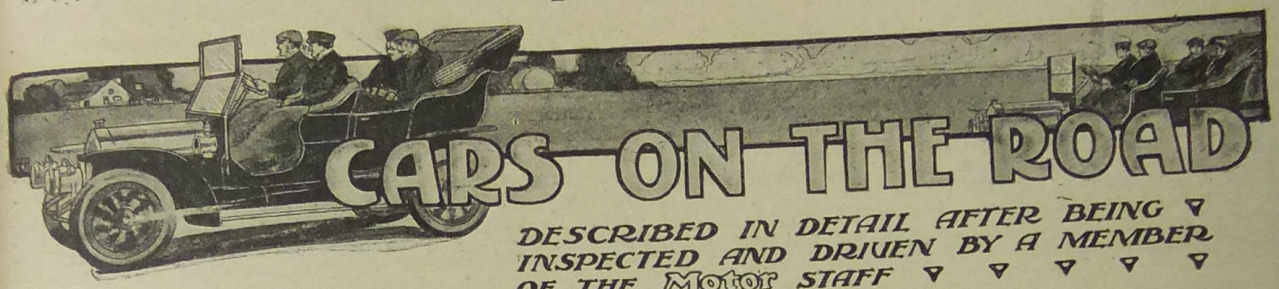
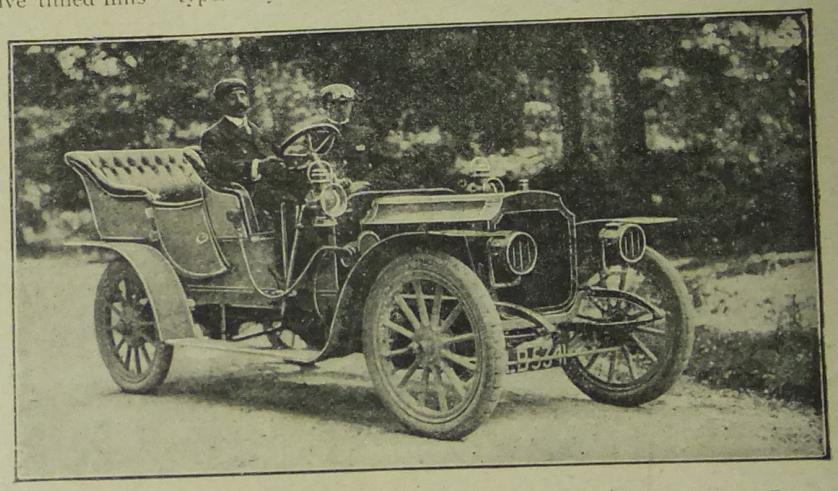


CARS ON THE ROAD

DESCRIBED IN DETAIL AFTER BEING INSPECTED AND DRIVEN BY A MEMBER OF THE Motor STAFF

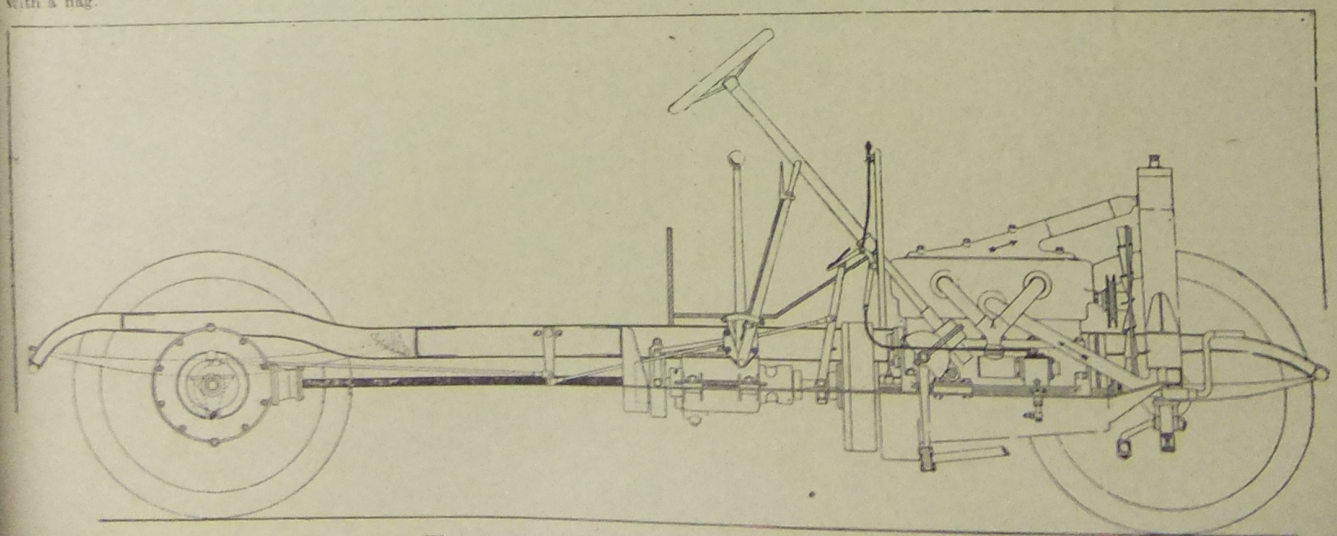
ACROSS COUNTRY ON THE 20h.p. VAUXHALL.

THE remarkable performance of the new model Vauxhall car upon its first appearance in public during the recent Scottish and English Reliability Trials will lend interest to the following description. It may be recalled that the one car secured an absolute non-stop on each of the five days of the Scottish Trial,* made fastest time in Class D on each of the five timed hills in Scotland, and actually faster than Classes E and F on Cairnwell, faster than Class E on Cairn o'Mount, faster than Class E on Glencroe, faster than Class E on Fintry, and was only six seconds slower than the big-powered vehicle that made fastest time of the day up Cairnwell. The same car won Class E in the 2,200 Miles' English Trial, was bracketed equal with another car for fourth lowest petrol consumption in the whole Trial, averaged 46.09 miles per hour for the 200 miles speed run at Brooklands, and, as a crown to the whole, covered the distance of 2,200 miles without a single mechanical adjustment, repair, or replacement of any kind whatever, had no punctures or tyre stops, required not a drop of added water or lubricating oil, and thus heads the list as the only machine with an absolutely clean scoring sheet from start to finish. Where does the power come from? That was the enquiry continually obtruding itself on my mind whilst driving a 20h.p. four-cylinder Vauxhall car last week, and, although acquainted with every detail of the design and construction, I still marvel, but am not surprised at the splendid results already achieved by this new model car. The vehicle that was turned over to me for the day was exactly similar in every detail to the winning car in Class D of the Scottish and Class E of the English Trials, and is but the second of the new models so far built, only being finished in the factory on the Friday evening preceding the Tuesday morning of the run under notice. The general design of the engine is radically different from earlier Vauxhall models, the determination to adopt thermo-syphon water circulation necessitating so many alterations that it may be considered as a distinctly new type. By courtesy of the manufacturers, there is appended an elevation drawing of the chassis (made public for the first time), whereby readers can glean some idea of the main features. The pressed steel frame is swept upwards, and then down behind the rear axle to enable the rear half elliptic springs to be kept nearly flat, the front half elliptic springs also following the same method. The four cylinders, each 90 millimetres bore by 120 millimetres stroke (20.5h.p. R.A.C. rating), are cast monobloc, the upper half of the



New model 20h.p. Vauxhall, exact replica of the winner in Class D Scottish Trial and Class E 2,200 Miles English Trial.

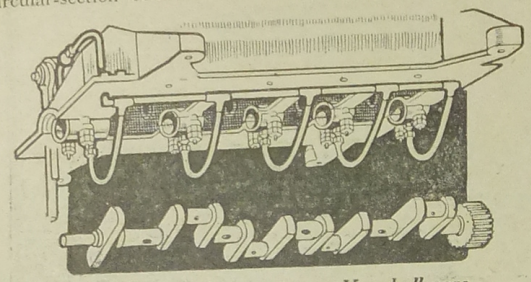
* Except for a momentary engine stop resulting from the action of a marshal with a flag.



Elevation drawing of Vauxhall 20h.p. chassis.

Cars on the Road.—Contd.

crank chamber being an aluminium casting of the normal character, but having the lower half constructed of *copper*. The valves are all on one side, and the tappet rods, valve rods and springs are completely enclosed by large, dust-tight doors that can be almost instantaneously detached by mere loosening of a couple of locomotive-type fastening handles. Recognising the enormous importance of ample passages between radiator and engine jackets for natural water circulation, the designers have provided such huge pipes that these ought to be described as conduits. The inlet from base of the gilled, vertical-tubed radiator to engine is short and sturdy, without any acute bend, whilst the hot water outlet on the immediate tops of the cylinder jackets is practically a gradually-rising dome, opening into a short, circular-section conduit that is flattened as it enters the



Unique lubrication for engine on Vauxhall cars.

radiator heading. At first sight this seems to unnecessarily restrict the clearway, but it is so devised in order to compel the water to spread equally, and run down all the tubes, instead of the few central lengths. The special engine lubrication has been previously described in these pages, as fitted to an earlier model, and therefore now needs but brief reference. A gear-driven piston pump, driven from the tail end of the camshaft, delivers from a large copper receptacle (attached to the rear of the copper crankshaft pan that drains downwards into it) into a pipe above the crank chamber, a bypass showing the pressure on a gauge at the dashboard, and another bypass returning any excess beyond the pre-determined pressure, as set by a valve, to the oil container. The series of operations can be understood by reference to the annexed drawing. The delivery pipe has five branches leading to points *below* the five crankshaft bearings. The crankshaft itself is drilled with separate sets of oilways, each leading up the respective webs to the four pins, and so supplying oil to the big-end bearings of the connecting rods, the cylinder walls receiving sufficient from that thrown off as the shaft revolves. All drainage runs into the sharply-sloped *copper* base chamber, then through a filter, and so back into the copper tank, where the pump again does its duty. A hinged lid to the tank suffices for filling, and enough can be carried for several days' use, no other attention being necessary once this is performed than to occasionally look at the pressure gauge. The makers claim that under no possible circumstance can the engine be forced to "smoke," yet there is always a certainty that everything is receiving its due modicum of lubricant. Of the remainder of the chassis details, attention can be directed to the perfectly horizontal line from front of engine to rear of differential casing, the metal-to-metal cone clutch, four forward speed selective type gearbox, and the enormously strong, domed casing around the large and small bevel wheels and the differential gearbox.

It was an agreeable surprise to find awaiting me at 157, Knightsbridge, S.W., the Vauxhall Company's London showrooms, the very lastest model—I believe only the second one yet made—that had been driven up from the works at Luton for my especial benefit, a honour I duly appreciated. A doubt arose as to where to make for, all the main and many of the by-roads around London being inches deep in dust after the 14 days of rainless weather. A newspaper contents bill decided the matter, and Henley-on-Thames was selected as a turning point, leaving the afternoon luncheon route to be settled later. But I was not going to be tempted down the hideous, dusty Bath Road, and therefore took a somewhat roundabout route, tried more years ago than I care to remember, which includes about four miles alongside the River Thames, and can be recommended to those who want a change from the drab highway through Hounslow to Maidenhead. Here is the rough synopsis:—Hammersmith Bridge, Roehampton Lane, Putney Heath, Kingston, over the bridge, Hampton Court, Hampton, first to left beyond Hampton Church between two of the waterpumping houses, Lower Sunbury, through a shallow watersplash to Halliford, foot of Chertsey bridge, sharp right along the towpath to Laleham, Staines, Egham, Old Windsor, Windsor, Bray, Maidenhead, and out on the main Bath Road. Instead of turning to the right at Maidenhead Thicket, which is the road most people take for Henley, continue straight along the main road, with the Thicket on either side, until just after passing the milestone indicating nine miles from Reading, where a narrow road is taken to the right, and in four miles the top of the long descent to Henley Bridge is entered. The usual route is about 34 miles, the above is exactly 41 from Knightsbridge.

Henley is not meant for any man less wealthy than a millionaire during regatta week, and, disregarding the many offers to "put your car up for an hour, sir," for the moderate fee of 5s., I went ahead along that magnificent Fair Mile than which there is nothing finer of its kind in the south of England, and struck straight over the hills past Stonor Park. Here I was able to see what the car could really do, as for six miles the road continuously ascends; there is only the small village of Assendon to slow up for, and but two or three intersecting by-roads. From the end of the Fair Mile until reaching the top of the last hill before Watlington the speed never dropped below 30 miles per hour, not an estimation of the speed attained, the Cowey speedometer being relied upon. I thought the pace to be slightly higher, but, as later in the day I made a few tests of the instrument against the watch and milestones, which proved it to be accurate, I accepted the mechanical means rather than my own judgment. Around Watlington are numerous picturesque villages, Cuxham in particular being more typical of Devonshire, with its thatched roofs, climbing roses trailing everywhere, and a tiny stream meandering alongside the single street. I was after tests, and so could only stay whilst our photographer exposed a plate, and then whizzed away towards Thame, up an exceedingly steep and winding lane, partly grass-grown and plentifully bestrewn with pebbles, whereon the county steam roller can never have performed any duty. I had supposed this really ought to be a bottom-speed hill (the Vauxhall has four forward speeds actuated by a sweetly-working gate lever), but the engine simply lifted the three of us up without an effort on third. To say I was astonished would not be sufficiently expressive. I ventured the remark to the company's driver who accompanied me, "Was the Trials car as good as this?" and, receiving the stolid reply, "Oh, about the same," I concluded he had reached far beyond the enthusiastic stage. The car did not "roar" up the ascent, or any other of the many I tried it at before the journey ended, but when the accelerator pedal was very gradually pressed down, fraction by fraction, the nearest simile that occurs to me is that of ascending in a lift at a first-class hotel. I will

In the centre of Cuxham, a picturesque village nestling in a fold of the Chiltern Hills.

Cars on the Road.—Contd.

not venture to chronicle the speed up some of the comparatively easy hills on these by-ways, for I have no desire to appear to emulate Baron Munchausen, yet the man beside me dared to suggest that the car ought to be properly tuned up, and then I would be better able to judge its merits.

The piece of country from Thame through Princes Risborough to High Wycombe is a pleasant variant upon the High Wycombe-Stokenchurch road to Oxford, and is well worth taking if only to have a glimpse of the huge market place at Thame that still evidences something of the old glory of weekly market day on Tuesdays, with the penned sheep and groups of farmers' wives bargaining over the sale of their dairy produce. Coming south from Thame, a prominent landmark is a huge cross, cut in the chalk on one of the heights above Risborough, and which seems to dominate the country hereabouts, as it is visible from as far afield as Tring and right up the Vale of Aylesbury. This fine and well-surfaced stretch of roadway was merely ambled over, for although I had one or two opportunities of speed runs on quiet levels (and thereby confirmed the impression given on the Brooklands track tests that this car can travel faster than the average recorded on June 27th), I was more intent on manipulating the throttle and trying the flexibility of the engine on top gear. This was found to be eminently satisfactory, the W. and P. carburetter proving to be delicately responsive to the merest touch of the pedal. One of the probable reasons of the extraordinary power on hills, etc., of the car may be due to the high speed of the engine and the comparatively high compression which is beyond that hitherto thought to be proper for touring cars. With engine compression, one expects difficulties in starting up, but after luncheon I started the engine with a single sharp pull up of the handle, on the magneto ignition only, and, moreover, the carburetter was not agitated then or at any time during the day when the engine was stopped for photographic purposes. Stranger, perhaps, than all else is the fact that the engine starts quite easily with neatly closed throttle, and, when standing, turns at a remarkably slow number of revolutions.

The control is reduced to the simplest possible elements, no levers being on the wheel, speed being entirely regulated by an accelerator pedal. There is an advance and retard lever on the steering column for the accumulator coil ignition, but as this is only fitted as a stand-by in the remote contingency of the high-tension magneto breaking down, it need not be reckoned. With an accelerator pedal it is usual to arrange an adjustment beneath the bonnet to prevent the engine stopping when the pedal is released, but this adjustment is made on the dashboard, an extension rod going straight down to the pedal arm into a couple of nuts to regulate the throw of the pedal between minimum and maximum. The pull-up lever brake suits my own method of driving better than the push-forward type, and I am glad to see it fitted to the Vauxhall. I finished a delightful drive of 120 miles with the knowledge that the makers have "struck oil," and if any of my friends who may be lucky enough in the future to own a 20h.p. Vauxhall will give me an invitation for a drive they can reckon they will be conferring an extreme pleasure upon one who reckons he can discriminate impartially between the fair and super-excellent.

The "Four-inch" Race: Entries and Route.

The undermentioned cars have been entered in the order given at the ordinary fee for the "Four-Inch" Race:—25.6h.p. Rover, Mr. J. K. Starley; 25.6h.p. Hutton, Mr. S. F. Edge; 25.6h.p. Arrol-Johnston, Mr. Ernest A. Rosenheim; 25.6h.p. Arrol-Johnston, Mr. Ernest A. Rosenheim; 25.6h.p. Rover, Mr. Harry Smith; 25.6h.p. De Dion-Bouton, Mr. J. W. Stocks; 25.6h.p. Hutton, Mr. J. E. Hutton; 25.6h.p. Darracq, Mr. A. Rawlinson; 25.6h.p. Darracq, Mr. A. Lee Guinness; 25.6h.p. Darracq, Mr. A. Rawlinson; 25.6h.p. Hillman-Coatalen, Mr. L. Coatalen; 25.6h.p. S.C.A.T., Mr. J. Newton; 25.6h.p. Vulcan, Mr. Thomas Hampson; 25.6h.p. Coventry Humber, Mr. Walter Phillips; 25.6h.p. Beeston Humber, Mr. T. C. Pullinger; 25.6h.p. Beeston Humber, Mr. T. C. Pullinger; 25.6h.p. Metallurgique, Mr. Warwick Wright; 25.6h.p. Metallurgique, Mr. Warwick Wright; 25.6h.p. Metallurgique, Mr. Warwick Wright; 24.8h.p. Berliet, Mr. J. E. Hutton; 24.8h.p. Berliet, Mr. J. E. Hutton; 25.6h.p. Thornycroft, Mr. Tom Thornycroft; 25.6h.p. Thornycroft, Mr. D. S. Hodge; 25.6h.p. Hutton, Mr. P. D. Stirling; 25.6h.p. Vinot, Mr. Gordon Usman; 25.6h.p. Vinot, Mr. Roland Outhwaite; 25.6h.p. Calthorpe, Mr. G. W. Hands; 25.6h.p. Calthorpe, Mr. T. Russell Fletcher; 25.6h.p. Hillman-Coatalen, Mr. L. Coatalen; 25.6h.p. Deasy, Mr. Philip Graham; 25.6h.p. Deasy, Mr. Edmund W. Lewis; 25.6h.p. Arrol-Johnston, Mr. Geoffrey Moss; 25.6h.p. Thornycroft, Mr. Guy V. Baxendale; 25.6h.p. Westinghouse, Mr. A. Gaal; 25.6h.p. Westinghouse, Mr. A. Gaal.

The entry list finally closes on August 1st, at 12 noon. It will be seen that of these entries 21 are of British origin and 14 of foreign origin. This race has caused widespread interest in every quarter, and it is expected that there will be a great influx of visitors to the Isle of Man at the time of the race, which will probably be held on Thursday, September 24th. The "Four-Inch" Race differs from previous Tourist Trophy races, in that it is shorn of technicalities, and therefore, from the public point of view it will be more interesting than those Tourist Trophy races which have been held on a fuel-consumption basis, and which have provided much interesting and valuable data to enable manufacturers to produce a more efficient car.

The Tourist Trophy itself will be handed to the winner of the "Four-Inch" Race, to be held for one year.

The Route.

At a meeting of the Highway Board of the Isle of Man held in Douglas on Wednesday last, the application of the Royal Automobile Club for permission to hold a race for motorcars was considered, and it was decided to issue permission for the race to take place on Thursday, September 24th next, the date asked for by the club. So far there has been no application in connection with the motorcycle "T.T." race or the "Graphic" Cup. Considerable satisfaction is felt in the island at the number of entries for the race. The course was also fixed for the "Four-inch" race, and it will be the old Gordon-Bennett eliminating trial course, which starts at Douglas, goes through Castleton, to Fordale, to Glen Helen, to Kirk Michael, along the level mile at Ballaugh, to Ramsey, up the mountain and back to Douglas, a total distance of 52 miles. Parts of the course, over which our representative has driven during the last few days, are very bad, especially for racing, and unless considerable attention is at once paid to the roads, broken springs will be numerous. The Manx people are all eagerly looking forward to the races, which will please them more than the T.T. races.

Frome's Hill-climb Abandoned.

The secretary of the Herefordshire A.C. informs us with regret that the Frome's hill-climb, which had been fixed for the 10th inst., has been abandoned, owing to there not being sufficient entries to warrant the club carrying out the event without a very large loss. No doubt the postponement from the original date—May—has been one of the principal causes of the smallness of the entry. It is a pity, as this has hitherto been one of the events of the [illegible]

The shortest mile in England, between High Wycombe and West Wycombe. Rear face of square stone on top of pillar says, "XV miles to the County Town," whilst direction post gives the distance as 14 miles to Aylesbury.