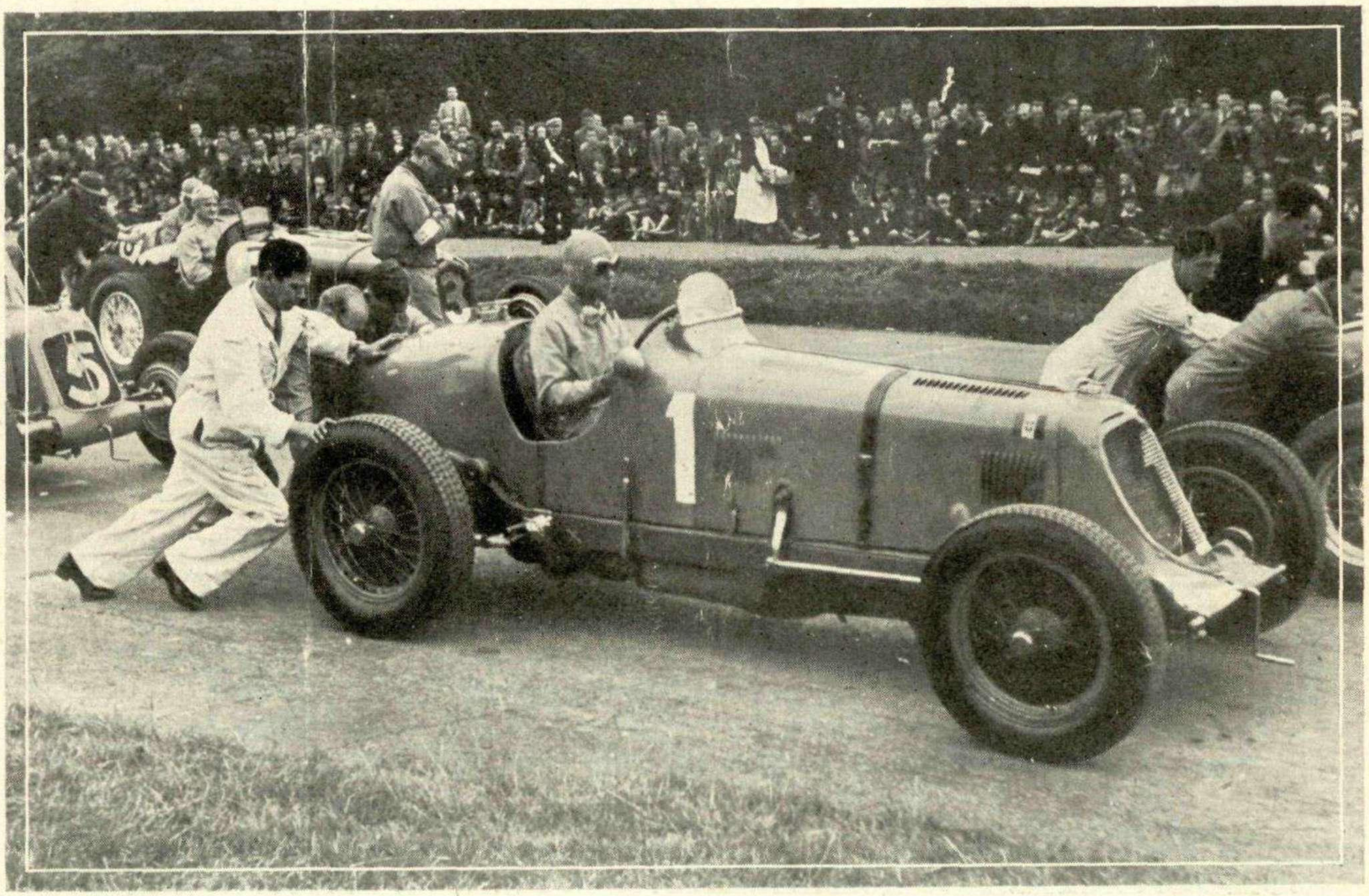
Vol. XXII No. 12 **ROAD-TEST OF THE NEW ALLARD** *December, 1946*

MOTOR SPORT

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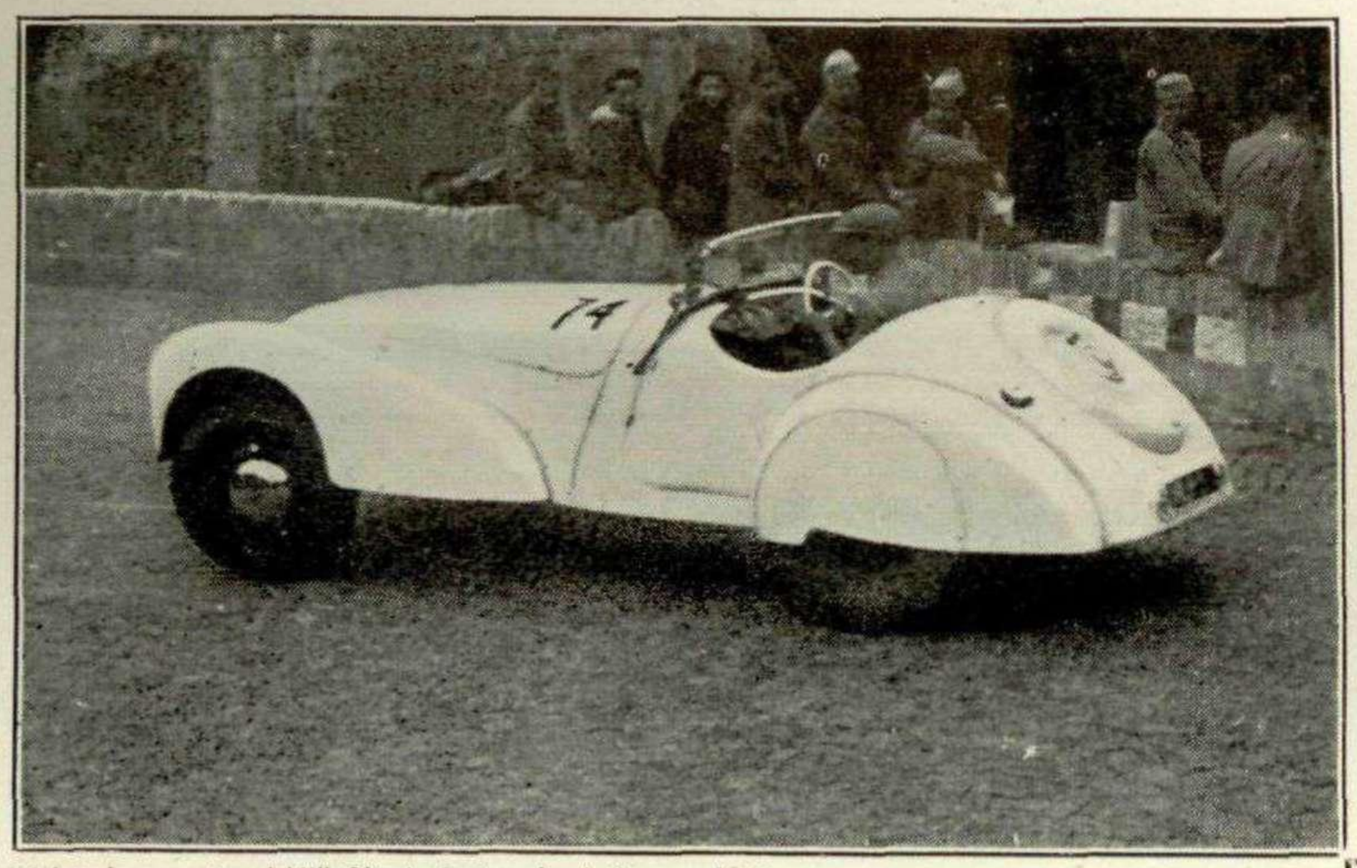
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THE VETERAN RUN

The Editor rides with J. Kentish, on a 1902 De Dion Bouton

Forty-five retire on very stiff day's test.

IT has been said before and I say it again—there is nothing quite like the R.A.C. Veteran Car Run to Brighton. This year a record entry of 137 was received; there were 17 non-starters, and, on a day of relentless gales and pouring rain, 45 failed to reach Brighton.

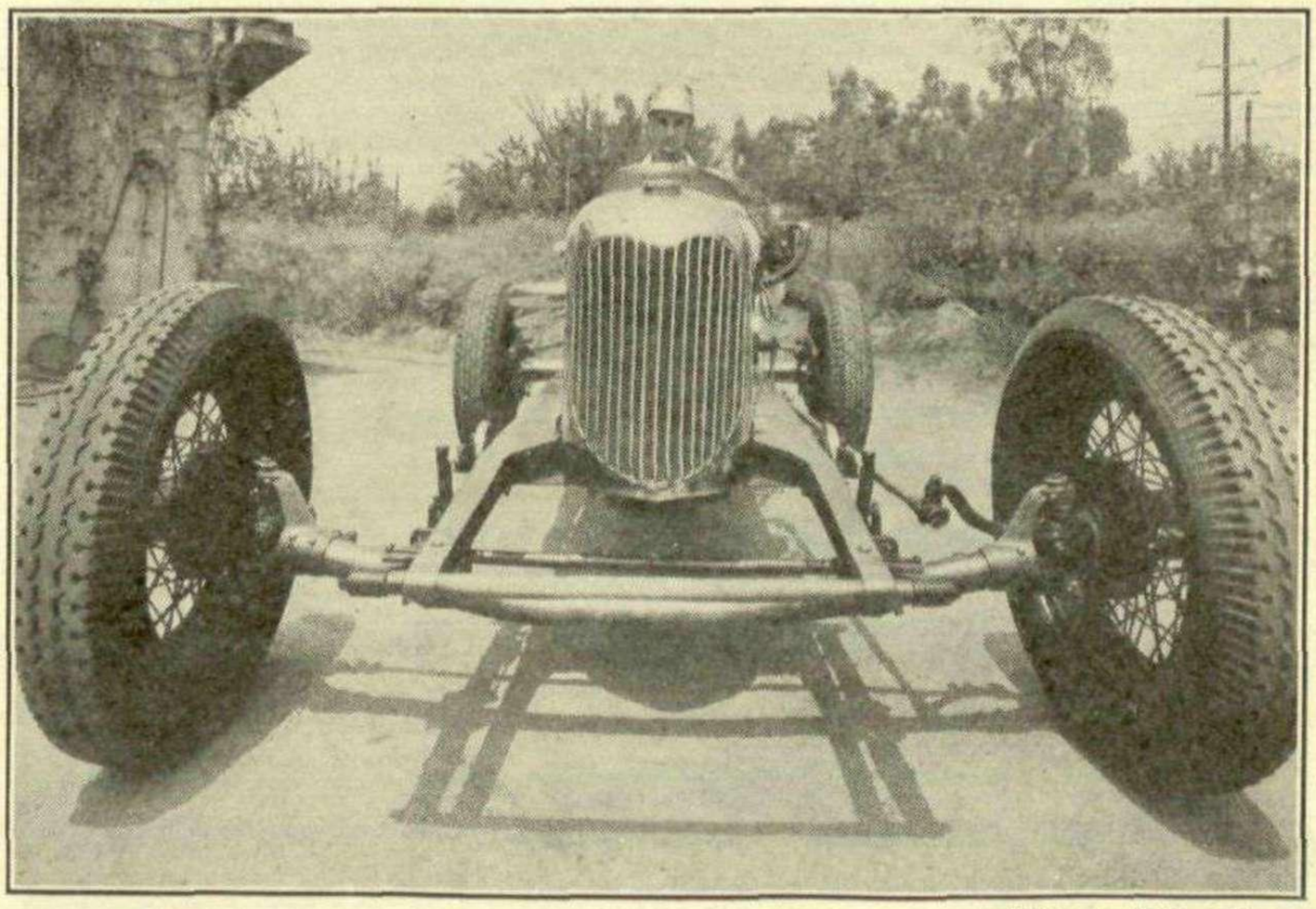
I rode with Jim Kentish on his beautifully-prepared 1902 single-cylinder De Dion Bouton, and it wasn't the car's fault that now, many hours later, I still feel damp and imagine that I ooze water as I move about! Conditions really were fearful, and it is to the credit of the V.C.C. that the veteran and Edwardian cavalcade happened to plan after the finishers in the main event had checked in. It was, in fact, all the greatest fun. Kentish's car was imported as a chassis in 1902, having been bought for a Reigate doctor by his patients—whether they did this as a mark of appreciation or because they hoped that he would thereby get to them more quickly in an emergency than on his horse, history does not relate! At all events, Mulliners built a beautiful Victoria body for the single-cylinder chassis, which is one of the 2-speed-and-no-reverse models. Gear engagement is by means of expanding, hand-controlled clutches, and there is the famous De Dion rear axle, that gives this light car such steady riding. Kentish has made a first-class job of reconditioning the car, aided by Laystalls, who recently sleeved the cylinder and did other necessary jobs. Believe it or not, the paintwork is original, varnished over. He bought her from Freddie Dixon.

Well, on the Saturday, with all the old-time "Brighton" atmosphere in the November air, we towed the car up to London on a trailer behind a Hillman Minx, garaged it at Swiney and Hill's along with the famous Sunbeam Mabley entered by George Hill, Davis's Leon Bollée and other veterans, and repaired to the Kensington Palace Hotel to await the morrow. On waking, a cistern somewhere in the building gave a good imitation of heavy rain and, although the morning was sunny, ere Redhill was reached that rain became a well-established fact!

Hyde Park was the scene of the usual excitements, with a very good number of early-rising onlookers. Wing-Cdr. Taylor's De Dion was grabbed in the nick of time by Sammy Davis to prevent it ramming a rival, Miles' 1899 Benz "ticked over" with much vibration the Press cameramen were insistent that the lady with Richard Dimbleby's 1903 Mercédès should "change a plug" again and again, and work was being done on the underneath of Soloman's Swift-De Dion. Mrs. Fotheringham-Parker, in an army greatcoat, brought her 1903 Renault to the start unaided, John Bolster looked very "early motorist" in leather coat and helmet beside his 1903 Panhard, Grose had the luxury of a closed body on his Wolseley and Corkett carried an

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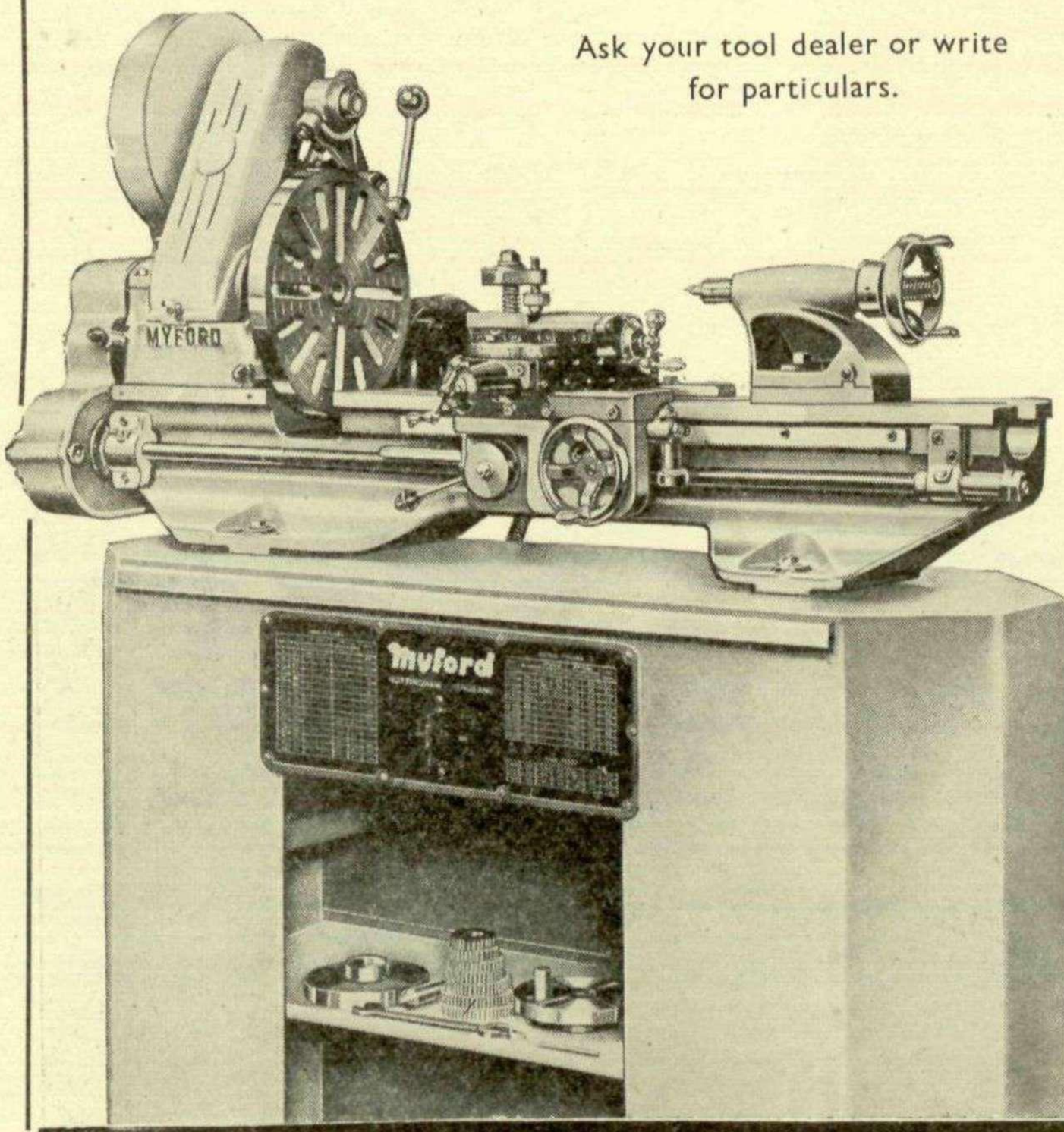
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intrepid small boy in the forecar of his 1899 De Dion Quad. Old gentlemen met long-forgotten models, lots of people told Kentish "our first car was like yours." It was, in fact, the grand old "Brighton" Run back again, as the presence of Dick Nash, Powys-Lybbe, St. John Nixon, Clutton, Hutton-Stott and other notabilities truly confirmed.

Poor Sammy Davis did manful work on his Bollée's handle and finally had to be push-started just as No. 20, Reeves' Benz, got away, and the 1901 White steamer needed some coaxing. Then I zero-ed the immense and elaborate stop-watch Kentish had purchased in Milan when he was an Army officer, the De Dion chugged off in "low," our modern Vauxhall took station behind, and, for us, the job had commenced.

Sqdn./Ldr. Pidgeon's ex-Wylie 1898 Hurtu was seen to have stopped in Hyde Park, and both a 1902 M.M.C.-Daimler and Spiller's De Dion were stationary in front of Buckingham Palace, although the latter was being push-started as we swung past. Into Streatham we overtook Thompson's 1901 Renault apparently having bothers with gear-engagement, and at dreaded Brixton Hill Powys-Lybbe appeared to be refuelling and Corkett to be in trouble with the De Dion Quad.

Here Dimbleby came by fast in the 1903 Mercédès, so that he could halt by Telford Avenue Tram Depot (where a car had to be left on the *original* Brighton Run) in order to talk into his micro-phone—a fine thing that, a B.B.C. com-mentator going all the way, driving as a competitor. Nice work, sir!

Another fast car was No. 75, a 1903 Wolseley, which came by going into Streatham, where Miles' Benz seemed to have engine trouble and Jarvis's Panhard had stopped.

Our little De Dion got up Brixton Hill with no bother at all, and the climb put us nicely on schedule time, whereas before we were tending to run early.

Near Norbury, Col. Wellingham's 1901 Benz was stationary and steam was coming from Miss Tanner's 1900 De Dion going into Thornton Heath. By now the spectators were out in thousands, and I have to acknowledge the gift of a pair of goggles hurled into my lap as we ascended Brixton Hill. All along the road the police did everything possible to help the old cars along, and I am sure many competitors felt guilty that they were keeping these excellent fellows out on special duty in the rain that fell so unmercifully later on.

Before the long haul up Purley Way, Eason Gibson was seen hurriedly glancing at his "works" Wolseley. At Purley he stripped off one of the solid rear tyres, and at the lunch-stop had it in the back. As John, who hadn't driven the car before that day, said: "It's come all right on the rim from Purley and on the rim it shall continue." Halfway along Purley Way the White steamer, dating from 1901, was stationary, probably building up pressure.

In a great press of traffic at Purley Cross Roads the 1896 Thorneycroft steamer was planted in the middle of the road and Miles' Benz was again stationary. Someone else was being re-started by his passenger.

Rain now fell with increased earnestness and we stowed the notebook beneath the seat, putting up our hood and draping our legs in a weatherproof sheet. Our tender-car driver reports thereafter that Vere's 1903 De Dion was at a standstill at Hooley, and in Redhill, on the hill, No. 13, Harmer's 1898 M.M.C.-Daimler, was having investigations of the transmission carried out. On the other hand, Milligen's 1903 Wolseley cracked by, likewise Pierpont's Mors. Casualties were obviously heavy, although some were merely ahead of time. Not so Dr. Ward, who peered beneath the back of his 1903 Vinot et Deguingand. Temporarily, the rain eased by Povey Cross, only to return, accompanied by a chilly wind, shortly afterwards.

At the lunch check at Crawley a De Dion had its inlet-valve dome removed complete, Eason Gibson added water, and the cheerful Seccombe pedalled in on his 1899 Beeston tricycle—he was to pass and re-pass us later, which Fothering-ham-Parker just could not do on the equally spartan 1899 Century. Kentish changed the plug as a precaution against sooting and we found we were almost out of fuel, two gallons of high-volatile spirit being put into the tank under the seat. Otherwise our De Dion needed no attention and was well on time.

After lunch weather conditions were appalling. Miss Sears pressed on bravely, but near the end Capt. Cullimore Allen's steady-running 1902 Gillet-Forest had trouble. We seemed to be catching Davis's Bollée on one occasion, then came upon him lifting it bodily on to the centre strip in the double-track road, having hit a modern car and buckled a front wheel—no one was hurt.

All along the road more-youthful old cars were evident—I spotted a model-T Ford sedan with flat tyre ; lots of "12/50" Alvis, one, outside Crawley, with no hood and hatless girl passenger in the back ; some fine Bentleys ; a girl driving an A.C. " Acedes " Six 2-seater ; an Edwardian Renault and a Stellite in Brighton ; a Bean and an early Standard ; an unknown small 4-seater light car going great guns near Bolney ; a Lancia " Lambda " saloon ; an O.M. ; a fine bull-nose M.G. 4-seater ; many old Morris and Austin Twelves ; while, going up to London, we had seen a really early " 14/40 " Vauxhall coupé in full flight. Again, all just as in pre-war days on " Brighton " Sunday.

The De Dion went on manfully in spite of conditions. Before lunch we had had a ding-dong battle with Browning's New Orleans. Now we ran mostly alone, after stopping to lower the big hood, which, in the wind, slowed us up. We were so early that we stopped twice in Brighton to lose time, and it was ironical that, the time-keeping being at fault on our part, we were penalised a mark for being late; the De Dion had given absolutely no trouble throughout. The survivors, drenched to the skin, drew up on the Madeira Drive. Alan Hess summed it up very nicely—asked who was going to take away the Alldays he drove, he retorted :—" I don't care. *Anyone* can take the wretched thing ! " But he was in the cavalcade just the same.

The mystery of the day was Dunlop's " four-in-hand," which arrived at the start, at a rather inopportune time, and which was seen again in Brighton. Did it come by rail, or change horses *en route?*

A trifle drier, we attended the Mayoral tea, when Earl Howe thanked the Mayor and Corporation for having the finish at Brighton and hoped for an even bigger entry for the R.A.C.'s Jubilee Run next year. The Mayor said the resultant publicity was well worth having and the reference to Brighton on the 1 o'clock news must have been heard throughout the world. So all was well all round that evening, except for the wetness !

Results :

BEST PERFORMANCES.—1894-96 group : E. Wood's Bollée ; 1897-1900 : F. Olorenshaw's De Dion ; 1901-2 : G. Eyre's Napier ; 1903-4 : S. Sear's Clement-Talbot.

TEAM PRIZE : Prince (Panhard), Neville (Gladiator) and Eastmead (Gladiator), 1903-4 group.

RUNNERS-UP : Sears (Clement-Talbot), Hutton-Stott (Lanchester), Smith (Clement).

SIDESLIPS—continued from page 283

motor racing, which was thought to be dead, was brought to life again. The only difficulty was that manufacturers had got out of the habit of building racing cars—apart from the faithful few who had all along competed in the voiturette races, and were represented on this occasion by Côte, the 2-stroke exponent, an Excelsior and an Alcyon. Only one firm, Rolland-Pilain, built a team of rather pleasant 6-litre racers for the event. Fiat, perhaps, did not need to in order to be worthily represented, since the 10-litre 1908 Grand Prix model had been put into production, and Hémery turned up with a stripped chassis which he happened to have on his hands because the proprietor of a Paris café had refused it in a rage as it had not been delivered to time—a fit of temper which, although that is quite another story, was to prove providential as it eventually resulted in the spurned motor car, which was of the same type as that on which Anthony Heal has so greatly distinguished himself, winning the race.

The majority of the rest were relics of the past, dug up for the occasion by men who were really vintagents before their time. Duray appeared with a 1906 Grand Prix De Dietrich, Anthony with a 1908 Porthos, and, to return at last to our Unicorns, Maurice Fournier, the younger brother of the winner of Paris-Berlin ten years before, with a big Corre racing car said to be four years old—presumably, in fact, the 1907 Grand Prix car, which, as already stated, I suspect was really built in 1906. Finally, as a counterpoise to this heavy metal from the past, the gentleman from Molsheim, herald of the future, sent a 6-cwt. Bugatti, which must have been at least first-cousin to Type 13, although the engine dimensions are given as 65 by 110 mm. instead of 65 by 100 mm.

Horror-struck at such audacity, the stewards solemnly declared that it was too light to run in the light-car class ! There was in fact something to be said for the contention that it was too light to run at all, because it seems that *le Patron* had omitted to provide any fixing for the spare wheel, with the result that the unfortunate mechanic was forced to hug it for the best part of six hours. For all that it finished the race in remarkable style, while the old Corre, after being in the lead, broke its front axle and Fournier and his mechanic were killed.

But even if contemporaries thought so, motor racing, in spite of such tragedies, was not also dead. Move the time-machine ten years forward, and the Grand Prix de l'A.C.F. has been run again ; Le Mans is once more noisy with the exhaust note of the competitors in the Grand Prix des Voiturettes for 1,500-c.c. cars. Everyone was looking forward to a duel between the team of four Type 23 Bugattis, fresh from their triumph at Brescia ten days before, and the remarkable new Talbot-Darracqs. But it was not to be. " The entire Bugatti team failed to appear," reported the *Autocar*, " much to the disappointment of the spectators and the competitors. It was held that, having officially entered, a competitor should be obliged to start in a race . . . in the theatrical profession no artist would dare fail to appear, without valid reason, after having been billed." The idea of *le Patron* feeling himself *obliged* to do anything has, of course, something of the comic about it ; and as in fact the difficulty of getting a team of racing cars all the way from Brescia to Le Mans in time to take part in a race there ten days later seems to me to constitute an unquestionably valid reason for non-appearance, I can but think myself that it was only Ettore's artistic temperament that ever allowed him to be " billed " at all. Our contemporary, however, could not resist a final dig. " Perhaps," it remarked, " it was a case of proverbial discretion. The opposition this year was very formidable to the Alsatian voiturettes."

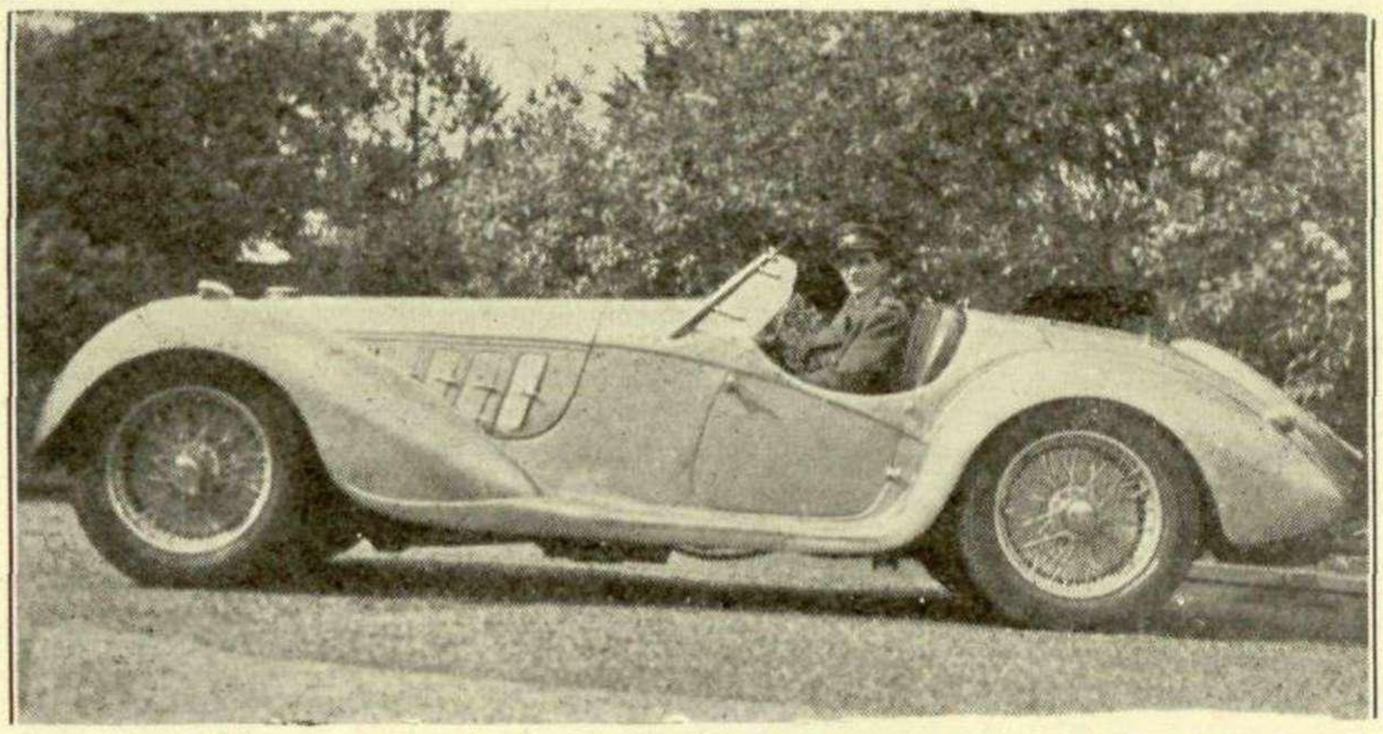
But, curiously enough, if Bugatti was not there, Corre was, and also the faithful Collomb, who was running fourth, immediately behind the victorious Talbot-Darracq team, in the opening rounds of the Grand Prix des Voiturettes of 1921. " The Corre La Licorne," remarks the *Autocar*, in the course of its " Jottings on the Race," " was known among the British contingent as the ' Crawling round the corner '. It was capable of a pretty good ' crawl '. Incidentally, it was fitted with a pre-war engine."

But not, clearly, with the racing " single " of 1910, because its capacity would have exceeded the 1,500-c.c. limit by the best part of a litre, and, besides, whatever else that formidable machine may have done on corners, I very much doubt whether its height permitted it to *crawl* round them. More probably, I should imagine, Collomb's new racer had a modified form of the Type KX 4-cylinder 65 by 130 mm. engine with its stroke reduced to about 113 mm. to bring it within the limit. If so, it is rather remarkable that this engine which had, I think, an " I over E " valve arrangement, was able to put up as good a performance as it did against more serious racing designs.

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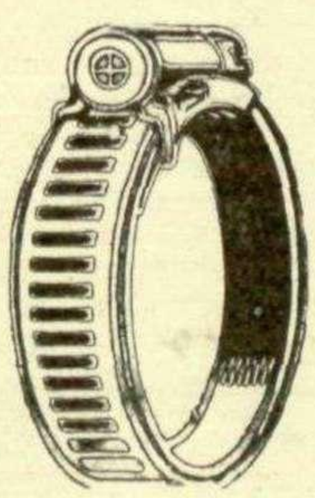
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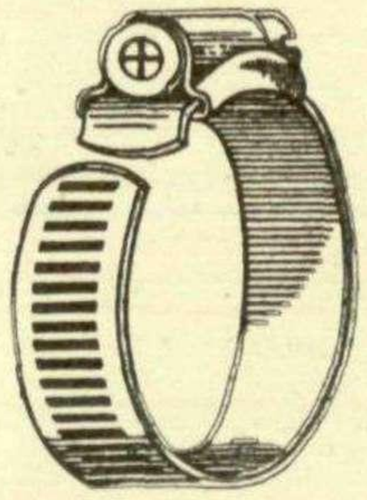
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SIDESLIPS

by

"BALADEUR"

I HAVE always thought it one of the most curious ironies of motoring history that in the years between the wars the leading French makers should have largely left the defence of France's colours in the great races to an Italian who had set up making motor cars in Germany. Unless, of course, you hold that he really began it in Italy; for the first reference to *le Patron* which I have ever come across is in connection with the Paris-Bordeaux race of 1899 in which, it is said, "a Signor Bugatti of Milan rode an Italian-built tricycle of exceptionally interesting design"; and absence of any further details has permitted my imagination to run riot with regard to the possible features of interest in the youthful Ettore's 3-wheeler.

According to the erudite article on Bugatti history written by Cecil Clutton and published in MOTOR SPORT in 1941, however, Ettore probably got his Molsheim factory going some time in 1907 or 1908. Molsheim, of course, was then in Germany and it is a further curious piece of irony that whereas in the Kaiser war Bugatti nevertheless spent his time building aero engines for the French, in the Hitler war, although Molsheim had by then moved into France, Allied aeroplanes found it necessary to blow the Bugatti factory there to smithereens. So much so, apparently, that Ettore decided to move to Paris and occupy one of the Licorne factories. What has happened to the ousted unicorn has not, as far as I am concerned, as yet transpired; but the curious thing is that by moving into its factory Bugatti has at last become heir to that long French tradition which he has hitherto lacked.

The history of the Société des Automobiles Corre la Licorne would seem to go back to the Paris-Toulouse-Paris race of 1900, in which M. Corre started in the voiturette class on a 4-h.p. Fouillaron, which turned the scales at the hardly excessive weight of 250 kilogrammes (or say 5 cwt.).

"The Fouillaron," says Mr. Hasluck, when writing on the subject of transmission systems, "is the best known and most representative of those in which the power is transmitted by belts working over extensible pulleys, the speed varying according to the mechanically-produced alteration of the ratio that the diameter of the driving pulley bears to that of the driven one . . . In a car exhibited at the Paris Salon, 1902, the sympathetic movements of the two pulleys were obtained by chains, not unlike cycle roller chains."

The Fouillaron did not finish the Paris-Toulouse-Paris race and it seems possible that the movements of its two pulleys did not appear as sympathetic to M. Corre as they did to Mr. Hasluck. In any case, for the Paris-Bordeaux race of 1901 the former built a car for himself, with a 6-h.p. single-cylinder engine, 90 by 100 mm. bore and stroke (634 c.c.), and—shaft drive. It did not finish either; but by the time that Paris-Berlin was run, Corre had two cars ready and although he did not do any good himself, his teammate Morin was third in the voiturette class, at 23.7 m.p.h., being only beaten by two 8-h.p. Renaults with engines of 100 by 130 mm. bore and stroke.

The weight limit for voiturettes was 400 kgm. and the 6-h.p. Corre was pretty close up to it. Nevertheless, by 1902, even if the Renault performance could not be equalled, it was found possible, without exceeding the limit, to instal an engine which was also nominally an 8-h.p., the dimensions being 100 by 110 mm. (861 c.c.), in spite of which, and of the rough Austrian roads, Aurand's Corre was fourth in its class in the Paris-Vienna race. Corre himself, as usual, did not finish; but he had his revenge by scoring the first win for the marque a month later in the voiturette class of the Circuit des Ardennes.

Paris-Madrid in 1903 was almost more remarkable, for in that "race to death," four Corres started and four finished, an achievement which, very properly, earned their constructor a gold medal. The engine by now was a 2-cylinder, 110 by 130 mm. bore and stroke (2,466 c.c.), rather modestly called a 12-h.p. Two of the cars, in fact, ran in the 650-kgm. class, but Corre himself was fastest on one of the voiturette machines.

This performance was too much for General Booth, of the Salvation Army, and when he went on his grand evangelising tour in 1905 he decided to use no less than seven Corres, a 9-h.p., a 10-h.p., three "twelves," a 14-h.p. and a 15-18-h.p., the last two being 4-cylinder machines. "We have now been motoring for nearly a week," reported the *Daily Telegraph*, "and it is not too much to say that, with the exception of being a little late for one or two meetings, there has not been one single hitch in the programme."

During the next year, 1906, or so I think, there was built in the Corre factory a rather remarkable and eventually tragic, motor car. Corre, in fact, had decided to return to racing, but he did not propose to cross swords with the victorious Sizaire et Naudin in the first Coupe de l'Auto.

On the contrary, the new racer appeared among the heavy cars in the Circuit des Ardennes and was driven by d'Hespel, who had been at the wheel of one of the over-weight cars in Paris-Madrid. It failed to complete so much as one lap, but the last, I think, had not been heard of it. At any rate a car with the same bore and stroke—150 by 150 mm.—and otherwise, according to the published particulars, identical except that it was called 80 instead of 70 h.p., was the sole representative of the house of Corre in the 1907 Grand Prix at Dieppe, where it was driven by Collomb. It finished the course, but pretty low down the list, and there was no sign of Corre among the entries for the 1908 race. The last, however, had not been heard of the 1907 racer, as shall presently transpire.

It was somewhere about this period that Corre cars came to assume the additional appellative of "la Licorne" ("the Unicorn"). The reason for it remains to me a mystery; another mystery, as far as I am concerned, is why, at about this time, French manufacturers who had hitherto stuck rigidly to their own names, started to wallow in this sort of zoo mania which led to the "Lion Peugeot" or "le Zèbre" ("the Zebra"). At any rate Collomb's voiturette racer of 1910, with the single-cylinder engine of 100 by 300 mm. bore and stroke, on which I remarked in these columns recently, was called a Corre "la Licorne," but for all that was nothing like as fast as the 2-cylinder "Lion" Peugeot, which, in fact, successfully beat the Unicorn all round the town—or at least the road circuit at Boulogne!

D'Hespel, having apparently set up on his own, did not indulge in any such flippancies of nomenclature, but I regret to say that his cars which appeared in this race were not very successful. "One of the D'Hespel cars overturned early in the race," reported the *Autocar*, "and the second one withdrew after going furiously round the course ten times. Burgess declared that for nearly half a round he followed the D'Hespel, unable to pass it owing to the wild manner in which it danced about on the road."

In the meantime, racing for anything but voiturettes, which was hardly regarded as real racing anyhow, was generally considered as dead as the dodo. Just how dead may be gathered from a chance remark of Mr. C. L. Freeston in his book "The Passes of the Pyrenees," published in 1912.

"I made the ascent of the Col du Tourmalet," he remarks, ". . . on the 18-h.p. Austin of my friend Mr. J. T. Burton-Alexander, well known in the memorable and much-lamented days of automobile racing as an amateur driver in various classic events." The days of classic events were evidently, in his opinion, a thing of the past. The birth, at a later date, of such a journal as MOTOR SPORT, would doubtless have seemed to him miraculous. But even while he was ascending the Col du Tourmalet, away in Le Mans, that home of so many future classic events, something momentous was happening; nothing less than the resumption of big car racing with an event organised by the Automobile Club de l'Ouest under the title of the Grand Prix de France.

There seems to be some confusion in the minds of present-day commentators on those "memorable days" as to why this race is not included in the list of pre-Kaiser war Grands Prix, which is usually given as 1906, 1907, 1908, 1912, 1913 and 1914. But the explanation is perfectly simple. The full title of the races listed was the "Grand Prix de l'Automobile Club de France," and although the A.C.F. authorised the 1911 race at Le Mans to be called the "Grand Prix de France," it bore no closer relation to its own events than did, for example, the Grand Prix d'Endurance of later years. As witness the fact that when the Grand Prix de l'A.C.F. was revived in 1912, the Grand Prix de France continued to be run in addition.

But enough of such historical technicalities. The fact remains that in 1911

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Reports of Recent Events

BOULEY BAY HILL CLIMB

Held over a 1,200 yards' twisty course, this event might be termed the "British Stelvio." Unfortunately, in spite of the length of the course, the finish was placed close to a corner, which resulted in Bainbridge crashing the Ansell E.R.A. after making f.t.d. in 55.9 sec., a new record. Bainbridge went to hospital with broken ribs. For 1947 this fault in an otherwise first-class meeting will be rectified. Leslie Johnson, with but a short look at the hill immediately after his Airspeed "Consul" landed, did a magnificent climb in the Darracq in 59.8 sec. Allard, however, beat him with the o.h.c. Allard, in 58.7 sec., as did Monkhouse, by .1 sec., using Leslie's own car. Willis's B.M.W. won the 1½-litre sports car class in 64.9 sec. from a Rover and an M.G., and Oscar Moore, in the ex-Johnson B.M.W., the 1½-2-litre sports car class, in 61.3 sec. from Kennington's blown M.G. and Miss Haig in her B.M.W. Dowson got the Lightweight up in 59.0 sec. to win the up-to-1,100 c.c. racing class. Bainbridge was rewarded for not lifting his foot by winning the 1,100-1,500-c.c. racing class, beating Le Gallais, the previous record holder, who clocked 58.9 sec. in his Jamieson-blown, Wolseley-engined Hybrid-Special. Cowell (E.R.A.) was third, in 59.9 sec. Bear's Type 51 Bugatti took the up-to-2,500-c.c. racing car class, in 56.2 sec., from Monkhouse's sister car, which clocked 59 sec., Cowell (Alta) and Grey (Bugatti) tying for third place. In the big racing class Benett's V8 Benett-Special won in 58.6 sec. from the Allard and Darracq. A very good event indeed.

SHEFFIELD AND HALLAMSHIRE M.C. HIGH PEAK TRIAL

Starting from Sheffield, this 22-mile event attracted over 60 entries. Bole's Bank failed 39 cars, and was followed by a special test, in which Wise's V8 Ford-engined C.W.8 was fastest, in 13 sec. Gatehouse, Pindale and Rebellion Knoll followed, claiming a few failures, and then Abney 'Azard stopped the entire entry save for Clegg's Ford Ten Special. Hucklow Bank was easy, likewise Monsal splash. Wise again made best time in the stop-and-restart test. Ashford splash wasn't too difficult, but Gipsy Lane was in fine fettle, stopping all save Watson's Watson-Special, which had come from Scotland to compete. This excellent trial concluded with Contesbury and Dowlow. Mrs. Flather (M.G.), in her first trial, and Mallock, in his Austin Seven, did especially well, but Wise's C.W.8 made best performance, runner-up being Hutchison's Allard.

Results :

BEST PERFORMANCE : T. C. Wise (C.W.8). Runner-up, K. Hutchison (Allard).
BEST UNDER 1,500 C.C. : J. Clegg (Ford).
BEST PERFORMANCE BY A SHEFFIELD AND HALLAMSHIRE M.C. MEMBER : A. G. R. Watson (Watson-Special).
NOVICE AWARD : Mrs. D. Flather (M.G.).
TEAM AWARD : "The Tail Waggers" : K. Hutchison, G. Warburton and D. W. Price.
SOUVENIR AWARDS : J. F. A. Clough (Singer), T. C. Harrison (Riley), G. Warburton (Ford-Special), F. D. Gilson (Allard), A. M. R. Mallock (Austin), A. G. Imhof (Allard), K. Burgess (Allard), K. Hutchison (Allard), H. W. Morgan (Riley), D. W. Price (Price-Special).

PENA RHIN G.P.

This was another victory for the 16-valve Maserati, Pelassa winning from Basadonna and Alberto, also driving Maseratis. Cavenna's 1,100-c.c. Cisitalia did well to come in 4th, and Brooke's E.R.A. had a collision and trouble, but was 5th. Parnell's Maserati retired early in the race.

RILEY M.C. TRIAL

The Autumn Trial of the Midland Centre started and finished at Stourbridge and received 35 entries. Gerard and his wife tied in the timed hill climb, and Gerard was quickest in the special test. Beetson's "Sprite" made best performance amongst the privately-owned sports cars, Gerard scoring for the Trade and Lady Mary Grosvenor for the ladies. Edwards' Falcon, Zillwood's 1½-litre and Brand's "Kestrel Sprite" scored in the touring car categories.

S.W. GERMANY M.R.C. AUTOBAHN RACES

Isn't it the last straw ? In the American Zone in Germany the S.W. Germany Motor Racing Club has held a series of races over a bit of autobahn, before 50,000 spectators. A Fiat aerodynamic saloon beat a Morgan "4/4" in the 1,100-c.c. race and Von Falkenhausen's "328" B.M.W. won the unlimited sports car race from Kieffer's Bugatti and Martin's B.M.W.-engined Bugatti Special. The winning B.M.W. averaged 63 m.p.h. Farr's M.G. took the 1½-litre sports car race. Lang, Stuck and Muller were present.

THE VESEY CUP TRIAL

In the Sutton Coldfield and N. Birmingham A.C.'s Vesey Cup Trial the only man to return a clean sheet was C. A. N. May with his Ford V8 Special. An entry of 44 was received, and the course measured just that number of miles. In the driving test Gilson's V8 Allard just beat Parker (Allard) and Delingpole (H.R.G.), who tied. Eleven cars climbed Longville, including Newton's H.R.G. and Hutchison's Allard, the latter's rear tyres inflated at a mere 6 lb./sq. in. It was Haywood Common which failed all save May's Ford, the "best failures" being Hutchison and Delingpole. In a timed climb of Goat Hill Appleton's 3,917-c.c. Allard was 2 sec. faster than May.

Results :

VESEY CUP (best performance of the day) : C. A. N. May (3,622 Ford), 0 marks lost. CARLESS CUP (best over 1,500 c.c.) : K. Hutchison (3,622 Allard), 5 marks lost. WATSON GWYNNE BOWL (best under 1,500 c.c.) : E. J. Newton (1,497 H.R.G.), 5 marks lost. TEAM PRIZE : Midlanders team, G. N. Mansell (3,917 Allard), K. Delingpole (1,497 H.R.G.) and C. A. N. May (3,622 Ford).

FIRST-CLASS AWARDS : L. Parker (4,440 Allard), 7 marks lost ; K. C. Delingpole (1,497 H.R.G.), C. L. Bold (1,089 Riley), D. W. Price (3,922 Price-Special), A. G. Imhof (4,000 Allard), J. A. Appleton (3,917 Allard), and G. Warburton (3,622 Ford), all 10 marks lost.

SECOND-CLASS AWARDS : F. D. Gilson (3,622 Allard), 15 marks lost ; H. W. Morgan (1,496 Riley), 15 marks ; G. N. Mansell (3,917 Allard), 15 marks ; K. E. O. Burgess (4,200 Allard), 15 marks ; B. Humphreys (747 Austin, s.), 20 marks ; A. W. Morrish (939 M.G.), 20 marks ; T. Lund (939 M.G. s.), 25 marks ; K. Rawlings (847 M.G.), 25 marks ; D. G. Flather (1,292 M.G.), 25 marks ; J. H. Leigh (1,496 Frazer-Nash), 25 marks.

DARLINGTON AND DISTRICT M.C. TRIAL

This trial was won by Capt. A. R. Mallock's Austin Seven Special, the runners-up being Wise's C.W.8, Clough's Singer and Wilson's Austin Seven Special.

S.S.C.C. HALF-DAY TRIAL

Fourteen cars started in this 30-mile event. Thorne's Allard won the big-car class, Ivor Page's M.G. the small-car division.

LOCKHART-BOSSINGHAM TRIAL

The Berkhamsted and D.M.C. used some stiff sections in this event, which was a combined car and motorcycle affair, and a long delay at the first section resulted in many of the hazards being cut out later on. The special test had to be eliminated because it was too dark to time the later cars through it. Marshalling seems to have been distinctly vague, so that no detailed results were issued. Hutchison's Allard appears to have won, with Price's Ford V8 Special the best visitor.

MANCHESTER CAVALCADE

This was the last of this year's excellent S.M.M.T. open-air Motor Shows. Rain fell heavily to uphold Manchester's tradition and the route was on the short side, so that the veterans tended to hustle the moderns at the finish. Interesting runners were an 1896 Stutz de Dion of German origin, about which we would like more information ; a 1906 Germain tourer ; Neve's 1914 T.T. Humber ; a White-and-Poppe Morris-Oxford ; the 1919 Castle Three 3-wheeler ; Provis' 1920 E-type "30/98" Vauxhall ; a 1923 12-h.p. Mathis cabriolet ; the original 1923 M.G., wrongly termed the first M.G. "Midget" ; Mrs. Neve's very smooth and silent "O.E." "30/98" Vauxhall ; Buck's Type 35 G.P. Bugatti ; a 1926 Morris coupé ; Bramley's "12/50" beetleback Alvis ; a 1926 13.9 Standard drophead ; Ashton's and Byron's "Red Label," Van den Plas Bentleys ; a 1927 T.G. "12/50" Alvis sports saloon ; a 3-litre twin o.h.c. Sunbeam ; Heal's similar car and several of his racing Sunbeams ; a 1924 Alvis ; a 1928 18-h.p. touring Star ; Whittaker's 4½-litre open Bentley ; a 1928 Humber Nine ; a "blown" T.T. Lea-Francis 2-seater ; another old-school Bentley ; an early Singer "Junior" ; two straight-eight Lanchesters, and two 1923 Belsize-Bradshaws, both by the same owner, one a 2-seater, the other a 4-seater.

M.C.C. ACTIVE AGAIN

Difficult Buxton Trial. No first-class awards.

Barred by petrol rationing from holding its Exeter, Land's End and Edinburgh trials, the Motor Cycling Club, under "Jackie" Masters' able guidance, last month held a very successful "Buxton." The trial started, traditionally, from the Palace Hotel and covered a difficult 59-mile course embracing six sections.

For the first time since 1901 the M.C.C. saved all its first-class awards, Litton Slack stopping the entire entry, which

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MOTOR SPORT Road Test (Post-war Series) No. 1

THE SPECIAL SHORT-CHASSIS ALLARD "COMPETITION" 2-SEATER

Brilliant top-gear flexibility and traditional acceleration. A silent, smooth-running car capable of high cross-country average speeds.

THE post-war Allard, product of an enthusiast whose trials reputation up to 1939 was second to none, has aroused the greatest interest and speculation in motoring circles. Consequently, we are glad to be able to present a test report on one of these cars, with the proviso that the particular Allard tested was Sydney Allard's personal car, and as such has a wheelbase 6 in. shorter than the production "Competition" 2-seater, (*i.e.*, 8 ft. 4 in.) and a Ford V8 engine bored-out to Mercury capacity, giving about five additional b.h.p. It also has the 4.1-to-1 axle ratio of the long-chassis cars, but otherwise was in standard trim. It ran, of course, on Pool petrol and can claim to be a hard-used car, having won this year's Experts' Trial and having got back from a fast run to Devon on the day before we took it over.

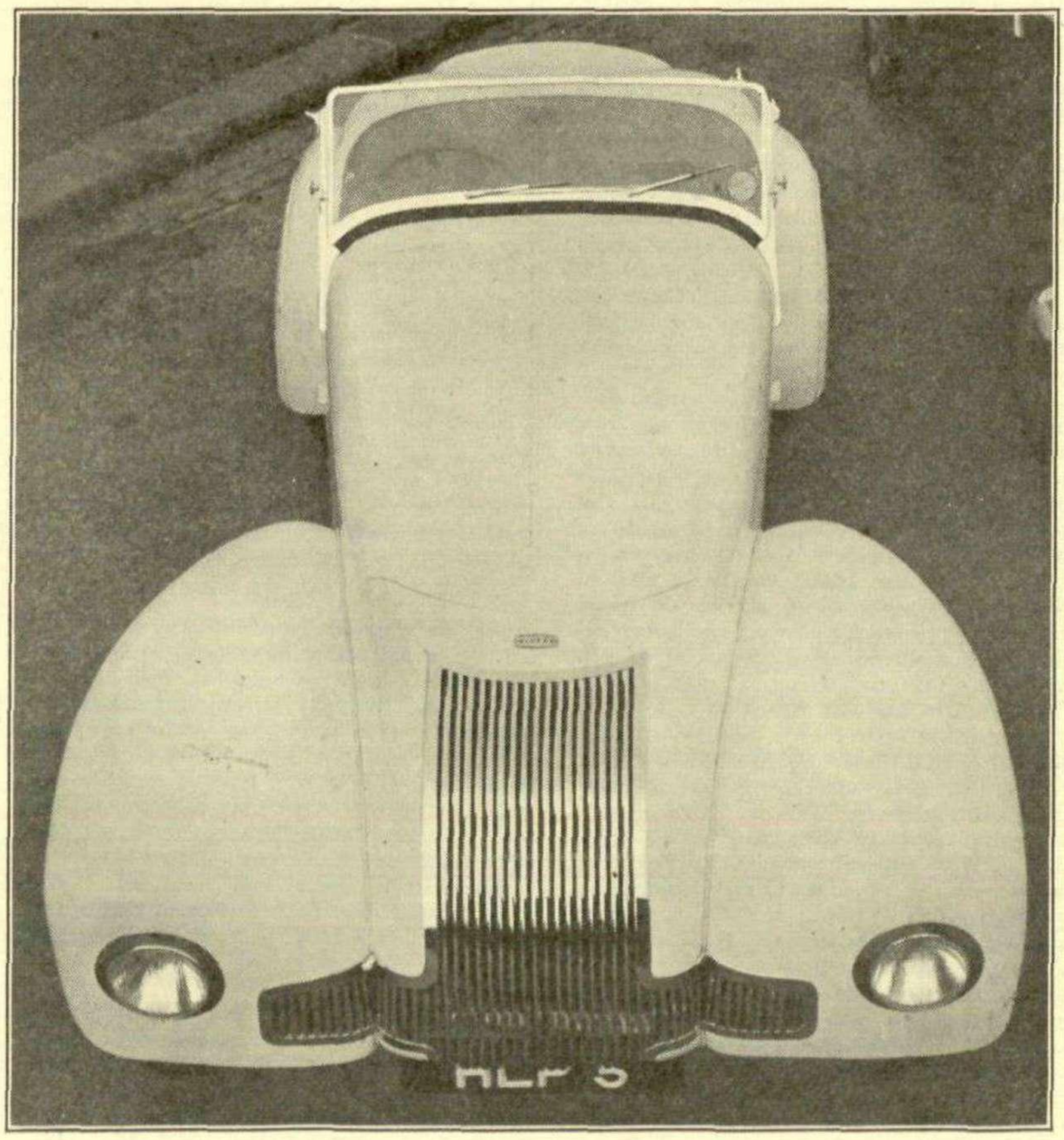
The body lines are entirely different from those of the pre-war Allard. The visibility over the low bonnet is 100 per cent., with both wings always in full view and no filler cap to mar the clean-cut silhouette. The folding screen offers ample protection when driving at speed, no unpleasant back-draught being evident. The door hinge line is swept forward to provide easy entrance; the catch on the passenger's door proved unnecessarily difficult to operate. Incidentally, there are no outside door handles, which is typical of the new Allard, its unbroken exterior constituting the car-washer's dream-come-true. The seats, consisting of a nicely-moulded squab and leather air cushions on the floor, are generally comfortable, although they are unadjustable, and some people might prefer a little more support under the legs. The driving position is well suited to a medium-height driver who likes to sit close up to the wheel. The remote-control gear-lever and central, fly-off-type handbrake are very nicely placed, as is the spring-spoke steering wheel, and the door cut-away never impedes the right elbow. There is a foot-well for the driver's feet, but the throttle pedal might be better placed in relation thereto.

The instrument board carries, left to right: lamp switch and main ignition key; reversing-lamp switch; combined water thermometer and oil gauge above; choke; "reserve" fuel-pump switch; rev.-counter; ignition light; speedometer; starter button; hand-throttle; ammeter; fuel gauge; additional ignition switch above; combined horn button and headlamp dipper. The rev.-counter was inoperative on the car tested; it is an Allard-Cooper-Stewart reading to 5,000 r.p.m. The 100 m.p.h. speedometer, of the same breed, read commendably steadily. The normal water temperature is 185° F. and the oil pressure stays at 45 lb./sq. in. at road r.p.m. We suggest that considerable improvement could be effected were the horn and lamp-dipper accessible without having to dive through, or feel behind, the steering wheel, and if fuel gauge and oil gauge were transposed. There is also the possibility of driving with the reversing light on when this is controlled by switch and not by the gear-lever, while to use the light switch it was necessary to reach to the near side. The wiper-box is very well placed, and the dynamo gave a ready charge. Apparently no dashlamp is considered necessary.

First impressions in driving an Allard are its immense "step-off," the lightness of its controls, its very "useable" speed, and its smooth, silent, easy manner of going. The clutch action is excellent, and light; the brake pedal asks no effort and gives splendidly progressive, straight-line braking. The accelerator is also light to use except, perhaps, when delicate opening is called for from the over-run. The braking effect of the big engine, allied to soft springing, results in some pitching if violent throttle movements are permitted.

The V8 engine pours out its power in almost complete silence, so far as the car's occupants are concerned, and without any trace of flat-spot or vibration. To a large extent flexible engine mounting is responsible, but in some ways it is a mixed blessing, because the rigidly-mounted, remote gear-lever is unable to cope properly with gearbox movement, and this results in the lever becoming increasingly stiff to move under load, which slows the gear change and makes it necessary to "crash" *fast* upward and downward changes. However, clutch and transmission seem unruffled by such gear-changing, and for normal use it is quite a pleasing action. When opening up, the gear-lever can be felt to move if one's hand is resting on it. No gear noise is evident. There is no reverse stop.

The steering is generally light but gets somewhat heavier towards full lock, the wheel asking 2⅓ turns from one lock to the other. Some return movement from the i.f.s. is felt over bad surfaces; a short, "Lambda"-like kick-back over rough roads and a very slight snatch when the front suspension is working hard with the



The Allard production-model "Competition" 2-seater.

wheels on appreciable lock. Normally, however, this return motion is negligible, while column judder is never excessive, which fits in with the general impression that the front of the car is adequately rigid, wings and facia included. There is excellent balance between over- and under-steer, and strong castor action. For rapid cross-country motoring the steering is sufficiently accurate and the car can be swung round open bends in a beautifully balanced fashion, while it "holds-in" splendidly, and break-away is almost impossible to promote. Nor is any trace of roll apparent, unless the car is thrown about in "rally-test" style. Incidentally, the tyres *can* be made to howl, and loudly, but in ordinary fast cornering no noise whatsoever comes from them, fairly modest tyre-pressures notwithstanding. The car holds a straight course at speed; in reverse the steering becomes light and less decisive. The lock is exceptionally good and the steering ratio a nice compromise between low and high gearing.

Across country the Allard is very rapid indeed, and its smooth, entirely silent progression enhances its value in this respect. The acceleration, for which this make has always been famous, is especially useable in traffic and out of slow corners, etc. The difficult gear-lever action aforementioned is largely excused because the car has such excellent top-gear performance. There is little necessity to change down over the usual give-and-take motoring which British secondary roads entail. The Allard is, in effect, game for anything in its highest ratio and still out-performs most so-called fast cars. From a standstill 30 m.p.h. is reached almost instantaneously in bottom, in which gear a maximum of just over 34 m.p.h. is possible. Second-gear gives strong pick-up to about 55 m.p.h., with a maximum of over 58 m.p.h. On main roads 80 m.p.h. comes up very easily, and 65 m.p.h. is a commonplace cruising speed on by-roads.

When sheer performance is under discussion, timed tests tell the most convincing story. We were able to carry out a number of such tests on a private road and the results are given in the accompanying table. The high-lights of these figures can be stated concisely as a mean maximum speed of 79.32 m.p.h. over the flying ¼ mile, screen down, a standing ¼ mile in 20.05 sec., and acceleration from a standing start to 50 m.p.h. in 10 sec. and to 70 m.p.h. in 23.7 sec. These figures are the result of a number of runs in both directions, and as the axle ratio in use had rendered the speedometer inaccurate, this was re-calibrated carefully prior to timing the car. It is significant that exactly the same times were obtained on several occasions. Erecting the screen affected maximum speed by approximately 1½ m.p.h. In top gear it was possible to motor at a brisk walking pace without transmission snatch. The brakes were out of adjustment and we decided not to proceed with measured stopping distances, but can say that the car stopped in a straight line with locked wheels from 60 m.p.h. and that, bar very slight noise from one drum at the end of the day, did not suffer from brake squeal. After some 300 miles' hard driving the brake power had not diminished to any extent, and for road motoring the car possessed adequate retardation. As the mileometer was inaccurate, fuel consumption tests were not undertaken, but rather better than 16 m.p.g. is obtainable without in any way restraining one's throttle foot. For the tests the road surface was dry; the wind strength about 20 m.p.h. The fuel tank was half to three-quarters full and a lightweight passenger was carried.

Full marks were earned by the comfort of the car over poor surfaces. Clearly, this is achieved by soft springing in the modern tradition, and the wheels move quite an appreciable distance on occasion without affecting the rigid feel of the car. Humpback bridges can be negotiated at high speed without apprehension or unpleasant aftermath, and trials sections can be explored in comparative comfort.

Really fast cornering, entailing rapid change from one steering lock to the other, can result in some vagueness of control until the suspension copes with the transference of weight, but this is but a small penalty to pay for otherwise highly-effective springing. The outward appearance of the Allard belies the fact that the engine is well back in the chassis and that there is plenty of avoirdupois over the rear axle, which, however, the car's trials successes emphasise.

The lamp power was moderate, but some adjustment of beam from the headlamps was called for, immediate attention to which was defeated by the inbuilt construction.

Behind the seats there is storage for hood (side screens are not supplied), tools, jack, etc., reached *via* the squab. The rear number plate is fully illuminated; the bonnet has a safety catch to prevent it hinging upwards involuntarily, fits really snugly, and has practical fasteners. The hood is very effectively held taut round the screen by special catches, and it is interesting that the front wings are of welded sheet-metal construction. Engine accessibility is a strong feature of the bonnet construction. A few quite minor body-noises were noticed. It is hardly necessary to say that the car attracted a crowd of admiring onlookers whenever it was parked in populated places.

On Pool petrol rather pronounced pinking occurred unless the throttle was opened very carefully (there is no hand ignition control), but this pinking did not appear to impair performance, and the engine stopped at once when switched off. The ignition switch rendered horn and other electrics dead when in the "off" position—a good point—and the reversing light was useful. The sidelamps could not be checked as "on" when in the car. The fuse boxes and cut-out are instantly accessible on lifting the bonnet. Starting from cold was instantaneous with very little choke. The spare wheel is partially concealed by a metal cover, and the tail treatment is very neat. The front number plate can be hinged flat for negotiation of "observed sections." The racing-type handbrake is very handy, if somewhat hard to lock. Each door has a zip-fastened pocket, and an effective umbrella-type hood is provided. The screen sealing-rubber emitted a "gobble" when it reached 75 m.p.h. In approximately 300 miles we added half-a-gallon of water and three pints of engine oil. The engine ticked-over correctly and never boiled; it started as easily hot as cold. The suction-secured central mirror is reasonably useable.

That, then, is a critical analysis of the 1947 Allard. All the foregoing characteristics combine to form an essentially likeable car, which is as at home in town as on the open road or up trials hills. The Allard is very easy to drive and completely docile; its acceleration from the bottom-end makes negotiation of even London's city traffic almost a pleasure. The way in which the car gets round bends, its immense performance, unaffected by main-road gradients, and its high degree of refinement, render it one of the most attractive day-to-day sports cars we have experienced. Further details of this intriguing car can be had from the Allard Motor Co., Ltd., 43, Acre Lane, London, S.W.2 (Brixton 6431). The price of the 8 ft. 10 in. wheelbase 2-seater is £750, *not* including purchase tax.—W. B.

ALLARD SPECIAL SHORT-CHASSIS "COMPETITION" 2-SEATER

Engine: V8, 80.96 by 95.25 mm. (3,917 c.c.), 32 R.A.C. h.p.

Gear-ratios: 1st, 14.4 to 1; 2nd, 6.5 to 1; Top, 4.1 to 1.

Tyre size: 6.25 in. by 16 in. Dunlop E.L.P.

Weight (in road trim with approx. 2 gall. of fuel, but less occupants): 22½ cwt.

Turning circle: 34 ft. (right-hand).

Steering ratio: 2⅓rd turns, lock to lock.

Fuel capacity: 17 gall. (one in reserve).

PERFORMANCE DATA.

Acceleration:—
0–50 m.p.h., 10.0 sec. } Mean of
0–60 m.p.h., 14.25 sec. } two-way
0–70 m.p.h., 23.70 sec. } runs.
s.s. ¼ mile: 20.05 sec. (mean), 20.0 sec. (best run).

Speed: f.s. ¼ mile: 79.32 m.p.h. (mean), 80.40 m.p.h. (best run).

MOVING TO LARGER PREMISES

Messrs. A. W. Roebuck, Ltd., Main Concessionaires of Specialloid Pistons, have moved from their former address at 194, Great Portland Street, W.1, to new premises at 172, Great Portland Street, W.1 (fifty yards south of their original address).

At the new address there are facilities for much greater stocks to be held of Specialloid Pistons, as well as C. L. Jones Cylinder Liners and Steel Tite Oil Control Piston Rings for which Messrs. A. W. Roebuck, Ltd., are the U.K. Concessionaires. The telephone numbers remain unaltered at Museum 7155/6/7.

GREAT BRITISH ACHIEVEMENTS—VI

The Editor describes Outstanding Light-Car Records—1922 and 1946

THIS country has favoured small cars since there were small cars to favour, and while this age of austerity continues, such cars will be more in evidence than ever. The British light car, regarded purely as transport, did, before the war, represent extremely good value for money. If you could go into your local showroom now and buy a brand-new 8-h.p. saloon with five 100 per cent. real rubber tyres for £120 or so, you would rather feel you had achieved a bargain. The excellence of our small cars can be traced to racing and record-breaking achievements of long ago.

Before the Kaiser war cars of under 1½-litres capacity were not very rapid. At Brooklands, a Singer Ten is the fastest thing I can trace; it lapped fairly consistently at 73-75 m.p.h., with a Bugatti almost as fast. McMinnies took a Morgan over to France in 1913 and won the Cyclecar Grand Prix. But, generally, the smaller cars hadn't got what they came to boast of in later years.

After the 1914-18 war, however, things began to move. The A.C., endowed with a 16-valve, 4-cylinder o.h.c. engine, was, by 1921, a really fast car. This lean, aluminium single-seater, driven by Harry Hawker, covered the Brooklands' half-mile, in June, at 105.14 m.p.h.—the first 1½-litre to achieve the century. In 1922 Joyce lapped at over 100 m.p.h. on several occasions in Brooklands' races in this car, and also scored the distinction of being the first light-car driver to win a Brooklands' race at over 100 m.p.h. All this led up to an attack on the class F hour record, which the A.C., driven by Joyce, captured at 101.39 m.p.h. on November 24th, 1922.

Those were very high speeds for an unblown 1½-litre of this period and no other small cars came near to these performances, although in 1923 an Aston-Martin did a race-lap at over 100 m.p.h.

It was one thing to make a small car fast, quite another to render it both fast *and* reliable. Yet in May, 1922, we find A.C. and Aston-Martin exhibiting both these qualities at the Weybridge track. The Aston-Martin was out to try to cover the greatest possible distance within 24 hours' lappery. The A.C. had a more specific task, that of attempting to break the British Double-Twelve Hour record, held by a Wolseley Ten at 61.06 m.p.h. S. E. Edge sponsored the A.C., Lionel Martin the Aston-Martin, and that both of them booked Brooklands for the same day certainly added zest to what proved an historic occasion.

Before the grey dawn, at 4.30 a.m., Lionel marshalled his crew at the bay on the Members' Banking, just beyond the Bridge. A white line across the concrete served to mark the target at which the driver would aim his front wheels at each *depot stop. A huge blackboard lay in* readiness for signalling the car, there were other coloured boards for this purpose, and, tyres being what they were in 1922, a jack, wheel-brace and a box of surplus wheel nuts were set out for each wheel.

The drivers were Sammy Davis, Kensington Moir and Clive Gallop. The car was none other than "Bunny," the famous s.v. 2-seater, its bolt-on artillery wheels shod with Pirelli tyres and damped by Houdaille shock-absorbers. The engine ran on Castrol "R" and the usual Marles steering was used.

At 4.30 a.m. the little car moved off. Working up to a steady lap speed of 80 m.p.h., the driver gave the engine a pumpful of fresh oil once a lap and kept a watchful eye on the gauges, the air-pressure reading in particular.

At 7 a.m., from another depot not far distant, the A.C. set out. It was a s.v. Anzani-engined car carrying a Hawker 2-seater body intended for the 200-Mile Race. Rudge centre-lock wire wheels shod with Dunlop tyres were used and the engine was run on Shell fuel. It is *interesting that a contemporary report* states: "The Aston-Martin had four speeds in its gearbox."

This apparently curious statement was deliberate, to emphasise that the A.C., normally a 3-speed car, had but top gear in its rear-axle box! It was pushed off after depot stops. At 8 a.m. it came in and the sump was drained and re-filled, a routine which was religiously observed at the end of each hour. Joyce and Day were the drivers. Like the Aston, the A.C. had an extra oil supply, fed to the engine by hand-pump.

The Aston came in about every two hours for fuel and a check over and each driver did 3-hour spells in the cockpit. At 11.30 a.m. Lionel Martin was able to chalk up his first record, seven hours at 76.9 m.p.h. The A.C. wasn't so fast, so that it was occasionally lapped. After seven hours "Bunny" began to mis-fire, and a plug change failed to effect a cure. However, in eight minutes the magneto had been changed for a new one, and the Aston lapped as healthily as before. Even so, that stop cost them the 8-hour record, which the A.C. took at 75.01 m.p.h.

As the day wore on the heat became intense and tea was brewed in quantity at the depots. The A.C. would stop for its routine oil-drain, then hum round again, coming in unexpectedly when its oil tank worked loose, which took only minutes to rectify. After nine hours the Aston broke a spring U-bolt, letting the 10-hour record go to Edge's camp, at 74.78 m.p.h. Both these s.v. small cars of twenty-four years ago were lapping at over 80 m.p.h., and the Aston went faster still later in the day. The A.C., on the other hand, eased up somewhat, and Gilett took a turn at the wheel to relieve its exhausted pair of drivers. At 7 p.m. that evening the A.C. finished, being sealed by officials and locked away until Thursday morning.

To Edge's astonishment the Aston continued.

The first World's record ever taken by a light car became Martin's at 1,100 miles, and after 15 hours this World's record was likewise taken, at 75.99 m.p.h. The 16, 17, 18 and 19-hour World's records, in turn, fell to "Bunny," together with the corresponding mile and kilometre World's records, at 76.2, 75.02, 70.85 and 67.12 m.p.h., respectively. In all, this remarkable small car captured ten World's records and 22 class records, from 7 hours at 76.9 m.p.h. to 14 hours at 75.99 m.p.h. Incidentally, Moir was deaf for days afterwards, and all *three drivers had their backs rubbed* bare against the unpadded aluminium seat. The World's records which the Aston beat were held by a 23.8-h.p. Sunbeam and the Edge 60-h.p. Napier.

Seven a.m. next day saw the A.C. off again. It lapped faultlessly for eleven hours, twenty minutes. Then, at 6.20 that evening, the crankshaft and clutch succumbed to the strain of the arduous run. However, by that time it had covered 1,709 miles, 1,234 yards, at an average of 71.23 m.p.h. That was 128 miles farther than Edge's 60-h.p. Napier ran in 24 hours in 1907 and 10.17 m.p.h. *faster than the previous British record.* The World's record was only missed because a broken run in two spells of 12 hours isn't recognised internationally and, of course, night running was forbidden at Brooklands.

That, then, is an account of some truly outstanding long-distance records established nearly 25 years ago by British small cars. How many s.v. 1½-litre cars would, today, average over 70 m.p.h. for the equivalent of a month's ordinary motoring? Incidentally, four days later the single-seater A.C., also using only top gear and starting on the clutch, did a standing lap of Brooklands at over 70 and broke the five and ten miles f.s. class records, at 100.75 and 100.59 m.p.h., respectively. And by the end of 1922 the 1½-litre half-mile record was up to over 108 m.p.h.

* * *

Small cars became faster and faster. There was the Austin *versus* M.G. battle for the honour of first exceeding 100 m.p.h. with a 750-c.c. car, culminating in George Eyston's 103.13 m.p.h. for five of Montlhèry's kilometres in February, 1931, in what was virtually a 2-seater M.G. 120 m.p.h. was somehow the next target of note and Eyston and an M.G. scored again, in 1932.

By 1938 light-car short-distance record speeds had risen to staggering levels. Major A. T. G. Gardner had motored his 1,100-c.c. M.G. at 186 m.p.h.—and still he wasn't content.

In 1939 this M.G. was taken out to the motor road at Dessau, in Germany, and there, for all Huns to see, it set the class flying-kilometre record to 203.54 m.p.h. and the flying-mile record to 203.16 m.p.h. One mile was covered at 207.37 m.p.h. *The engine of the M.G. was then bored-*out, in the chassis, to 1,105½ c.c., and Gardner went out again and captured the 1½-litre f.s. mile, f.s. kilometre and f.s. 5-kilometre records at 203.85, 204.28 and 200.62 m.p.h., respectively. This

time the fastest run was a kilometre at 206.35 m.p.h. All of which must have *given lots of young Germans destined for* Hitler's war machines plenty to digest.

Now Lt.-Col. " Goldie " Gardner has been at it again, in the 750-c.c. category. Earlier this year he took the M.G. to Italy in an entirely untried condition, because the Government let Brooklands be sold to the aircraft industry without so much as batting an eyelid. He was defeated from establishing new Class H records by an awkward bend in the road and by supercharger trouble. But " Goldie " doesn't sit about moping.

Late in October he took the M.G. to the 20-kilometre dual-track concrete road between Jabbeke and Aeltre, in Belgium. When the rain left off, Gardner got cracking—and the result is a new Class H flying-mile record to 159.151 m.p.h., the f.s. kilometre to 159.098 m.p.h. and the f.s. 5-kilometre record to 150.467 m.p.h. His best run was a kilometre at 164.722 m.p.h. This is an astonishing achievement for a 750-c.c. car, ranking with Cobb's out-and-out car speed record in technical worth and national prestige establishment.

The previous mile and kilometre records were the property of the German driver, Kohlrausch, who also used an M.G., and the 5-kilometre record belonged to Bert Denly's M.G. Gardner beat the old figures by 18.4, 18.5 and 21.9 m.p.h., respectively.

Gardner used a run of 15 kilometres, being timed over a 9-kilometre run. The M.G. was much as it was in 1,100-c.c. and 1½-litre form in 1939, but the 6-cylinder, vertical valve engine now measures 53 by 56 mm. (741 c.c.). It is now fed by a Shorrock-Clyde supercharger at 28 lb./sq. in., the fuel being supplied by two 2 3/16 in. dia. S.U. carburetters. This supercharger runs at 0.392 times engine speeds. Block, crankshaft, con-rods and pistons are special and 170 b.h.p. is developed at 8,900 r.p.m. —against the 45-50 b.h.p. of the racing 1½-litre cars of 1922. Lodge RL51 sparking plugs are used, and the oil pressure is +60 lb./sq. in. Chassis and body are unchanged. The latter was designed by Reid Railton and was built by M.G's. under licence granted by W. Keller & Co., of Stuttgart. It fully encloses the wheels, and has a semi-enclosed cockpit. On his first run Gardner entered the measured distance at 6,600 r.p.m. and finished at 7,600 r.p.m. Turning round, the M.G. then got going at 7,600 r.p.m. and reached a maximum engine speed of 8,200 r.p.m. The latter speed is equivalent to 172 m.p.h., with the 4.3 to 1 rear axle ratio now used—a truly creditable speed for a motor-car of 741 c.c.

[Compiling this article gives a very good indication of the difficulties which confront motoring historians. For instance, Joyce is usually quoted as the first man to exceed 100 m.p.h. with a light car, Hawker's 105 m.p.h. ½-mile in 1921 being ignored. This record apparently did not rank as a Class A (up to 1,638 c.c.) Brooklands' record, presumably because the A.C. did not get within the minimum weight limit imposed; that ½-mile record, even in 1922, was at a mere 87.21 m.p.h., by a 1,504-c.c. A.C. But it did stand as a *Light Car Class* (1½-litre) Brooklands' record. Then no less an authority than S. C. H. Davis, in " Motor Racing," gives K. Don as the first man to exceed 100 miles in an hour in a 1½-litre car. Actually, Don covered 94.7 miles in the hour in the A.C. in 1921 and it was Joyce who first exceeded 100 m.p.h. for this period, in November, 1922. Even a list compiled by Mr. Ebblewhite for the *Motor*, giving the best Brooklands' over-100 m.p.h. race-laps, and reprinted in " Wheels Take Wings," contains an error, Joyce's A.C. being credited with a best-lap of 102.69 m.p.h. in June, 1923, whereas, at the 1922 Autumn B.A.R.C. Meeting, one lap was achieved at 103.52 m.p.h.—Ed.]

BRDC Notes

In recent months a large number of enquiries have been received from would-be members of the British Racing Drivers' Club. It is pointed out that, normally, membership is confined to gentlemen who have competed in an open motor road-racing event or taken a first, second or third place award in a Brooklands Automobile Racing Club's Meeting. Every candidate must be proposed by one and seconded by another member of the Club, to both of whom he is personally known.

SWEDISH WINTER GRAND PRIX

The Grand Prix d'Hiver de Suede pour Automobiles will be run on February 9th next over a circuit having a hard snow surface. Supplementary regulations are not yet available, but it is understood that only racing cars complying with the new formula will be eligible.

AUSTRALIAN GRAND PRIX

The newly-formed Australian Sporting Car Club (formerly the New South Wales Light Car Club) plans to organise the Australian Grand Prix on Easter Monday next (April 7th), using their interesting 3⅞-mile course. The race distance will be 150 miles and substantial prize money will be offered. It will be recalled that Peter Whitehead won this race in his E.R.A. on the last occasion the Australian Grand Prix was run over the New South Wales circuit.

CLUB CHRISTMAS CARDS

It is regretted that no further orders can be accepted for Christmas cards as they are completely sold out.

RACING CAR EXHIBITION

Mike Couper is arranging an exhibition of racing cars at his St. Albans showrooms, to take place during the Christmas school holidays. Members willing to loan suitable cars for the period of the exhibition are urged to get in touch with Mr. Couper at W. M. Couper, Ltd., Catherine Street, St. Albans (Telephone St. Albans 4343). The cars will be carefully looked after and fully insured whilst in Mr. Couper's custody.

GENTLEMEN, THE EDWARDIANS—
continued from page 289

Grand Prix Opel (Dec., 1931); a 1904 Darracq " Flying Fifteen " (June, 1932); a 1913 " 80/90 " Mercédès (Dec., 1932), a 1908 Grand Prix Itala (Feb., 1935); a 1908 single-cylinder Sizaire-Naudin (Aug., 1935); a 1909 9¼-litre Daimler and the 21¾-litre Fiat " Mephistopheles " (April, 1937); a 1921 3-litre G.P. Ballot (July, 1937); the 1912 G.P. Lorraine-Dietrich " Vieux Charles Trois " (April, 1938); the 1913 5-litre Bugatti " Black Bess " (Aug., 1939); a 1910 90-h.p. Fiat (Jan., 1938); a 1919 5-litre Indianapolis Ballot (Dec., 1939); Heal's 1914 T.T. Sunbeam (Sept., 1940); a 1914 G.P. Mercédès (Oct., 1940); a 1911 Coupe de "l'Auto" Delage (Feb., 1941); Neve's 1914 T.T. Humber (Jan., 1942); a 1903 "Paris-Vienna Replica" De Dietrich (Sept., 1942); a 1924 G.P. Sunbeam (Nov., 1943); a 1908 " Four-Inch " Hutton (May, 1944), and a 1914 " Prince Henry " Vauxhall (Jan., 1946).

Cecil Clutton also wrote about the driving of such cars in November, 1939, and recounted how they had become a factor in modern sprint events in Motor Sport for January, 1943. Gentlemen, The Edwardians . . .

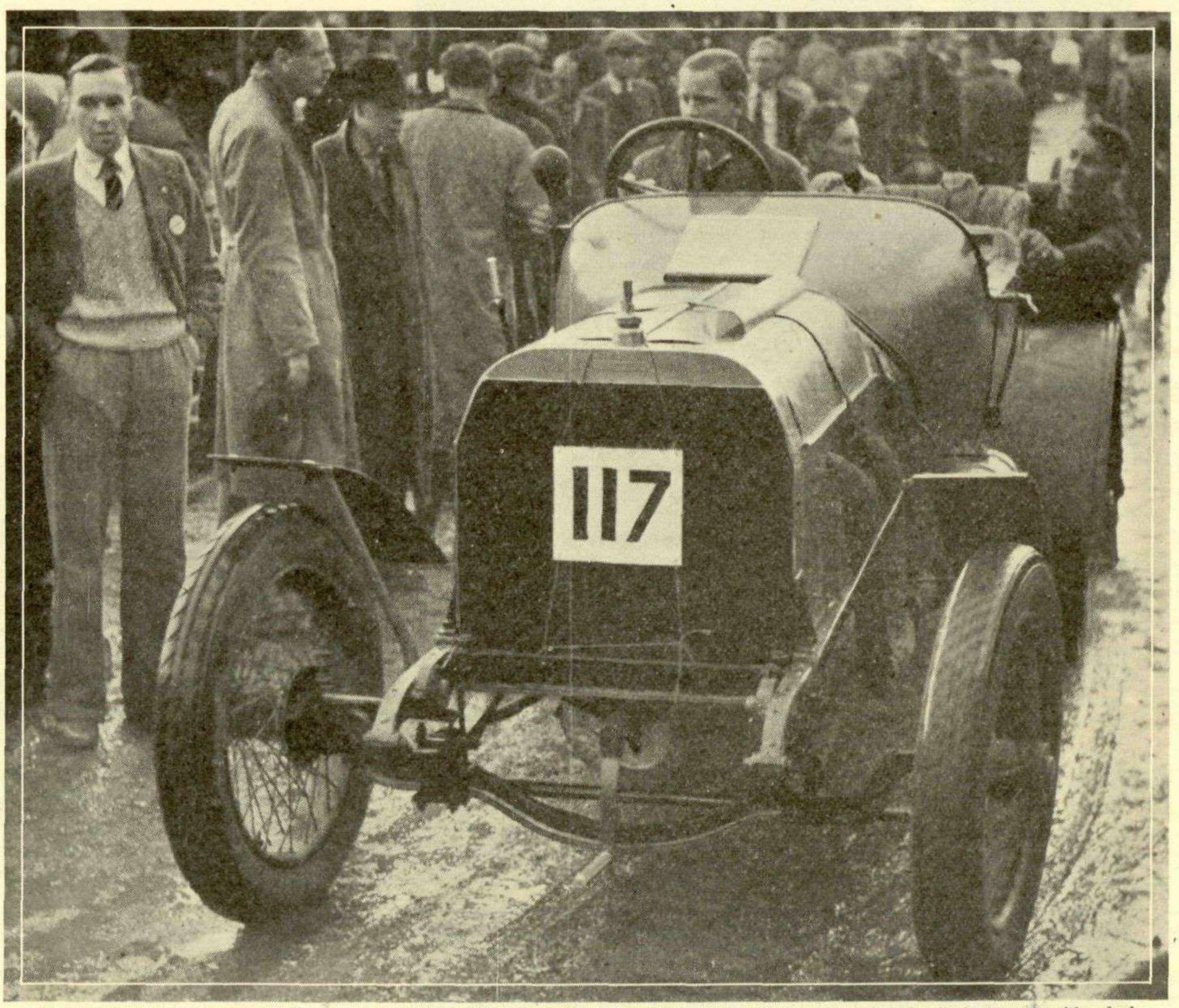
REPORTS OF RECENT EVENTS—
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ranged from the Trojans of Scroggs and Pidgeon to a whole string of Allards. Imhof's white 1947 Allard and Harrison's Riley made the best onslaughts, while Newton and Delingpole (H.R.G.s) were almost as good. The first section of Jenkin's Chapel stopped all but the white Allard team, Hutchison's Allard and Newton's H.R.G. Here Potter's Allard sheared a key in its back axle. The Allards, H.R.G.s and Denyer's vintage Lea-Francis again showed up best at Bamford Clough. Scroggs' famous Trojan very nearly climbed Jenkin's Chapel and Bamford Clough. Wright's Frazer-Nash, Thomson's " blown" Morgan and Potter's Allard fell by the wayside.

Results :

2nd Class Awards : Imhof, Burgess, Parker, Appleton, Zwick and Hutchison (Allards), Newton and Delingpole (H.R.G.s), May (Ford V8), and Denyer (Lea-Francis).
3rd Class Awards : Scales (M.G.), Harrison and Morgan (Rileys) and Dargue (B.M.W.).
Team Prize : Allard team.

GENTLEMEN, THE EDWARDIANS



No need for introductions—Dr. Ewen and the 1908 12-*litre Itala, which has l.t. ignition and does a standing* ¼ *mile in* 20 *sec., with a fuel consumption of* 13 *m.p.g. and a maximum speed, stripped, of* 100 *m.p.h.* *Photo by H. Dacre Stubbs, A.R.P.S.*

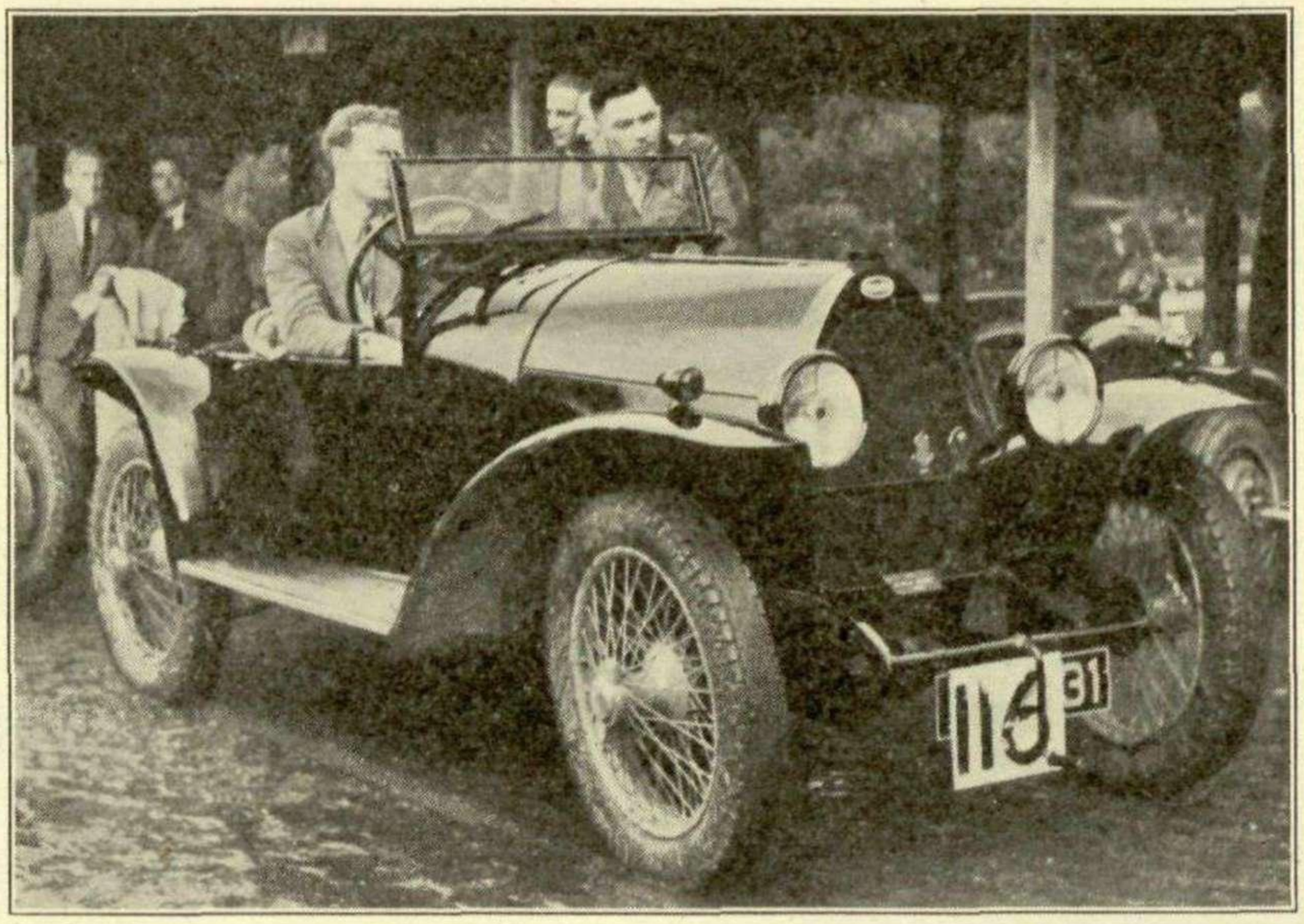
The more lively Edwardian cars have caught public imagination in this year of Cavalcade, and speed-trial spectators can confirm that the presence of some of these great cars does much to enhance the sprint meeting. That such cars were very popular before the war and have appeared again in this year's events gives us considerable satisfaction. For it was in MOTOR SPORT, in 1929, that an article from E. K. H. Karslake's pen first aroused real interest in the discovery and restoration of the larger and more potent veteran cars, as distinct, that is, from the "Brighton runners." Karslake it was who hit upon the happy idea of writing-up such cars in a "Veteran Types" series of articles —writing them up, not as cars out of history (interesting as that can be), but as existing veterans sufficiently hale and hearty for him to undertake a brief road-test before putting quill to parchment.

In this issue John Bolster continues the series, at our request, by describing his very beautiful 1911 "Silver Ghost" Rolls-Royce. And we intend to publish further articles in this series, from time to time throughout the coming year. Meanwhile, here are some rather nice photographs of some of these "Edwardian" cars which have so pleased their owners and the spectators at various events of recent times. One sometimes hears comic remarks about them from the uninitiated. As: "I guess it'll crack up before it gets half-way," of the thunderous "Sixty" Itala at Brighton. In sober fact these fine old cars have frequently vanquished modern sports cars, even racing cars, in spite of their rear brakes and small-section tyres. Perhaps it is that which so endears them to the onlooker.

Those wishing to study this cult may like to know that the following cars have already been covered in the "Veteran Types" series:—"Chitty Bang Bang II" (Oct., 1930); a 1914 T.T. Sunbeam (Nov., 1930); a 1903 "Sixty" Mercédès (Dec., 1930); a 1924 "Coppa Florio" Itala (Jan., 1931); a 1902 6-h.p. De Dion Bouton (Feb., 1931); a Boulogne G.P. "Brescia" Bugatti (April, 1931); Wallbank's 1914 T.T. Humber (May, 1931); a 1914 "Alphonso" Hispano-Suiza (July, 1931); a 1900 Benz (Nov., 1931); a 1914

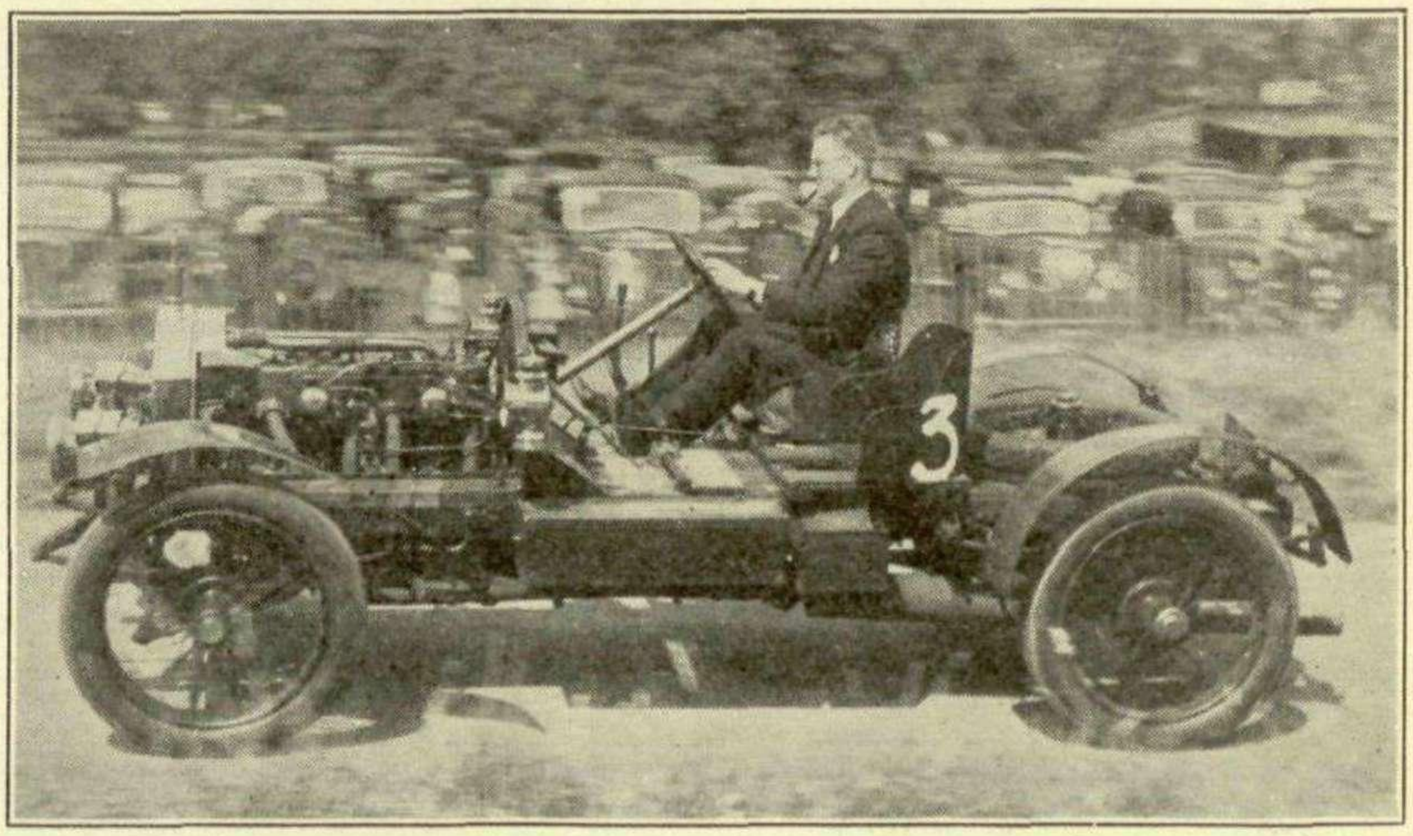
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GENTLEMEN, THE



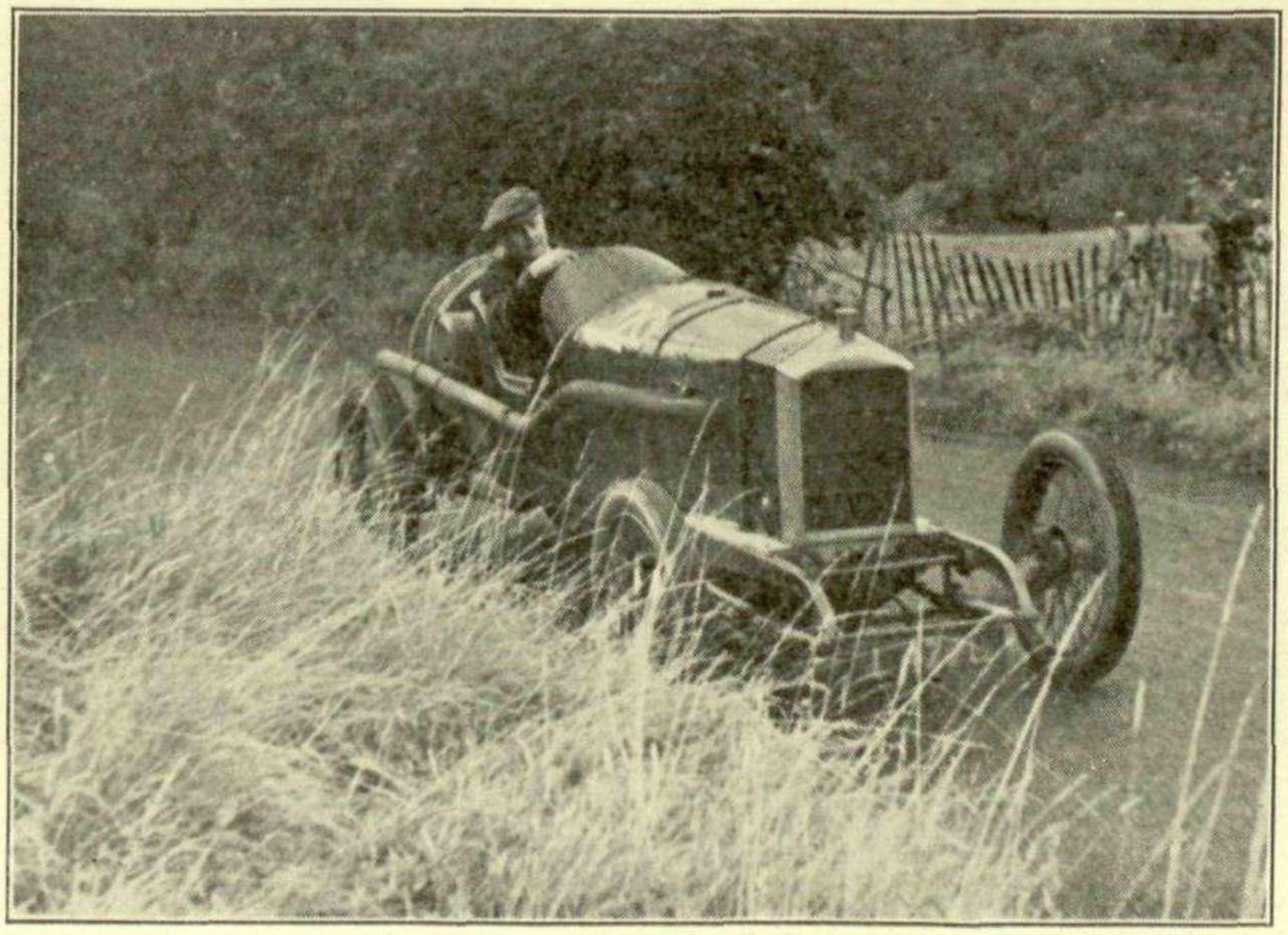
" Black Bess," the 1913 5-litre chain-driven Bugatti, was restored to good order some years ago by Col. Giles, and is now owned by Rodney Clarke, who has won several beauty prizes with it.

Photo by H. Dacre Stubbs, A.R.P.S.



Marcus Chambers gets away at Prescott in his 1908 " Four Inch " Hutton, which, driven by Watson, won that year's T.T. at 50.3 m.p.h. The 101.5 by 180 mm. 4-cylinder engine has beautiful copper water jackets.

Photo by H. O. Jones.



Kenneth Neve's 1914 T.T. Humber, like the Mercedes a 4-cylinder, 16-valve car, cornering nicely at Prescott. Believed to have been driven by Burgess in the T.T., it was used by Sgonina in sprints after the Kaiser war. Its capacity is 3,295 c.c. and it peaks at about 3,200 r.p.m., equal to about 80 m.p.h. in 3rd gear.

Photo by Guy Griffiths.

Reprinted from "Motor Sport," April, 1948.

The "30/98" Vauxhall

Continuing the much-appreciated "Motor Sport" articles on outstanding sports cars, this month we have pleasure in presenting a most painstaking study of the "30/98" Vauxhall, written for us by George Sanders. He has owned both E and OE types and covers each of these famous Vauxhall cars in some considerable detail. As one of the greatest British high-performance cars of all time, the "30/98" fully deserves the space we are devoting to it. Laurence Pomeroy, whose father was responsible for this and other classic designs, has done us the honour of prefacing Mr. Sanders' article. We also wish to thank Vauxhall Motors, Ltd., for supplying many of the illustrations here reproduced.—Ed.

Foreword . . .

The "30/98" Vauxhall is a remarkable example of a successful type which came into existence by accident and which was never planned for production. In 1913, its year of origin, Vauxhall Motors, Ltd., were building two types of four-cylinder engine and two forms of chassis. The smaller of these, the A-type, had a 3-litre 90 by 120 mm. four-cylinder side valve engine in a 9 ft. 9 in.-wheelbase chassis. This model was the founder of Vauxhall fortunes and was designed in 1908 by my father to compete in the 2,000-Mile and Scottish Reliability Trials, which it did with outstanding success.

In 1910 three specially-tuned cars were built with a V-shape radiator to compete in the Prince Henry trials in Germany, and this became the origin of the "Prince Henry" Vauxhall which, however, was not offered for public sale until the 1911 Motor Show and which went into production in 1912. The larger four-cylinder car was the D-type 4-litre, having an engine, with four-cylinders of 95 by 140 mm. and side valves, mounted in a 10 ft. 3 in.-wheelbase chassis. Additionally, there was a variant which was formed by mating the D-type engine with the A-type chassis, this being the 1913 C-type "Prince Henry." The engine of this car was, moreover, additionally modified with high-lift cams and raised compression, and developed approximately 75 b.h.p. One of these cars was used at Brooklands with a narrow single-seater body having very low frontal area. It was highly successful in handicap events, being able to lap at around 100 m.p.h. [The best lap speed appears to have been 96.52 m.p.h.—Ed.]

The works also retained a special hill-climb car, which consisted of one of the 1912 Coupe de *L'Auto* team, which was a 3-litre "Prince Henry" with a short-tailed two-seater body.

As Mr. Sanders discloses, the "30/98" was a development of the 1913 C-Type "Prince Henry" and a sister engine was mounted in the 1912 Coupe de *L'Auto* car. It is not generally known that the first appearance of the Higginson four-seater "30/98" with the handsome round-fronted radiator was on May 3rd, at the Waddington Fells Hill Climb organised by the Lancashire Car Club. This event was run under very bad weather conditions, but Higginson, nevertheless, made fastest time of the day.

Between this event and Shelsley Walsh, two cars were run at Aston Clinton, P. C. Kidner driving the four-seater and A. J. Hancock the Coupe de *L'Auto* version. The latter easily made fastest time of the day and broke the record for the hill.

The spare engine was then put into the Brooklands car, which increased the lap speed to 103.76 m.p.h.,* whilst Higginson took the four-seater to the Shelsley Walsh meeting in June. In order that he should do full justice to an entirely new type of motor car so far as he was concerned he took the precaution of entering every possible event. This gave him three runs, first in the open class, the second in a match event, in which he represented the Yorkshire club against Lancashire and the Midland Club, and a third in a class reserved for members of the Midland Automobile Club.

His success on that afternoon was followed up by other hill-climb wins by himself and also by A. J. Hancock who, for example, later in the year broke the record at Caerphilly.

About six additional cars were made for various private owners, all characterised by the 9-in. brake drums at the rear. Probably the last of the first series of E-types went to the Managing Director, P. C. Kidner, in early 1915. This was an extremely handsome car which had a distinguishing characteristic in cantilever rear springs and was later bought by T. W. Mays, father of Raymond Mays.

During the war the design of the E-type was modified to make it into a regular production model. Much larger brake drums were used on the rear wheels and a number of minor improvements were introduced, such as provision for electric lighting and starting, and a gear lever inside the body. Whereas, however, on all the other post-war cars a spiral-bevel rear axle was used, straight tooth form was retained on the E-type. It was, however, my father's intention that this car should be regarded as a stop-gap until the manufacturing programme could be rationalised around what was known as the H-type car. This was an overhead-camshaft model of advanced design, the bore and stroke being identical with the 1914 Grand Prix cars, *i.e.*, 100 by 140 mm. The camshaft was driven by eccentrics from the front of the engine and the cylinder block was deeply spigoted into the light-alloy crankcase. It was intended that this engine should be built with varying degrees of "tune" to meet the needs of the competition car and the town carriage and that it should have a rather longer wheelbase than the existing "30/98." On the test bed it gave some 100 b.h.p. at 2,500 r.p.m., but, following the departure of my father in late 1919 to take up other work in the U.S.A., the Directors decided not to go on with the H-type, but to develop the existing engine to use overhead valves operated by push rods, thus converting the E-type into the OE.

LAURENCE POMEROY, M.S.A.E.

* [Later another single-seater E-type 30/98 lapped at 108.03 m.p.h.—Ed.]

THE "30/98" VAUXHALLS, MODELS E and OE

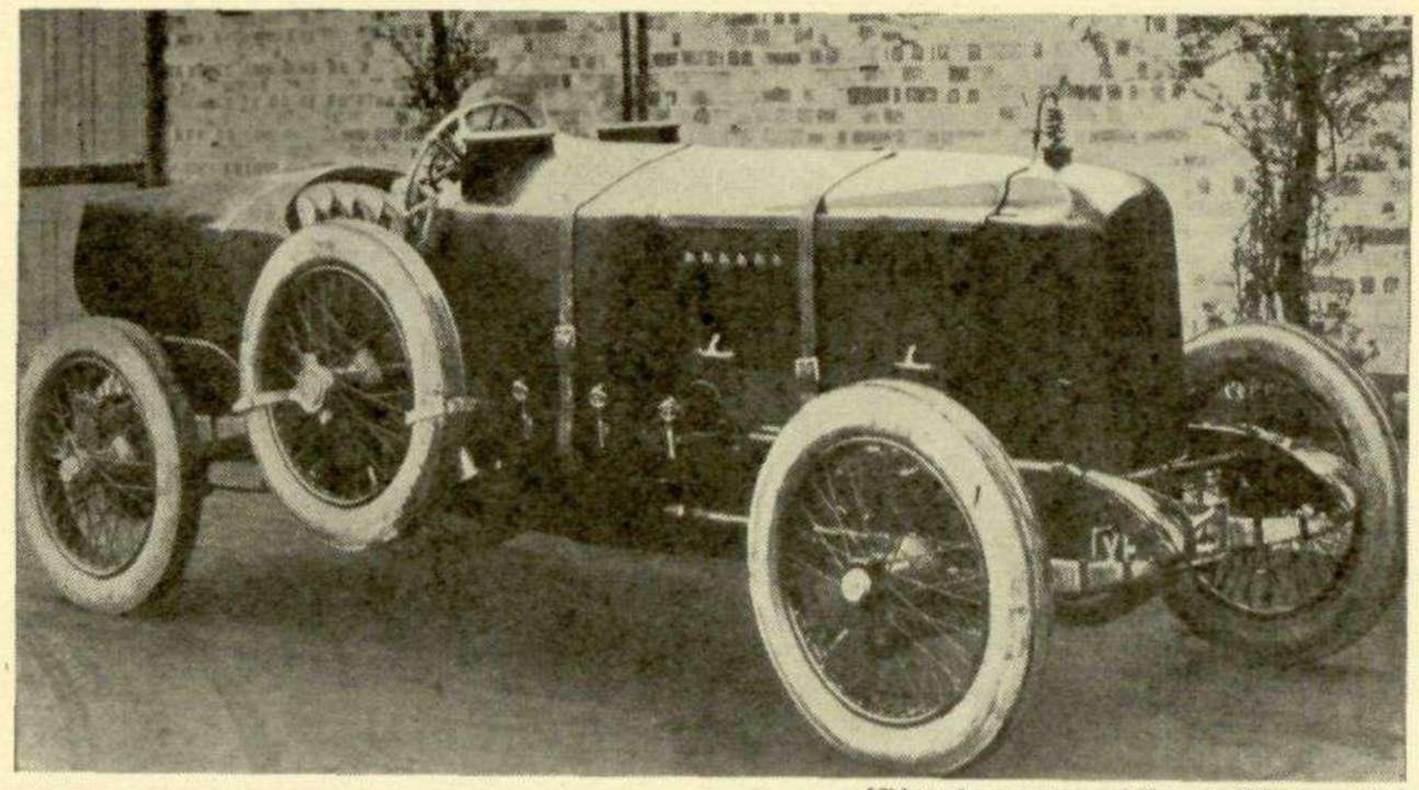
by GEORGE SANDERS

A KEEN competitor at sports events in the years prior to the first world war, was one J. Higginson, well known as the inventor of the Autovac, who had been competing with no small amount of success on an 80-h.p. La Buire. It should be remembered that at this time most competition cars were all of pretty large engine dimensions, and that the smaller engines of about 5 litres were only just becoming popular.

Higginson, however, was anxious to obtain a British sports-car that would better the performance of the La Buire, at the same time employing an engine of smaller capacity. There was no doubt that one of the course records he particularly wished to reduce was that of Shelsley Walsh, held at that time by H. C. Holder, who, driving a 58-h.p. Daimler, had climbed the hill in 62.2 sec. in 1911.

There was obviously going to be keen competition at the coming 1913 meeting, particularly from the cars entered by the Sunbeam and Talbot concerns, and against which it was highly improbable that the La Buire could compete on equal terms. Higginson therefore approached several British manufacturers with the request for a car that could gain for him the record at this hill-climb, and after various contacts managed to obtain the support of the late Laurence H. Pomeroy and the Vauxhall Motor Company.

It was during March, 1913, that Higginson contacted Pomeroy, who offered to produce the required vehicle; the only doubtful point being Vauxhall's ability to produce the car in the time at their disposal. Indeed, Higginson wanted it



[*Photo by courtesy of Vauxhall Motors, Ltd.*

Humphrey Cook's E-type " 30/98 *" in the form in which it was raced at Brooklands in* 1922.

ready for the June meeting, some thirteen weeks later.

This obviously did not give the manufacturers time to design, build and test a chassis and power unit "from scratch." Pomeroy therefore decided to build a car from various component parts available at the works, after making the necessary modifications to them.

Enlargement of the engine was put in hand, and in finished form a bore and stroke of 98 by 150 mm. was obtained, which gave a cubic capacity of 4,526 c.c. The C and E type engines were both normal side-valve four-cylinder units having two-valves-per-cylinder, a five-bearing crankshaft, and a camshaft chain-driven from the front end, with a very large clearance between the high-lift cams and tappets (in the neighbourhood of .050 in. to .060 in.). In other respects the engines differed very little from any other fixed-head, four-cylinder engine of that day.

The clutch, gearbox, transmission and rear axle were all quite orthodox, and, apart from minor modifications and slight improvements, such as various back-axle ratios introduced from time to time, remained the same for the whole period the car was in production. To complete Higginson's car, there was mounted a narrow, all-aluminium, four-seater body, *sans* doors and with light aluminium wings. The new-design flat-fronted radiator certainly gave a more imposing frontal appearance than the "V"-shaped radiator fitted to the C type "Prince Henrys," which remained in production.

Finally, came Shelsley Walsh. On his first run a time of around 70 sec. was clocked, but Higginson realised he had now obtained a motor-car fully capable of doing what he had set out to achieve. There was considerable competition that day to make fastest time. Higginson's second run was accomplished in the remarkable time of 58 sec., thus beating his old course-record, and setting up best-time-of-the-day. This achievement, however, was to be short-lived. One of the new Sunbeam racing cars, driven by Bird, managed to reduce the time to 58.4 sec., but Higginson, on his final run, and carrying three passengers, clocked 55.2 sec., thus beating his previous best time on the La Buire by no less than 13 sec. This record was to stand for 15 years before being again reduced by a sports-car, though it had actually been made against all comers, in spite of the Vauxhall being classified as a sports-car. Hancock, on the other car, had clocked 59 sec.

The older followers of Shelsley Walsh will remember the state of the road in those days, the surface being loose and dusty, and one cannot help but think that Higginson's driving, in spite of his having a powerful car, must have been in every respect up to that of the best drivers of the day.

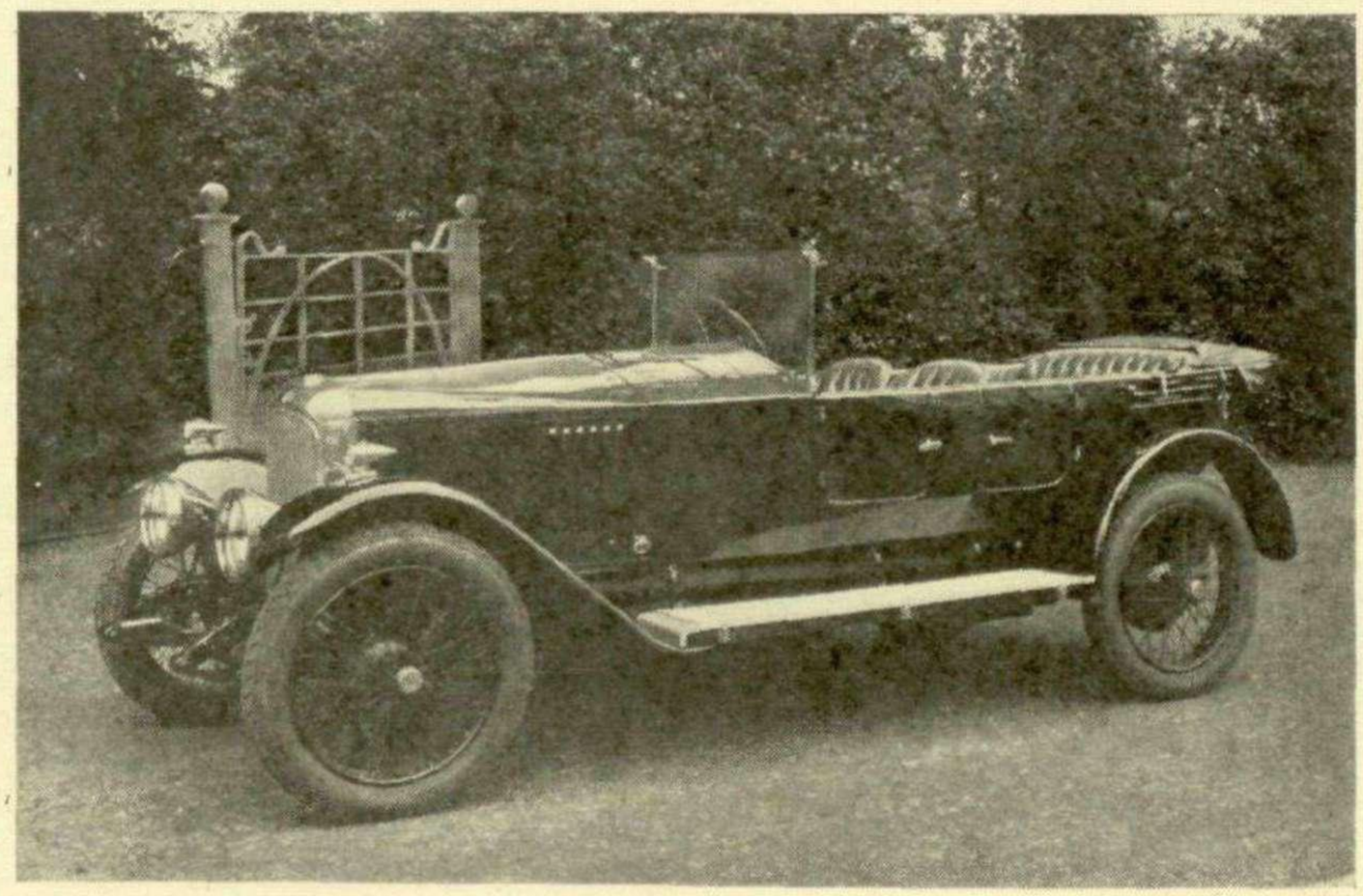
One can quite easily realise the publicity value of this performance, with the inevitable result that there was a very considerable demand put on the works for similar cars. The production methods in use at that time did not make for early deliveries, particularly as the first two cars had been so hastily constructed, and by the time the first few production models, in slightly modified form, began emerging from the works, the first World War had been declared. These modifications consisted of putting two doors in the body and providing a hood, spare wheels, and a somewhat poor electrical system. This 4-seater was named the "Velox" model.

In the meanwhile Higginson had been competing in many competitions with every success, while the "works" car appeared to be retained mostly for Brooklands. These two cars collected 13 firsts and 13 seconds during this twelve-month period, the only other driver to appear with one of these cars in this country being Bertelli. Perhaps the greatest success was finishing second in the Russian G.P., at an average of 70.8 m.p.h. in May, 1914.

Coming now to the post-1918 period, in 1920 the "30/98" Vauxhall appeared at the Motor Show, still with the side-valve engine and basically very much the same as turned out in 1914. The body, however, was constructed with some consideration for the purchaser, being fitted up with what was, in those days, quite complete equipment, the price being £1,650.

In the early 1920s these cars really began making a name for themselves, competing at all kinds of speed events and rarely missing the honours. The side-valve cars collected over 60 "firsts," and well-known names connected with the driving of these cars are Humphrey Cook, M. C. Park, Major Coe, George Duller, E. Swain, Clay, Barber-Lomax, Ropner, Watson, Pearce-Jones and many others.

Some very outstanding endurance records were also made, such as the run from Durban to Pretoria, a distance of 445 miles, in 10 hr. 56 min., an average of 40.7 m.p.h., and the run from Sydney to Brisbane, 643 miles, in 18 hr. 58 min. These two runs, incidentally, were accomplished in 1922, and both beat the records



[*Photo by courtesy of Vauxhall Motors Ltd.*

A standard 4*-seater side-valve E-type "* 30/98 *" Vauxhall.*

as they stood at that time. Compared with present-day average speeds, these do not appear particularly quick, but one must remember that the road surfaces were, for the most part, the roughest imaginable.

So much, then, for the side-valve " 30/98," which was known as the E-type. During 1922/3 the manufacturers partly redesigned the engine, in order to provide the car with more flexibility throughout its range. Push-rod-operated overhead valves were used, and the stroke was reduced from 150 mm. to 140 mm. This engine would certainly rev. faster, the peak being about 3,500 r.p.m., as compared with the 2,800 r.p.m. maximum of of the E-type, while the b.h.p. was increased from 90 for the standard E to around 112 on the new model, which was known as the OE. The top-gear ratio was reduced from 3 to 1 to 3.3 to 1 (the first production E-types pulled 2.5 to 1), and about August, 1923, front-wheel brakes were fitted as standard equipment, having the famous kidney-box operation.

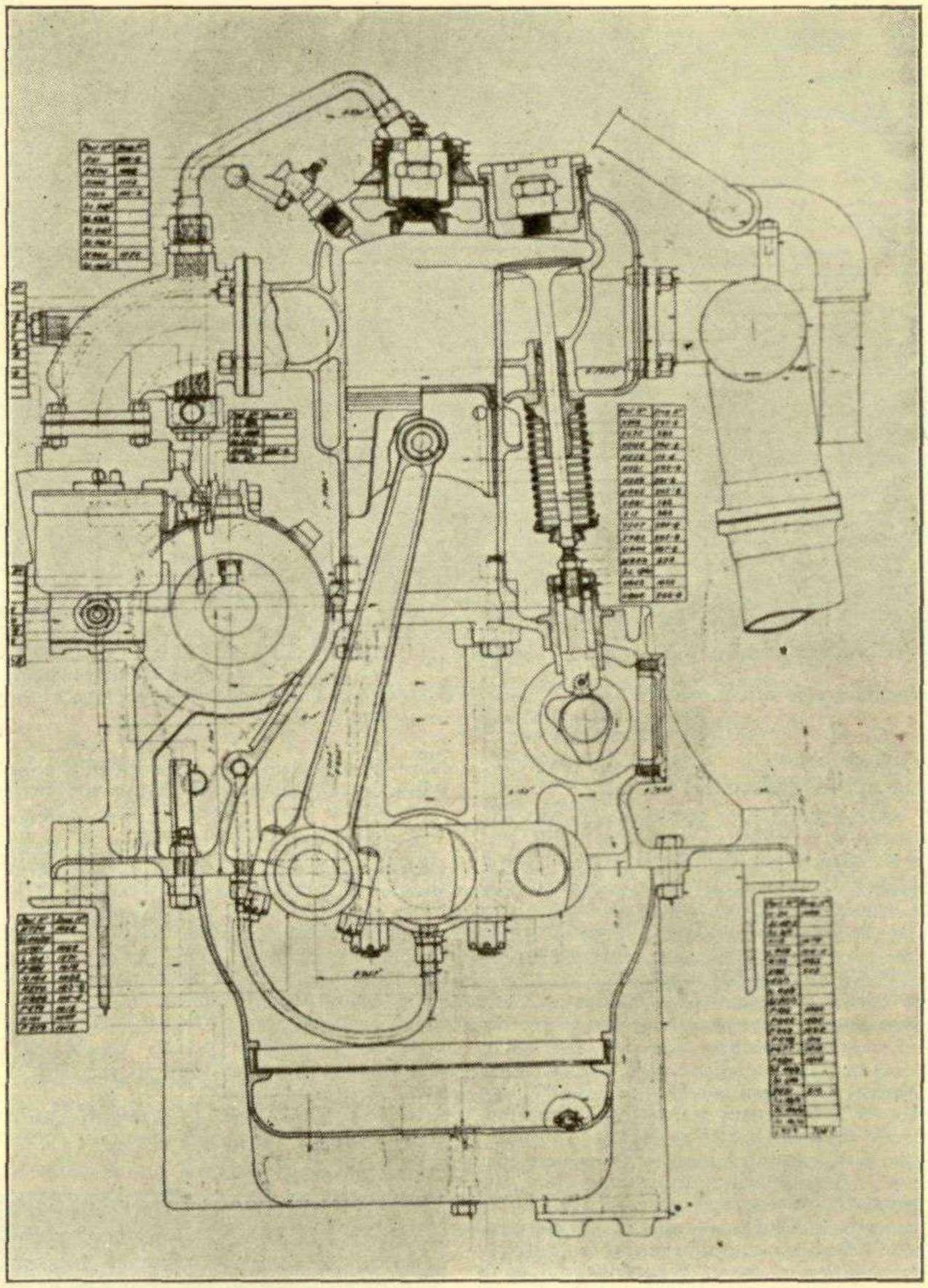
During 1923 two OE models were entered for the Georges Boillot Cup at Boulogne, to be driven by Major Coe and Sumner. The latter's car did not start and Coe was left to compete single-handed against the new " Boulogne " Hispano-Suizas, considered the fastest cars in the race and certainly the largest. By the second lap Coe was running a good third to the two Hispanos and by the fifth lap it seemed he had every opportunity of winning on formula, when, alas, he was forced to retire. The following year two more " 30/98s " were entered, but once again only one started and it again failed to complete the course.

I mention these two races particularly, as it was only on very few occasions that these cars were used for road-racing as opposed to hill-climbs, sprints and track racing. I don't know why this was so, but the OE models certainly appeared to be handicapped by teething troubles at the Boulogne races.

Although these OE cars were very much smoother running, and developed more power than the E-types, maximum speed does not appear to have been so high, as, in 1913, Hancock had lapped the Track on an E-type at 108.03 m.p.h., the following year N. F. Holder proved himself able to lap at nearly 101.5 m.p.h. on a similar car, yet now, by 1924, Major Ropner, whose " Silver Arrow " OE was the fastest " 30/98 " at Brooklands, could not better a lap speed of 103 m.p.h.

The " 30/98 " changed little during the period 1923 to 1926. In 1924 various small improvements were introduced, such as a direct-drive dynamo in place of the earlier mounting which was belt-driven from behind the clutch, the wheelbase was lengthened about 8 inches, and the ground clearance dropped from 9 to 7 inches. Wheels throughout the years had been of the beaded-edge type, carrying 820 by 120 tyres, though when officially converted to well-base, 20 in. by 5.50 in. appeared to be the tyre size considered to be most suitable for normal running.

It has been said that before the chassis was lengthened, the 1923 OE car was the world's finest skidder. I certainly do not agree, and from this point of view certainly prefer the OE to the E, unless someone had exchanged the frame of my car for a later one. The retail price had dropped in 1923 to £1,250 complete, or £950 for the chassis, at which level it remained until the car passed out of production.

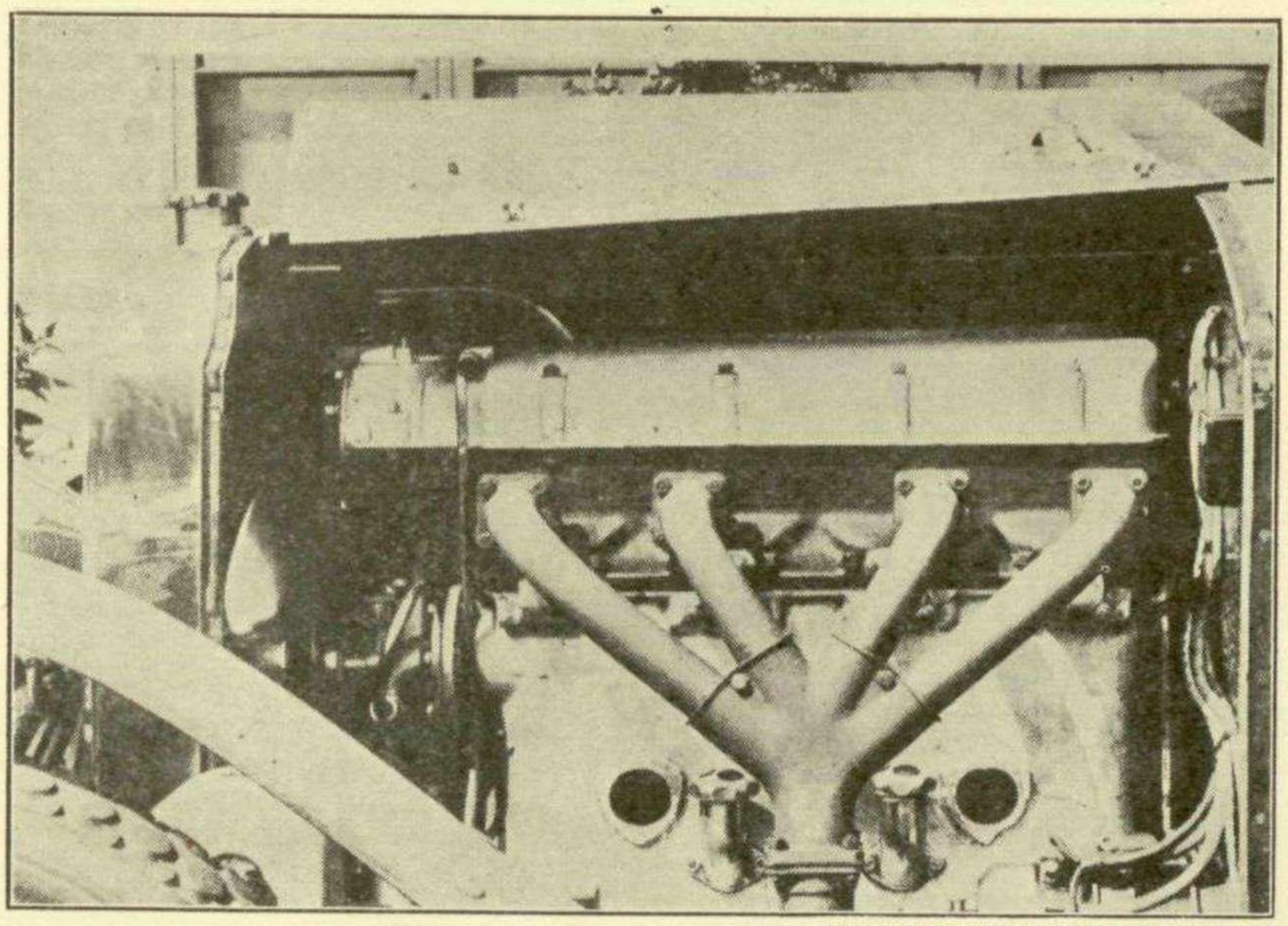


[Photo by courtesy of Laurence Pomeroy

A sectional view of the side-valve E-type Vauxhall engine.

Shelsley Walsh always saw a number of these cars in the entry list, but Higginson's time remained unbeaten. 1926 saw the car with much the same outward appearance, but the engine had been definitely improved by the inclusion of a counterbalanced crankshaft in place of the earlier " bent-wire " type, which, although it served its purpose admirably, did limit the revs. It is mainly cars so equipped that have been developed to put up the fine performances which have been seen in later years, when competition has brought them up against the " modern stuff."

A new body style was introduced, namely the " Wensum," this being a boat-backed 2/3-seater; although in my opinion the " 30/98 " looks best in her original " Velox " form. During 1927 the appearance of the four-seater was brought more in keeping with the times, mainly by redesigning the wings and making the petrol aperture on the tank sufficiently accessible so that a can of petrol could be poured in without loss. It always amazed me why Vauxhalls were so long in making this obvious latter modification. The most noteworthy alteration was the introduction of hydraulic brakes, and though many owners have said these were worse than useless, there is no doubt that, properly main-



[*Photo by courtesy of Laurence Pomeroy*

Exhaust side of the o.h.c. H-type Vauxhall engine that was intended to supersede the E-type, but which never went into production.

tained, they were a forward step over the earlier mechanical layout.

One other major modification was the fitting of a different gearbox. This was a definite advantage, as it allowed for a higher third-gear speed. I believe the box introduced was similar to that which was being used on the "25/70" sleeve-valve car. And so rationalisation began . . .

Towards the end of 1925 a statement was issued by the joint managing directors of Vauxhall Motors Ltd., to the effect that they had amalgamated with General Motors on November 16th ; and, although the "30/98" cars were to be manufactured for a further 2½ years, this company, like Sunbeam and Bentley, who had also been participating in racing for the previous seven or more years, faded quietly out of this sphere of activity and began the manufacture of an entirely new range of cars. When the old company died, so did the "30/98," together with the more sedate touring vehicles, the "14/40," "23/60" and "25/70," together with any further hopes of this company ever producing a new T.T. or G.P. car.

Since then, however, there has always been a small band of drivers who have remained faithful to the "30/98," many of whom have met with considerable success in competition. To my mind the finest feat that one of these cars ever achieved, apart from Higginson's Shelsley Walsh run, was the winning of the Brooklands' Gold Star in 1932, when an OE model of 1926 vintage, driven by R. J. Munday, averaged, over the 20 odd miles, no less than 109.46 m.p.h., one lap being put in at 114.23 m.p.h.

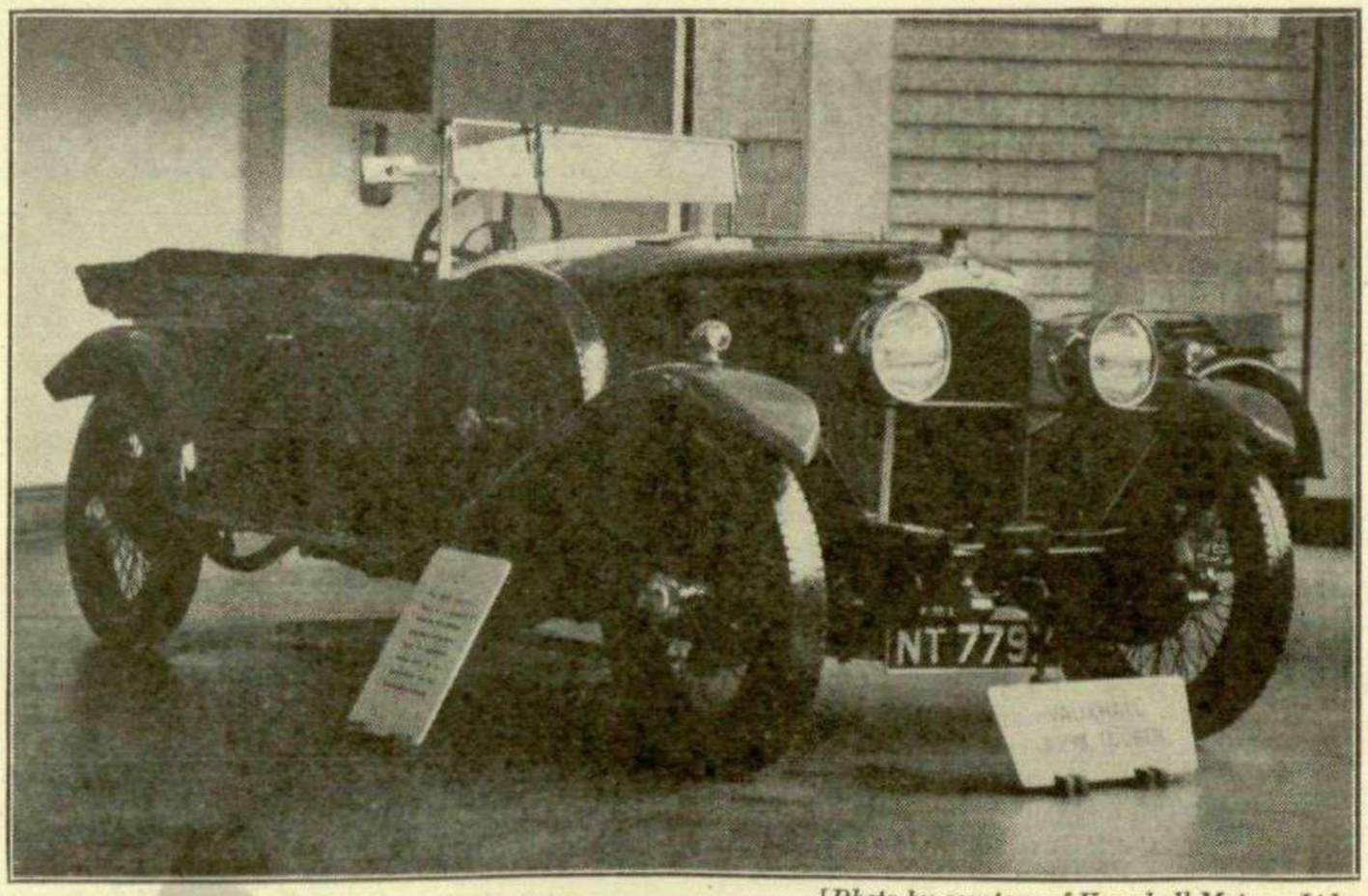
As for Shelsley Walsh, the time was eventually reduced to about 48 sec. by Jacot, and later by Windsor-Richards, both driving different cars. "30/98s" were regularly seen at all Shelsley meetings until as late as 1939, but due to the new regulations, it is doubtful if they will ever be allowed to re-appear.

* * *

I feel it would be of interest to those enthusiasts who still own or enthuse over these fine vintage cars to have a little more detail of the various main components, which together make such an excellent "recipe." The details I give are from odd notes I have made in the past when dismantling or erecting my own cars, and refer, in the main, to the OE, as the engine of my recent car, OE 64, was manufactured in the fall of 1923.

Engine.—This is a straightforward four-cylinder, push-rod-operated over-head-valve engine, with detachable head. The bore and stroke is 98 by 140 mm., which gives a capacity of 4,224 c.c. The pistons are of die-cast aluminium, so designed that heat is transmitted from the piston head by two paths. Connecting rods are of H-section, made in duralumin. Heat generated in the big-end is very rapidly conducted away, it being very difficult even under the most severe tests to melt big-end bearings. It is interesting that the Vauxhall Motor Company advise you, in the event of a big-end failing due to lack of lubrication, to fill the sump to a maximum of 2 gallons of oil (the normal level being achieved with 1¼ gallons), and the big-ends will then get the necessary lubrication by way of splash-feed.

The crankshaft, which is not counterbalanced on the earlier models, is carried in five substantial white-metal bearings. If it is hoped to put up the speed over 3,600 r.p.m., fit the counterbalanced crankshaft. These can be occasionally obtained through such well-known people as the Higher Road Garage, Urmston. The oil pump is of the valveless rocking-plunger type, driven off the rear end of the camshaft, and supplies oil under pressure to every plain bearing in the engine. This pump is most efficient ; I have never heard of any trouble being experienced with it. Oil pressure should never register less than 5 lb./sq. in. at 20 m.p.h., and, although Vauxhalls originally specified Castrol "R," I have always used "XL," which fills the bill without the smell. The overhead rockers, which are of conventional design, are also lubricated by the mechanical pump, the supply of oil being controlled by a reducing valve in the rocker cover. Oil consumption on these cars should be around 2/3,000 m.p.g., even after considerable mileage has been covered. There are two oil filters in the system, one around the sump drain-plug which serves to filter the oil before the pump sucks it into the lubricating channels, and the other in the



[*Photo by courtesy of Vauxhall Motors, Ltd.*

Vauxhall Motors, Ltd., preserve an excellent example of OE "30/98" tourer. It is here seen at one of their post-war exhibitions at the factory at Luton.

form of a tray, which runs the full length of the engine, just below the lowest point of big-end throw; this tray can very easily be removed by undoing the four ¼-in. bolts located at the front end of the sump and withdrawing it by pulling on the small finger-grip provided.

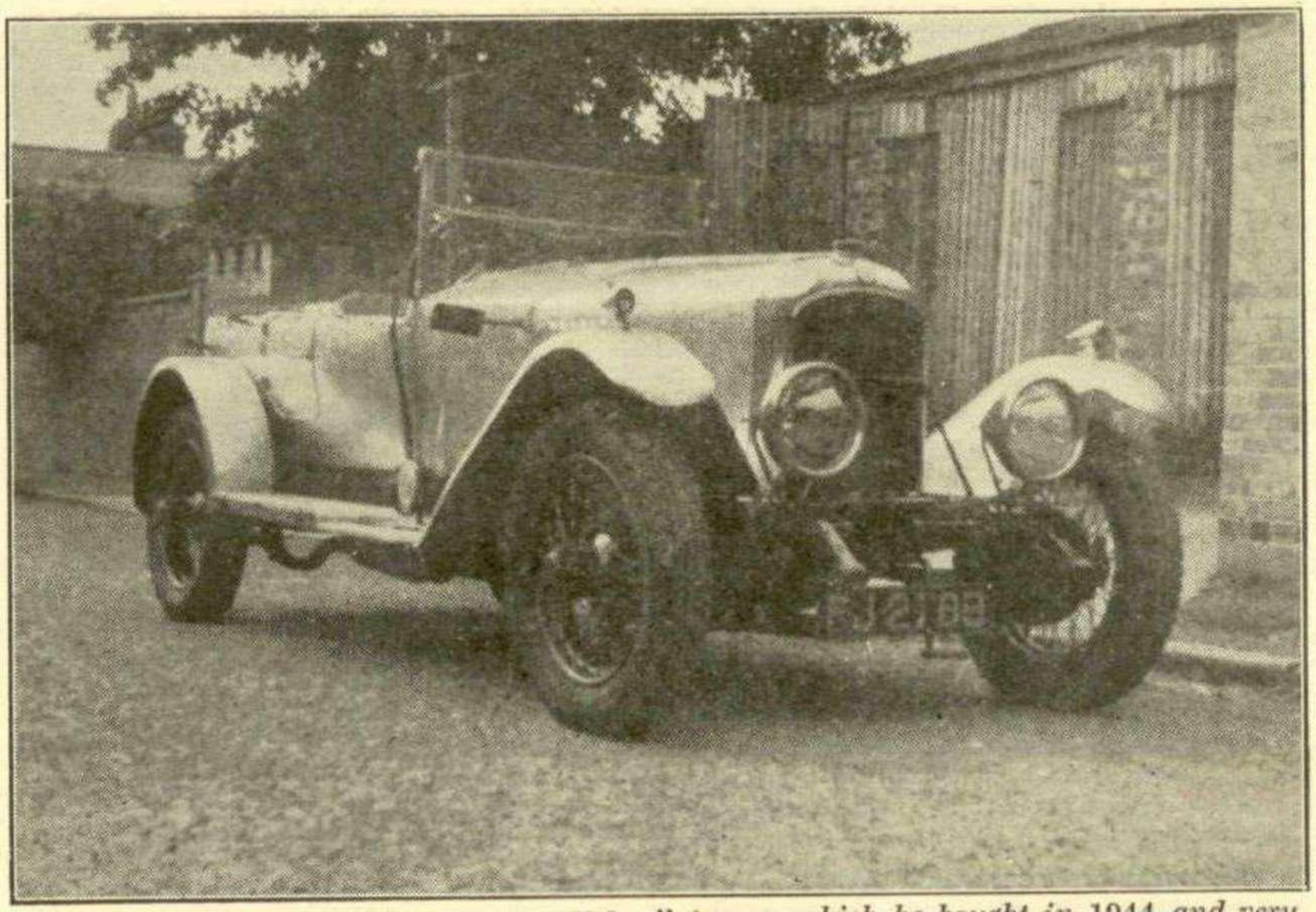
The valves are of the normal mushroom type, placed vertically in the combustion chambers. Exhaust valve seats and stems, also the sparking plugs, are entirely surrounded by water, which is circulated by a belt-driven impellor set in the front of the engine block. Double valve springs are a standard fitment, and though the valve clearance is stated on the side of all engines, I give a little more detail on this point a little farther on.

Any old sparking plugs seem to fill the requirements of this engine, although my own preference is for Champion R.3; plug-gap clearance should be from .012-in. to .015-in.

The water impellor also drives the fan and it seems that most engines have a habit of developing a lot of slack in this shaft. In my own case the whole was dismantled and a distance-piece was inserted ahead of the actual impellor, which served to set back the whole shaft and so bring the driven pulley once again in line with the driving pulley on the end of the camshaft. The whole design of this unit is definitely not of the best and occasional attention to its running is well worth while. A thermostat is also included as standard equipment, and although I removed mine as being unnecessary, I soon found that in the autumn and winter months it was most valuable. The thermostat has, therefore, been replaced, and I would strongly recommend other drivers who suffer from that wretched "spit" which periodically occurs, even when running with a hot engine, to leave theirs in.

In the winter months, I have found that blanking off a good half of the radiator maintains the required inlet-manifold temperature, without any tendency for boiling to occur. For a long while I was bothered with "spitting back" when the engine was run over 2,500 r.p.m., and, after a great deal of time had been spent on carburetter, plugs and magneto, to no avail, the trouble was immediately cured by reducing the cooling area.

The camshaft, placed low on the near side, is driven by a multiple chain from the front end of the crankshaft, which chain also drives the magneto, and is supported, like the crankshaft, in five white-metal bearings. The actual cam profile has, no doubt, a large bearing on the power output of these engines. The magneto sits in a cradle, which, together with its driving sprocket, serves as a chain tensioner. To check the tension on the chain, remove the plug at the bottom of the timing case (through this hole the chain can just be felt) and having previously eased off the bolts which hold the magneto cradle and which pass through elongated holes, pull the magneto in a clockwise direction, seen from the front. This will tighten the chain without upsetting the timing. Before commencing to do this, make quite certain that the slack in the chain is between the magneto sprocket and crankshaft, and not between the magneto and the camshaft, otherwise



The author's own OE "30/98"—a "Velox" tourer, which he bought in 1944 and very thoroughly restored after it had lain in the open for many years.

one may think all the slack has been removed, with the result that when the chain does pull into the correct driving position, the timing will be slightly affected. Don't forget to replace the plug in the bottom of the timing case, or the contents of the sump will be lost as soon as the engine has been running for a few minutes.

Petrol is fed to the engine through a Zenith visual-type filter and an Autovac. I have found this filter to be of very considerable use, as by the speed at which the bowl fills up a very good idea can be gained as to whether there are any air leaks in the vacuum circuit. If the bowl fills slowly, then either petrol is "out" in the tank, or air is being sucked into the Autovac. From the Autovac the petrol falls by gravity to a Type RA Zenith carburetter. The correct jets for normal running are 155 main and 165 compensating, with a 32 choke. (In the case of the E-type engine, these should be 165 main and 150 compensating, with a choke of the same size as for the OE carburetter.) From the carburetter the inlet manifold is water-heated to the point where it passes through the head, after which it is similarly heated by the water passages in the head itself.

The exhaust manifold is fabricated from steel tube, probably for the sake of lightness, but this component is not sufficiently robust to stand up to many year's work without breaking, and many owners have replaced it in favour of one in cast-iron.

There is no point in giving a lot of details concerning the dismantling and re-erection of one of these engines, as no special tools or knowledge are required, it being on the whole quite a straightforward engineering assembly.

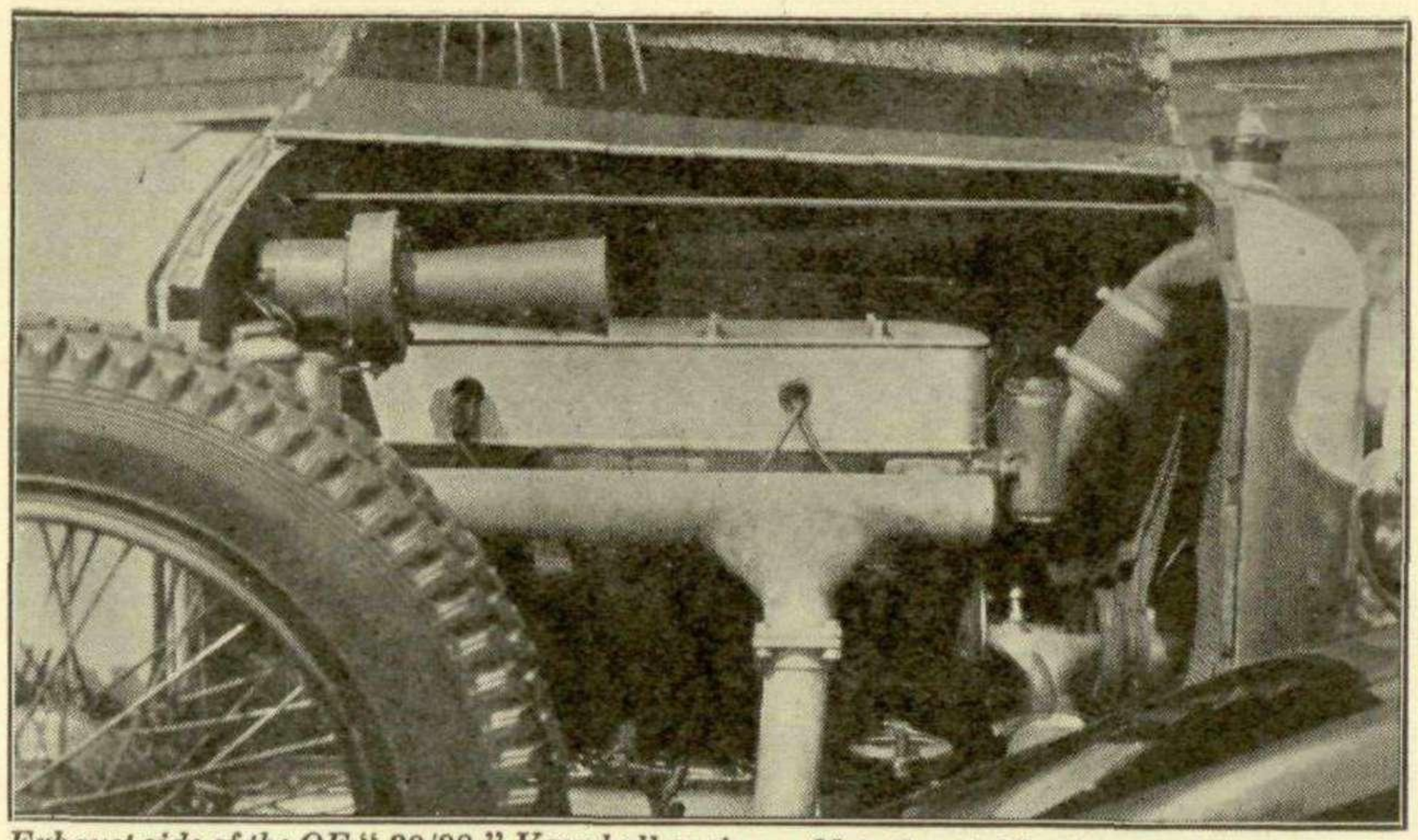
Details of the valve and magneto timing may, however, be helpful. First, remember that the firing order is 1, 2, 4, 3, which is rather unorthodox, although there are a few other manufacturers whose cars fire in the same order.

Valve timing is as follows:—

Inlet opens:	1¼ in. b.t.d.c. or 9.5°.
Inlet closes:	10$\frac{19}{32}$ in. a.b.d.c. or 81°.
Exhaust opens:	7⅞ in. b.b.d.c. or 60.2°.
Exhaust closes:	2 in. a.t.d.c. or 15°.

Where inch dimensions are given above, these are measured on the periphery of the flywheel either before or after the indented line denoting t.d.c. or b.d.c. Take care that the line referred to is actually at t.d.c., as there is always the possibility that the flywheel has been turned round for the benefit of the starter ring. It is advisable, in any case, to check the actual position from the crown of the piston, which can just be reached through the plug aperture. The gear-wheel on the front end of the camshaft, to which reference was made earlier, is of vernier design, and by removing the two bolts which clamp the actual wheel to the shaft, any desired relationship can be obtained between the crankshaft and camshaft. Before valve timing can be undertaken, it is necessary to remove the radiator and timing chain cover. The radiator can be freed by undoing the two ⅝-in. nuts just underneath, and located within the front channel cross-member of the chassis. From here on I have always found that the easiest manner by which to proceed is to draw out a timing diagram, glue this on to a piece of plywood and, having bored-out the centre to the same diameter as the front of the crankshaft, push it over the starting-handle dog, making sure it is a tight fit, at the same time setting it in the relative position to tie up with top dead-centre. If this diagram is about 8 in. across, a very accurate valve timing can be obtained, with patience. Time spent here is well worth while; these engines are very sensitive to timing.

If it is found that on the recommended tappet clearance only certain of the valves will give the correct opening or closing, then adjust the tappets until each gives the same result. Take a note of these



Exhaust side of the OE " 30/98 " Vauxhall engine. Note the oil filler, low-set fan and water impeller, the thermostat and the plug leads led through the valve cover.

tappet clearances for future setting. As an example, in my own engine the makers gave a clearance of .025 in. for all valves, but probably due to wear, the clearances have now become .024, .021, .025, .027, .024, .025, .024 and .025 in.

The standard magneto is a Watford F.4, and magneto timing is quite simple ; with the magneto set at fully advanced, the points should just be breaking when the crankshaft, that is the flywheel periphery, is 4 in. before top dead-centre. This can be increased up to as much as 6 in., but is not advised, as starting will be difficult and accompanied by a violent kick-back, even when fully retarded. Even when the engine has been started, unless very hot, on the slightest attempt to accelerate she will spit back through the carburetter, which frequently sets things alight. I think excess advance on many of these engines is the cause of the numerous fires one hears about, so if anyone is troubled by these occurrences, just measure the distance on the flywheel in the manner mentioned. Contact-breaker points should have a clearance of about 0.4 mm.

The manufacturers state in their handbook that on standard timing, which I have given, the ignition hand-lever should be set, for starting, about halfway up the rack, and when running at normal speeds, this should be further advanced to about two-thirds up the rack.

If the engine is in reasonably good condition, starting should be easy, either on the handle or by the electric starter. In this respect a Ki-gass primer is definitely an advantage. Once the pump itself is primed two or three pumps should be ample, and with the hand-throttle lever set two or three notches up the rack, if there is no slack in the linkage and assuming that, when fully home the engine will just tick over, she should start, if not first pull, most definitely at the second. (Four or five notches on the rack gives about 200/250 r.p.m.) This procedure applies just the same in summer as in winter and there is no choke fitted.

The above generally covers the specification of the OE engine, which can be summed up as follows :—

Number of cylinders...	Four.
Bore	98 mm. ($3\frac{5}{16}$ in. or 3.9375 in.).
Stroke...	140 mm. ($5\frac{19}{32}$ in. or 5.59375 in.).
Maximum b.h.p.	... 112.
Maximum r.p.m.	... 3,400.
Compression ratio	... 5.2 to 1.
Area of piston	... 12.177 sq. in.
Total swept volume	... 272 cu. in.
Torque at 3,400 r.p.m.	175 lb. ft.
B.M.E.P.	95.8 lb./sq. in.
Max. piston speed	... 3,170 ft./min. at 3,400 r.p.m.
R.A.C. rating	... 23.8 h.p.

On the question of brake-horse-power, I have in my possession three graphs from the makers ; one covers OE 19 and is dated 5/2/23 ; the second is apparently that of the engine fitted to Major Coe's car and is dated 30/4/24 ; and the third is of " Super E," No. E.1078, bore and stroke 98 by 140 mm., fitted with an S.U. carburetter Type C.2. This last-named engine is also referred to as an OE type. Quite what the engine was, or what modifications had been undertaken, is not stated, but the b.h.p. and torque figures are interesting. The comparative readings are as follows :—

R.P.M.	*B.H.P. (OE 19)*	*B.H.P. (Major Coe)*	*B.H.P. (E.1078)*	*Torque (E.1078)*
600 ...	17 ...	17 ...	20 ...	176 lb. ft.
1,000 ...	37 ...	34 ...	38 ...	187.5 ,,
1,500 ...	62 ...	54 ...	60 ...	202 ,,
2,000 ...	86 ...	74 ...	82 ...	216.5 ,, (max. 219)
2,500 ...	104 ...	94 ...	101 ...	214 ,,
3,000 ...	103 (peak 2,700)	105 ...	113 ...	199.5 ,,
3,500 ...	— ...	112 ...	122 ...	184.5 ,,
4,000 ...	— ...	114 (peak 3,650)	130 ...	170 ,,

All three graphs apparently refer to OE engines, though the figures given under the heading OE 19 appear more consistent to the output of an E-type slightly " hotted up." The figures in the second column are comparable to a standard OE in good condition, and those in the third column to a " hotted-up " OE. On the other hand, it might be that the first OE engines gave a very different set of results from those made later, when power was sacrificed lower down in order to obtain more urge higher up.

Clutch.—The clutch, which is bolted direct to the flywheel in the customary manner, is of the Hele-Shaw multiple-disc type, and should be lubricated by fine flake graphite only. Liquid graphite should never be used, unless one is prepared to dismantle the clutch after a thousand miles or so.

Generally speaking little trouble is experienced from this unit, which is most efficient considering its overall size and the torque it is called upon to transmit. There are, however, occasions when, after a long run, or after a lot of violent gear changes, when the whole assembly has become quite hot, it is found impossible to disengage the clutch. Sometimes it can be freed by allowing the assembly to cool down or by exerting extreme pressure on the pedal, but as the trouble is likely to occur again, and it can be very disconcerting in traffic, it is far better to take the " bull by the horns " and strip it.

Before the clutch can be removed it is necessary to unbolt the gearbox, and, having removed the trunnions from the rear of the propeller-shaft, pull back the gearbox a few inches to allow the clutch room to come away, together with its subsidiary mechanism. There are, of course, other parts to be disconnected, such as the clutch and brake pedals, but no comments are necessary on these. Be careful when lifting away the clutch-operating cross-shaft, which carries the toggle arms, as there are two small spring-loaded carbon brushes which serve to combat any rattle or vibration which might occur between these toggles and the clutch-race withdrawal housing and are more than likely to fall out. Having disconnected the Hardy-Spicer flexible coupling (not, I believe, fitted to the E-type, which has a metal coupling) and removed the bolts holding the clutch to the flywheel, the whole should come away. If difficulty is experienced, a few clouts with a raw-hide hammer should serve to ease the small ball-bearing which locates the centre spline of the clutch in the flywheel.

Dismantling of the clutch should be done as follows. Stand the unit vertically, the top being the face which mates up to the flywheel, and undo the five or six small screws visible on the surface. Before actually removing these, rig up some sort of a lever capable of holding down the plate, which the screws serve to retain when fully driven home. The set-screws can then be removed safely without the plates becoming airborne. Gradually release the leverage until the spring has lost its tension and lift out all the plates, taking care that they are laid out in the sequence that they occupied prior to dismantling ; the centre spline can then be lifted out. Thoroughly

clean everything and examine the centre spline for grooves along the spline. As the majority of these cars have, today, covered large mileages it will be a fortunate owner who finds no grooves on these splines. This fault permits the plates to become lodged in set positions, whereas they should, of course, slide freely over this shaft when the pedal is depressed. There are two ways of overcoming this trouble ; either file away the ridges until a smooth surface is again available, or get the shaft built up to its original dimensions. The latter course is definitely the better, because the former allows play between the plates and the shaft ; however, in my own case, filing only was done, and no further trouble was experienced afterwards.

Having attended to this part, turn your attention to the plates. These are of copper and steel, there being, I think, thirteen of one and fourteen of the other. Test each plate for flatness on a measuring table and, if warped, treat with a soft hammer until perfect flatness is obtained ; also remove all burrs, which will be found particularly on the copper plates. Examine the splines within the housing ; these do not usually suffer very badly but if they are notched, treat them the same way as mentioned above.

Re-assembly is quite straightforward, being merely a case of dropping all the plates back in, compressing against the one spring situated at the rear of the clutch housing, and tightening down the small set screws. When assembled, fill with approximately half a pint of flake graphite through one or more of the plugs in the outer housing. I might mention that there is no necessity to undo the large $\frac{7}{8}$-in. nut which appears to be the key to dismantling this unit. This serves only to hold the main spline to the driving shaft which protrudes through the rear of the housing. If the clutch is cared-for as described above, no sweeter clutch could be desired, even though it may be a little on the heavy side compared with modern standards. But for smooth get-away and easy gear-changing it is second to none. Normal maintenance is practically nil. Introduce about $\frac{1}{4}$-oz. of graphite from time to time, keep the thrust race well lubricated, and keep all the withdrawal mechanism well oiled.

Gearbox.—It is not necessary to say much in respect of this unit, as the general principle is as with all other pre-synchromesh boxes. Troubles are practically unknown, although it must be admitted that these cars are heavy on the bearings. The only trouble I have experienced, and I mention it in case others suffer from the same annoying habit, was a periodic difficulty of not being able to select a particular gear, or when in gear, being unable to get either into neutral or any other gear.

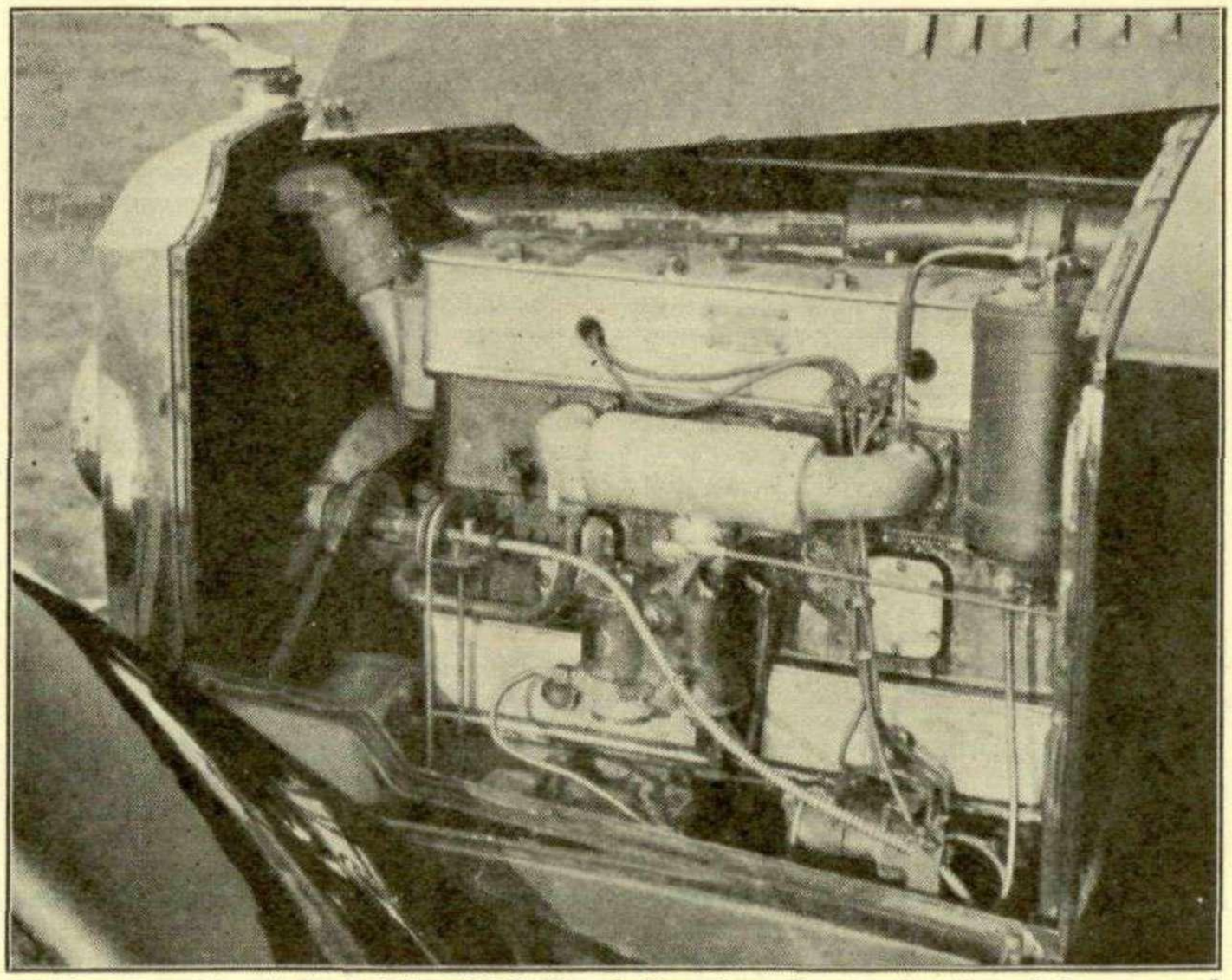
I only remembered to look at the most obvious place, which is, of course, the selector arm, after much examination. This arm is clamped to the end of a shaft the other end of which carries the gear-lever, and is self-locking when a particular gear is selected, through the selectors which are housed in a small box of their own on the off side of the gearbox. The bolt which locks the selector to the gear-shift cross-shaft had worked loose (there is no locking device) and allowed it to move a little way to one side. Obviously misalignment occurred, and the selectors could not be moved. What was so misleading was that, every-so-often, this selector must have vibrated back into its correct position, when no further trouble would be experienced for a considerable while.

The gearbox, which like the engine is mounted on the sub-frame, should be carefully shimmed up into position of alignment with the latter. This can be done by attaching a small pointer to the front flange, which for the purpose of this test would be disconnected from the flexible joint. Turn this in relation to the flywheel until the two are concentric.

To allow for the flex in the main chassis and the rigid mounting of the gearbox in the sub-frame, a ball joint is provided on the extreme end of the gear-shift cross-shaft ; keep this well lubricated. It will make for easy gear-changing on rough roads. Also, keep the cross-shaft itself well lubricated, which can be done by feeding oil through the two small holes provided for the purpose in the steel tube surrounding the actual shaft.

The gearbox should be drained at intervals of 5,000 miles, and refilled with Wakefield Castrol gear oil to within 6 in. of the lid seating. Gear-changing is easy, and comparatively light, except on winter mornings when the oil is particularly thick. Changes up and down can be effected without the use of the clutch, but in order to achieve this quietly a certain amount of brute force has to be employed. When changing gear in the more normal manner and using the very efficient clutch stop, the lining of which should be kept fairly well oiled, little pause is necessary in moving from one gear to another. The standard ratios provided are not the best for those who like high speeds on the indirects, perhaps because the car was essentially designed as a top-gear performer. With a 3.3 to 1 rear axle the ratios of the OE are :—Top : 3.3 to 1 ; 3rd : 5.1 to 1 ; 2nd : 7.8 to 1, and bottom : 12.2 to 1. Assuming the maximum engine-speed to be 3,400 r.p.m. and the car to be fitted with 20 in. by 5.50 in. tyres, allowing for various losses, speeds of 88 m.p.h. on top, 60 m.p.h. on third, 38 on second, and about 20 m.p.h. on bottom should be possible. There are available today, I believe, redesigned sets of gears which allow higher speeds on the indirects, although this is naturally quite likely to affect the acceleration a little. To my mind the best modification is to fit a side-valve rear axle, which is fitted with a 3.0 to 1 crown wheel and pinion.

Transmission.—The drive from the gearbox to the rear axle is transmitted by an open propeller-shaft with universal joints at either end. Immediately behind the gearbox is the transmission brake drum. The centre of the drum makes up part of the universal joint, which is of the metallic type, and through which two hardened and ground pins locate alternately in the propeller-shaft and housing. This form of universal joint, though quite common on cars built during the twenties, has now been generally discarded in favour of the more popular flexible joint, as made by Hardy-Spicer, added to which, with the latter type of joint, lubrication is unnecessary. Generally speaking, little wear occurs with the forward end, and it is only necessary to dismantle this when one has cause to remove the propeller shaft in its entirety. To do this, remove the rubber boot, which serves to retain lubricant, and undo the serrated collar which is then exposed, and which sur-



Carburetter side of the OE "30/98" Vauxhall engine, showing location of dynamo and magneto, belt-drive to fan, rev-counter drive, water-jacketted inlet manifold, tappet covers and inspection plates and autovac.

rounds the propeller-shaft and screws into the outer casing of the universal joint. On the earlier cars the speedometer-belt pulley is an integral part of this assembly, but as these pulleys, which are made of cast-iron, break for no apparent reason at the flange, I scrapped mine and took my speedometer drive from a split pulley fitted round the actual prop.-shaft, at the same time fitting a spring belt in place of the earlier flat rubber or leather drive. With this small alteration no further trouble was experienced through the belt coming off and becoming entangled in the works. It is important to keep this belt taut and the two pulleys absolutely in line.

The rear end of the propeller-shaft carries a transverse pin, on which are located two bronze trunnions; these trunnions slide in two slots of a machined housing which forms part of the pinion assembly, the trunnions being kept into position by a cover which slides over the whole, and is secured by four small bolts. When driving these cars at low speeds in the higher gears, roughness or jerking in the transmission is frequently experienced, and this can usually be traced to the trunnions having become worn on their driving faces. If they have not previously been turned round, this action will quite frequently cure the trouble, but more often than not this expedient has already been tried, in which case there is only one thing to do—scrap them and have new ones made. The head of these trunnions is of spherical design and this surface also suffers wear, but this can, up to a point, be rectified by placing shims underneath the blocks. The life of these trunnions is not long, and they will well repay very regular lubrication and replacement. To my own mind one of the best improvements which can be made on these cars is the scrapping complete of the standard prop.-shaft, replacing it by a modern-type Hardy-Spicer.

Rear axle.—The rear axle is made up of two steel castings bolted together round the periphery to form the pinion and differential housing, and into which are led two steel tubes, these tubes leading through to the hubs. There is no doubt that this form of construction makes for extreme strength with the minimum of weight. On the E-type cars the casing was also supported by a tie-bar underneath but this seems to have been discarded on the OE models. Keep this tie-bar well adjusted; there is provision at the ends. Unless for any reason it is necessary to remove the crown wheel and pinion, which are of the spiral-bevel type, there is no necessity to open up the two halves of this housing. There is, however, a frequent necessity to remove the hub assemblies, as wear often takes place at these extremities. Perhaps the following few notes on dismantling these ends will be helpful to those who are not familiar with the layout. First, remove the hub-cap, split-pin and nut, and withdraw the brake drum and hub in one piece. There is a steel bush dowelled into the front of the hub, the inside of which is splined and slides over the splines on the extremity of the half-shaft. Should the female splines for any reason become damaged or worn it is only necessary to replace this bush, and not the whole hub. Having exposed the shoes, remove the thrust race which is also visible, the shoes, oil retainer and backplate. The difficulty usually comes in removing the spring pad, which should be a floating fit on the axle tube, but which is more often than not seized solid.

This spring block is an aluminium casting, into which is pressed a bronze bush, this bush being located by the dowel pin which is the extension of the spring clamping bolt. The easiest way of removing this casting is to slacken-off the retaining ring (which can be found behind the spring pad and which serves to adjust this pad) against the thrust bearing already referred to, knocking it up the tube four or five inches and then heating the whole with a blow-lamp, until it can be forced free. Having removed the block, the bush, if not too badly worn, should be scraped, and the axle tube cleaned down until the two once again mate properly. In view of the general design of the transmission of these cars, it is most important that a smooth and easy movement is achieved, so that the axle is allowed to move when riding rough roads or when accelerating violently. When re-assembling make sure the bush is fitted the right way up, that is, so that the dowel pin can locate in the hole made for it, and which will ensure the bush moving on the axle tube and not in the aluminium housing. One other point; the small oil-retainer pressing, which screws to the back-plate, has a hole drilled on one side. This hole must be at the bottom, to allow any surplus oil from an over-filled rear axle to escape. Re-assembly of the remainder is orthodox, finally tightening up the retaining ring until the spring pad is just free.

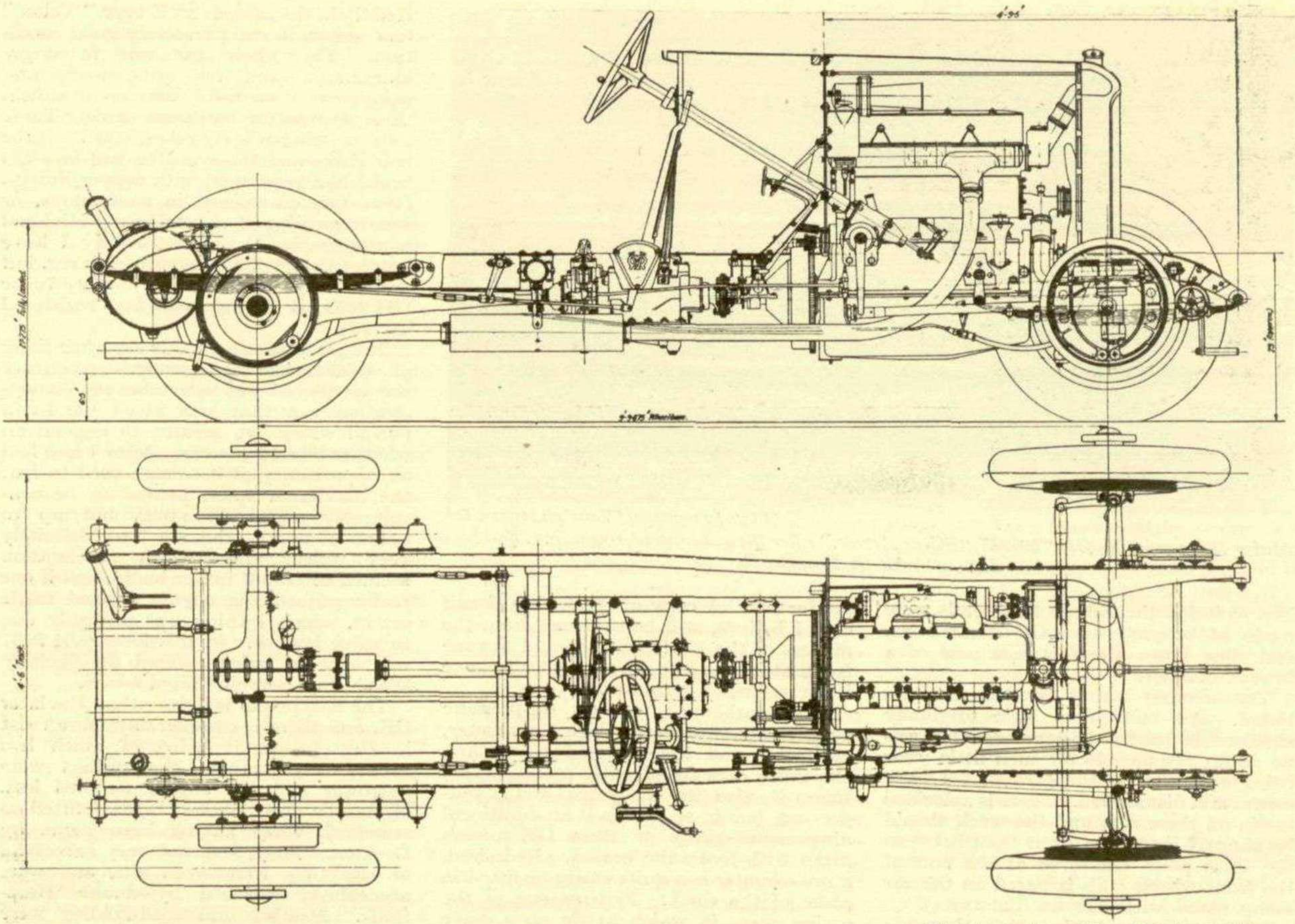
The rear axle should be filled with Wakefield Castrol gear oil, until the level comes up to the filler-cap orifice. There is no drain plug in these axles and to remove old oil it is necessary to unscrew the filler-aperture from the actual casing. Even this procedure will not entirely empty the axle.

Brakes.—Undoubtedly one of the worst features of these cars are their brakes, and there is no doubt that it is this which has prevented the "30/98" from becoming as popular as others in the same class.

The E-type and the first 30 OE-type cars were fitted with two-wheel brakes only and a transmission brake, the hand-brake working the rear wheels and the foot-brake on the transmission. The dimensions of the transmission drum made it impossible to dissipate heat generated when the foot-brake was applied hard at even moderate speed, and lining wear was excessive. One car I owned had actually been fitted with $\frac{3}{8}$-in. copper linings; I do not know if this was common practice but to me it seemed most dangerous, due to the violence of the grab.

About August, 1922, Vauxhalls, who were then building the OE, apparently decided it would be a very good thing for their cars to be shown at that year's Motor Show equipped with four-wheel brakes. The time at their disposal was not very long and no doubt this contributed to the poorness of the brakes which appeared. Obviously something had to be devised which called for no great chassis modification. The outcome was compensating mechanism rigged up externally and enclosed within a kidney-shaped box ahead of the radiator. Apart from this, and the design of the actual brakes themselves, nothing else was done, except to hook the whole up to the pedal, which then applied both front wheel and transmission brakes, the hand-brake still operating on the rear wheels. This certainly provided a four-wheel-braked vehicle, but it is a great pity that in the next four and a half years no improvements were made, with the exception of increasing the drum diameters, which was done in 1927. To all intents and purposes this system, on the face of it, should work reasonably well if the hand-brake is used at the same time, but it just doesn't. To my mind the root of the trouble appears to be that the rear wheel and transmission brakes are cam-operated, whereas the front brakes are operated by a vertically-rising wedge, pulled upwards by cables operating through the kidney-box. From details that I have had worked out the linkage required to operate the two separate brake systems to advantage from the pedal would have to be very much larger than it is reasonable to fit within the limit of space available and so, without making any alterations to design, the easiest way to overcome the brake problem is to entirely disconnect the front-wheel mechanism from the transmission brake. In my own case I scrapped the transmission brake in its entirety, it is unsatisfactory anyway, and tied up the foot brake to the front wheels only, leaving the rear wheels to be operated by the hand-brake. With the brakes in good condition, no further troubles were experienced and quite an efficient stop could be made by using the foot-brake, followed by an application of the hand-brake. By an efficient stop, I mean that it was quite possible to stop from 30 m.p.h. on a dry road in about 43 feet, without experiencing any tendency to pull or skid. Many owners have attempted to hook up all four wheels to the foot-brake, and connect the hand-brake to the transmission. I have already pointed out that I believe this to be unsatisfactory without major modifications, but it is always interesting to hear from anyone who has achieved a good four-wheel-brake system by this means, and in this respect I refer to having a minimum of 60 per cent. braking on the front wheels.

Adjustment of these brakes is perfectly orthodox, though there is one small point which many are likely to overlook, and that is, that on the cable-operated front-wheel-brake models it is most essential to make quite sure that no slack exists between the ends of the cable covering and the kidney-box itself. There are two slots, one at each end of this box, in which sit two bolts, which can be adjusted inwards or outwards. Make absolutely certain that these bolts are always in tight contact with the shrouds over the ends of the cable covering. It is very surprising indeed to try the brakes on one of these cars before and after the slack has been removed; a very great improvement can be obtained without interference with the normal thumb-screw adjustments behind the drum. The kidney-box itself encloses a compensating mechanism and should permit the two front brakes to equalise themselves when pressure is applied to the pedal.



[*Photo by courtesy of Vauxhall Motors, Ltd.*

Plan and side elevations of the standard OE "30/98" Vauxhall chassis.

The manufacturers give the following notes on brakes and brake adjustments :—

(1) Always use the hand-brake for normal stopping. Keep the foot-brake for emergency use only.
(2) When adjusting hand-brake, wheels should just be turning by hand when the hand-lever is pulled on four or five notches.
(3) When adjusting the front brakes (foot), jack up one wheel at a time, bringing the shoe as near to the drum as possible without fouling. A compensating mechanism will never give equal braking.
(4) To adjust cables, slacken nuts on front cross-member and tap brackets holding cable ends along the cross-member.
(5) The normal amount of play in the pedal action is about ½-in. at the extreme top of the pedal, when the brakes are in the full-off position.

All drums are of steel, with cast-iron liners rivetted in, their effective diameter being 12 in., and the total brake-lining area, excluding the transmission brake, 160 sq. in.

The later OE cars, that is those made during 1928, were equipped with hydraulic brakes. I have had no experience with this design, but from those layouts I have examined it does seem to me that one of the biggest troubles is the use of the rigid copper pipe which carries the fluid up to the operating cylinder within the drum. This pipe leads into the cylinder through the top of the king-pin and, as the whole assembly moves on steering the car, obvious difficulty is experienced in retaining the fluid. A definite improvement could be made in this respect by altering the layout to carry Bunday tubing, as used on the Lockheed system. The hydraulic brake air-pressure system should be maintained at 10 lb./sq. in.

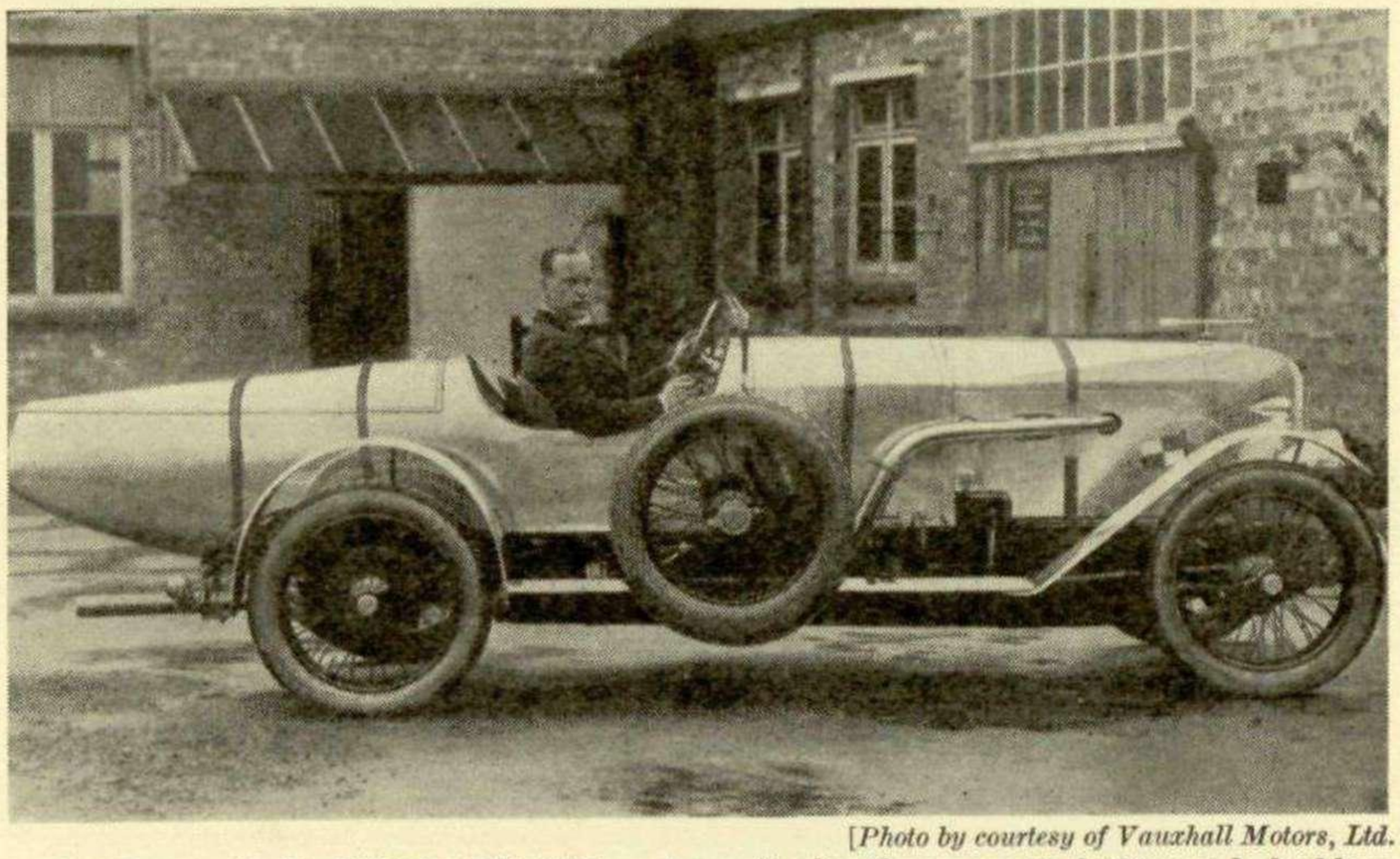
On the other hand, it seems that the older design of cable-operated brakes could quite easily be converted to hydraulic operation by fitting two small transverse cylinders vertically over the king-pins ; these would serve to lift the wedges very much more satisfactorily than the cable mechanism. No difficulty would be experienced in installing the remainder of the hydraulics.

Chassis.—The chassis is of perfectly straightforward design. Along roughly half of it is a sub-frame carrying engine and gearbox. The rear end of this sub-frame is slung from a tubular cross-member which also acts as the bearing to which the torque stay is clamped. This cross-member is subjected to considerable strain and frequent attention should be paid to the rivets by which it is held to the frame side-members, and also to the bolts which support the sub-frame. It is advisable to replace all these bolts and rivets with modern high-tensile bolts on an elderly car. Keep the torque-shaft bearing well lubricated and eliminate any side-play. Immediately behind this member is the cross-shaft operating the rear brakes. On the outside of the frame will be found two grease nipples and regular attention to these will go a long way towards easy and smooth brake operation.

At the extreme rear of the chassis is slung a 12-gallon copper fuel tank, held in position by two quite frail steel straps anchored to one of the rear tubular cross-members. These straps seem to receive all the splash from the rear wheels and are very liable to rust. On one occasion I had a full tank come adrift, so it is particularly advisable these days to examine them, as even twelve gallons of petrol cannot be easily replaced !

The chassis as a whole is very flexible, but seldom appears to fracture ; the front end is possibly too flexible and it does help to insert an additional cross-tube between the dumb-irons.

The springs are supported in the normal manner and give little trouble, the main point of wear being where the rear inverted shackles bear on the extremities of the rear cross-member. Replacing the bushes in the spring ends is not necessarily a cure and the only satisfactory way of putting these parts into good condition is to remove the cross-member and either build up the worn-away material or regrind the ends to suit the new brass bushes. To remove it, knock out the taper pins which pass through the dumb-



[*Photo by courtesy of Vauxhall Motors, Ltd.*

Major Ropner in his OE "30/98" "Silver Arrow," after the guaranteed 100 *m.p.h. had been demonstrated at Brooklands*

iron ends (on the E-type these ends were made of bronze), heat the dumb-irons, and then I am afraid it is a case of a heavy hammer.

The steering layout is quite conventional. All ball joints were originally enclosed in leather gaiters and this was no doubt responsible for such little wear being apparent on the cars that I have owned and dismantled. There is a decided toe-in on these cars and the track should be about ⅜-in. less in front than between the same point measured at the rear of the front wheels (this is based on the car being fitted with 820 by 120 tyres).

Like most cars of this period, there are a great many grease-points on the chassis and it is most essential to locate all these and keep them thoroughly and regularly supplied; the handling characteristics can be completely changed through lack of attention in this direction.

The electrical system is of C.A.V. manufacture throughout, being of the double-pole type. The headlamps, though of fair proportions, can hardly be considered satisfactory for the speed of the car, and replacement by a more modern type is desirable. The dynamo on the earlier cars is of considerable size, having ample output for the demands likely to be made upon it, and is belt-driven from behind the clutch. During 1924 this component was replaced by a smaller unit situated between the magneto drive and magneto; a more accessible installation.

The E-type carried the accumulator on the near-side running board but towards the end of 1923 it was slung under the rear floor. I cannot say I quite agreed with this modification, as it meant doing away with the two foot wells, and there never was very much room for one's feet when occupying the rear seats.

One other change was made when the OE replaced the E-type, and this was the fitting of the starter button on the dashboard. Previously the switch was placed on the floor, just ahead of the driver's seat, and this meant that to start the car one had to almost stand up, not very easy when the hood was erected. Apart from these few changes in design, I believe the electrical system to have been unaltered during the years the car was in production. A copy of the wiring circuit can, I believe, still be obtained from the makers of the equipment, should anyone feel that it would be advantageous to have it for reference purposes.

The dashboard carries oil-pressure gauge, speedometer, clock, ammeter, voltmeter and the customary switches. On those cars fitted with pressure feed there is also an air-gauge and hand-pressure pump, and there is an additional air-pressure gauge on those OE models fitted with hydraulic brakes. If desired, a rev.-counter can quite easily be fitted in place of the clock. Perhaps one of the easiest ways in which to rig up a drive is to mount a split pulley round the magneto coupling and from here take a small belt-drive to a second pulley on the end of the actual rev.-counter drive, and anchored just ahead of the magneto.

The body, wings, bulkhead, dashboard, etc., are all made from aluminium, which contributes a great deal to the light weight of the car. Though the front seats are "just right" for long-distance driving, and a feel of absolute control over the car is immediately noticeable to the driver, the back seats are extremely bad, both from a point of view of comfort and safety. There is practically nowhere to put one's feet, unless it is straight out ahead. What an improvement could have been made by lengthening the scuttle six or eight inches, setting the two front seats back and shortening the rear compartment! This, together with a little redesigning of the rear floor, would have made the body as comfortable inside as it looks good from outside. Still, these points are minor when it is remembered the car was built for speed, and not necessarily as a means of conveyance to social functions.

* * *

I will conclude with a few notes on my own experiences of the two "30/98s" which I have been fortunate to own.

I had always had an interest in these cars and naturally had a hankering to possess one, but my age and impecunious position had been such that it was not until 1933 or 1934 that I first became an owner. Purchased from Dixon's of Redditch, the car was an E-type "Velox" four-seater, in comparatively good condition. The whole car was in virgin aluminium, and all instruments and equipment "worked," and no modifications whatsoever had been made. There were no front-wheel brakes, and both the rear shoes and those on the transmission brake had been shod with copper linings. (Was this customary in those days, or was it an idea of a particular individual in desperation?) Unfortunately I have not got the engine number of this car, but remember the registration number to be DH 2681, it having been first registered in 1921.

The performance of this car after those of which I had had previous experience was terrific. I well remember the demonstration run that was given me by a person whose job seemed to depend on whether he sold the car. After I had had an opportunity of becoming used to her, the maximum speed proved to be considerably under 80 m.p.h., but up to about 65 m.p.h. the car was definitely very quick, after which acceleration seemed to fall off rather badly, and if one really pushed the engine a good rattle set in, which I think was probably due to valve bounce. In this form, DH 2681 was once or twice entered for Shelsley Walsh, but never bettered 63 sec.

The E-type car is lighter than the later OE, and there is considerably more twist in the chassis, it being of much less robust construction; the springs were narrower and the engine weighed less. Hydraulic shock-absorbers were fitted as standard, these having been made by Deridon. They were not very successful or else they were worn out, and were accordingly replaced by double Hartfords. Steering and road-holding were excellent on dry days, just the reverse on wet. On long runs petrol consumption worked out at around 20-22 m.p.g. When I took possession of this car the fuel was fed to the carburetter through the medium of twin Autopulses (no, I was wrong in saying the car was entirely standard, but this was the only modification). These, due mainly to their condition, did not prove too suitable, as starvation invariably occurred when driving hard on the intermediate gears. Consideration was given to fitting either some new electric pumps or an Autovac, but finally it was decided to re-connect the old air-pressure system, as originally used, and this, although a little inconvenient when starting up on a near-empty tank, proved itself extremely reliable and highly efficient, a pressure of 1½-2 lb./sq. in. being maintained quite comfortably from the mechanical air-pump, which is driven off the rear end of the camshaft by the same cam that drives the oil-pump.

My car was driven hard for about 10,000 miles, when its earlier mileage began to tell. On one occasion, when it was necessary to make a quick stop, which called for violent application of the transmission brake, the torque-stay broke at its neck and allowed the axle to swing heavily within the spring pads, which resulted in considerable damage to the rear end of the propeller-shaft. On the OE models this stay was made to a different section and is undoubtedly more robust; I have also noticed that on quite a number of these cars a small steel plate is fitted underneath the forward bearing

of the torque-stay, which serves to prevent this component from dropping in the event of a breakage such as I have just mentioned.

The only other mechanical breakage that was experienced on the road was when I endeavoured to change into third gear at a speed above that at which the car was capable of travelling in that gear. On inspection it appeared that whip in the crankshaft had caused two main-bearing bolts to break, at the same time bending a connecting-rod and breaking a piston.

In view of this failure it was decided to completely strip the engine and replace all bearings, which work was duly carried out, and although I had intended to have the block rebored at the same time, this proved to be unnecessary, very little wear being evident. One new piston, to replace the broken one, and new rings on the others, brought this part of the " works " back into an efficient condition. Before the block was replaced the brass sealing washer was removed from the top of the crankcase, with the idea of slightly increasing the compression-ratio.

Practically all valve guides were found to be broken where they passed through the ports, and the valves were definitely " sloppy " in the guides. New valves and guides were therefore fitted, together with a new set of valve springs. I think on the E-type attention to the condition of these springs is important, as most I have driven seem to be suffering from valve bounce.

The flywheel had some 45 lb. removed, though from later experience, by way of difficulty in starting, I do not think the slight gain in acceleration is worth the roughness and I would not recommend this procedure unless the engine has a counterbalanced crankshaft.

It was most unfortunate that I never had the opportunity of trying the car out, as, on her first run, due no doubt to too little attention being paid to the condition of the brakes, she became involved in a serious collision whilst travelling at around 50 m.p.h., which was also shared by two other cars, a lamp post and a suburban villa. To all intents and purposes the Vauxhall was written off and the remnants dumped in a Birmingham garage.

After a few months, I decided that perhaps the car could be rebuilt, and so a search was made for another frame. One was eventually discovered, which bore the registration number of BN 5600. I should here refer to Paul Jacot, who gave me such excellent advice and help in reconstructing my car on the lines of his own well-known two-seater, and without whose patience and forbearing the work would most certainly never have been completed.

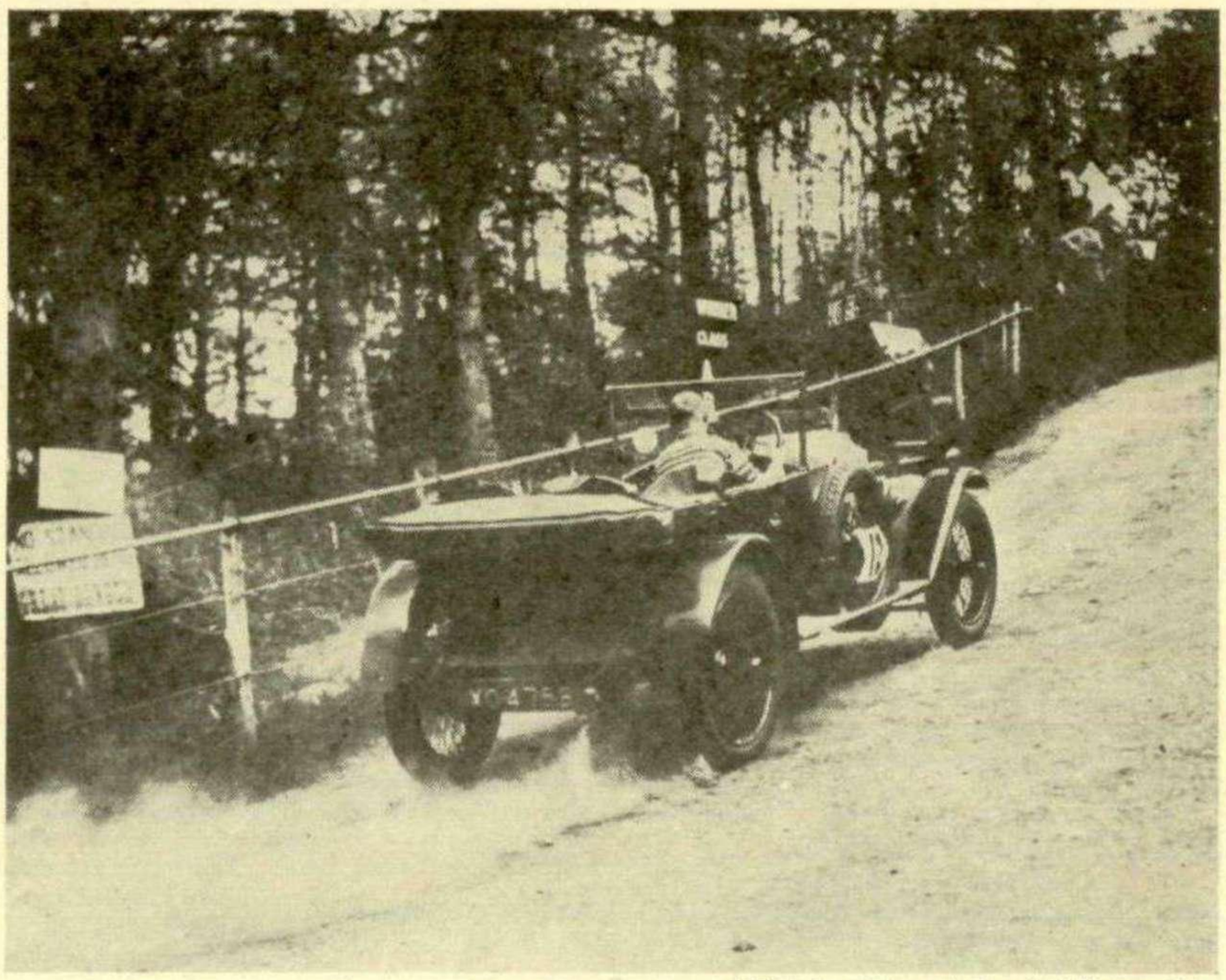
The new frame was completely stripped, cleaned and all rivets carefully inspected. It was then sprayed black, the inside of the channels being painted in aluminium. New springs were obtained, these being set down to lie flat under load, and bound tightly with cord. The wheels were rebuilt to carry 19-in. by 5.50-in. well-base tyres, which lowered the chassis quite a lot. My old rear axle was partially overhauled and cleaned, and a braked front axle was fitted (although the brakes were not Vauxhall), together with a new cross-shaft, the rear brakes being rod, the front cable-operated. They were interconnected to be operated by the foot brake, the hand-lever being concerned solely with the transmission drum. All copper linings were removed and replaced by the more normal type of asbestos lining.

The engine, having been only slightly damaged, was fortunately ready without any further alterations, as she had literally done no mileage since overhaul. Actually one slight change was made, this being the fitting of a downdraught Amal in place of the standard Zenith carburetter, which was quite easily done by reversing the inlet pipe and making a slight alteration to the hot-spot water pipe, though I do not think performance showed any improvement for this change, added to which I was continually troubled with excess petrol in the inlet manifold when starting up from cold.

The clutch, gearbox and transmission were next fitted, and here I erred by not overhauling the clutch, which was either sticking in altogether or slipping.

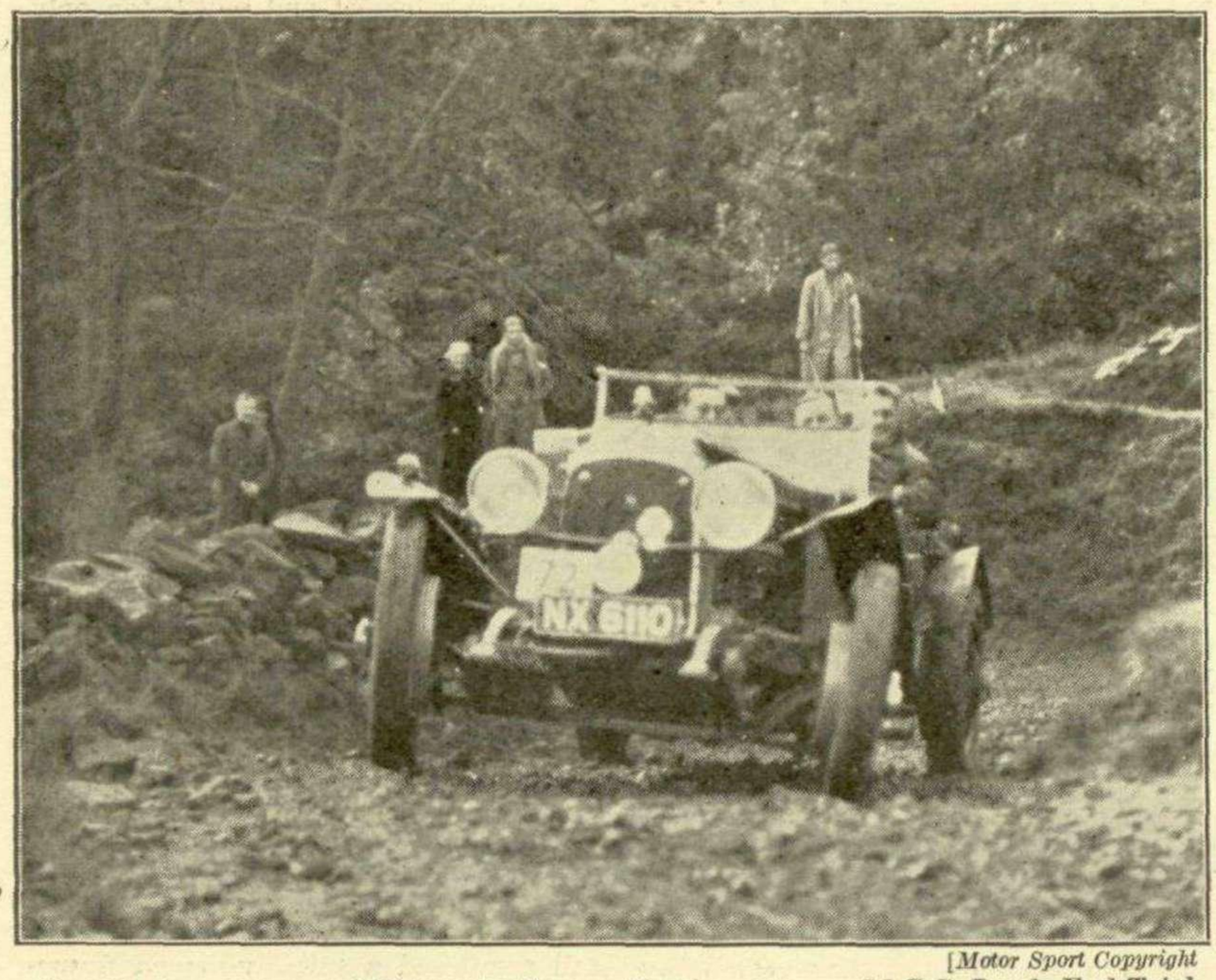
Though the standard exhaust manifold is light and reasonably efficient, I experienced continual trouble with " blow-outs," and in consequence discarded it in favour of a set of outside pipes. Another radiator was obtained and fitted with a quick-action filler cap ; a hole was at the time put through the honeycomb by Serck, to allow the starting handle to pass through, instead of below, the radiator, as I intended to mount the radiator between the dumb-irons and so achieve a lower bonnet line. In order to keep weight to the absolute minimum, which had been one of my aims all along, it was decided to skimp the bodywork as much as was reasonably possible, without making the car unfit for normal road use. A one-piece bonnet and scuttle-top only was made up, and kept in position by straps, the scuttle frame being made up from light-section angle-iron. A new aluminium dashboard was made, which also served to stiffen the scuttle frame by the manner in which it was fixed. The instruments included a fuel-pressure gauge, oil-pressure gauge, water thermometer, rev.-counter and speedometer. The only electrical equipment was two sidelamps and a tail lamp, which were connected direct to an accumulator and just about served to get the car home at the end of an evening.

The steering was overhauled and the column dropped about 5 in.; this can quite easily be done by revolving the circular steering box in its chassis bracket and reclamping into position. After a considerable amount of trouble, an Ashby spring steering wheel was substituted, though I think these cars definitely handle better with the standard rigid wheel. The hand-throttle lever was discarded and a new magneto control lever, of sufficient length that it could be operated without moving the hands from the rim of the wheel, introduced. The original floorboards were replaced by a new set of less weight, and two small wicker seats from a 1914-18 Vickers' bomber screwed direct to the floor. The tail comprised a suitably-shaped framework of similar material to that used for the scuttle, covered with plywood, and finally with Rexine. Two small aero-screens were attached, and the whole painted black and silver. The car, when fitted with small segment flat wings, certainly looked " right." In this form, unladen, it weighed slightly under 20 cwt., and, theoretically, should, with 90 odd b.h.p., have been able to travel.



[*Photo by courtesy of Vauxhall Motors, Ltd.*

T. G. Hunt in a Vauxhall " 30/98 " taking the bend in a team event for sports and standard touring cars at the Midland Automobile Club's Amateur Open Hill-Climb at Shelsley Walsh, 1926.



[*Motor Sport Copyright*

Alan May's well-known O.E. " 30/98 " competing in a pre-war M.C.C. Lands End Trial. It has been more than a match for the moderns in speed events of recent years and is largely standard, save for a downdraught carburetter and Hispano-Suiza front axle.

Maximum speed proved to be just under 80 m.p.h., but acceleration had improved, and was now excellent, 10-30 m.p.h. occupying 3½ seconds. Road-holding was also better, but the car tended to suffer from front-wheel slides when cornering rapidly on dry roads. This was eventually cured by doubling up on the front shock-absorbers by adding a pair of Houdaille dampers. No further trouble was experienced in this direction. The steering castor was also improved by the addition of ¼-in. wedges under the front springs.

In this condition the car was twice entered for Shelsley Walsh, and once for Wetherby, but on both the former occasions, in spite of quite good practice runs, it failed to keep running on four cylinders during the actual event. At Wetherby, however, she ran well, and clocked a satisfactory time, beating all other " 30/98s," with the exception of Jacot's, as well as a number of the more potent sports-cars. In 1936, due to matrimony, I sorrowfully parted with her to a friend, who, in due course, had a very excellent two-seater body specially constructed for the chassis. Before disposing of her, I removed a number of the more special components, including the downdraught carburetter and front-wheel brake layout and axle. I managed to keep track of this car until the middle of 1945, when I heard from her latest owner, to whom I hope I was able to give a little information concerning her past. Strange to say, only a few months ago, I met, quite by accident, her first owner, who was delighted to hear that the car had given such satisfaction and pleasure over 25 years.

For a few years I lost the pleasure of handling a " 30/98," but during the war I began looking for a genuine vintage vehicle. Naturally my thoughts turned to, amongst others, the " 30/98," and although it would be practically impossible to find one that was not, by this date, very well worn, my past experiences, and the pleasure I had derived from these cars, eventually got the better of me.

Having decided to own another " 30/98," the next thing was to find one that had not at some time or another been involved in at least one collision. Eventually I resorted to the advertisement columns, and through this source had one offered to me at a reasonable figure, by an enthusiast near Bristol. I duly inspected the car, an all-aluminium " Velox " four-seater, registration number FJ 2789, engine OE 64, chassis OE 63, which was really to my mind in appalling condition due to sheer neglect, having obviously been standing in the open for a long while. During the passing of the years the hood had rotted away, followed by the side-curtains, and finally the upholstery and the floor. The body and wings had not corroded although they had grown barnacles, the axles and all exterior paintwork had turned green of their own accord, and bonnet hinges, front floor-board release catches and front seat runners had well and truly rusted solid. Strange to say the engine was quite free, and after a rough inspection of such parts as the clutch for freedom, the propeller-shaft for play, state of the rear splines, etc., it seemed that mechanically the chassis was good, and would be worth rejuvenating. Examining the contents of the railway van in which my purchase came home, I began to doubt my sanity in having bought such a wreck. In the full daylight it now looked worse than ever, and to crown everything it had been bumped in transit, with the result that, apart from both front wings being pushed in, the starting handle, always very prominent on these cars, had been almost bent double. Fortunately, it had not gone back on to the front end of the crankshaft. Advantage was taken of the railway weighbridge; the car turned the scales at 24¾ cwt.

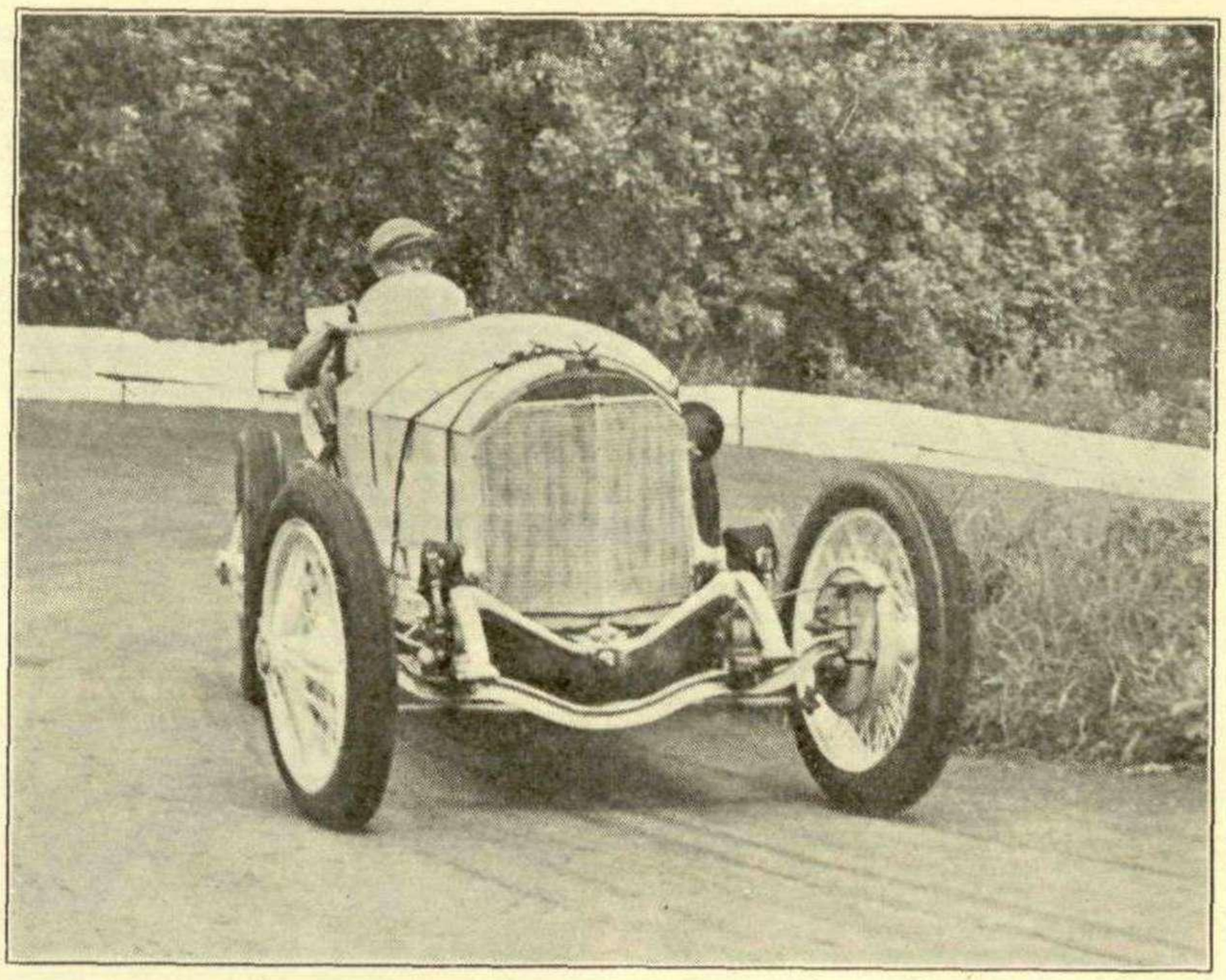
I was not disposed to completely strip the car and then commence re-building, a method which would undoubtedly have been the most satisfactory, but was forced by circumstances to start at the front and work backwards.

Overhauling the car occupied two years of spare time; at the time there seemed little chance of petrol being available for years! The engine was not disturbed, apart from overhauling the water pump and replacing the bearings in the magneto drive, which were found to have completely collapsed. Everything else was stripped and new parts fitted where necessary. The bodywork presented the biggest problem, but even this was put in reasonable order, by removing all the leather work and replacing by canvas. It was a great shame this had to be done, but the original leather had pulled away from its frame due to long exposure to the rain. In due course the car was on the road again, looking, at least externally, as she must have done when her first owner took delivery. It is hard to imagine a more desirable car of the old-school for fast, and with care, safe motoring; but it is not a motor-car for the very young or the aged. The steering can be dead accurate, and the car be placed just where one wishes. Road-holding, to my mind, is excellent even on wet roads; averages of over 50 m.p.h. can be maintained with absolute safety on Class B roads. Speeds of around 80 m.p.h. can be held for mile after mile on the better roads, and on such runs as Preston to Carlisle the " 30/98 " really comes into its own.

Apart from occasional obstinacy in starting, no trouble was ever experienced except on one occasion when the clutch gave way to its habit of sticking in. Petrol consumption was around 14 m.p.g. in towns, and 21 m.p.g. on runs. During the autumn of 1946 I did enter her for the Speed Trials at Cofton Hackett, where she clocked the fair time of 36.2 sec. compared with 35.6 and 36.8 sec. of the two 4½-litre Invictas entered. For various personal reasons OE 64 was sold in December, 1946, though it is my hope to obtain another specimen in the not too distant future. No truer slogan was ever given to a product by its manufacturers, than that by Vauxhall Motors when referring to the " 30/98 "—" *A sporting car which has never known a superior.*"

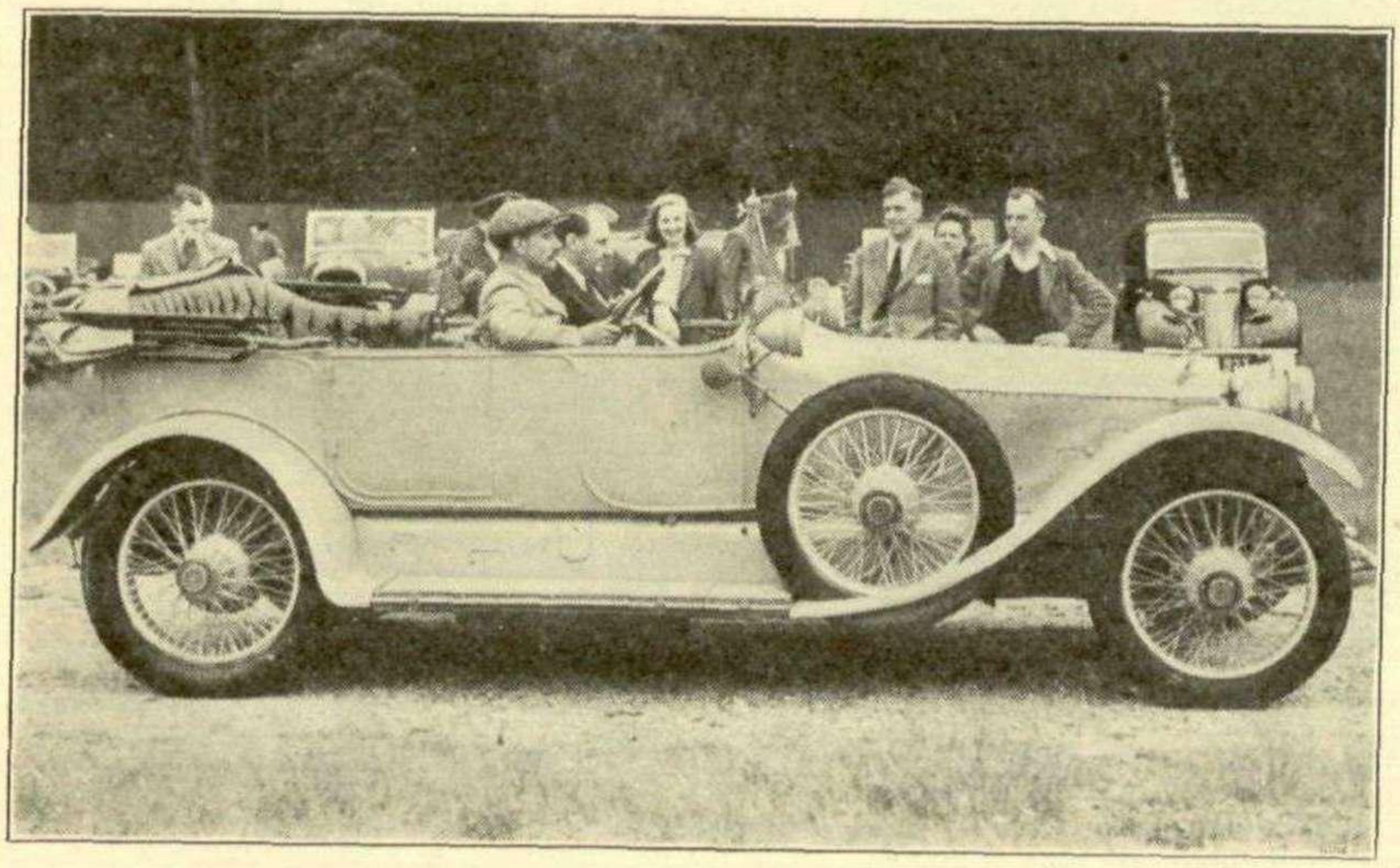
Printed by Tee & Whiten and J. Mead, Ltd., 21, City Road, London, E.C.1

EDWARDIANS (cont.)



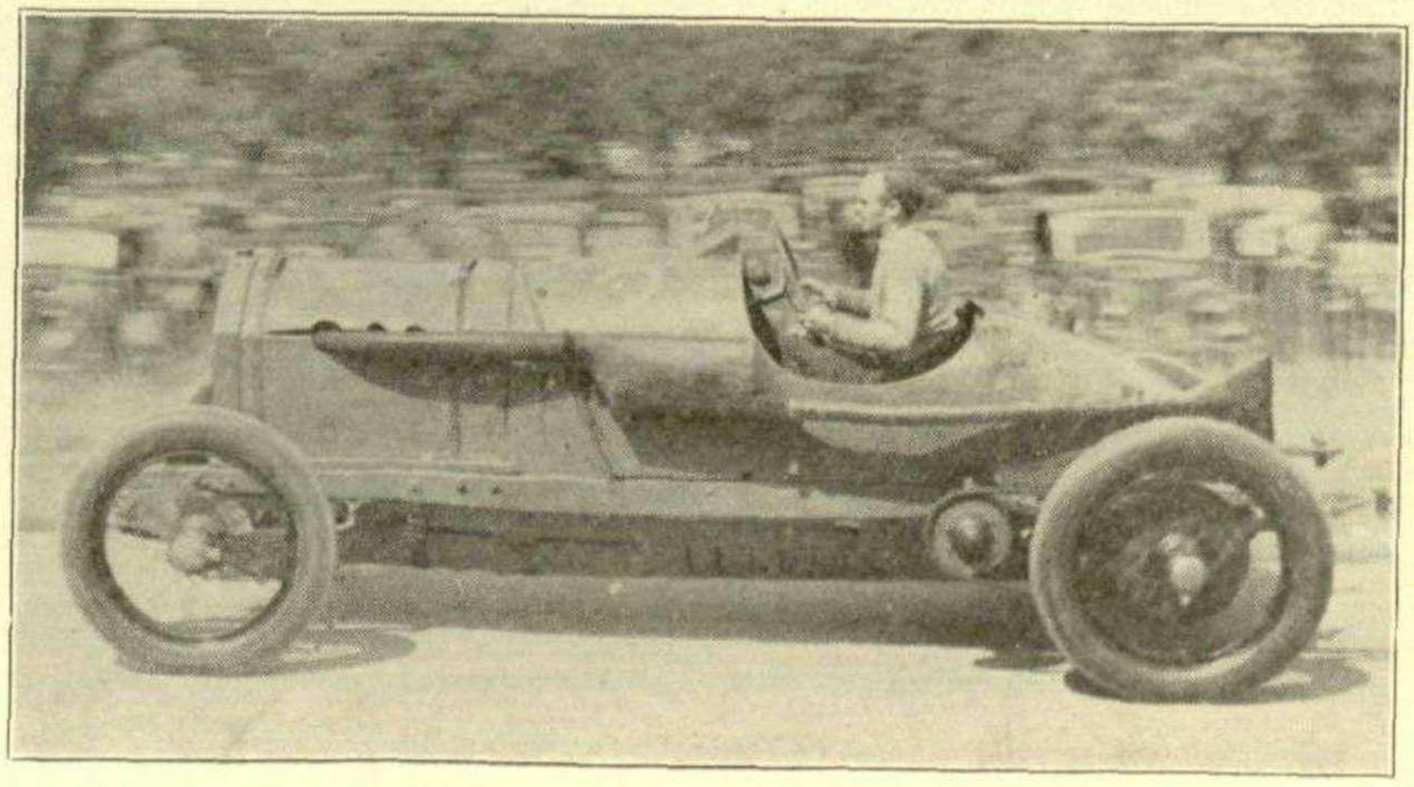
Ariel Clark's 1914 *G.P. Mercedes, one of the famous team which dominated the Lyons race on the eve of the Kaiser war. It is here seen at Prescott this year and it is rapidly becoming one of the more formidable Edwardians. This season it beat Heal's Fiat at the July Prescott meeting and won its class and a non-Edwardian class at the V.S.C.C. Prescott meeting, in* 57.05 *sec., beating the Itala. It was* 3rd *fastest Edwardian at Brighton.*

Photo by Guy Griffiths.



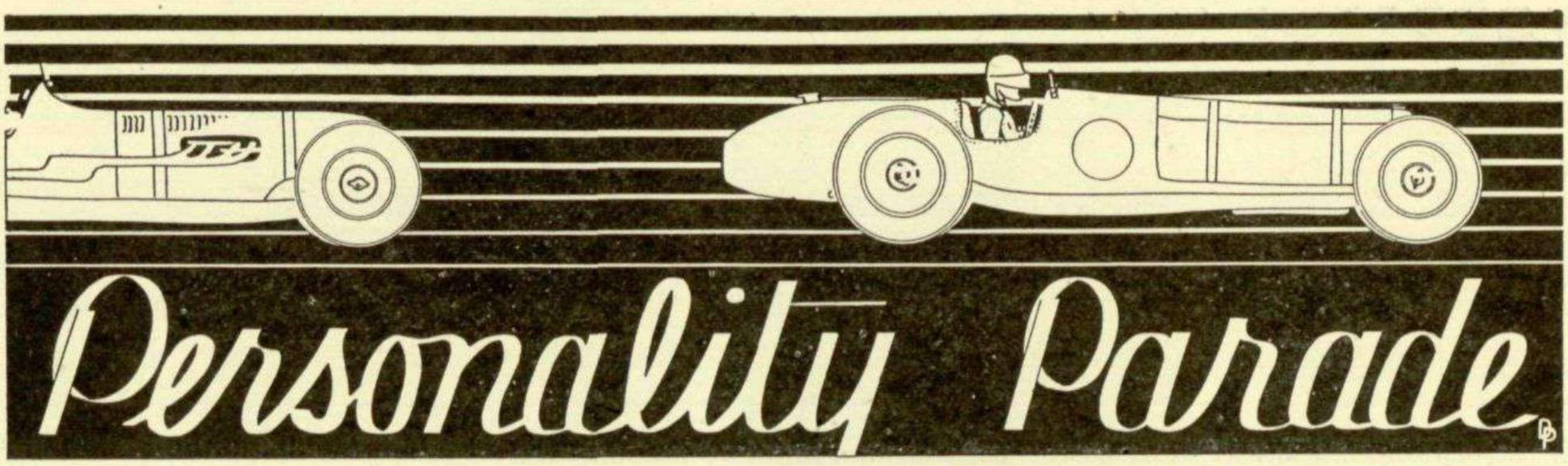
John Bolster's 1911 *"Silver Ghost" Rolls-Royce tries the slow-running test at Bisley. It is described elsewhere in this issue, and gives well over* 14 *m.p.g. and some* 70 *m.p.h.*

Photo by permission of "The Motor."



Anthony Heal's famous 1910 10*-litre Fiat, formerly raced at Brooklands. It has a* 130 *by* 190 *mm., 4-cylinder engine, pulls a* 1.8*-to-*1 *top gear, and has clocked* 26 *sec. at Lewes,* 54.82 *sec. at Prescott and* 47.96 *sec. at Shelsley Walsh, besides covering the Brighton s.s. half-mile at* 57.8 *m.p.h. and the s.s. kilometre at* 60.46 *m.p.h., and winning a number of non-Edwardian classes. It is the fastest Edwardian now in use.*

Photo by H. O. Jones.



A Series of Interviews with Personalities famous in the Realms of Motoring Sport

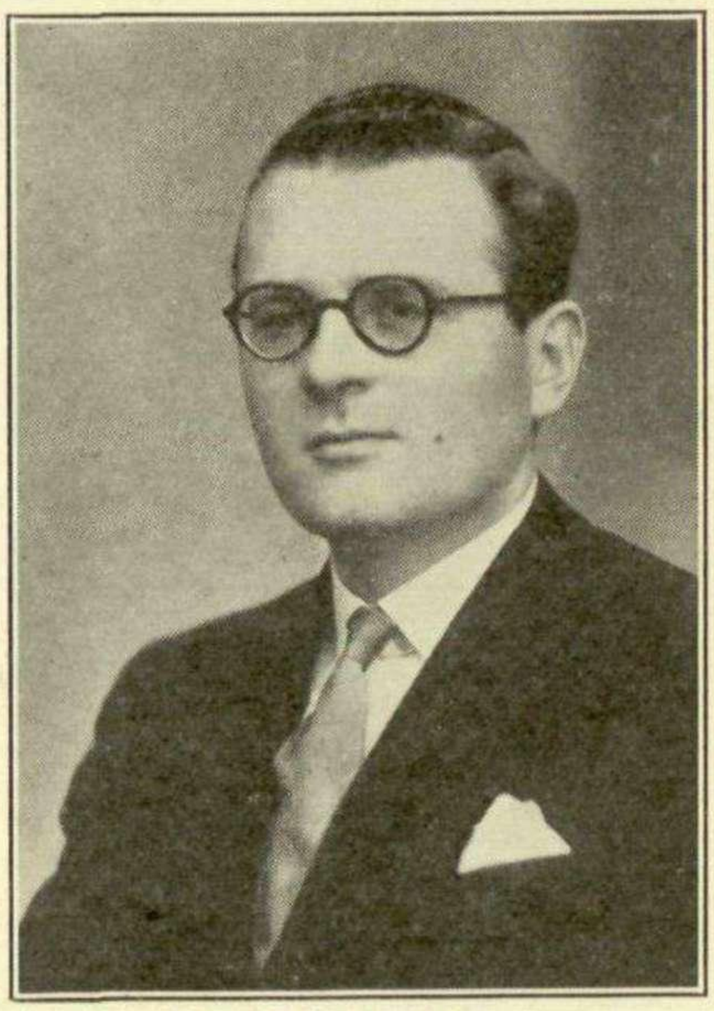
No. 11—Peter Robertson-Rodger

PETER ROBERTSON-RODGER is a wine connoisseur and dealer by trade, but by interest he is a connoisseur of the old-type Bentley. He has a discerning palate for this fine type of vintage motor car.

He tells us that at the age of six he commenced drawing cars and designing bodywork. However, it was whilst watching the famous "Tim" Birkin driving the "Blower" Bentley in the 1930 T.T. that he set his heart on the sort of car which he regarded as his ultimate ambition. It was not until four years later that his dream was realised, and he acquired the Bentley in question. At a later date he also acquired the famous single-seater streamlined "Brooklands" Bentley with which the lap record was taken. This latter car is now undergoing a rebuild and is being refurbished with a body which bears as close a resemblance as possible to the original, but two seats and a modicum of comfort are being provided. The single-seater body provided accommodation for only one of the small stature of "Tim" Birkin.

According to a scale-drawing this new body will have a frontal area of only 15½ square feet. The ex-single-seater petrol tank will be retained, and will be situated, as formerly, behind the seat squabs—there is a large cut-away in the base of the tank to give clearance for the propeller-shaft. Behind this tank the spare wheel will be situated, within the body shell. It is optimistically hoped that the complete weight will be as low as 32 cwt. When one considers the 200 odd b.h.p. which will probably be forthcoming from the engine, one realises not only that the power/ratio will be up to the standard of many racing cars, but the fact that the Bentley engine, designed in 1919 by Bentley and Burgess, does not prove a sluggard even when compared with current performances. The similarity between the top half of a Bentley engine and that of one of the Rolls-Royce reciprocating aircraft units is striking.

He also has a Type 34 1½-litre B.M.W., which he has owned throughout its 11 years of life. During this time it has covered 75,000 miles, and he says it shows no signs of needing a rebore. He considers that the use of a "Fram" filter and the addition of "Redex" in the engine oil and as an upper cylinder lubricant is essential to long life. He regards the B.M.W. as the best light car he has ever tried, with quite certainly the best steering. On a recent 420 mile run he states that he used one pint of engine oil.



Peter Robertson-Rodger.

When asked about his future motoring plans he told us that he will use the rebuilt, rebodied Bentley for a few competitions and also for fast touring on the road. He does not expect the car to be ready until 1947, and for that year he is looking forward to some interesting driving. The work is being carried out by Shortt, of Alfold, who is probably the greatest specialist in the old-type Bentley today.

If he ever bought a light sports car, Peter Robertson-Rodger said he would seriously consider the future product of the Gordano Company (they hope to produce high-grade 1,100-c.c. and 1,500-c.c. sports cars). Whereas they have not yet produced a prototype, the design, on paper, appears extremely attractive. Robertson-Rodger is, on principle, averse to paying purchase tax on a new car. When he recently spent £50 on having his B.M.W. made presentable he reckoned that, considering the price of cars today, he had saved himself about £300.

During the war Robertson-Rodger was an A.T.A. pilot. He has flown, in the course of his duties, most of the single-engined fighters, including the latest "Seafire." The "Seafire," hotted up to the final degree, had to be handled very much like a racing car. On taxi-ing and flying, with the throttle well back, one ran the risk of oiling plugs, and even when flying at zero boost, it was necessary, occasionally, to open the throttle to 11 lb., so as to clear the head. It has always been his experience that, however fast and manœuverable an aircraft may be, more enjoyment and sensation of speed can be obtained in a fast car.

Robertson-Rodger prefers to forget the experience which frightened him the most. However, there is an incident which he does recall with some merriment.

He was in the company of Sam Clutton in that fabulous piece of machinery the 60-h.p. Itala. They were on the Oxford road *en route* for Prescott. Presently a gentleman in a white helmet drew level in his pseudo-sporting roadster. The sight of the Itala had amused him and he was contorted in derisive laughter. The speed was some 60 m.p.h. As the roadster started to pull ahead Clutton rapidly changed down to third gear and, with his foot hard down, vanished out of sight of the aghast scoffer.

Other than motoring, Robertson-Rodger is keen on grouse-shooting and paints nicely. But most important of all is his work. Good wine is a source of enjoyment, and we can think of no better way of combining business with pleasure.

Robertson-Rodger is a very keen member of the Bentley Drivers' Club, and is one of the original members of the committee. We could see that he was anxious to get over a little club propaganda. The present membership, he says, is well over 200, and at each committee meeting 20 or 30 applications for membership are considered. He attributes this in no small measure to the almost Atlas-like labours of Stanley Sedgwick, the honorary secretary, whose enthusiasm and efficiency have been the moving force behind the club's post-war recovery.

★

VETERAN TYPES

XXIX

A 1911 40/50-h.p. "Silver Ghost" Rolls-Royce described by its owner, John Bolster.

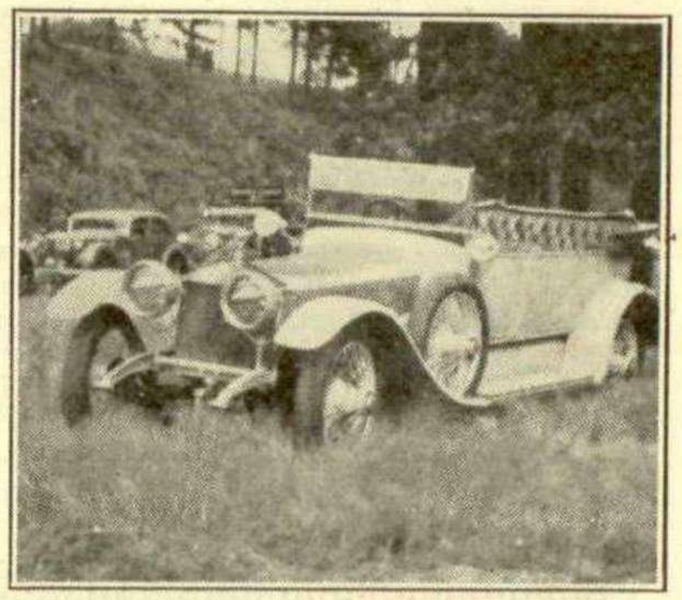
IT all started when I bought a 1912 Rolls-Royce catalogue. This sumptuous publication was full of coloured pictures of the most beautiful cars I had ever seen. Delightful country-house scenes formed the backgrounds, and Rolls-trained chauffeurs, who, one could sense, were as proud of their sensitive handling of a thoroughbred car as their fathers had been of their coachmanship, were in attendance. I ran a couple of "Twenties," nice enough little cars, and a 1921 "40/50" open van, which made a pleasure out of the dreariest farm-haulage jobs, but always those Edwardian Royces, with their low radiators and the lightness and poise of a ballerina, were at the back of my mind.

I began a search, and immediately found dozens of Edwardian Rolls-Royce cars, but all of them had either been turned into breakdown vans or "modernised" beyond recall. Then, via Bunny Tubbs, I heard a tantalising rumour of a very old tourer, hidden at the back of a country house garage under a dust sheet, but not open to inspection. Month after month I pestered Bunny, until at last he telephoned the incredible news that the car might be bought if I played my cards right. The deal was completed without delay, for I knew only too well that several other Royce enthusiasts were scouring the country, cheque book in hand, in search of just such a car.

So, early one winter's morning, Ken Waller and I set out to collect the "new" car. It had been "niggled" into the far end of the garage by the barbarous process of jacking it up and then pushing it sideways off the jacks a number of times, and we had a terrible job to get it out, but when at last we had dragged it into the light of day, we beheld an early 1911 short-chassis tourer, in absolutely original condition.

The car had not been run since 1923, but two of the tyres, though very hard and mis-shapen, would hold their air, the other two having to be sawn into pieces before they would leave the rims. The petrol tank was found to be half full of 1923 benzole, so we fitted a new battery, drained and refilled the sump, filled the radiator, and started the engine without any difficulty. Shortly after we took the road the perished water hoses collapsed, and several rolls of insulation tape were required to staunch the flow. Then darkness fell, and we found that the car had been robbed of its lamp bulbs, but providentially we were able to obtain the rather scarce double-pole bulbs, and the remainder of the journey was completed without serious mishap.

Examination of the car proved that, apart from faded and cracked paintwork, the only damage was a bent prop-shaft, probably caused by the aforementioned jacking process. Ken made up a new shaft, and Longford coachworks did a capital paint job, after I had spent weary weeks stripping the old paint off the panels. We then decided to run the car for a few thousand miles as it stood, though I suppose it really needs a decoke and valve-grind, among other things. A considerable distance has now been covered, including Elstree speed trials, a rather slow Shelsley, due to being overgeared, two firsts at Prescott, and the London Cavalcade. We have never had to open the bonnet, except when the inevitable shellac trouble attacked the Bosch magneto.

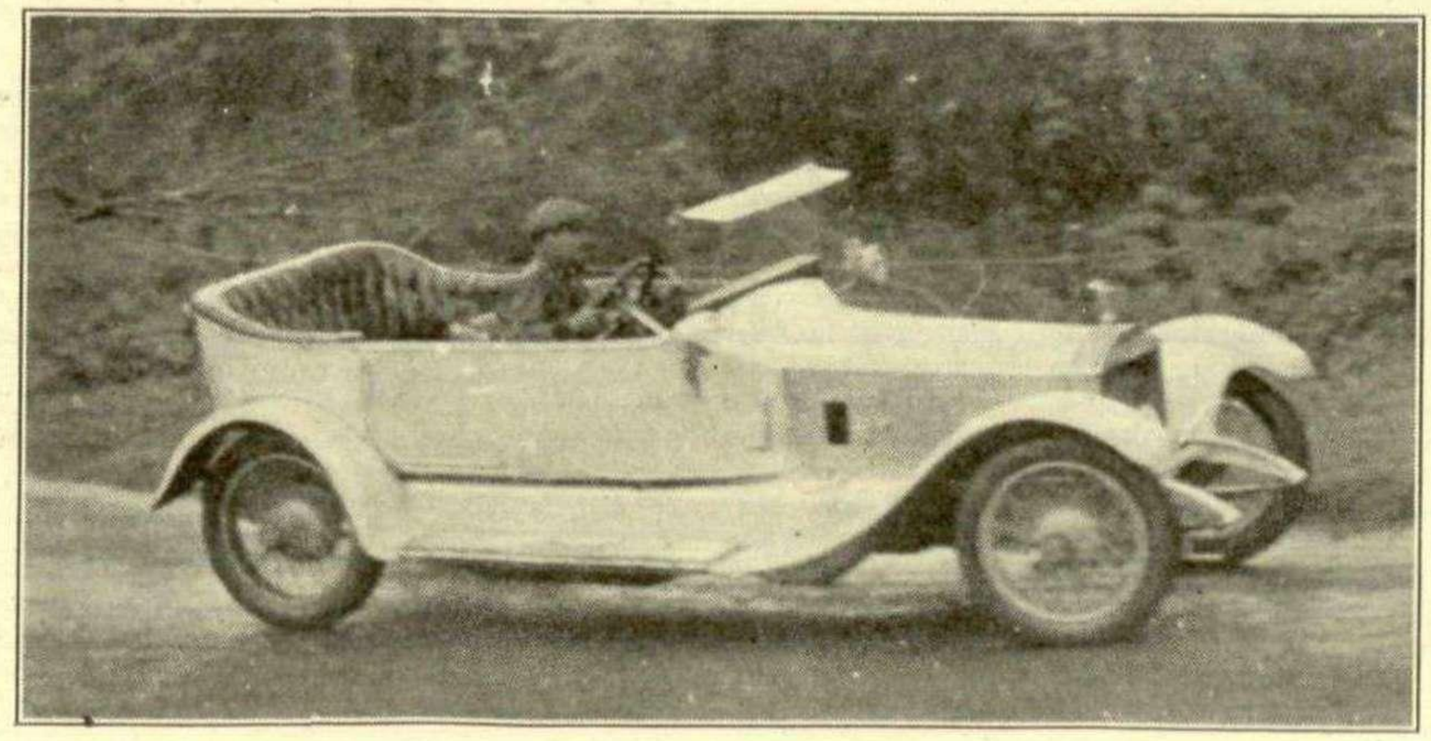


This car has a very similar 7½-litre side-valve engine to my 1921 machine, though the 1911 model has cast iron pistons, a slightly smaller carburetter, and fractionally less valve-lift. It has a leather cone-clutch with clutch stop, and a 3-speed gearbox. (The earlier "Silver Ghosts" had a "direct third" overdrive box, and the later ones a normal 4-speed box.) Top gear on my car is 2.7 to 1, the other gears being of the order of 4 to 1 for second, and 7½ to 1 for bottom. A slightly lower axle ratio of 2.9 to 1 was also available, and actually gave a higher maximum speed, though at the expense of more revs. at cruising speed.

I have not yet timed my car in both directions over a measured distance, so cannot give the maximum speed. The R.A.C. timed a 1911 tourer at 78 m.p.h. on Brooklands, but this was a "London-Edinburgh" model with the lower gear ratio, and I feel that an honest "seventy" would be nearer the mark for my car, with something like fifty on second.

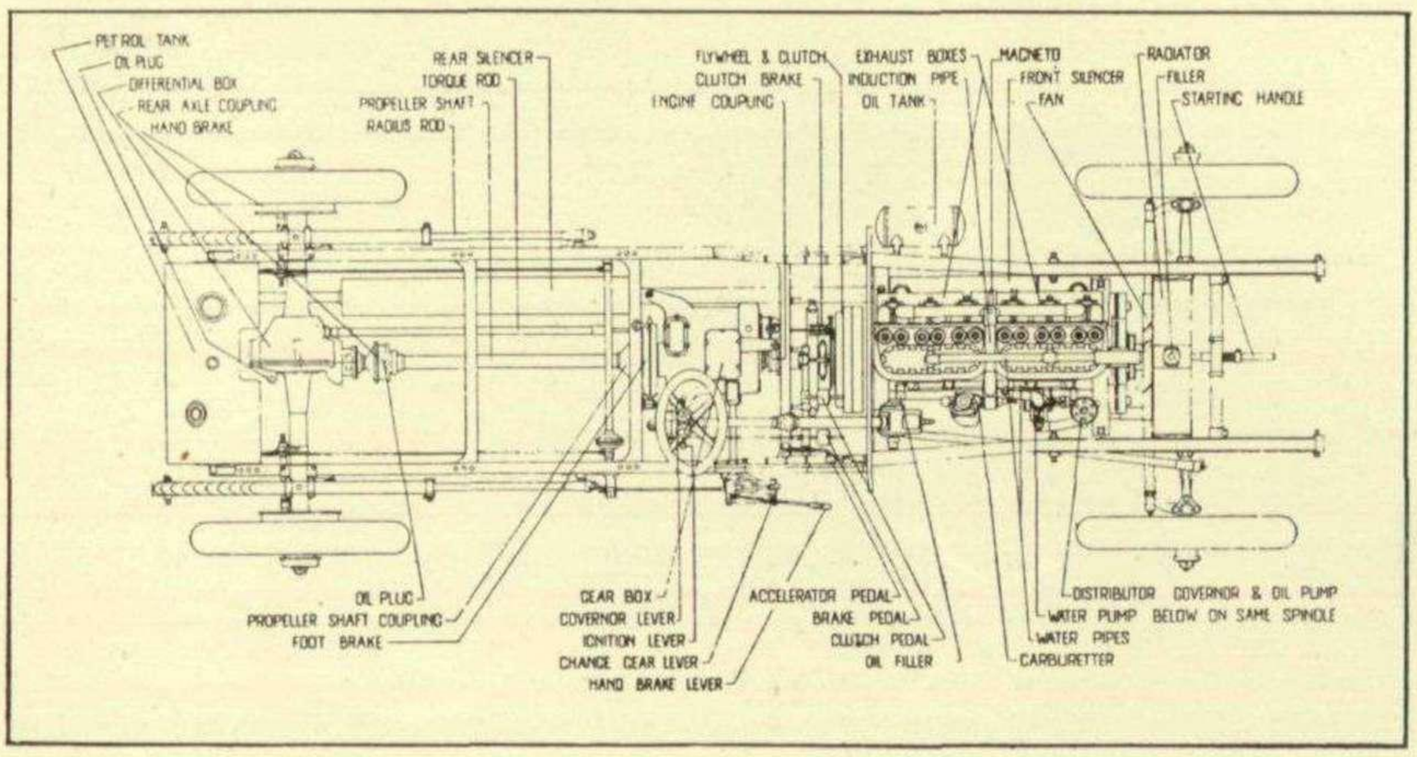
The acceleration on the two lower ratios is quite lively, and one can hold powerful American cars away from the traffic lights. Their low top gears stand them in good stead in the higher ranges, however, and they can hold 70 m.p.h. up the kind of slight hill that drops me below "sixty." Petrol consumption is not unduly heavy, though by hard driving it is possible to bring it down to 14 m.p.g. Oil consumption is negligible, a very uncommon virtue among the Edwardians.

My car is one of the rather rare short-chassis type which were not made after 1911. 11 ft. 2 in. doesn't sound a very small car, but it feels quite a baby after driving the longer and higher 1921 machine. The built-up rear axle with aluminium centre has three-quarter elliptic springs instead of the later cantilevers, and it also has much smaller side brakes supplemented by a large transmission brake, which was deleted in subsequent models. The axle is located by radius rods and a torque arm, instead of the conventional torque tube later adopted. The result of all this is to give rather harder suspension and much lower unsprung weight than the later cars, with a consequent gain in roadholding. Curiously enough, the metal-to-metal brakes are quite outstanding for a rear-wheel-only job, and never require adjustment, nor do they fade.



John Bolster's Rolls-Royce stripped and in action.

As regards handling, the car is not particularly easy to drive, the controls obviously being intended for a driver with more delicacy and precision than most modern conductors would care to exhibit. Thus, the cone-clutch is a delightfully responsive instrument, being capable of inching the car forward or backward with the engine ticking over, or starting away from a standstill on top gear, but to the modern insensitive foot it would seem uncomfortably fierce. Similarly, the gear-change demands absolute accuracy of timing, though it is perfectly straightforward once one has got used to the lateral movement of the locking gate. The steering is light, sensitive and extremely high-geared, the sensation being at first unusual because the car will corner very fast without rolling at all. It is so balanced that both ends break away very gradually and exactly together, and one can take fast corners in an absolutely controlled four-wheel slide.



The chassis of the 1911 "*Silver Ghost*" *Rolls-Royce.*

It is as a silent, high-speed cruising car that the "Silver Ghost" excels; 2,000 r.p.m. would be equivalent to a road speed around 75 m.p.h., and with cylinder dimensions of 114 by 121 mm., the piston speed is never very alarming. The lack of volatility of Pool petrol does not suit the unheated induction system, the low-speed flexibility being much impaired thereby, and the car has never gone so well as on the 1923 benzole. With its comfortable touring body and almost instantaneously erected hood, it would be ideal for an extended Scottish or Continental tour, and that is exactly the use to which I propose to put it.

The design of the "Silver Ghost" is too well known to describe in detail, but one is so often asked how to distinguish the approximate year of manufacture, that I will mention a few particulars as an appendix.

The original "Silver Ghost" of 1906 had a "square" engine of 114 by 114 mm. It had "platform" springing at the rear, with a transverse spring uniting the rear ends of two semi-elliptics. It also had a geared-up fourth speed, which was dropped in 1910 because drivers made too much use of it. Around 1908, 7 mm. was added to the stroke, and the rear springs were three-quarter elliptics. The petrol tank of the earliest cars was under the front seat instead of at the rear.

By 1911 the mixture control and the switch for the ignition had moved from the dashboard to the steering wheel, above the ignition timing and governor speed controls. Later in 1911 the torque tube transmission superseded the open shaft, and cantilever springs could be had as an alternative to the three-quarter elliptics, and were eventually standardised. The "London-Edinburgh" model was also introduced in 1911 and had a larger carburetter and higher valve-lift for increased performance. Later, this "hotted-up" engine became available in a chassis with a higher radiator and 4-speed gearbox, and was called the "Alpine Eagle." When manufacture recommenced in 1921, the "Alpine Eagle" engine and 4-speed gearbox were fitted to all cars. The ignition coil lost its trembler, and the usual axle ratio was down to 3.25 to 1. A very quiet electric starter drove through the gearbox via an electrically-operated clutch, and the fuel pressure pump was moved from the gearbox to the engine. In 1924 the famous "servo" four-wheel-brakes appeared, and the "Silver Ghost" was finally superseded in 1925.

As always happens, the car gradually grew heavier throughout its life, and it is the earlier models, with their light weight and high gear, which appeal most to the enthusiast. This is not intended in any way as a criticism of the later cars, which gained in refinement and ease of driving what they lost in the more sporting qualities.

VAUXHALL'S SHOW

Exhibitions by individual manufacturing groups have been popular in this year of Jubilee, and Vauxhall Motors, Ltd., put on an especially good show at the showrooms at their Luton works. This free exhibition is announced as to continue until further notice; and will be open when these words appear.

By all means go to see it. The oldest car on view is a 1903 single-cylinder, tiller-steered Vauxhall with its solid rear axle sprung on coil springs and driven by a central chain. A similar 1905 car, giving 7 h.p. at 950 r.p.m., is seen to have transmission by side chains and rather more normal contracting brakes. Naturally, a very fine specimen of O.E. "30/98" Vauxhall 4-seater and an equally well-preserved 1910 "Prince Henry" particularly pleased us. Both these cars are the property of Vauxhall Motors, Ltd., and are in a splendid state of preservation; the Reg. No. of the "30/98" is NT 7795. To back these old cars there is a range of modern Vauxhalls, a Vauxhall-built tank engine, and a big demonstration of testing methods, accessories and parts that combine to make your Vauxhall what it is today. Also, there is a fine show of models, of the 1903 car, a war-time 25-h.p., a "Prince Henry" and the 1910 Vauxhall racing car, backed by many models of modern Bedford commercials. The early models, largely constructed by Vauxhall apprentices, are very beautiful indeed, with all details, even to security bolts in the realistic wire wheels. All are to 1/10th scale and the steering on the racing car works, from the wheels as far back as the drop arm. This car models very well indeed, with its queer, narrow radiator, slim polished-aluminium body and big disc wheels. From the model we learn that the car was so narrow that it only had two pedals, accelerator and clutch—the four outside levers are: a lever operating the air pump, the gear-lever, and two brake levers, one on the wheels and one on the transmission.

Vauxhall's have published a most interesting book covering the story of the Company from 1857 to 1946. It contains numerous photographs of the Brooklands Vauxhalls and the early production models and is to be had for 3s. 6d. a copy, at which price we understand no profit is made.

We visited this show in a Vauxhall Ten and found this little car to cruise at a speedometer 50 m.p.h. with extreme economy and a high degree of silence and refinement.

ANNOUNCEMENT

Pat Whittet asks us to state that he and Bob Cowell are dissolving their present partnership in order that they may carry on with individual projects of an ambitious nature. The Whinlands Works will continue to maintain enthusiasts' cars, while Cowell will proceed with the construction of racing cars at new premises. In spite of these new arrangements, Cowell and Whittet will continue to work in close co-operation.

THE 170-m.p.h. M.G.

Lt.-Col. Gardner relied on Lucas electrical equipment, Dunlop tyres, Lodge plugs and valve cotters and collets made for him by the Monaco Engineering Co., Ltd.

RUMBLINGS

Suggestion

This year of Jubilee has served as a reminder that no adequate history of the Motor Industry has yet been written. The task of compiling such a history, admittedly, would be involved and arduous, and much of the required information would have to be supplied by the manufacturers themselves. This leads to the suggestion that if individual manufacturers would undertake to compile histories of their own businesses, the complete story could be got by collecting all such books issued. Already Dennis Bros., of Guildford, and Vauxhall Motors, Ltd., of Luton, have published such books, and we believe that Daimler and Wolseley have similar histories in hand. The time has temporarily passed when adequate advertisement was to be had from participation in observed runs, trials and other competition events. This form of publicity is likely to return with revived vigour later on, when competition becomes keen amongst rival manufacturers striving for the Home Market. Meanwhile, exhibitions of firm's products, backed by veteran cars and scale models, are more popular. The issue of a history of the manufacturer and his products would constitute a valuable extension of such publicity methods, and the cost might well be offset by making a reasonable charge, as Vauxhall's do. Naturally, we consider that competition achievements should be included. The Dennis book covers the T.T. and Dewar Trophy Dennis cars, and in his frank and honest little work about Vauxhalls, L. C. Darbyshire deals with Vauxhall competition successes from 1908 to the introduction of the famous "30/98," four pre-1914 Brooklands Vauxhalls and one of the 1922 T.T. cars being illustrated—although the 1913 Coupe de "l'Auto" and 1914 G.P. cars are not mentioned. The Vauxhall book also contains a useful identification table of the production cars from 1903 to 1938.

We commend the issue of such history books to the Public Relations Departments of other manufacturers in the British Motor Industry. The present time is opportune for the publication of such works and we shall be glad to give publicity to any further histories which appear.

* * *

Frankau

In a secondhand bookshop, but a stone's throw from the MOTOR SPORT offices, where a friend the other day got a clean copy of S. C. H. Davis's "Motor Racing" for 7s. 6d., we espied "Self Portrait," by Gilbert Frankau. The list at the front of people in the story included S. C. H. Davis and Sir de Hane Segrave, and we have since found so much of motoring interest in this brisk biography of the author's life, that we regret not having received a review copy when it was first published in 1940. Frankau learned to drive in "a ponderous open Renault" at Aix-les-Bains in 1905. His mother bought a 40-h.p. "Dustless Spyker" in 1908 and "on this imported chassis Mulliner fitted a colossal landaulette body." Frankau once stalled the engine attempting to ascend from St. James's Palace to Piccadilly in top gear, but the car could obviously perform, for later the chauffeur was fined £10 for doing "between fifty and sixty along the front at Eastbourne." In 1909 Edgar Thomas Ware is quoted as saying: "The modern automobile is as dependable as the railroad." In his open Charron, driven by the Charron expert Tiersch, Frankau journeyed from England, *via* Paris to Aix-les-Bains. Paris to Aix, 300 miles, occupied two days and used up some seven tyres, which Tiersch and Frankau changed on the rims, the tyre bill being about £56. At this time we read that Harold Brooke-Alder was "always changing his cars." Of a new purchase—"There aren't any gears," he explained. "Just these two leather belts. They slip off their driving wheels if you're not careful. But she's not too bad otherwise; and she's the cheapest thing on the market. Comes from America." The make is revealed as Ford, but our records show the Ford models of 1909 to have had epicyclic transmission, so perhaps Frankau was in error here. In 1896-7 Frankau had his first automobile ride, with his cousin Otto. "The single-cylinder De Dion Bouton was started by lifting what is now the dicky and swinging the thus-exposed flywheel." This sounds more like a Benz to us—perhaps St. John Nixon, records secretary to the Veteran Car Club, will comment on this. There is also the "enormous Mercédès" of Don Luis Marx, in 1907, in



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America, the chauffeur of which produced a dish of hot partridges for lunch from its luggage trunk.

Frankau's first car was "a large blue Armstrong-Siddeley limousine," purchased in 1923 and chauffeur-driven. In 1928, when editor of *Britannia*, he bought a Hillman from W. E. ("Billy") Rootes for the paper, and "a large new Siddeley with a Weymann saloon body, built by Gurney Nutting, and driven by my English chauffeur, Knell," for himself. Later "a new 9-h.p. Renault camionette" was used when Frankau rented a French villa from the Perrins, a Buick was hired from Godfrey Davis in England, and Walter Creighton, originator of the Aldershot Tattoo, is recalled in connection with a crash in an Amilcar in 1927. But Frankau did not sell his 1928 Siddeley until, in 1930, A. H. Clarke, "a really honest salesman," brought him "the air-cooled Franklin, red and black 30-h.p. sports coupé" to try—which he found "a revelation and a temptation from the moment I took her wheel." In the Franklin, Frankau experienced "a shimmy in her full-elliptic springing that made her solid steering column feel like india-rubber and nearly hurled me off the Colnbrook by-pass" (it was traced to a king-pin not screwed home!) and the car "spat at him like a wild cat" on his first run (excused because "any car with Delco ignition will voice a protest if the distributor wires jump out of their sockets"). Down one of the switchbacks after one turns right for Sainte Maxime and Beauvallon, coming from Avignon to Fréjus, the "slightly optimistic speedometer touched 90 m.p.h." Probably this car inspired the author to write his motor-racing novel, "Christopher Strong." He admits that S. C. H. Davis vetted the technical parts, and it was he who persuaded Frankau to get the right atmosphere at Brooklands. Going down in the Franklin, he did five laps of the Mountain Circuit in the 100-m.p.h. Invicta—"Sammy does not suffer from floating foot. My breath left me as we shot up the Mountain. The door swung open—and I couldn't close the thing. Sammy reached over and did it for me with his tyres squealing on the black danger line at the top of the grade. Then we were round the corner, and diving—flat out—for the Fork." Twenty-four hours later Sammy had his crash and lay in Weybridge Hospital. And Frankau recalls his subsequent bravery in pushing the Bollée the last ten miles into Brighton in a Veteran Car Run (only he calls it the "old crocks' race," of course!)

Through "Billy" Rootes and his brother, Frankau met de Hane Segrave—"twelve years my junior and a fellow Etonian, the tall, sparse-haired, blue-eyed de Hane fascinated me as much as any man I have met. We soon became friends. Memory recalls a night drive from the Café de Paris in Bray and a borrowed Stutz in which be brought me back to the Mayfair at an *average* speed of a mile a minute. I never felt safer in my life. Something of the Frenchman and something of the Irishman united in de Hane. All French was the cold objectivity with which he told me about the death of a young guardsman to whom he sold that colossal Renault [the 45 h.p.—Ed.] in which he would leave Biarritz after lunch to sup in Paris—no mean feat. 'I was afraid it would kill him,' said de Hane. 'I told him so. But he wouldn't believe me.'" Segrave prophesied his own end to Frankau, standing between the "Golden Arrow" and the boat "Miss England" in Rootes' Piccadilly showrooms. They met for the last time before Segrave left to make his ill-fated record attempt on Lake Windermere. "Strolling down Piccadilly the badges on a Rolls-Royce attracted my attention. 'Hullo, Gilbert,' called de Hane from the white wheel. We chatted for a minute or so. 'How's the world?' I asked. 'Pretty bloody, old chap.'" Less than a fortnight later Frankau's friend Duveen switched on the radio and they heard the worst—just as, in *his* book, Sammy Davis tells how he heard of the fatal accident to Zborowski. Frankau also recounts a rather dubious story of the late Filson Young.

CLUB NEWS—continued from page 298

"*The route of ye Tribulatioun will be longe, yea and arduous, to be found only by much skille in the ufe of ye charts of Hif Magefty'f Surveyorf of Ordnance. Withall, ye Sectiounf will be paffable to any Gentilman's Carriage with but a reafonable clearance from ye Earthe. Ye checke pointf will be situate in diverf strange and eerie placef; ye caftle of King Johnn, may ye Lord preserve hif Soul, ye Railwaye Statioun, vifited by no mortal traine these twenty yearf, ye Roman bastioun and many another spot on blafted heath and in witch's ride.*

"*Yet, ere the crackynge of ye Dawn will be held a great Feaft with much frying of Saufagef, and drinkynge of Tea, befide ye Casket of Meade upon ye House.*

"*Thofe who would motore away into ye Nichte, then, to teft their courage and skille in this great Tribulatioun, may send documentf to Squire Birkett, Bridge of Pondtail, in the Toun of Fleet, set in ye county of Hampfhire. Praife ye Lord.*"

From which we infer that a more than usually ingenious trial will take place in Hampshire on the night of January 4th/5th. Regulations from the invited clubs or from the address given above.

ANSTY AERODROME MOTOR-CYCLE ROAD RACES

On November 3rd Harold Daniell once more proved beyond all doubt his remarkable riding skill, in winning the 350-c.c. and 500-c.c. solo motor-cycle events on Nortons at the road race meeting organised by the Antelope Club at Ansty Aerodrome, near Coventry.

The course was D-shaped with the curved portion of the circuit made up of a series of flat out bends; races were over 10 laps, each lap being $1\frac{3}{4}$ miles in length.

In the 250-c.c. event Fergus Anderson on a Guzzi machine had things all his own way and gave a very fine "demonstration run," his winning speed of 68 m.p.h. being 5 m.p.h. faster than the next man home, R. H. Pike on a 250-c.c. Rudge motor-cycle.

The 350-c.c. event was run in two heats and a final, and though won by A. L. Daniell, at 74.52 m.p.h. with some ease, the star rider was V. H. Willoughby, who, after being left on the line with a motor that was reluctant to start, got going half a lap to the bad and proceeded to work his Velocette through the field of 16 riders to finish 3rd, lapping, very consistently, just faster than Daniell.

In the 500-c.c. race Harold Daniell was never bothered at all and won by over $\frac{3}{4}$ mile from A. R. Foster (Norton); the winning speed being 77.70 m.p.h.

Due to numerous retirements the sidecar race proved rather uneventful and gave E. S. Oliver a runaway win on his 596-c.c. Norton outfit.

A number of continental riders competed in the solo events, including Roger Laurent, who has done so much to help those English riders who have been over to the Continent this season.

Results:

250 *c.c.:*
1. F. Anderson (Guzzi)—68.00 m.p.h.
2. R. H. Pike (Rudge).
3. J. J. Booker (Royal Enfield).

300 *c.c.:*
1. H. L. Daniell (Norton)—74.52 m.p.h.
2. P. Goodman (Velocette).
3. V. H. Willoughby (Velocette).

500 *c.c.:*
1. H. L. Daniell (Norton)—77.70 m.p.h.
2. A. R. Foster (Norton).
3. C. E. Beischer (Norton).

Sidecars:
1. E. S. Oliver (Norton).
2. J. Beeton (Norton).
3. T. Deadman (Norton).

Club News

WE HEAR

It seems that the prices of the older secondhand cars are dropping a bit, so less-affluent enthusiasts may get their chance this winter. Recently an A.C. Anzani 2-seater for £40, a coupé of the same breed at like price, a "14/40" 1924 Sunbeam, and several "12/50" Alvis have been in the market. A reader bought a little-used 1921 Crossley for less than £40, and Packman, now with B.O.A.C., found a 1927 Trojan tourer which he used while his Salmson was being repaired—that was the Trojan reported as seen at Horndean.

Eyston's "Thunderbolt" is still in New Zealand, with its engine in place. Oliver Bertram threatens the Land Speed Record with a jet-propelled car. We encountered a flavour of the cyclecar days one misty evening in London, when a youth started up a J.M.B. 3-wheeler and disappeared in the murk to the lusty crackle of a single-cylinder engine. F/Lt. Peter Colery, D.F.C., queries what has become of the two blown Morgans owned by the late Henry Laird, and would like to hear, in any case, of a fast Morgan at not too exorbitant a price. Duncan Hamilton has acquired an R-type M.G. and is overhauling it for next season, when he will share the driving of it with Group-Capt. Leathart. Information about these cars will be gratefully received. Incidentally, Hamilton was a test-pilot, while Leathart made history during the war by flying over to occupied France to retrieve his C.O., who had been shot down on an enemy airfield, the return to England being made in an R.A.F. trainer aircraft with a dozen Messerschmidts in pursuit!

A 1912 "Silver Ghost" Rolls-Royce and 1912 Napier shooting brake were advertised recently, by the original owner, in the *East Anglian Daily Times*. We apologise to M. J. Lipsey for saying, in our Brighton Speed Trial report, that his "328" B.M.W. was soundly beaten by Dezsoe's Alfa-Romeo. Apparently this was incorrect, the B.M.W., which was serviced by A.F.N., Ltd., beating the Alfa—the official results as handed to us give this on a m.p.h. basis, but the times for the course favour the Alfa by 2.48 sec.—and, as we observed last month, had the Brighton police allowed us higher up the course we should have obtained a check on the individual duels, which for no sane reason we were prevented from doing.

If you are driving into Dunstable, stop and inspect the latest E.R.A. in the window of E.R.A., Ltd., on the left-hand side of the main London road going north, just before entering the town itself. Old-school Bentleys have been seen in large numbers recently—including two "Blue Label" 3-litres, one owned by Donald Healey's son and modified as to engine specification, and another used by Major Money, who entered an M.G. for the Brighton Speed Trials. Paul Ceresole, of Concord, Mass., in sending his subscription to MOTOR SPORT, mentions that his stable consists of a 1931 Mercédès-Benz S.S. drophead, a Frazer-Nash-B.M.W., and a 1939 Type 57 Bugatti.

The photograph of the "blower" 4½-litre Bentley published on page 230 of MOTOR SPORT, has brought in a considerable number of requests for copies. This picture was from Rivers Fletcher's collection and he has now arranged for copies, which he can supply to interested persons at 2s. 6d. a time. His address is "Noddings," 4, Eversleigh Road, New Barnet, Herts. Incidentally, he has for disposal his 1,100-c.c. H.R.G., as next season he plans to drive a 2-litre, straight-eight, roller-bearing G.P. Bugatti in competition events, towing it behind a slightly "hotted" 12-h.p. f.w.d. Citroen saloon. Monaco Ltd. are progressing very well indeed with their air-cooled, flat-four light aero-engine, and we believe Peter Monkhouse may install one in a "30/98" Vauxhall chassis at a later date.

Lemon Burton is busy getting his magnificent "Royale" Bugatti saloon into good trim. On its run to Prescott it proved able to climb an appreciable hill literally on *one* cylinder, but, naturally, in that condition it was only doing about 5 m.p.g. However, the chauffeur of the late owner mentions 14 m.p.g.—so Burton hopes for better things, or the end of rationing! Of the Edwardians, John Bolster, finding his mother's "D6.70" Delage in need of a new windscreen and her Morris in need of engine repairs, has been using his 1911 Rolls-Royce for social occasions, with "one-man" hood erect and "storm curtains" buttoned up. John says that commissionaires outside large hotels appear to resent the obscenity of having to unbutton a car before the ladies can get out! Then Edisbury rode in Geoffrey Frank's 1912 3.3-litre Daimler to the Manchester Cavalcade, and they did 72 miles in just over three hours, and had no troubles if you discount the loss of the whittle dynamo belt, replaced in ten minutes. Cecil Clutton's 10½-litre Delage is to be serviced by Alan Southon, ready for next season's sprints. The single-seater Bentley Jackson is likely to be converted into a road car by Bill Shortt. John Hay has saved two 815 by 120 and two 895 by 135 covers for anyone who is in need of them. Patrick Green is getting Laystalls to restore his "blown-up" "Surbaisse" Amilcar and meanwhile uses his older "Grand Sport" engine in this chassis.

The November *Model Car News* contained an excellent set of plans of the twin-cam racing Austin Seven and a description of a fine "solid" model of the single-seater ex-Birkin "blower" Bentley. Out in Australia Ted Hunter is rebuilding the old s.v. Aston-Martin in the country, and over here Mary Whittet has acquired a rare specimen of vintage De Dion Bouton.

Major Jackson has a "90" Mercédès engine for which he seeks a chassis, and is on the track of a really early Peugeot. V. C. Hunt has joined the V.C.C. on the strength of a 1914 Hillman. Seen near London on a recent fine Sunday were an H.E. Six saloon, a well-preserved F.N. tourer and a rear-engined Trojan saloon.

DECEMBER FIXTURES

1st—Hagley and District L.C.C. Closed Trial, Worcestershire area.

Lancashire and Cheshire C.C. Sporting Trial.

6th—Southsea M.C. "Downstage" Dinner-Dance.

7th—N.W.L.M.C. "Gloucester" Trial.

B.O.C. Dinner and Dance, Grosvenor House.

7th–8th—Scottish Sporting C.C. Closed Rally.

14th—Bristol M.C. and L.C.C. Trial. N.L.E.C.C. Dinner and Dance.

15th—Chiltern C.C. Closed Touring Trial.

22nd—Sheffield and Hallamshire C.C. Invitation Trial.

Jan.

4th–5th—Hants and Berks M.C. Night Trial.

NEW ZEALAND SPORTS CAR CLUB

The last "Bulletin" received contains a most sensible editorial calling for decent manners on the road, particularly necessary in New Zealand because sprint events are held over temporarily-closed public roads by sanction of the Transport Department, and it is rightly pointed out that in return that Department expects drivers to drive carefully of their own free will rather than be coerced into doing so—all very sensible and equally applicable, for something the same reason, over here. New Zealand emphasises that if the "Kop-ban" ever applied to her she would be badly off, not being likely to be able to afford to build a Donington or Shelsley Walsh. (What she must think of our "loss" of Donington we cannot imagine!) The "Bulletin" also very daringly criticises the bad writing found in many contributed articles. There is a long and pleasing article by R. A. Gibbons about his father's "Speed Model" 3-litre Bentley and how it out-

diced American new models over New Zealand roads down the ages.

The Paekakariki speed hill-climb, over a 2-mile course rising from sea-level to 880 ft. with every sort of bend, saw Atkinson's very sporting 1925 " 12/50 " Alvis make f.t.d. in 2 min. 57.2 sec., an average of 40.6 m.p.h. Rebuilt by Ansell, it got up to 65 in 3rd on the brief straight. Second fastest was Farland's N-type M.G. " Magnette " (3 min. 30.4 sec.) and third fastest Snell's T-type M.G. (3 min. 32.2 sec.). Farland later did 3 min. 22 sec. Stone's Austin Seven Special won its class and did 4th fastest time, in 3 min. 46.2 sec. The motor-cycles were far quicker than the cars, Bowe's Ariel doing 2 min. 35.2 sec. (53.3 m.p.h.), Wilson's Rudge 2 min. 36.4 sec., and Gibbons' Ariel (" in full touring trim, which, with an Ariel, means everything but the kitchen sink ") 2 min. 48 sec. We are reminded that owners of model-T Fords used to thank Heaven when they reached the top of this climb in the old days and could ease the cramped, quivering muscles of their left legs ! The event was broadcast and filmed—good show, N.Z.S.C.C.

The club had 66 members last June and is going to do useful work in publishing lists of owners of given makes of cars existing in New Zealand. Hon. secretary : T. Wickham, Box 406, Wellington, New Zealand.

V.M.C.C.

The Vintage Motor Cycle Club, which continues to issue a useful bulletin every month, put over a trial in the Chilterns in October. The placings, based on age of machine and distance travelled, were : 1st, C. Quantrill (1921 s.v. Triumph) ; 2nd, E. Smith (1927 350-c.c. A.J.S.) ; 3rd, M. Walker (1928 350-c.c. Sunbeam). Oldest machines present were the winner of the trial and an A.B.C., also of 1921 vintage, and the average mileage covered to reach the start was 73.

N.L.E.C.C.

The North London Enthusiasts' Car Club had Freddie Dixon to address them on October 24th, with Rivers Fletcher in the chair. Dixon not only told of some interesting experiences with Riley and Napier-Railton, but lamented bitterly the loss of Brooklands. Amongst those present were almost the whole of the N.L.E.C.C., Charles Brackenbury, St. John Horsfall, Wallington, Phillip Turner of the *Autocar*, and the Editor of MOTOR SPORT. It was an interesting evening, not the least attraction of which was that of seeing the great Freddie wearing pince-nez !

FOR MEN ONLY ?

We were surprised and pleased to see a short article headed " Vintage Cars " in a recent issue of *Men Only*. It referred to such motor-cars as 3 and 4½-litre Bentleys, 2 and 3-litre Lagondas, 3-litre o.h.c. Sunbeam, " 30/98 " Vauxhall, " 12/50 " Alvis, " 12/40 " " Hyper " Lea-Francis, " International " Aston-Martin, 1½-litre Frazer-Nash, " Brooklands " Riley Nine, " 14/40 " and " 18/80 " M.G., yes, even the Bamford and Martin Aston. Moreover, the author, J. O. Butler, got his technicalities correct and rightly touched on such things as big, slow-revving engines still sound after 150,000 miles, present-day inflated prices of vintage cars, their undeniable fascination, and the problem of whether wife or girl-friend will accept their " draughty heartiness " in lieu of the comfort of a modern saloon. A refreshing little bit of journalism, to be sure.

M.M.E.C.

W. A. Richards has resigned his secretaryship of the Midland Motoring Enthusiasts' Club and his place is taken by A. O. Richards, 120, Anderton Park Road, Moseley, Birmingham, 13.

MORGAN THREE-WHEELER CLUB

The Midland Group plans to meet on the second Sunday in each month throughout the winter at the Swimming Pool, Stratford-on-Avon, at 2.30 p.m., after which a short run will be followed by tea. Non-members are welcome. Group organiser : J. H. Balleny, 11, Hallewell Road, Edgbaston, Birmingham, 16.

COVER PICTURE

This month's cover picture (by the skilled Irish photographer, Dermot P. Johnson) reminds us that we are gradually returning to normal. It shows " Bira's " 3-litre Maserati preparing to start in the 1938 Phoenix Park scratch race, in which event " Bira " retired on his 12th lap while well in the lead from the ultimate winner, Staniland's Multi-Union. This year " Bira " has raced again with this car, finishing 6th at Chimay and making second fastest time to Raymond Mays at the International Prescott Meeting and at the Brighton Speed Trials. And we have had a resumption of racing in Ireland.

PHOTOGRAPHS

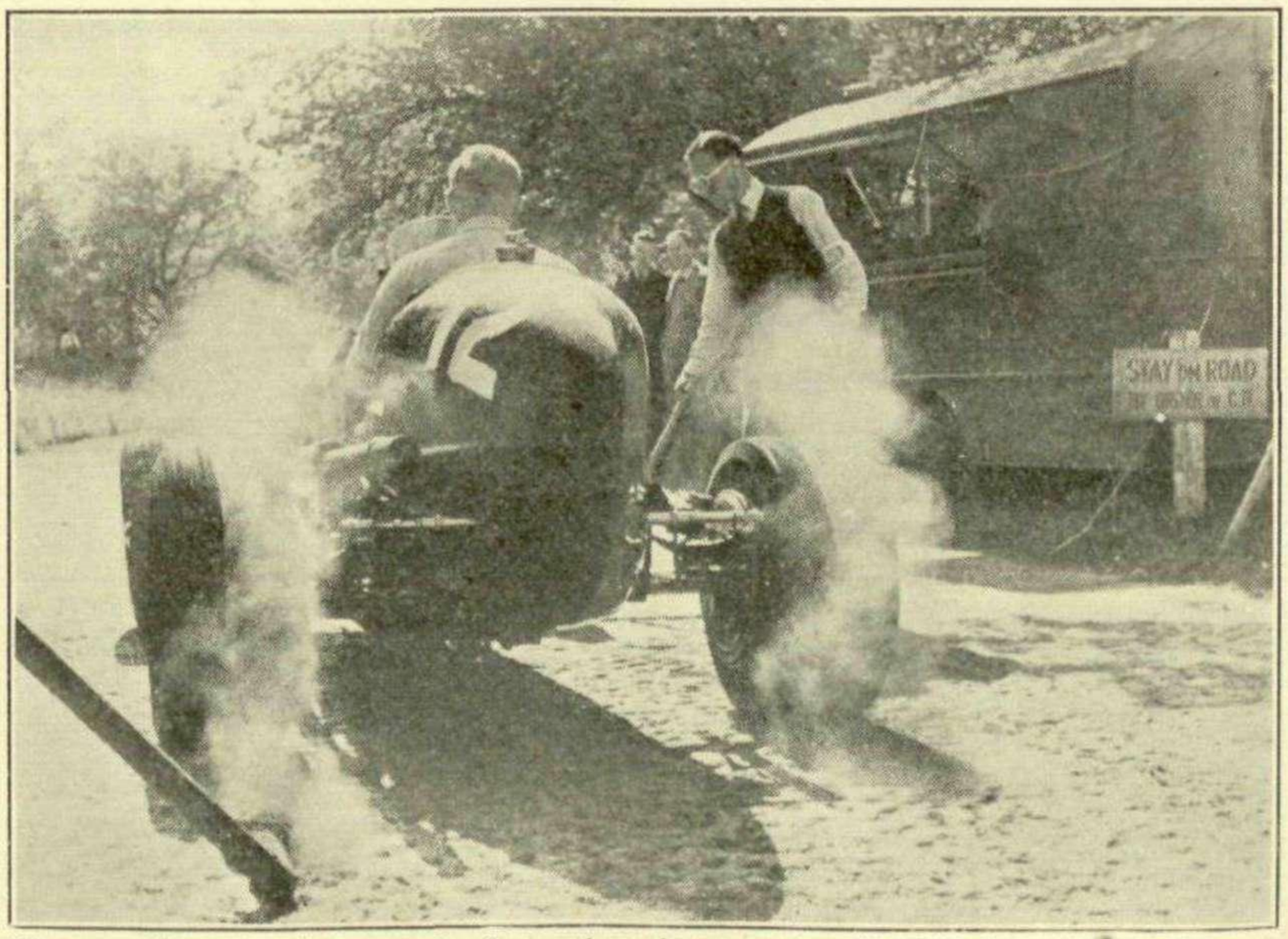
During the war many readers submitted large numbers of photographs for our consideration, from which we could seldom use even one or two prints, due to paper shortage causing undue pressure on space. Many of these photographs are still in our possession and we are anxious to return any that we will not be able to use. Unfortunately, in the chaos of war-time some of the covering letters became detached from the packets, and we shall be obliged if readers having a grievance against us because we have retained their pictures will kindly write in identifying their property by the subjects covered, when we will do our best to return their prints. It will be better still if those concerned can call at the City Road offices and pick out their photographs.

HANTS AND BERKS M.C.

We have received the following " hand-out " from the Press Secretary of the Hants and Berks M.C. :—

" Knowe ye, alle Charioteerf, ye Automobile Clubbe of Countief of Hampfhire and Berkfhire, will, upon the nichte of January 4th, hold a michty Trial or Tribulatioun, the lyke af never by manne beholden. By invitatioun, ye humble memberf ye Vintage Sportef Carre Clubbe, ye DCCL Motore Clubbe, ye Motore Clubbe of Southfea, and even ye Sporting Owner-Charioteerf Clubbe may pitt themselves agaynst ye Highborn.

Continued on page 296



Memory of warmer days—and a fine action picture. Ansell's E.R.A. spins its twin rear wheels, leaving the line at Prescott. This is the car Bainbridge crashed at Bouley Bay after making f.t.d. The photograph is by Sir Anthony Stamer, Bt.

Letters from Readers

Sir,

At the risk of encroaching upon your valuable time, I am appending some details of " The Monoposto "—a not very original name for a car (I hesitate to use the word " racing ") which we have built in my unit, from salvaged materials.

A short description of its construction may prove of interest. The frame is of channel section iron welded up into a rectangle and strengthened by bolted-on angle-iron cross-members near the centre, and a flat sheet-steel decking which acts as the floor at the front. The engine is a 750-c.c. horizontally-opposed twin, touring type B.M.W., mounted on longitudinal angle-irons, which are bolted to the cross-members. The drive is taken through the car-type gearbox of the B.M.W., *via* an adapted Jeep propeller-shaft and two universal joints to an orthodox rear-axle which is bolted to the frame without springing. Rubber blocks inserted between axle-mounting and frame absorb some of the road shocks.

The front suspension is independent by means of two transverse leaf springs, joined at their outer ends by two U-shaped members which carry the king-pin bearings —plain tubes. The front wheels—motor-cycle type—are carried in forks made up from tube, to which are welded two arms to carry the king-pin after it has been inserted in its plain tube bearing. Steering is by divided track rod from an orthodox steering box mounted centrally between the front springs, the whole assembly having been turned through a right angle so that the " drop-arm " lies parallel with, and above, the steering column.

Remote control of clutch and throttle has been effected by Bowden cables to normal pedals, and the brake pedal operates brakes on the rear wheels by a simple open cable system. Gear selection proved one of the most difficult problems to solve as this engine has a ball-type gearbox and hand-change when mounted in a motor-cycle. However, a system has been evolved which utilises the existing lever bent until it lies vertically down alongside the box, its knob entering a tube which runs alongside the frame to a short lever working in a " gate."

The upper end of the steering column is supported by a sheet-metal bracket from a curved bar just in front of the driver's seat, the speedometer being mounted in the bracket.

Before mentioning performance, a few facts about the engine and gear ratios might be of interest. The rear-axle ratio proved to be approximately 4.6 to 1, and this allied with the rather unusual top gear ratio of 11 to 10 gives an overall top of about 5 to 1. The other ratios are approximately 7.4 to 1, 11 to 1 and 15.2 to 1. The wheels are fitted with 19 by 3.25 tyres, and peak revs. proved to be in the neighbourhood of 4,000. The engine is not in very good condition and originally contained two over-size Ford V8 pistons, one of which collapsed during trials. This was replaced by the only other available piston—a 500-c.c. Norton type, which was 1 mm. over-size and was hand-filed by my German mechanics to fit. The big-ends are beginning to make unhealthy noises, but owing to a total lack of spares, we dare not risk any major overhaul.

I have been able to test this car on a disused runway, and despite the poor surface, reached a speed of approximately 63 m.p.h. The acceleration in bottom is very spectacular, especially on the desert, and general stability is remarkably good. The front suspension works excellently, and owing to the forward seating the shocks from the solid rear are not too apparent.

The next step is to fit a body on the lines of the latest rear-engined flat-12 Alfa-Romeo. My one regret is that I know of no method of getting it home when I return in about a month's time. With change of engine, etc., I think it would swell the number of the 500-c.c. class entrants.

In conclusion, I cannot say too strongly how much pleasure the all-too-slim MOTOR SPORT brings each month. Is it too much to hope that the recent mention of release of more newsprint will enable you to extend this pleasure over a longer period ?

I am, Yours, etc.,

M.E.L.F. " ENTHUSIAST."

* * *

Sir,

In reply to H. L. Biggs' query on the Austin Seven " Grasshoppers," I may be able to shed a little light, though I am speaking purely from memory.

There were, I think, eight or nine cars, the first series of which had the two-bearing crank, the later ones having three bearings. Early in the war three were sold as a team to the Austin agent in Portugal or Spain, I am not sure which. Carlaw and Valentine bought their cars, in fact as far as I know Carlaw bought two. A further one was sold to Lloyd Evans, of Carmarthen, who went " hedging and ditching " somewhere about Ross, doing himself and the motor no sort of good at all, though both happily recovered.

The blue car which is owned by Wilson has the two-bearing crank, though it was built much later. This car, incidentally, is much better finished than the others, having refinements in the way of doors, swept wings, etc.

I have often wondered if it was generally realised how very standard were the majority of the components used in these remarkable cars.

I was interested in the rumour that the o.h.c. racing cars are to come out again next year ; they were very badly stored during the war, at one time actually lying in the open !

I understood that these cars were the personal property of the late Lord Austin and as such were not under the jurisdiction of the company ; however, I hope you are right and we do see them again with Hadley (where is he these days, by the way ?) at the wheel. I still think he can made f.t.d. at Shelsley.

Your excellent publication is a refreshing sign of returning normality.

A final " sting in the tail "—the " Grasshoppers " were sold for about £70 each ! !

I am, Yours, etc.,

HUGH S. BAIRD.

Birmingham.

* * *

Sir,

We notice in your November issue, page 255, that you state Abecassis used the Grand Prix Alta engine in his 1½-litre car at Prescott. Actually this is not the case at all, as Abecassis used my engine out of my 1936 2-litre racing Alta.

This engine, however, was modified and now has a counter-balanced crankshaft similar to the Grand Prix car and the special big-end bearings are also being used in the Grand Prix car. Apart from this the engine is a standard high supercharged pre-war unit and differs in a great many respects from the Grand Prix engine.

We thought in the interests of factual accuracy that you would like this information.

We are, Yours faithfully,
Alta Car & Engineering Co., Ltd.,
GEOFFREY TAYLOR, Director.

Surbiton.

* * *

Sir,

Thank you for writing—in " General Notes "—so charmingly about the country around Aldershot. The quotation from " Sagittarius Rising " took me in an instant back to Farnborough in 1916-17.

What wonderful summers those seemed to be—the woods burning with white smoke by day and a red glow flung into the sky by night.

As I read your notes I could plainly hear the drone of the Maurice Farmans, B.E.s, Sopwith Babies, and the other products of the age as they toiled across the sky. They looked so slow : one could lie on the common and see them grind lazily overhead, and as they passed the zenith the sunlight showed through their wings and every rib was picked out as with X-rays.

Perhaps it is distance lending enchantment, but I still think it was a wonderful place. I have not seen it for nearly 30 years !

You may recollect my pursuit of a Lancia " Lambda," in which you were so helpful. I have now succeeded in buying two 7th series tourers—one of which I shall keep.

I am, Yours, etc.,

BERNARD RYDER.

Wirral, Cheshire.

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MORGAN super-sports, 3-wheeler, 1934. 1,000 c.c., o.h.v., Matchless engine, very good condition, taxed. 9, Mount Pleasant, Bilston, S. Staffs.

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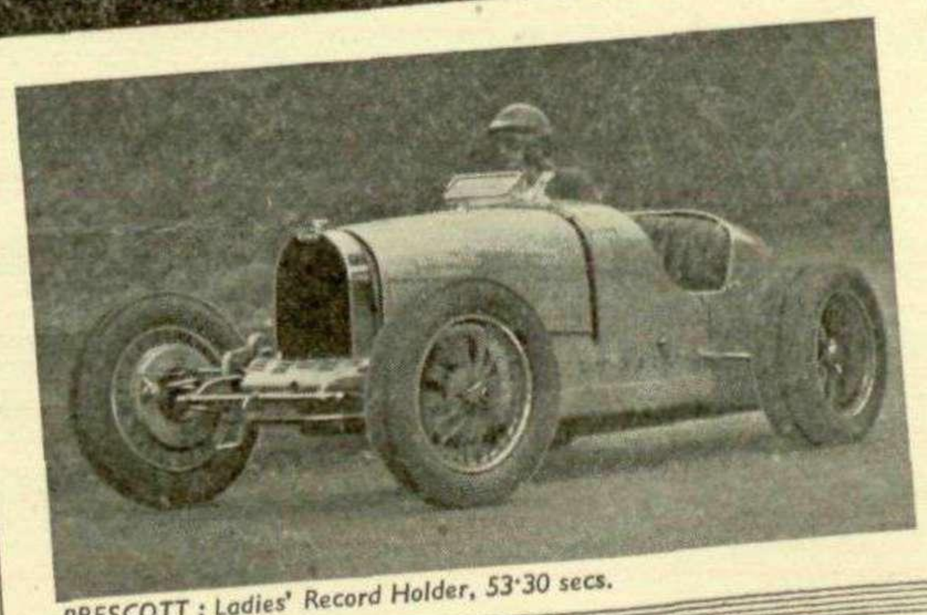
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AUSTIN "Ulster" front and rear axles with springs, brake gear, etc., £10. Three ditto. con. rods, unused, 25s. 1937 Morris Eight radiator muff, as new, £1. Box No. 287, MOTOR SPORT, 15, City Road, London, E.C.1.

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"12/50" Alvis 1929 Big Port Trials Special, beetle back, three-branch outside exhaust, KE.965 valves, Firebird synchro. box. Electric rev. counter. Alternative axle ratios, etc. £150. Also "12/50" Big Port engine, complete and sound, but dismantled, £25; also plenty of "12/50" spares available. Lester, Winterow, Rippenden, Yorkshire. 'Phone Rippenden 3232, evenings.

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

SPORTS car wanted. Ancient or modern, complete or requiring attention. Please write fully to BM/NEEM, London, W.C.1.

FOR 6-cylinder Lea-Francis 13.4 h.p., circa 1928, near-side valve cover. Price to Richards Bros., Motor Engineers, Walton-on-Naze, Essex. 'Phone 268.

INDUCTION manifold, with carburetters if possible, for J2 M.G. Complete set of brakes for P type. Box No. 288, MOTOR SPORT, 15, City Road, London, E.C.1.

WHEELS, pair of 16-in. splined hub wheels, with or without good tyres. Perkins, Lodge, Bilton Place, Rugby.

WANTED for 1934/5 S.S.1, set of sidescreens or frames, starting handle, radiator cap. 5, Raincliffe Avenue, Scarborough.

BRAKE drum for International Aston-Martin. Rudd, 16, Dexter Street, Derby.

WANTED, two 4.50 by 19 tyres in good condition. State price. 22, Portland Road, Luton, Beds.

COZETTE supercharger required, suitable for 2-litre Lagonda; also 5.25 by 21 tyres in good condition. Leo, 58, Holtspur Top Lane, Beaconsfield, Bucks.

WANTED—*continued*

WANTED, counter-weighted O.E. "30/98" Vauxhall. Tate, Kiln Farm, Hermitage.

WANTED, Fiat "500," any year, condition immaterial. Morgan, c/o Burns, "Ruries," Towing Path, Laleham, Middlesex. Staines 306€.

URGENTLY wanted, M.G. J.2 Instructional Manual. Write Gillott, 113, Woodmoor Lane, Stockport, Cheshire.

MOTOR SPORTS wanted: 1932—Feb., March, April, July, August; 1933—Jan., Sept.; 1935—Feb., July, August, Oct., Nov., Dec.; 1936—April; 1937—March, Sept.; 1940—Feb.; 1943—Nov. Longbottom, 36, Bar Street, Scarborough.

REMOTE control, complete with gearbox top for Riley Nine. First registered, November, 1930. J. A. Harman, The Withyholt, Lyttleton Road, Droitwich, Worcs.

VAUXHALL "14/40," vintage 1927, information of whereabouts of a spare cylinder head or engine assembly, or any other spares, to "Sunnydale," Victoria Road, Sutton Coldfield.

WANTED, 3-litre Bentley magnetos and 4½-litre Bentley engine; also Riley Nine or 4-seater, "12/50" Alvis. Brierley, Berkeley Road, Tunbridge Wells.

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PARTS for Converting Nash 3-speed to 4-speed bevel box or 4-speed box complete. Also any spares Anzani-Nash, also Vintage Nash or similar, about £75. Leigh, 162, Clarence Road, Four Oaks, Sutton Coldfield.

WANTED, information and spares for Stanley steamer and Alfa R.L.S.S.62758. 24, Davies Avenue, Leeds, 8.

"ULSTER" model Aston-Martin, suitable for re-building, condition of engine entirely immaterial. Rudd, 16, Dexter Street, Derby.

KNOCK-ON wire wheel, 5.00 by 20 for 1932 Alvis "12/60." Ward, 12, Welton Place, Rugby.

WANTED urgently, set of sidescreens for 1932 Lagonda 2-litre tourer. Welbourn, Mariners, Wood End, Kempston, Bedford.

WANTED, stabilising front bumper, also rear bumper or pair of fenders. James, Berwick Lodge, Ludlow Road, Maidenhead.

WANTED 5.25-in. by 21-in. tyres. Would exchange two new pre-war 4.00-in. by 19-in. tyres. Thompson, 196, Latimer Road, London, W.10.

WANTED—*continued*

WANTED Lancia "Augusta" or "Aprilia" engine, 140 by 40, 165 by 40 tyres. Smart, Whiteley Green, Macclesfield.

BODY wanted, V.D.P. or similar to suit 1930 "4½" Bentley. The Beeches, Felcourt, East Grinstead.

WANTED by enthusiast, thoroughbred sports car—Aston-Martin, Alfa-Romeo, Lagonda, etc. Please write all particulars and lowest price to Box No. 289, MOTOR SPORT, 15, City Road, London, E.C.1.



ALVIS Firebird, Citroen or similar saloon up to 2-litre capacity, and £500 cash. 73, The Ridgeway, Waddon. Croydon 2492.

M.G. "18/80," Mark II, Instruction Book or service information urgently wanted. Ryder, 7, Villiers Road, Southsea, Hants.

J.4 cylinder head. 221, Birchfield Road, Redditch Road, Worcs.

LE MANS chassis, complete, wheels, rear axle and shaft, front axle steering gear. Particulars and price to Barnes, 4, Richmond Road, Swindon, Wilts.

FOUR-SEATER car, 8/12 h.p. Capable of 30/40,000 miles, about £250. Wanted by A. H. Symonds, 22, Lytton Avenue, Penn, Wolverhampton.

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ENTHUSIAST requires 2-litre Lagonda, or similar. Good price offered. Stewart, 39, Sheen Lane, Mortlake.

TWIN-CARBURETTER model cylinder head required for Meadows-engine H.R.G. Urgent. T. McDonald & Sons, Leven, Fife.

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