards to my friends of the Vintage S.C.C. and Frazer-Nash C.C., to yourself and to your journal." The last Barson Special we can remember had a Talbot frame, Lancia front-end, 2-litre Lagonda engine and independent rear suspension.

Then L/AC. Harold G. Hinchliffe, R.A.F., and a friend (whose address in Aden we have) seek Lea-Francis lore about both "Hyper" and 2-litre models, and also wish to hear from people who have turned a 3-wheeler Morgan into a 4-wheeler (let's hope for a petrol tax !) or who have supercharged an o.h.v.

Every LUCAS Battery



HAS TWO YEARS INSURED LIFE

Ask your local garage for full particulars or write for list of Agents and Battery Literature.

JOSEPH LUCAS LTD., Birmingham, 19.

"11/45" J.A.P. engine. They used to know well the "30/98" Vauxhall now owned by Major Heath, and remark that the garage from which it came had a fine 3-litre Bentley coupé for sale at the same time —which may still be there. And from the Middle East comes a request from an airman for details of all Riley models. It keeps you busy !

* * *

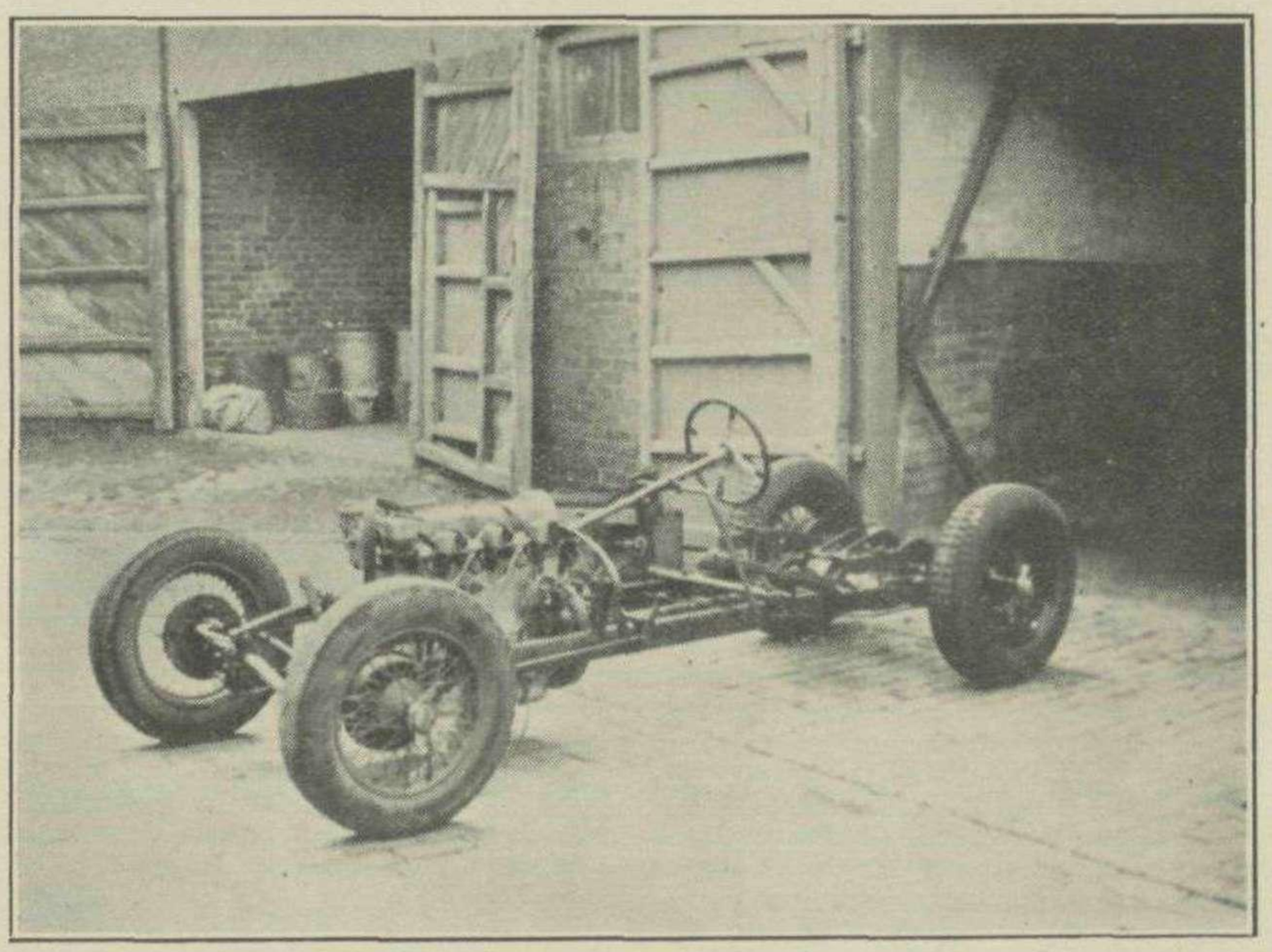
Flying

So many books about flying in this war have already been published that many people, seeing reviews of additional accounts of a fighter pilot's life, will either decide that this is too much, or else will buy the book without enthusiasm just to complete a growing collection of such works. Either way, they would be mistaken about "Combat Report," by Hector Bolitho, which B. T. Batsford, Ltd., have just published at 8s. 6d. This is, perhaps, the most human and delightfully-written book of its kind yet published. It is so intensely of flying, not only in combat but before the war with things like Avro "Avian" and D.H. "Hornet Moth" light aircraft, and yet it unfolds perfectly the life of "John," a young man of the R.A.F., in his prime at 25. The number of famous personalities introduced by their Christian names as friends and acquaintances of the fighter pilot around whom the book is written is astounding, and, from our world, the late Bernard Rubin, John's brother-in-law. This is a book all too difficult to review. Bolitho "gets it over" by simple, very sincere writing. It is, in spite of the number of such books read already, so very well worth reading. On the subject of motoring personalities and flying, Kay Petre is claiming to have made a faster journey than any other woman, referring to a Press flight in a D.H. "Mosquito." This has called forth in *The Aeroplane* a chiding from Winifred Crossley, who reminds Mrs. Petre that women of A.T.A. frequently fly Mosquitos, often in bad weather . . .

* * *

A Really Rapid Bentley

At Whitsun we had the pleasure of calling on A. C. Clark, secretary of the Bentley Drivers' Club, and of learning that that club is still enrolling occasional new members and hopes to stage another social at a date not too far distant. Mr. Clark reminded us that the Kent and Sussex L.C.C. has been wound up, and when we expressed concern for the future of the Lewes course, he was able to say that Bentley Drivers' Club might take it over and continue these successful speed trials. Mr. Clark does only very limited motoring now, using one of his S.S. cars, of which he has three, for A.R.P. work ; gardening otherwise occupies all his leisure moments. He has, also, a 4½-litre Bentley and his special "Speed Six," carefully stored, awaiting the day. The latter car was devised in conjunction with McKenzie and is a Bentley of very great performance, which was used before the war for fast Continental journeys, last running in France in 1938. Like many really fast cars, it is very simply bodied, the two-door 2-seater shell being the owner's own handiwork. It is constructed of dural and aluminium, with a floor of dural-covered plywood, and is extremely light. Clark even made the leather-upholstered bucket seats behind which is ample luggage space. It is to his credit that no screen disfigures the scuttle, as he always drives without one, in helmet and goggles. The chassis is the standard 11 ft. wheelbase production, with the springs flattened to lower it quite 3 ins. The radiator has also been cut



The A.C. Six engine, developing some 85 b.h.p. in standard 3-carburetter form, is very popular with special builders. Here is the A.C.N., about which Sergt. P. W. Neale wrote in the April issue, in chassis form.

down and lowered, and given a high-efficiency cooling element. The engine has special rods and pistons and the compression ratio is the highest considered practical with the 6½-litre unit ; while there are three S.U. carburetters. Fuel feed is by twin Autopulse. The car is still further lowered, as the 21 in. wheels have been replaced by 19 in., which are considered the best compromise for general duties, although 18 in. wheels give somewhat better results for sprints. The rear axle ratio is 3 to 1. The head resistance is kept down by using small Trippe head-lamps, and the car carries only B.A.R.C., V.C.C., R.A.C. and Kent and Sussex L.C.C. badges ; brake and gear lever are external. Before the war Clark used the car as his daily means of going to and from London, and mentioned that on returning from town he would often turn in at the gates of Brooklands Track and enjoy a few fast laps. He is yet another who hopes that the Outer Circuit will one day be restored and given back to us.

Miscellaneous Aspects of Design

Edward Batten, before the war responsible for the Batten-Special Ford V 8 and some " one-off " hybrids, discusses engine and chassis design in general.

NOW that we can look toward the future with more confidence, it is pleasant to anticipate the comforts and interests of normal life.

For many of us the possession and use of a good car takes a high place in our scheme of enjoyment. If we use this time of anticipation to obtain a clear picture of the car that we desire and the qualities which make it desirable there will be no regrets when it is bought.

First we must decide on the size of our car, and if competition in trials or speed events is contemplated it should be as near a class limit as possible. The simplest way to ensure that its performance will be good is to see that its power-to-weight ratio is satisfactory. This information may be obtained from the maker's catalogue, but if this is not available weigh the car, and if the figure obtained approaches closely to one hundredweight per 100 c.c. of engine capacity, a lively performance can be anticipated.

The engine should now be considered, and if of normal design and below 1,500 c.c. a 4-cylinder is best. Larger engines should have six cylinders up to 3,000 c.c. and eight or more above this size. This increase in the number of cylinders is necessary to keep down the weight of the reciprocating parts on which the working strain increases by the square of any addition to their weight at the same revolutions per minute.

Stroke/bore ratio is the next important point. For an overhead-valve engine this should be about 69 mm. bore by 100 mm. stroke, though I have known engines with a stroke as short as 82 mm. and a bore of 73 mm. to give good results. Always select an engine with the shortest stroke available. Its lower piston speed will reduce wear and high r.p.m. are more easily attained, also short stroke engines can safely be made lighter.

Compression ratio is our next concern and it should be as high as possible, because power increases directly with an increase of compression ratio. With ordinary fuel a ratio of six-to-one is about the maximum, although with cylinder heads of aluminium alloy or other highly conductive alloys higher ratios are possible. Nine-and-a-half to one is the highest that I have used for road work. This was satisfactory with special fuel and gave great economy and power. The snag was that if one ran out of fuel only pure benzole would bring the car home and benzole was not easily obtainable, although the 1½-litre engine I have in mind actually achieved 45 to 47 m.p.g.

A limiting factor in power development of a well-designed engine is the point where pre-ignition occurs. Assuming that fuel and sparking plugs are suitable, this is caused by the temperature of the exhaust valve rising to a degree sufficient to fire the compressing charge. As practically all the cooling of a valve is through its contact with the valve seat, the importance of using a highly conductive alloy for o.h.v. cylinder head construction can be realised.

Engine cooling should be by pump, drawing water from the radiator and delivering it to head and cylinders—*not* by attempting to draw water from the cylinder head where, when full throttle is used for a lengthy period, steam is likely to be generated and this condition aggravated by reduction of pressure due to the pump's action.

The best place for the timing gear is at the rear of the engine where it is least affected by torsional vibration periods of the crankshaft.

In my experience magneto ignition is best for sports or racing cars. Battery ignition is often the limiting factor in speed. With magnetos the rise of voltage with increase of revolutions enables them to be effective at a higher speed. Fairly good results can be obtained with double-contact-breaker battery ignition, although the system where a spark occurs with the motion of each contact-breaker alternately makes an engine rough if not maintained in accurate adjustment. The Ford system on the V 8 obviates this difficulty in a most intelligent way. The motion of one contact-breaker causes the spark and the other prolongs the saturation period of the coil, producing long periods of contact and short breaks.

Carburation cannot be discussed adequately in an article such as this, and on new cars designed for competition work is usually satisfactory. If an electric pump is used a second one should be fitted, with a separate switch to permit them to be tested independently.

Engines of six or more cylinders need dual or multiple carburetters to enable them to develop their full power, but three carburetters should be avoided on a six as the suction intervals of adjacent pairs of cylinders are different, and on the pairs with the short and long interval the cylinder following the short interval receives an over-rich mixture. The problem of unequal gas distribution can be overcome by fitting a carburetter to each cylinder. This appears to give maximum power but at the sacrifice of docility, owing to the difficulty of maintaining synchronisation of the throttle openings of so many instruments. Another problem arises with slide-type throttles. If a balance pipe is provided to improve slow running, the constant suction then applied to the slides is so great at small throttle openings that it is difficult to open them against the friction of their contact with the carburetter bodies. When the throttles are opened this friction collapses cumulatively, causing a jerk and much wheelspin.

Clutches are usually well up to their duties and nearly all of them emanate from the same manufacturer. If tuning does produce clutch slip, larger plates and linings should be fitted, not stronger clutch springs.

Gearboxes can be either synchromesh or self-change ; if of the self-change type make certain by enquiry that the gearbox is large enough for the special demands that you will make upon it. In the past some manufacturers have harmed the reputation of a very excellent product by fitting a box that was too small.

An enclosed propeller shaft is desirable for a sports or racing car with orthodox rear suspension, as the torque tube relieves the springs of the reactions to starting, driving, and braking. The shaft may then be supported by bearings within the tube and thus supported can be light and flexible enough to make torsional vibration unobtrusive. With open propeller shafts of large diameter this vibration is very noticeable when big axle movements occur, it being due, one presumes, to the shaft not rotating at a constant velocity when the ends are not in the same plane.

Most rear axles are satisfactory, but for competition work the bevel pinion should be supported by a roller bearing at the inner end. Straight-cut axle gears are sometimes used on sports cars instead of the more usual spiral or hypoid types. I have never owned a car with a silent axle of this kind, so, in spite of their greater efficiency, I am prejudiced against them.

Suspension is the only feature of a car of which you are constantly aware. It should provide comfort and good road-holding—*not one at the expense of the other*. There are many systems from which to choose and little help in this problem can be obtained from theory. The system that I prefer, in practice, appears to have two faults. First, varying track width, and, second, the end of the drag link describes an arc in relation to its attachment to the drop arm. The layout that is perfect on the drawing board cannot in practice be made rigid enough for a sports car. Stiffness of the frame is also a factor in good suspension, and I feel that the time has passed when we could be satisfied with something like an iron bedstead. The frame, if we are to have one, should be closely identified with the shape of the car. Braking is adversely affected by frame weakness and tests should be conducted (with circumspection) from speeds of over seventy m.p.h. Some cars develop incurable tramp when braking hard from high speed.

Independent rear suspension is not applied to standard cars in this country, though a few foreign production models are so designed. Bad roads on the Continent have probably forced this development. On the heavier cars one notices that comfort is attained at the expense of tyre wear. Tyre wear on the lighter cars does not appear abnormal.

Now we come to external appearance, and I maintain that the vehicle which is best for its work looks best. This standpoint implies streamlining. A few people dislike streamlining of sports cars, but the benefits in economy and speed are so great that this attitude is foolish. Cleaning up the front into a smooth whole, including lamps, wings and radiator, will take the car from 95 to well over 100 m.p.h.

Continued on page 153

Club News

WE HEAR

Sir Clive Edwards's R-type M.G. Midget, with a twin o.h.c. Pomeroy-McEvoy cylinder head of the type described very fully in MOTOR SPORT for January, 1941, has recently changed ownership, its new proprietor being an R.A.F. Squadron-Leader. Then the 1½-litre Alta once raced by Hugh Hunter could be bought, it seems, for about £2,000 and, up North, Charlesworth has snapped up an Amilcar Six. He and Gandhi having tired of their 1922 E-type "30/98" Vauxhall, that car is for sale, with good tyres, for £50. It is very thrilling that the 1904 Gordon-Bennett film looks like being available—that was the year, you recall, when Théry won with the big chain-driven Brasier at 54½ m.p.h. In London a very fine 6½-litre Big Six Bentley 7-seater could be bought for something over £100, while Derek Hawkins seeks a home for his 8-litre Bentley, a 1931 long-chassis 7-seater saloon in 100 per cent. condition and with excellent tyres. He sets its value at £220, and adds that it was built for Jack Buchanan, was subsequently Jack Barclay's demonstrator and later the property of a millionaire, and always maintained regardless of cost by Bentleys. It has done 98 m.p.h. on Pool petrol.

We hear of a very sound, re-built and modernised 3-litre Red Label open 4-seater Bentley, with h.c. pistons, for around £100. Captain Wardsouth has kindly sent a Lancia "Lambda" instruction book and maintenance notes on the Wolseley Hornet.

On the ever-green subject of veterans, Sergt. R. R. Dove, R.E.M.E., who promises us a "Cars I Have Owned" contribution, reports seeing a 2-cylinder Albion in a timber yard between Stirling and the Bridge of Allan, and he offers to help any genuine enquirer regarding the car, which is in not too deplorable condition, and is actually well shod with modern India tyres. His brother has recently joined the Veteran Car Club on the strength of having acquired a 1907 Wolseley-Siddeley tourer, which has as stable companions a 1919 Rudge Multi motor-cycle, a 1932 s.v. Ariel and a 1934 Riley Nine. The little Renault recently presented to Boddy arrived safely on a large railway truck and turns out to be the smallest of the 2-cylinder types, the 75 by 120 mm. 6.9-h.p. model, of 1911 vintage. The veteran at Cheltenham, rumoured by *The Autocar* to be a 1904 de Dion, is actually a 1912 8.9-h.p. Clement Bayard 2-seater; it is not for sale. A well-preserved 1912 Unic taxi still exists at Coulsdon and a veteran of unknown make is preserved at a garage in Llandudno: the latter is now being traced by the kind assistance of the Caernarvonshire Constabulary. Then A/C 2 Cecil Clutton says he hopes to share a 2-cylinder Panhard with Alex Hodsdon after the war and E. J. L. Griffiths has bought a 1900 3-h.p. Benz.

Fenn-Wiggin is still able to run his 1924 ex-200 Mile Race Alvis on duty-journeys and took F/Lieut. Donald Parker with him on one such joyous occasion recently. Harold Biggs, who is amongst our most avid readers, is doing a mighty job in trying to arrange Sydney Allard's immense collection of trials photographs and Press cuttings in chronological order, a job to which Mrs. Allard used to devote a good deal of her time. Incidentally, Biggs reminds us that we have erred yet again, the most recent addition to Allard's family being a daughter and not, as we said, a son. Biggs has just had the brakes of his Fiat 500 relined after notching-up another 20,000 miles in it, and he says the engine of his Austin Seven, to which we referred in the May issue, isn't really a "Speedy," having, in fact, a standard crankcase, from a coil-ignition engine, modified to pressure-feed; "Ulster" crankshaft, steel-timing gears, "blown Ulster" rods and pistons; "Ulster" clutch, "Brooklands" cylinder head, "Ulster" valves, springs and tappets; "Speedy" camshaft, and a special one-gallon sump. All of which will mean something only to men of the Birkett or Mallock calibre! Biggs still seeks an exchange of mechanised bicycles—offering his Ariel "Colt" for a Francis-Barnett.

Second-Lieutenant J. A. R. Grice, who has climbed most of Lakeland's hills in "everything from Rudge Multi to cut-down Phantom Rolls," earnestly seeks a touring G.N.

Ashwood has a few Lea-Francis bits for disposal and seeks a set of steel con.-rods for a 1½-litre Meadows engine, and a reader wants badly to find a cheap 1933 drop-head Ford V 8 coupé of the sort that formed the basis of the famous "Jabberwock" team. Someone else needs a McCulloch supercharger for a Ford V 8. Stanley Sedgwick, who has a "Red Label" 3-litre Bentley, is getting together an excellent motoring library and offers information on a considerable number of vintage cars, including "12/50" Alvis, Ansaldo, Bugatti, Delage, Frazer-Nash, A.C., Lagonda, Lancia "Lambda," O.M., Lea-Francis, etc., to supplement that embraced by our growing Instruction Book Library. F. W. Roberts, 2, Norton Road, Chelmsford, Essex, would like to buy or borrow a copy of MOTOR SPORT for June, 1934, as he wants to extract some "Hyper" Lea-Francis data. A 1930 blower Bentley was motoring in Surrey last month on leave-petrol. Rowland has sold his excellent 3-litre Bentley and the ex-Billy Cotton M.G. Magnette.

★

OBITUARY

We are sorry to have to record the death of F/O. Alan Perrott, R.A.F., who was a great enthusiast and who, with the late Sub-Lieut. Roland Southby, Fleet Air Arm, who was killed in 1941, made some excellent car models. The following appreciation of F/O. Perrott is written by his brother, Sergt./Pilot G. A. Perrott, R.A.F., to whom we extend our deepest sympathy:

Your readers, being all "dyed-in-the-wool" enthusiasts, will remember those happy peace-time days before the war, at Brooklands and the Crystal Palace.



Easterbrook-Smith's 1.85-*litre Ansaldo in the New Zealand hill-climb. Note his motor-cyclist's crash hat.*

Perhaps they may remember on one occasion the special "Schoolboys' Meeting," at Brooklands I believe, when a marquee containing famous racing cars was erected in the public enclosure. At one end of this marquee was a collection of model racing cars built by three enthusiastic schoolboys.

This was the first public exhibition of these amazingly accurate scale-models, and each youngster became the proud possessor of a monogram "Eversharp" gold pencil, presented by the J.C.C. However, the habitués will remember them on nearly every meeting or practice day; their cars always drew a crowd although they themselves, always, were only interested in getting fresh "gen" on the "real thing" for inclusion in their models.

"Bira" may remember being shown his famous Maserati in miniature after he had received treatment for acid burns sustained in "the 500." Mays will remember the model of his 2-litre E.R.A. finished in opalescent blue. Appleton will perhaps remember sending a sample of the paint he used on his "special," whilst Mr. Milledge, of Robin Jackson's, will remember the trio haunting his workshops. They continued to turn out these real engineering jobs until the outbreak of war, constantly improving them until perfection seemed to have been reached. In between times they made very fast little cars for racing at the Olympia Garage meetings of the Model Car Racing Association.

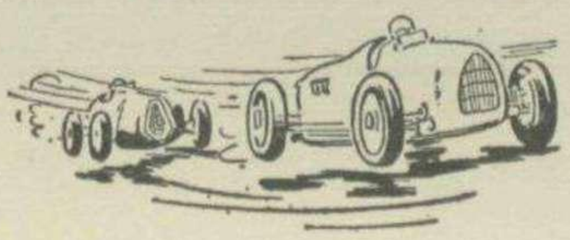
Thus I think that many of your readers will be sorry to hear that the second of the trio has lost his life, my brother, F/O. Alan Perrott, having been killed on the tenth of April at the age of twenty. The first of the casualties was caused by the death in the Fleet Air Arm of Sub-Lieut. Roland Southby, in 1941, also at the age of twenty. Thus the remaining representative of a really clever band of fellows is W. Genge, also twenty years old, and himself precluded from carrying on the hobby owing to the exigencies of an R.A.F. Flight-Engineer's course.

I have been prompted to write this small tribute, and send it to MOTOR SPORT, as I feel that your publication is always a friendly sort of issue for enthusiasts, a gathering of which the lads I write about were ardent supporters.

★

750 CLUB

Another meeting was held at the "Chez August," Old Compton Street, on June 6th, outwardly to partake of luncheon, but in actual fact to discuss motor-cars; the conversation flowing, indeed, much more freely than the food and drink, for the pit-work performed by the waitresses was notoriously bad. This was very much in the nature of a club gathering and uniforms were, for once, conspicuous by their absence. Amongst those who attended were Secretary Capon, club captain Holland Birkett and his lady, Douglas Tubbs of *The Motor*, Harold Biggs, Mr. and Mrs. Bowles, Mr. and Mrs. Frost, Trowbridge (who runs a "Nippy" Austin and is rebuilding a Type 35 Bugatti) and his lady, Harmer and his lady, Grosscurth and a friend, Ashwood, Merrilles and Mrs. Merrilles, Denis Jenkinson, Halford and his lady, and Boddy—a goodly gathering of boys and girls. The next luncheon will happen at the same venue on Sunday, July 4th, at 1.30 p.m. Hon. Sec., S. H. Capon, 159, Upper Tulse Hill, London, S.W.2.



★

ZOO MEET

We understand that enthusiasts will take tea at the London Zoo on Saturday, July 24th. The meeting is being handled by Rivers-Fletcher and it is expected that everyone who is anyone in motoring will get along if they can. Rivers, incidentally, really has qualified as a professional journalist, having recently interviewed Nervo and Knox for *The Light Car*.

★

WHAT IT TAKES

From *Time and Tide* reviewing "Bira's" prowess: "... when he ("Bira") got into the driving seat of a car and let in the clutch, the car, instead of remaining a piece of mechanism, became a projection of himself, so that his nerves seemed to touch the road and his blood to flow into the carburetter. This almost mystical identification of himself with the machine enabled him by the age of 22 to become the greatest racing motorist in the world." As Stuart Wilton, who draws our attention to this remarkable account, remarks it's rather hard on struggling tyros like Tazio N. and Rudolph C.—enthusiasts, no doubt, but with no real talent!

★

LEAMINGTON SPA CLUB

An attempt is being made to form a club at Leamington Spa. Anyone interested is invited to contact George Sanders, 72, Hollywalk, Leamington Spa, who is at present acting as secretary.

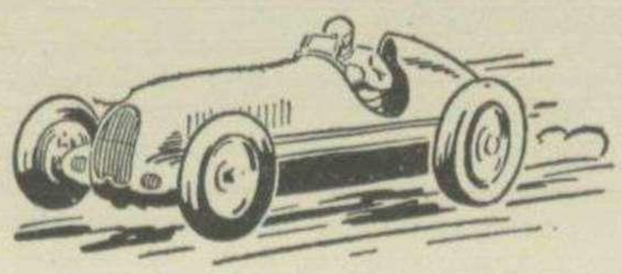
★

OUR COVER PICTURE

This month's cover illustration shows Whitney Straight taking the banking-bend of Brooklands Mountain Circuit in the 3-litre single-seater Maserati, afterwards raced by "Bira." He is being followed by an E.R.A.; the car still holds the Class D Mountain lap record at 75.57 m.p.h., handled by the latter driver. Straight is now an Acting Air-Commodore, Royal Air Force.

S.S. 100

BEFORE the war the 3½-litre S.S. 100 open 2-seater created a profound impression by offering a 100 m.p.h. maximum, together with a very high general performance and a striking appearance, at a moderate purchase price. Some little while ago D. S. Jenkinson was able to passenger in one of these cars which F/O. R. M. Cowell was exercising on R.A.F. leave petrol. It will be recalled that the specification of the S.S. 100 embraces a 6-cylinder 82 by 110 mm. (3,485 c.c.) push-rod o.h.v. engine with a compression ratio of 7.25 to 1, giving 125 b.h.p. at 4,250 r.p.m. The gearbox has ratios of 3.8, 4.58, 7.06 and 12.04 to 1 and the wheelbase is 8 ft. 8 ins. All this power is packed into a space only 9 ins. longer than that occupied by the Meadows H.R.G., the wheelbase being a mere inch longer. The counter-balanced crankshaft has 2¼ in. journals. The 13 in. Girling-operated brakes are lined with BZ Ferodo and pull the car up in 26½ ft. from 30 m.p.h. Cowell's car is a 1940 model, and Jenkinson reports that a speedometer 80 m.p.h. was reached in 3rd, and 92–93 m.p.h. attained in top in a howling gale. On a number of occasions 50 m.p.h. was reached from a standstill in under 8 secs., the best figure being attained by going up to 5,000 r.p.m. in bottom gear and then snatching second. The acceleration he describes as smooth throughout, with very little "hit in the back" about it. In a strong cross-wind the front of the car tended to render the steering rather vague and the front end was definitely sloppy on corners. The seating position was found to be rather too close to the instrument panel; and the seats rather too close to the door pillars for easy entry and exit. The instruments recorded steady figures at all times and appeared to be very accurate. Cowell is sufficiently impressed with the S.S. to have devoted some consideration as to how it could be improved and made into an extremely potent car indeed. His "receipt" calls for modifying the cylinder head, using special bearings and a re-designed lubricating system, and fitting forged dural pistons. This engine would be supercharged by means of a Roots blower between the front dumb-irons, driven directly from the crankshaft and drawing from two 1⅝ in. S.U. carburetters. Cowell would then like to lighten the whole car (present weight 23 cwt.) and possibly use wishbone i.f.s. controlled by torsion bars. The rear-axle ratio would be raised to about 3.4 to 1 and a body resembling a cross between that of Aitken's T.T. Delage and the sports 2-litre Alta fitted. Certainly such modifications to the existing 3½-litre S.S. 100 would be most interesting and should render the resultant car amongst the most potent on the road.



Letters from Readers

Sir,

Many interesting articles have appeared from time to time on home-built specials and conversions, but I have yet to see some authoritative dope on "blowers" and the manufacture of amateur productions.

Perhaps trade secrets enter into the matter, but surely someone at some time or other has made, say, a Cozette-pattern supercharger which, from the meagre details available, looks simple enough! Perhaps something could be done?

More power to your elbow via MOTOR SPORT.

I am, Yours etc.,
GEOFFREY B. NORMAN.

Didsbury.

[This is a case of there being more in the task Mr. Norman would like to perform than meets the eye, we believe. But we put out this feeler in case anyone has any useful information to dispense. —ED.]

* * *

Sir,

With regard to the reference in the April issue of MOTOR SPORT in "Club News" concerning the Midland Motoring Enthusiasts Club, I don't think it is generally known that a band of 20 to 30 Bristol enthusiasts gather on the last Thursday of every month at the Full Moon Hotel, Stokes Croft, Bristol, to talk cars—past, present and future; the pro-racing, sports and vintage element being most prominent.

These right-thinking people will be only too pleased to meet other enthusiasts in this neighbourhood.

As it is not a club in the strict sense of the word, there is no entrance fee, the only expense being the amount of liquid refreshment consumed.

Among our members are a number of visitors to this area, one of the more recent being Peter Robertson-Roger, who is attached to the A.T.A., and R. D. Carson, who is connected with the local aircraft industry; shortly we hope to have a visit from Captain J. Fry, of Freikaiserwagen fame, and Lieut. R. A. Macdermid, R.N.V.R., who is now back in England but does not get much chance to visit Bristol.

I shall be only too pleased to hear from any dyed-in-the-wool enthusiasts should they care to get in touch with me.

I am, Yours etc.,
J. B. KING.

Stafford House,
All Saints Road,
Bristol, 8.

* * *

Sir,

I have been trying for some considerable time to find an Indian made before the last war, also a "90 bore" Zenith Matchless or Bat, without success. Can anyone help me?

At the moment I have a couple of fairly interesting cars—a Type 37 Bugatti which was the one raced at Boulogne by Miss Ivy Cummings, and later at Southport by Lane Jones, and the 3-litre Bentley which my sister raced for several years. The latter car started life as one of the T.T. flat-radiator cars, and was rebuilt after a smash at Blackpool. Bentleys also supercharged the job at the same time, about 1925/26, and it must have been one of the fastest 3-litres made. From what I remember it was quite quick off the mark: anyway, quick enough to beat Basil Davenport's standing third-of-a-mile record at Stalybridge. Like so many cars it has had all sorts of eccentric fittings, such as dummy oil tanks and comic oil radiators, hung on; needless to say, these have been sent to assist the war effort. Unfortunately, the car only ran in about six meetings and was never persevered with. May sold it when the family bought the G.P. Sunbeam, and I was very glad to be able to rescue it.

I am, Yours etc.,
J. O. CUNLIFFE.

Manchester.

[This is most interesting news, which Bentley enthusiasts everywhere will welcome. We well remember May Cunliffe's "flat-fronted" Bentley, and this must be one of the oldest Bentleys now in existence.—ED.]

* * *

Sir,

Years ago I used to be a regular reader of a weekly magazine for motor-boat enthusiasts. In the Queries section of that paper optimistic amateurs were always asking the editor what speed they could expect from an ex-P. & O. lifeboat powered by a T-model Ford engine. The answer was always 5 m.p.h. There were always two ways of looking at the picture of the stricken and disillusioned boat builder when receiving this blow to his high hopes: one could either pity the poor fellow who honestly thought he was going to have a 40-m.p.h. speedboat, or one could congratulate him on not being drowned when his boat capsized when cornering ten times faster than it was ever designed to do. It is easy to scoff, therefore let us scoff.

I think the same applies to "Specials." Let's see. What generally happens is that somebody acquires an ancient motor-car which, having either overhead valves or a low overall weight, is regarded as requiring only slight modification before becoming a racer. A test run up a narrow drive, flat-out in second gear, convinces the embryo Reid Railton that the car has the blood of the Darley Arabian in its veins. At that stage the car and driver between them generally possess the following: (1) A pathetic lack of urge from the engine. (2) Feeble brakes. (3) Grotesquely vague steering and roadholding. (4) At the very best, the driving skill of a high-street racer.

As each of the above deficiencies is overcome the succeeding one renders participation in speed events a grave danger to the driver. Let us, therefore, work back, overcoming the defects in the proper order, and see whether we can get something for our trouble.

Now, what about learning to drive. It's not enough to be able to thrash the daylight out of the family saloon and beat taxis away from the traffic lights. Until you can ride a motor-bike, and ride it fast under all conditions, you'll never be a driver. Yes, I know all about him, but I've also heard of Nuvolari, Charlie Dodson and Freddie Dixon; and I know whom I'd rather ride with on a wet road. So get a motor-bike, and learn something about what happens to your front wheel when cornering and braking on the wet.

Then there's steering and roadholding. Have you ever seen a Grand Prix car, a fairly modern one? What did you notice about it? What! it had funny springs? Quite right. Those springs were either flat, stiff and widely spaced, or they were some sort of independent system. Now look at yours. I'll bet they're floppy, of pronounced camber, and mounted all wrong. Do something about it, and don't forget to fit a decent set of shockers. And please believe me when I tell you that the large-section tyre, correctly inflated, is the finest independent suspender ever stumbled upon by car designers.

Oh, and when you were looking at that Grand Prix car you didn't happen to notice the brakes, did you? I'll bet the drums were of larger diameter, and better cooled, and the actuating mechanism was more carefully compensated than yours. I'm afraid you'll find very few touring cars, and almost as few sports cars, with brakes which will both pull you up safely and continue to do so for long.

The thing to do if you want brakes on a Special is to take the shoes and drums bodily from something which has racing associations, like a Talbot or Bugatti, and graft them on to your own axles as best you can. There is no lack of ingenuity among Special builders; all I ask is that you don't devise an actuating mechanism which absorbs most of your pedal pressure in friction and distortion. Don't forget, or don't omit to find out, that suspension, weight distribution and tyre pressures all have their effect on braking.

Now the engine. I know you all want to break records in the under-1,500 c.c. classes. I wish you didn't. Ever since legislators and motoring journalists persuaded us to coax large car horse-power out of small car engines British and Continental racing has been like a coconut shy, where the women and children

go half-way while the men have to attain the same standard from the full distance. The result is that at any motor-sporting event in this country one sees broods of frolicsome little toy cars frisking round the real stuff. However, you boys know best ; so let's have a look at this engine of yours. I see you've cleaned it so that it's spotless, and I know you'll keep it clean so as to detect oil leaks when you've got it ready for racing. But I shouldn't try to do much with side-valves, really. I know all about Ulster Austins, etc., but that *was* rather a long time ago.

Never mind about port polishing. Your overhead-valve engine obtains its efficiency because the gas can flow in all round the head of the valve, instead of drifting out of one side. Apply that principle to induction pipes and ports, and see that they are not full of obstructions and awkward corners. See also they they are the right diameter in relation to valve sizes. Brake mean effective pressure is what enables engines to exert the necessary tractive effort, and this you'll obtain with the highest compression ratio your engine will stand. This increased ratio will mean that you'll have to watch out for things breaking and bending. Here's a chance for you to do a bit of polishing, as a high finish is useful in preventing surface cracks starting in con. rods, etc.

There are so many things you know already that I can only hope to remind you of a few points. A piston speed of 3,000 ft. per min. is all you want if the engine is to last for long, so don't try to make something with a 4-in. stroke run at 8,000 r.p.m. Have a good oil pressure if you can, but don't forget that too high a pressure, in conjunction with a high operating temperature, can cause frothing. Fuels are a great thing if you know how to employ them, although it is not enough to fill the tank with dope and leave the carburation to do the rest. Be careful about leaded fuels with side-valve engines, and don't forget that alcohol fuels only give increased power if you richen up your carburetter setting to suit them.

And such and such. I see you're getting bored with engines. The body-work, of course, you designed before anything else, so I suppose you have got something that looks like 160 m.p.h. I was only trying to make the performance match the streamlining . . .

I am, Yours etc.,
"SARDANAPALUS."

Sussex.

* * *

Sir,

I was interested to read your notes on the Marendaz Special in the February MOTOR SPORT, particularly the footnote at the end, in which the statement is made that it is believed all the "11/55" Anzani-engined models are defunct, save for one, perhaps, in use overseas. From this it would appear that I am somewhat unique in possessing possibly the last of the "11/55s" in the country. For I actually have one ! Mine is the Marendaz that broke the 1,500 c.c. F-Class 24-hour record (in 1929, I think). I actually purchased the car from Mr. Hanks, in 1936, I think.

I had plenty of fun out of the Marendaz, which would put up a good performance, despite its age, and the acceleration was everything one could want. As I disappeared from "civvy street" in August, 1939, the car has been off the road since then. However, I still have it, and see no reason why it should not burn up a few more miles after this present business is over.

I am, Yours etc.,
H. R. MAULE,
Lieut., R.A.

Caversham,
Reading.

[We are glad that an Anzani-Marendaz, and an historic one at that, has survived the passing years. Curiously, another has come to light at a London dealer's. Hanks is now a Bugatti-enthusiast, of course.—ED.]

* * *

Sir,

We have been unable to deliver awards won by the following in Vintage S.C.C. events in 1939, as the parcels have been returned from the addresses given us. I should be grateful if you could assist me to trace these people so that we may deliver their awards to them. Here are their names : G. Wood (S.S.) ; D. Smith (Aston-Martin).

I am, Yours etc.,
ANTHONY S. HEAL.

Red Hill Cottage,
Denham, Bucks.

[Will those concerned please contact Mr. Heal direct. This is a nice little reminder, incidentally, that the broad-minded Vintage S.C.C. admitted modern cars to its events.—ED.]

* * *

Sir,

Having read MOTOR SPORT for years and having owned a fair number of vintage motors, I am rather surprised to find that you, and a good many of your readers, still "boost up" the vintage car against the modern high-performance car.

My own vintage cars have all been acquired due to lack of capital to buy a good modern type, and I had generally supposed that other vintage owners were, with obvious exceptions, attracted to this class of car solely for this financial reason.

A recent article in the *The Motor* suggests that sports cars, as such, will die out after the war. This seems possible, the streamlined saloon was making progress just before the war and may well supersede the open type. Obviously a D.H. coupé is the ideal type, but the saloon will give greater performance.

An open car is all very well if one can afford to keep it for the day upon which summer falls, but anyone who claims to enjoy a 300-mile drive in the depths of winter with snow-clad roads and a blizzard, or who revels in being soaked to the skin as often as possible, when he could be warm and dry in a saloon or D.H. coupé, is either a fool or a liar.

In decent weather I am all for an open car, but for a person who really uses his car in Britain the percentage of rotten days is so high that some protection is definitely desirable, and anyhow, the saloon goes faster—the die-hards should remember the Alfas and B.M.W.s at Le Mans.

I suggest, for the good of the British motor industry, that the people "who truly believe that motor-cars to their taste have not been made since around the year A.D. 1931" (according to your recent editorial), should be allowed to ponder upon the excellence of some of the cars that came from over the Channel immediately before the war.

Probably the best car in the world as a sports-road car, on a basis of price, upkeep cost and performance, for its capacity coupled with roadholding and road safety, is the 328 B.M.W., or the 327, if you like the extra comfort, but there were many other Continental motors that "showed us the way." The Lancia, in its class, the Delahaye, Hotchkiss, etc., etc.

I hate to boost foreign cars at the expense of our own, but unless we realise the true position and "get our finger out" before hostilities cease, we shall be nowhere in the foreign market.

After the last war we lost the foreign trade to the Americans due to lack of foresight, and if large bodies of people still believe that the 4½-litre Bentley is the best car in the world we are on the way to repeating the performance.

Take the normal family type of British car, an absolute abortion, compare it with the Citroen, Opel, Fiat. It is obvious that our people just don't know the first thing about chassis design and they still believe, apparently, that lots of good solid dead-weight helps to keep the car on the road, and to hell with fuel economy, acceleration and braking.

If one gets an average British light car up to 60 m.p.h., the steering gear becomes merely an aiming gear, and at the first corner it is a toss up which hedge you go over.

Let us hear a bit more about Lancias and B.M.W.s, and let us appreciate how really good they are, then we shall be on the way to beating them up ; but if we continue to live in a world of 3- and 4½-litre Bentleys, "30/98" Vauxhalls, 3-litre Sunbeams, etc., then, for our post-war markets, Grand Prix racing, or sports car racing we can say that "we've had it."

I am, Yours etc.,
B. FITZPATRICK.

Lambley,
Notts.

[On the subject of English weather, the editorial Lancia had no hood and we only recall getting drenched on a very few occasions, although it was used nearly every week-end and on several weekdays over a period of eight months. But to a very large extent we agree with Mr. FitzPatrick. Obviously, every vintage car owner is not financially embarrassed, as witness the excellent rebuilds—such as Lycett's 8-litre Bentley. Remember, too, there are 328s and 328s.—ED.]

* * *

Sir,

While I agree with your views on the scrapping of old cars, I fear I do not share your optimism that the Government might allow picked specimens to be saved. My opinion is that the cars are not merely wanted for scrap but to ensure that they are not used again after the war, an idea which would no doubt

have the backing of the insurance companies.

There was no labour available, we were told, to remove obsolete types of lamp-posts, or Belisha beacons, those useless memorials to a useless M.O.T., which disfigure our most beautiful villages. Then, last week, I read that a number of Napier "Lion" engines were being offered to the public for about £17 10s. (Special builders, please note), by a private firm which had bought them from the Air Ministry. Reason—no labour available to dismantle for scrap.

Now, if the Government cannot break up their own aero engines how can they find labour to scrap other people's cars? I fear there is only one answer.

Personally, I doubt if more than a small fraction of the 250,000 will be dealt with during the war. The rest will be scrapped after the armistice, but they *will* be scrapped. Preference will probably be given to those in running order.

What about lorries, buses, traction engines, etc? There are quite a few in breakers' yards. Surely they would provide more material for the same labour than cars. And most of the A.R.P. ambulances in this city should be on the scrap heap.

I am, Yours etc.,
J. H. BALLENY.

Birmingham.

[The drive started with obsolete A.R.P. vehicles, and may embrace traction engines in time, in which case we suspect there will be precious few vintage cars spared.—ED.]

* * *

THE MIDLANDS MOTORING ENTHUSIASTS' CLUB.

Sir,

We wish to thank you again for the mention of the Club in your columns and also to let you know that we had another very successful meeting on May 5th.

Mr. C. R. Southall, veteran car enthusiast and competitor in a number of veteran car rallies and competitions in pre-war days, gave members a most interesting film show of Shelsley, Donington, etc., which was much appreciated by everyone who was there.

Afterwards there were one or two rather heated discussions on such subjects as "Do trials damage a car?" in which Mr. Gilbert Couzens, present owner of one of the "Cream Cracker" M.G.s, held forth at some length, his contention being that they do not. Mr. Woodhall, well-known Midlands trial competitor and H.R.G. owner, held the opposite view.

I am, Yours etc.,
On behalf of the M.M.E.C.,
STEWART FORREST,
Chairman.

Birmingham, 5.

* * *

Sir,

I have been meaning to write to you for a long time to congratulate you on the great effort in keeping MOTOR SPORT going. Actually, my November and December, 1942, copies have gone astray, and until the arrival of the January copy a day or two ago I had begun to fear that our last link with the good old days was broken. Please do not let this happen.

Incidentally, I have been giving quite an amount of thought to the sort of car that we want in the future and find that my ideas more or less coincide with those of the late F/O. W. J. Scafe, expressed in his letter in June, 1942, but are rather more detailed. I am hoping to put them on paper during the next few weeks and will send them on to you by fastest possible means (which is pretty slow) as they may be of use.

As regards the 18 mm. crankpin diameter for the proposed Lory V 12 engine, this is obviously fantastic, as it gives the impossible stress of 25 tons/in.^{2}, simply due to the engine torque. From consideration of the 1½-litre Straight Eight Delage crank dimension, I arrived at a diameter of 44 mm., making allowance for a V 12 shaft being shorter than a Straight Eight, and thus I suggest that the 18 mm. is a misprint in the original article, and should be 48 mm. The likelihood of this is increased by the French practice of invariably writing figure one with an upstroke. The stress in the 1½-litre Straight Eight engine is 1.5 tons/in.^{2}

I am, Yours etc.,
J. S. MOON,
Captain.

By Airgraph.
M.E.F.

[We shall look forward to publishing Captain Moon's observations on design for the future in due course. We showed his comments on the Lory crankpin to Mr. Lowrey, who replies as follows:—

Thank you for allowing me to see Captain Moon's letter. The article on M. Lory's G.P. project has aroused far more interest than I anticipated when I sorted out the rough notes I made for personal information.

With regard to the 18-mm. crankpin, this was *apparently* intended to be the diameter. Captain Moon is probably right in suspecting a printer's error in the S.I.A. journal, the nominal stress figure which he correctly quotes being "impossible" indeed.—J. L.]

OUT OF PRINT

To avoid unnecessary correspondence, those subscribers desiring back numbers are informed that the following issues are unobtainable:

1924: Mar., Dec.; **1925:** Feb., April, Aug.; **1926:** Aug., Sept., Oct.; **1927:** April, June; **1928:** Jan., Feb., Mar., April, May, June, July, Sept., Dec.; **1929:** Jan., Feb., Mar., April, June, July, Aug., Sept., Oct., Nov.; **1930:** Mar., June, July, Aug., Oct., Dec.; **1931:** Jan., Mar., July, Nov.; **1932:** Jan., Mar., May, July, Aug., Oct.; **1933:** Jan., May, June, Aug., Nov.; **1934:** Jan.; **1935:** Mar., May., Sept., Dec.: **1936:** Jan., April; **1937:** April; **1938**; July, Nov.; **1940:** Feb., Sept., Oct.; **1941:** Sept.

READERS' SALES AND WANTS

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

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

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

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

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

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

FOR SALE

ANDRE Hydro-telecontrol shock absorbers. Set of 4 complete with controls. Lisemore, Faringdon, Berks.

LOW loading trailer, 5'11½" × 10' complete, suitable racing or sprint car £5. 1938 reconditioned Austin Seven 3-bearing engine less components. Cambridge Engineering Works, Cambridge Road, Kew Green, Surrey.

£15 1928/9 "14/75" Alvis 4-seater, brakes relined. Two nearly new tyres, £10. 1932 De Soto (Chrysler) 22-h.p. chassis. Engine overhauled. Three retreaded tyres. K. B. Salmon, 154, Prince Albert Square, Earlswood, Surrey.

MOST spares available for 2- and 2.3-litre Grand Prix Bugattis. F. O. Cleveland Harmer, 83, Old Oak Road, Acton, W.3.

WANTED

1½ LITRE Bugatti less engine and gearbox, similar 9–12 considered. Leir Caravan, Hills Field, Old Shrubland Farm, Leamington Spa.

OLD Type Caravan. Eccles box or similar. Condition immaterial. J. Barrett, Walton Cottage, Walton, Peterborough.

1904/5 6- or 8-h.p. Rover single, in running condition. J. Barrett, Walton Cottage, Walton, Peterborough.

CROWNWHEEL 4.5 to 1, and Pinion, good condition for J. 2 M.G. Patrick, "St. Kilda," Gloddarth Crescent, Llandudno.

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

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

Scrap-Book continued

Some more Memories prompted by the study of an enthusiast's book of Press cuttings. The first instalment appeared last month

A picture of three works Austins reminds us that the later s.v. cars had "isolated" radiators, no inter-wheel fairings and stumpier tails than the record-breaking job driven by Leon Cushman. Here is the "Nurburg" Frazer-Nash with Powerplus supercharger—Reg. No. MV 2303—which Aldington was to drive in the German G.P., and there pictures of Carden and Baby Peugeot cycle-cars. An advertisement for a Parry-Thomas engined Aston-Martin is of interest, this probably being the car then owned by Lieut.-Comdr. Hare, which suffered persistent misfiring, so that an s.v. Anzani engine was eventually substituted. There is a picture of Purdy's "flatiron" Thomas Special, racing against a big-twin solo at Brooklands and Birkin is seen Alfa-Romeo-ing at Le Mans.

Here is the ill-fated single-seater Invicta with wheel fairings, Froy up. It is said still to exist near Coventry, while Froy is now with de Havillands. Froy is also seen with a neat Riley in which he won the 1,100 c.c. class in the German G.P.—aided by a big streamlined headrest. Most intriguing is a racing D.K.W. driven by Macher, which has two 2-stroke engines coupled together, a "Rolls-Royce"-shaped radiator, big external exhaust pipe, and which is described as "selling for a modest figure." The rare two-engine (side-by-side) 12-cylinder Alfa-Romeo that killed Arcangeli appears, and the clever streamlining of Lockhart's famous 200-m.p.h. 3-litre Stutz, with its almost completely spatted wheels, is well depicted.

A rare King's Cup aircraft is the Segrave "Meteor" with two Gipsy III motors. Eyston's Riley record-holder, with curious exhaust system, and the original V 8 Harker-Special, arouse memories of forgotten cars. The Harker, Villiers-supercharged, is said to have gone from 44 to 88 m.p.h. in *top gear* in 14 secs.

A page is devoted to Lord Ridley's 750-c.c. single-seater, with its twin o.h.c. engine tucked away in an amazingly low bonnet. There is a Bugatti touch about the cam-cases and covers and one wonders where is this "one-off" engine now? Ridley took the Class H flying kilo record at 105 m.p.h. Lones's Morgan-J.A.P. is a fine sight in chassis form, with specially-mounted shock absorber for the rear wheel. We see the wrecked straight-eight 450-h.p. Djelmo at Pendine after an unsuccessful attack on the British speed record—this car, we believe, had a specially designed engine as distinct from a discarded aeroplane or boat motor, and might have been a sort of forerunner to the Napier-Railton had anyone rebuilt it for Brooklands. It was built about 1923 and ran here around 1927. "Babs's" grave at Pendine in 1928 is seen, which soulless golfers later destroyed. We are reminded that Lord Howe really did wrap the 1½-litre Delage round a tree at Monza.

Those who "collect" 3-wheeler marques may care to add the Villard, a French 500 c.c. of coupé form, with its single front wheel driven by chain. Segrave is seen broadcasting experiences of his record run at Southport in the 4-litre Sunbeam "Ladybird," and here are views of a very rare Maserati—the f.w.d. 3-litre single-seater, said to weigh approximately 14 cwt. and to develop over 200 b.h.p. Here is Eyston's 1½-litre 6-cylinder Riley, extremely well streamlined and with a twin exhaust system, which took many records, after George had done likewise in 1931, with a similar-bodied 1,100 c.c. Riley. And here is the Morris Minor supercharged single-seater which Von der Becke made do 100 m.p.h. —and later it did 100 m.p.g.! The then vogue for a radiator isolated from the bonnet is noted. M.G. folk will recall a blown J 3 with which Eyston took the 24-Hour record, and Allard's first "special"—a four-wheeled Morgan converted to shaft drive—reminds us that both these cars were in South London many years later.

So the pages turn. Here is Birkin's "In Memoriam" and notes by Dr. Jevons about his Type 37A Bugatti "The Snag," which by 1933 was able to do 8,000 r.p.m. for short periods. Jevons taught Fielding a great deal until that young man, too, decided that flying was cheaper! There is a beautiful picture of Walter Delmar's Type 43 Bugatti leading Widenmann's Adler up the Galibier, to win a Glacier Cup with no loss of marks, and we see Cecil Burney working on veterans that were destined to become Richard Nash's hobby and toil.

Interesting is a chassis view of a Sampson-Radio-Special for Indianapolis, with 16-cylinder Miller engine, and a spherical fuel-tank to save weight and space. Many Land Speed Record cars are there and a great many racing "shots," together with numerous photographs of rather better-known racing and sports cars than those we have picked out. As the last page turns one feels how desirable it is to commence and to maintain a scrap-book of some sort.

Rather different, but no less interesting, is the family album of real (motoring) photographs loaned to the Editor by Statham. It opens with some excellent pictures of "30/98" Vauxhalls in their prime and straightaway renders one nostalgic for the "good old times." What follows certainly does not disappoint. The pictures of Nazzaro's 2-litre Fiat winning the 1922 French Grand Prix are beyond price, as are the photographic studies of Campani's and Ascari's 1924 G.P. Alfa-Romeos. We see a curious high "4-inch" racing Humber, road-equipped but with external "drainpipe," standing before a Calcott, and there are several historic pictures of the fire at the Delhi Motor Exhibition. Then "22/90" Alfa-Romeos follow in profusion, notably at sprint events with many "30/98" Vauxhalls in car-parks as a background. There are one or two "unplaceable" makes, including what appears to be a racing Hampton, and shots of a Vulcan at Aston Clinton hill-climb and of a racing Beardmore with liberally-drilled chassis. Statham's 1896 Daimler is seen in and out of "Brighton" runs, a special open Talbot and a Mors would have beaten us had they not borne captions, and we like very much the Lanchester of the Grandparents—a really early landaulette with seats either side of the engine. There is an Aurea sports 2-seater with big scuttle cowls and an aluminium bonnet, a "21/70" Alfa-Romeo, and, going back further, a stripped Austin with a pile of tyres on the tail and no rear mudguards, specially built for Jack Johnson, the boxer—doubtless the salvage drive of the 1914-18 war got this car which any Vintage S.C.C. veteran enthusiast would give much gold to possess. Beside the heading "The Things People do to Austins!" we see a stripped "Twenty"—probably Scriven's "Sergeant Murphy"—and Statham's Special Seven. There is also the 1911 single-seater "Maple Leaf" Austin the curious streamlining of which used to get it a place in the technical handbooks of the pre-last-war era. "First offence" and "Second offence" refer to a very rakishly stripped bull-nose Morris and a lowered special Austin Seven sports, respectively—both were described in MOTOR SPORT by Statham when he wrote up the Scuderia Statham. We also see another Austin Seven Special being pushed up Dancer's End, a 1,100 c.c. Alta, an M.G. Magnette and odd racing shots. Have *you* started a scrap-book and photograph album?

NO RETURNS

Several letters have been received from readers complaining of their inability to procure "Motor Sport." Newsagents will not procure copies if they have not received a definite order from their customer.

If you are on National Service and are being moved about the country, kindly send in your subscription and your latest address, and the copy will then reach you wherever you are.

Tell enthusiasts that "Motor Sport" is still being published monthly and is the only paper in its class.

Bolide in a China Shop

IN these days of "shortest and most direct route" and, even worse, of "alternative means of transport," a long road journey is a rare treat. However, by good fortune the more usual 7 m.p.g. flying ferry wasn't to be had on a recent occasion, and much less fuel was with difficulty obtained for a spot of motoring. Without any embellishments, *300 miles in a little over 24 hours* was a pleasing prospect. So when 9 p.m. found us wandering around a little Berkshire town in search of (solid) refreshment, the crew was entirely happy.

As is often the case, food proved a little elusive, and the quest led us into an inconspicuous back street, when something caught my eye. Not food, but something which banished the thought of it from our minds. For, in the back premises of the local china shop there lay a red single-seater of intriguing aspect. Strange indeed are the wartime haunts of racing cars. I have seen Alfa Romeos in a piggery, an Alta in a Canadian Army barracks, an R-type M.G. Midget in a cable factory, a Shelsley Special in a barn, and Bentleys in a mushroom farm. But china shops, hitherto, I have ignored.

Rapid investigation showed the car concerned to be one of the small number of independently-sprung racing Altas. So far as I am aware, Abecassis, Beadle, and Lady Mary Grosvenor retain their cars: the whereabouts of the car which Bellevue fitted with i.f.s. I do not know. But Hugh Hunter's former car is most certainly in Berkshire. Readers may recall that this particular car was built up by R. R. Jackson, and was in effect the second independently-sprung Alta. The first machine, of course, was Jucker's, and after its crash this was rebuilt for Abecassis. The ex-Hunter car has a channel-section frame, the open sides of the channels facing outwards, and coil spring independent suspension (on rather Morgan lines) for all wheels. Later cars had a tubular frame, and Abecassis had his frame converted to box section, while Lady Mary Grosvenor's car has torsion-bar springing.

By the time we had identified the car its present custodian came on the scene. He told us that the Hon. Peter Aitken bought the car before the war, and ran it at the August, 1939, B.A.R.C. meeting, an inaccurate statement since no such entry figures in the programme for that meeting. The car has changed colour since Hunter ran it, being now a bright red, but the same special body is retained. The latter has a special front end, high tail, and fairing over the rear springs. A noticeable special feature is the fitting of telecontrol shock absorbers.

But the Alta (which is for sale, incidentally, at a price) was not the only item of interest. A Bugatti and sports Morgan were too far off to be seen, but intriguing photographs decorated the office. Items in the art gallery included a long-chassis Squire, a 4½-litre Invicta which, suitably stiffened, was run in a Stanley Cup meeting at Donington, and the Walker Special. The latter, which Sir Heron Walker ran at Shelsley with little success, apparently used Hornet axles and a 14-h.p. Wolseley engine reduced to 1½ litres by Laystalls.

Time marches on, alas, and we had to proceed, still unfed, on our business. But if you find yourself in Faringdon any day, go and buy a 1½-litre pudding basin from the china shop.

◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆

MODELS—continued from page 138

of 6¼ in. It is now doing around 40 m.p.h. Mr. Buck's car resembles no particular prototype, but perhaps gets away from the general tendency to use unreal wheelbase/track proportions and to ape dirt-track lines, more than any of the other models. It has a wheelbase of 12 in., and a 7 in. track and f.w.d., the front wheels being independently sprung. American 3½ in. Sieberling tyres on disc wheels are used and the specification includes free-wheel starting pulley, ball-bearings for the front wheels and driving gears, and a universally-jointed propeller shaft. The chassis is liberally drilled and the model weighs 4 lb. all-up, a previous 10-lb. model being deemed too heavy. This car was clocked round a 26 ft. circuit on which 45 m.p.h. is "pretty hectic." The runner-up in Class B was R. H. R. Curwen's model, at 33.7 m.p.h. It is said to be based on an E.R.A., but looks more like a dirt-midget. The engine is a 2-port, 2-stroke of Mr. Curwen's own design and the drive to the front wheels is via a centrifugal clutch. The wheelbase is 11 in., the track 7½ in. and 40 m.p.h. is now being achieved. All these models use 2-stroke engines, f.w.d., and disc wheels and are appreciably slower than America's models. Much more ambitious is the scale model S.S. 100 2-seater of D. A. Russell, Managing Editor of the *Aero Modeller*, which is based on his own 2½-litre S.S. 100 and very sensibly scaled around its 5¼ in. India tyres. This gives a wheelbase of 19 in., a track of 9½ in. and an overall length of 26 in. The 10 c.c. Dennymite 2-stroke engine drives through a Curwen centrifugal clutch, which engages at 1,500 r.p.m. and goes solid at 2,000 r.p.m., to a solid bevel rear axle, ¼ in. in diameter. Fifteen ball races are used in all to ensure easy running and the all-up weight is 11 lb. The test runs have been made at 40-45 m.p.h. and later a 1.35-to-1 rear axle will be installed, which should give 60 m.p.h. at 5,000 r.p.m. We hope more *such models will be built and run*, perhaps for record attempts of considerable duration.

◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆

ASPECTS OF DESIGN

—continued from page 146

The qualities that make a good car are, we now realise, first, lightness, high power, and good streamlining, and, second, that happy blending of minor excellences which is the mark of the master designer. There are very few cars in which one feels godlike in one's command of power and speed, and scarcely conscious of the mechanism that responds so readily to one's lightest touch. On these dry, sunny days we think of them, open the garage doors and wheel out—the bicycle. When peace returns the demand for such productions should be unmistakable.

R. C. ROWLAND MOTORS
of
BYFLEET, SURREY
Telephone 270

Sports and Racing Car Specialists in Peacetime, now fully engaged on work of National Importance, look forward to the day when we can give your requirements our undivided attention. In the meantime, we have a small stock of specially selected cars for sale which may be seen and tried by appointment.

CLASSIFIED
ADVERTISEMENT SECTION

Head Offices :
21 CITY ROAD,
LONDON, E.C.1
Telephone : CLErkenwell 1128

RATES (prepaid) 1/- per line
Minimum 3 lines
6 Words to line
Copy required by 20th of the month

PUBLISHED APPROXIMATELY 1st OF EACH MONTH

FOR SALE

BUGATTI 3,300 c.c. Type 57 Twin camshaft model. Fitted with attractive four-door sports saloon, coachwork by Young, Bromley. One owner since new, hardly used, as car has been stored since 1937. All tyres excellent. A perfect car with terrific performance, £395.

ROAD Racing M.G. Magnette, Marshal supercharger, very fast car, with many successes to its credit. In perfect condition and fitted four new racing Dunlops, £295. Brian Finglass, 57, Churston Close, S.W.2.

R. C. ROWLAND MOTORS of Byfleet (Tel.: 270) invite offers for the Ex Count Villapadierna Full Grand Prix 3-litre Monoposto Maserati. This car has never raced in this country and has had very little use on the Continent. It is now offered for sale complete with a quantity of spares, and in 100 per cent. mechanical and external condition.

ALTA, 1½-litre racing car. Lisemore, Faringdon, Berks.

WANTED

INSTRUCTION Manual for 2.3-litre 8-cylinder Alfa-Romeo. Good price offered, or donation to charity. *Box 119, c/o* MOTOR SPORT.

TALBOT 105 Speed model, 1936 or 1937. Set of 5.50 in. by 19 in. wheels (cash or exchange set of 6 in. by 18 in.). Crown and bevel (4 to 1) and also pair of rear spring brackets. F. O. Munns, 1, Cumnor Road, Sutton, Surrey.

McKENZIE'S GARAGES LTD.
1, BRIDGE PLACE, S.W.1.

We wish to thank our large clientele of Bentley and Rolls Royce owners who have supported us so wonderfully since the War, but regret to inform them that owing to Government requirements no further repairs to private cars can be undertaken by us for the duration of the War.

RECENT MOTOR SPORT ROAD-TESTS

IN the issue of May, 1937, we published an Index of all the road tests conducted by this paper since it was founded, as *The Brooklands Gazette*, in 1924. From this Index we have been publishing extracts, but these did not embrace the tests published during the last six years. In order to make good this omission, we give below a revised selection, including tests published from May, 1937, to the present issue. Read in conjunction with the Index of May, 1937, it provides a reference to all the MOTOR SPORT tests—251 in all. Readers' accounts of their cars and technical descriptions of new models, moreover, are not included in this Index. Many of the issues concerned can still be supplied, at the prices given below. Please quote date of issue when ordering.

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. 4-seater	June 1934
A.C. "Ace" 16/80 h.p. 2-seater	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 2900B, Type 8C supercharged 2-seater (1937)	Jan. 1942
Alvis 6-cyl., "Silver Eagle" 4-seater coupé (1929)	Aug. 1931
Alvis 3½-litre saloon	Feb. 1936
Alvis Speed Twenty 4-seater	June 1932
Ansaldo 2-litre, 4-cyl., o.h.c. 4-seater	Sept. 1924
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 11.9 h.p. 2-seater	Jan. 1930
Aston-Martin 1½-litre Ulster racing 2-seater	Aug. 1937
Aston-Martin 2-litre Speed Model 2-seater	May 1938
Aston-Martin 1½-litre Mark II, long-chassis 4-seater (1934)	Aug. 1940
Aston-Martin 2-litre streamline saloon	June 1942
Atalanta V12 saloon	March 1939
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 4¼-litre, 6-cyl., Park Ward saloon	June 1936
Bentley 8-litre "Special" 2-seater (1931)	April 1938 & Dec. 1940
Bentley 4¼-litre drophead coupé	Aug. 1938
Bentley 4¼-litre Mark V saloon	Feb. 1941
Bentley 3-litre "Blue Label" "Special" 2-seater (1928–9)	Feb. 1939
Bentley 4½-litre "Le Mans" 4-seater (1928)	Jan. 1942
Bugatti 2.3-litre 8-cyl., Type 43, supercharged 4-seater	May 1930
Bugatti 3.3-litre 8-cyl., Type 57 saloon	May 1934
Bugatti 3.3-litre Type 57 saloon	May 1939 & June 1939
Bugatti 3.3-litre Type 57C supercharged saloon	June 1939
Bugatti 3.3-litre Type 57 SC supercharged coupé	Aug. 1942
Bugatti 5-litre Type 46 saloon (1929)	April 1942
CROSSLEY 20/70 h.p., 4-cyl., s.v. 4-seater	Nov. 1925
Crossley Ten, 1,122 c.c. 4-seater	April 1932
Crouch Anzani 12/30 h.p. 2-seater	Aug. 1924
DAIMLER 2½-litre 18 h.p. saloon	June 1940 & Nov. 1941
Darracq 12/32 h.p., Weymann saloon	Sept. 1924
Delage 8-cyl., sports saloon	April 1930
Delage D8/180 drophead coupé	May 1938
Delahaye 3.5-litre "Coupé des Alps" drophead coupé	Aug. 1936
D.K.W. "Special" saloon	Feb. 1938
Dodge 25.3 h.p. "Custom Six" saloon	May 1938
EXCELSIOR 5½-litre, 6-cyl., super-sports test chassis	Sept. 1927
FIAT "Balilla" saloon	May 1934
Fiat "Balilla" 10 h.p. 2-seater	Jan. 1935
Fiat 6 h.p., Type 500 coupé	March 1937
Fiat "Balilla" 1,100-c.c. saloon	March 1938
Ford Eight "Anglia" saloon	Aug. 1940
Ford V8 "30" Estate car	Oct. 1938
GEORGES-IRAT 2-litre f.w.d. 2-seater	May 1940
HILLMAN Fourteen saloon (1939)	June 1941
Hotchkiss 3½-litre "Grand Sports" saloon	July 1939
H.R.G. 1½-litre, Meadows engined 2-seater	June 1937
H.R.G. 1½-litre Le Mans racing 2-seater	Dec. 1939
INVICTA 4½-litre saloon	Dec. 1929
Invicta 4½-litre Estate car	June 1941
LAGONDA 4½-litre 4-seater	May 1936
Lagonda 4½-litre 4-seater	Jan. 1934
Lagonda 4½-litre, 6-cyl. saloon	Sept. 1939
Lanchester Eighteen saloon	Feb. 1938
Lancia "Aprilia," Type 238 saloon	June 1938
Lea-Francis 1½-litre supercharged T.T. 2-seater (1929)	June 1934
Lea-Francis Fourteen saloon	Dec. 1938
Leyland Eight 2-seater (1927)	Feb. 1938
MERCEDES-BENZ 12/40 h.p., supercharged 2-seater	June 1925
Mercédès-Benz 33/180 h.p., supercharged 4-seater	Aug. 1927
Mercédès-Benz 2.3-litre saloon	April 1938
Mercédès-Benz 1.7-litre, Type 170V 2-seater	Feb. 1939
M.G. Midget "J1," 850 c.c. 2-seater	Sept. 1932
M.G. Midget "T" 2-seater	Jan. 1937
M.G. 14/40 h.p., 4-cyl., super-sports 2-seater	May 1927
O.M. 6-cyl., 2-litre 4-seater	Oct.-Nov. 1928
PEUGEOT "201" 4-cyl., 1,122 c.c. saloon	Sept. 1931
RAILTON 8-cyl. Cobham saloon	Sept. 1938
Riley Nine 4-seater	June 1931
Riley 16 h.p., 4-cyl., "Kestrel" saloon	June 1938
Rover Ten "Special" 2-seater	Aug. 1939
Rolls Royce Twenty, all-weather (1927)	March 1942
Rolls Royce "Phantom I," supercharged	Nov. 1942
SINGER Nine 4-seater	March 1933
Squire 1½-litre, 4-cyl. 2-seater	Aug. 1935
Steyr Type XII, 14/35 h.p., Weymann saloon	Aug. 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
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-seater	Oct.-Nov. 1936
Talbot "105" Vanden Plas 4-seater	Nov. 1932
Talbot Ten tourer	June 1938
Terraplane 29 h.p., 8-cyl. 4-seater	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-seater	Dec. 1929
Triumph "Dolomite" 14/60 h.p. saloon	June 1937
VAUXHALL 20/60 h.p. "Hurlingham" 2-seater	Feb. 1930
Vauxhall 17 h.p., 6-cyl., "Cadet" saloon	Sept. 1931
Vauxhall Twenty-five saloon	Aug. 1937
WINDSOR 4-cyl., 11 h.p., "Special" 2-3-seater	Nov. 1926
Wolseley Hornet Swallow 2-seater (1933)	April 1934
Wolseley Hornet (12.08 h.p.) saloon	Sept. 1930

The following are the charges for supplying any of the above copies—

1924-1926 - 3/- per copy **1931-1934 - 2/- per copy** **1939-1942 - 1/- per copy**
1927-1930 - 2/6 per copy **1935-1938 - 1/6 per copy** *Plus* **2d.** *per copy postage*

Send cash with order to:

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

Printed by Tee & Whiten and J. Mead, Ltd., 21, City Road, London, E.C.1, and Published by the Teesdale Publishing Co., Ltd., 21, City Road, London, E.C.1. Trade Agents for the United Kingdom: Horace Marshall & Son, Ltd., Temple House, Tallis St., London, E.C.4. Agents for Australasia: Gordon & Gotch (Australasia) Ltd.