

The Light Car and Cyclecar

ed 1912

the only Small Car Journal

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Friday, Nov. 30, 1928
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THE LIVING SIGN, GRANTHAM.

This small inn has for its sign a beehive in the tree outside. On the board it is written: Stop, traveller, this wondrous sign explore and say, when thou hast viewed it o'er and o'er: "Grantham, now two rarities are thine, a lofty steeple and a Living Sign."



BETWEEN BARNOLDSWICK AND KELBROOK.

The picturesque but tortuous stretch of road in Yorkshire which is to be rebuilt. It is described as one of the most remarkable pieces of road making in the country. (See news paragraph overleaf.)

NOTES, NEWS & GOSSIP *of the* WEEK

Our Sixteenth Birthday.

This week we celebrate our sixteenth birthday. The first issue of this journal was published on November 27th, 1912.

Police and Cyclists.

Cheshire police are taking action to enforce the "red light law" and cyclists throughout the Northwich area have been warned that any riders found without efficient rear red lights or reflectors will be brought before the magistrates.

This Week.

Readers are referred to a separate explanatory paragraph on another page concerning a new series of articles, the first of which appears in this issue and deals with the Swift. This new series of articles takes the place of "Road Tests of 1928" models, which, of course, have now been discontinued. Readers' opinions concerning the new treatment will be appreciated. The difference between accurate and inaccurate estimates of running costs are emphasized in a very interesting article which forms a prominent feature of this issue. In the correspondence section a number of interesting letters on the question of deaf drivers are included.

ON OTHER PAGES

Light Cars of 1929 Reviewed in Detail:—

The 10 h.p. Swift	6
Comparing Running Costs	10
Rich Mixture	14
Topics of the Day	17
Night Adjustments Made Easy	19
Sidelights on Current Happenings	22
Our Readers' Opinions	24
Club Items	27
Ideas for Owners	23

LIGHTING-UP TIMES.

Saturday, December 1, 1928.

London ..	4.23	Edinburgh ..	4.12
Newcastle ..	4.11	Liverpool ..	4.26
Birmingham ..	4.25	Bristol ..	4.33

Moon: Last Quarter, 4th.

Making Racing Worth While.

We are informed on good authority that a comparatively small number of Italian drivers netted about £4,500 in prize money during 1928.

"Honourable Officers."

At the annual dinner of the New Cyclecar Club a good deal of amusement was caused by the toastmaster, who referred to the *honourable* general secretary and other "honourable" officers of the club.

Result of German Show.

It is stated that 10,000 cars and motorcycles were sold as the result of the Berlin Motor Show during the 10 days it was open and that no fewer than half a million people visited the exhibition.

Next Week.

Our Closed Car Number created widespread attention and we have received several letters from readers asking us to continue to present aspects of closed-car motoring of general interest. A topic which at once suggests itself is the need for eliminating noise in a saloon or coupé body, and next week we shall include an informative article on this subject.

Memorial to Sir James Percy.

A committee has been formed with the object of raising funds to perpetuate the memory of the late Sir James Percy, D.L., and to secure in perpetuity the education and maintenance of a child at the Children's Home of the Motor and Cycle Trades Benevolent Fund. Remittances should be sent to the hon. treasurer, Mr. Robert Willis, 2 and 3, Newman Street, London, W.1.

The Festive Board.

To-night, at the Connaught Rooms, the annual dinner of the M.C.C. At the Park Lane Hotel, the annual dinner of the Surbiton Motor Club. Next Friday, at the Connaught Rooms, the annual dinner of the J.C.C.

A Discerning Buyer.

H.H. The Maharajah of Kashmir has placed an order with Alfa-Romeo British Sales, Ltd., for one of the 15-75 h.p. six-cylinder Alfa-Romeo sports cars. The coachwork is being specially built by Messrs. Barker and Co. (Coachbuilders), Ltd., 66, South Audley Street, London, W.1.

1.55d. per Mile.

Jowett Cars, Ltd., have issued a very interesting little folder giving the average maintenance costs for a 7 h.p. two-seater Jowett over a period of five years and based on a mileage of 10,000. The figures give the fractional cost of every important item and show that the average cost for five years equals 1.55d. per mile.

Another Rival to Daytona.

According to *The Cape Times* a speed track ideal for attempts on world's records has been discovered at Vernukpan, 150 miles north-east of Calvinia, and some 400 miles from Cape-



An aerial view of one of London's largest free car parks—Waterloo Place, with a most imposing statue towering high above it.

town. The area represents a level stretch of hard surface measuring 10 miles by 20 miles, and it is said that an ordinary car can be driven at 75 miles an hour over the perfect surface with hands off the steering wheel.

Speed Attempt Next Year.

The Contest Board of the American A.A. announces that Major Segrave will make an attempt on the world's speed records in March next. The run will take place on one of the Florida beaches, or on one of the dry lakes of California, unless, of course, Major Segrave is attracted by the new speed course to which *The Cape Times* gives prominence.

BS

CAR TYPES CARICATURED.



No. 6.—Semi-sports.

Guides and the Gale.

Carrying on long after their regular hours of duty and doing everything within their power to facilitate the progress of motorists R.A.C. guides have done valuable work during the recent storms. The A.A. road patrols also performed a vast amount of useful work both by day and by night.

Calder Valley Improvements.

Various important road schemes in the Calder Valley district have been sanctioned by the Highways sub-committee of the West Riding County Council. Among these is the Sowerby Bridge Council's revised plan for widening the main road in front of Crow Wood Park. This plan will allow the existing line of trees to be retained, as well as a grass verge, the footpath to be between the trees and the boundary wall.

Two Hebden Bridge schemes, the estimated cost of which is £28,000, have been approved. They comprise the widening of the West End and Bankfoot bridges. An offer from the Hebden Bridge Council to contribute £2,380 has been accepted, but the West End widening only is to come in the estimates for the next financial year.

It has been resolved to go forward with the improvement scheme between Woodbine Place, Hebden Bridge and Whiteley Arches.

Ford to Make Tyres?

According to Reuter, materials to be used in erecting a tyre plant for the Ford concern have arrived at Para. It is rumoured also that Henry Ford intends to establish big rubber and cotton plantations.

Pioneer One-make Club.

Nearly 80 members and friends of the Southern Jowett Light Car Club attended the closing rally of the season at Godstone on Sunday last. The S.J.L.C.C. is, of course, a pioneer amongst one-make clubs and, judging by the proceedings on Sunday last—which are fully reported under "Club Items"—the enthusiasm of the members is just as great as when the club was formed five years ago.



An arresting danger sign at the bottom of Dedham Gun hill, on the borders of Essex and Suffolk, where an old iron bridge is being rebuilt.

The Motor Boat Buyers' Guide.

On November 30th our associated journal *The Motor Boat* will publish a Buyer's Guide Number, which, this year, will take the place of a Show issue, there being no marine exhibition until the autumn of 1929.

The Buyer's Guide Issue will include all the usual features, and in addition a fully illustrated article dealing with standardized craft of all types, ranging from high-speed runabouts to motor cruisers.

A NEW SERIES OF ARTICLES OF UNIVERSAL INTEREST.

IN this issue we begin a new series of articles entitled "Light Cars of 1929 Reviewed in Detail." One of the main features of each article will be a comprehensive description of the particular chassis concerned and with special reference to its outward characteristics. In this way we hope to give owners and prospective owners a far better idea of the make-up of their cars than they are able to obtain in any other way except by making a detailed study of the chassis itself "in the flesh." In describing the various components care

will also be taken to deal with the maintenance and adjustments which each part may require, whilst the articles conclude with a test-run report to show how the car behaves on the road. We are going to a great deal of trouble in preparing these articles and we hope our readers will co-operate with us in making the series widely known amongst their friends. This week we deal with the 10 h.p. Swift, and we have in course of preparation for inclusion in the near future similar articles on other popular makes.

ANOTHER COMPULSORY INSURANCE BILL

—In Addition to Measure Already Before the Lords—
New Bill Given First Reading.

ANOTHER Bill—apart from that of Lord Cecil of Chelwood, which made its debut in the House of Lords—to make it obligatory upon owners of motor vehicles to be insured against third-party risks has been introduced by Mr. Wardlaw Milne. This matter, he said, was too urgent to await the introduction at some future date by the Minister of Transport of his delayed Road Traffic Bill. Mr. Milne proposes in his Bill that the insurance companies' form of policy should be approved by the Minister of Transport instead of by the licensing authorities. He also proposes that the right of the third party to be paid by the insurance company should be put in as against the present system, under which persons damaged in accidents have only a claim at common law. The Bill was given a first reading, and, presumably, its details will be discussed in Standing Committee.

In the course of a debate on the London Traffic Act, considerable criticism was directed against the Minister of Transport with regard to various aspects of traffic in the metropolis. Mr. Garro-Jones complained that nothing was being done by the Ministry to deal with the slow-moving horse-drawn traffic,

which causes great delay to motor traffic.

Nothing had been done by the Ministry (the hon. member continued) with a view to minimizing the number of accidents caused in London streets, more than 50 per cent. of which were caused, strangely enough, by traffic moving at less than 10 miles an hour. None of the suggestions that had been put forward with a view to minimizing the toll of accidents—such as improved lighting—had been adopted.

The defence offered by the Minister of Transport was, generally speaking, that the available Parliamentary time is so limited, especially in a congested session such as the present, that reforms, which were desirable, could not be carried out at once.

Attention was called by Sir John Power to what he alleged was the inadequacy of many of the rear reflectors attached to bicycles, and he asked whether the authorities intended to take any action in this matter. The Minister of Transport, however, expressed himself satisfied with the standard of reflection prescribed by the Road Vehicles Lighting Regulations, and he could not see his way to do more than had already been done.

Monte Carlo Rally.

The Monte Carlo Rally will be held next January, competitors arriving at Monte Carlo on Wednesday, the 23rd. The regularity competition which serves to classify competitors, will be held the following day over two laps of the Col de Braus circuit. On the Friday there will be a "comfort" competition on the terrace of the Casino, while Saturday will be given over to a hill-climb. The proceedings will be brought to a close on Sunday by a parade of cars.

R.A.C. Local Office.

Owing to the very large increase in the work of the R.A.C. office at Liverpool it has been found necessary to move into more commodious and convenient premises at 6, Lord Street. The offices will be on the first floor and are situated in one of the best positions in Liverpool, at the junction of Lord Street and St. George's Crescent. Parking accommodation is available immediately adjoining in St. George's Crescent.

New Level-crossing Bridge.

A bridge over the Mere railway level-crossing is a feature of an improvement scheme to be put forward by Scarborough Town Council.

"Ebby" Comes of Age!

Mr. A. V. Ebbelwhite this year celebrates his twenty-first anniversary as an official timekeeper at Brooklands. His services date back to the opening year of the track in 1907.

Classic French Reliability Trial.

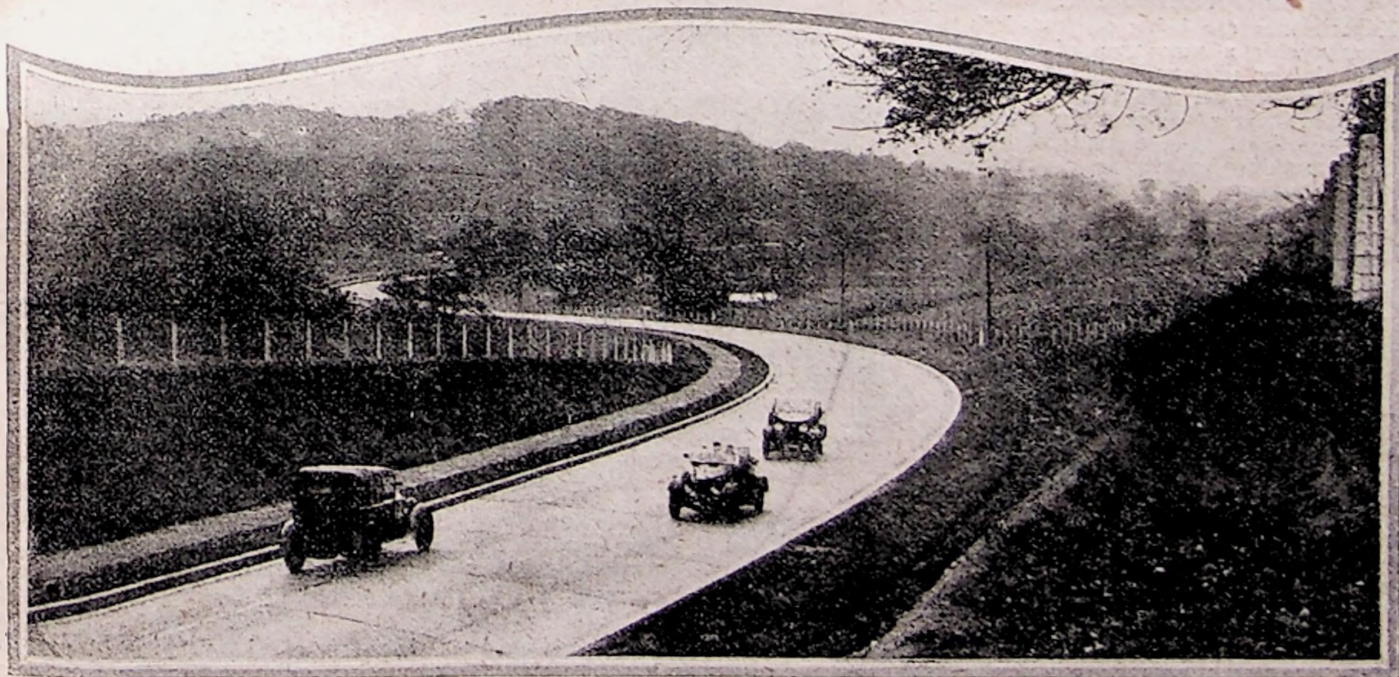
Out of a big entry only a few competitors finished the course of La Coupe de l'Armistice without penalization. These included Siran (D'Yrsan), Grégoire (Tracta), Costa de Beauregard (Bugatti) and Tersen (Bugatti).

Oil From Coal.

A bright future for gas companies who adopt the low temperature method of carbonization in extracting oil from coal was predicted by Lieut.-Col. W. A. Bristow at the annual meeting of the shareholders of Low Temperature Carbonization, Ltd.

The Monza Accident.

During an official inquiry into the accident at Monza, when Materassi's car dashed into the crowd, killing a number of spectators, a well-known Italian engineer was asked to answer the following questions:—(1) What was the cause of the accident? (2) Did Materassi and Foresti touch one another? (3) If so, which of the two drivers was to blame? (4) Do the arrangements of the track provide adequate protection for spectators? The replies were as follow:—(1) A fault in the steering mechanism. (2) He rejected absolutely the idea of even a superficial collision. (3) The question was without application. (4) He considered that means taken to protect spectators were insufficient, and that adequate safeguards should be introduced.



THE ART OF THE
MODERN ROAD MAKER.

A view of the new Dorking by-pass road looking towards the town. The road is typical of the magnificent new highways which are being built—largely out of motorists' money.

Perpetuating His Memory.

A Materassi racing stable which will include the 1,500 c.c. eight-cylinder Talbots has been formed in Italy with the double object of keeping the old team together and of perpetuating the memory of the great Italian driver.

New Northern By-pass.

Certain proposals—to go before the Ministry of Transport and designed to relieve congestion at Malton—are being drawn up by the local councils after consideration of schemes for a by-pass road.

Club for Disabled Drivers.

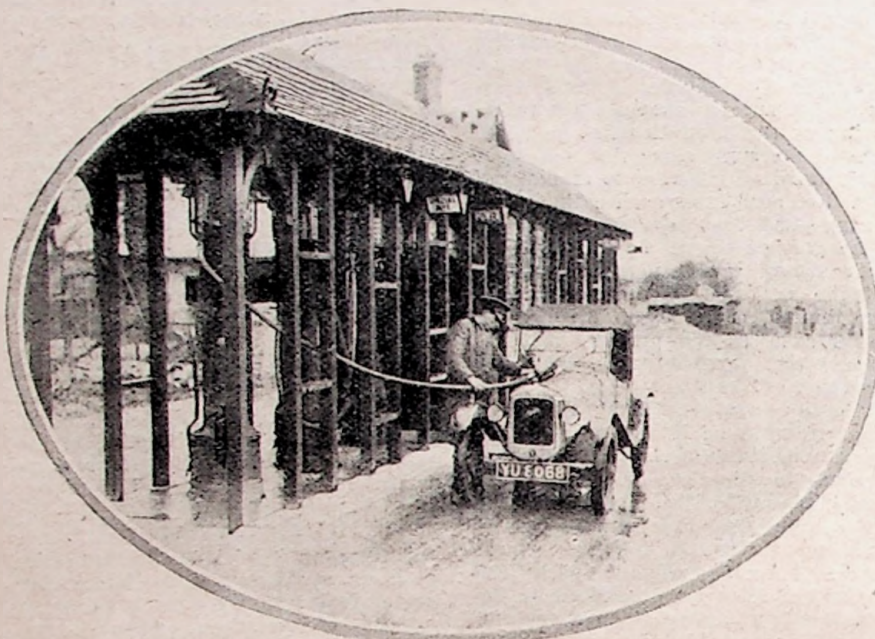
Disabled drivers are reminded that a very excellent motor club—The Disabled Drivers M.C.—caters exclusively for their interests. On Saturday last the club held a very successful rally at the Cromwell Hotel, Stevenage, the number of members attending being indicative of the fact that it is a flourishing little body. Full details can be obtained from the hon. sec., Mr. P. Brough, "Bradenhurst," Hale Lane, Mill Hill, London, N.W.7.

Aid for an "Old Crock."

A novel claim was made under the R.A.C. "Get You Home" service when one of the old cars participating in the Emancipation Day Commemoration Run from London to Brighton broke down and failed to respond in any way to the efforts of its driver and observer. Finding that he was irretrievably stranded the driver sent a message to the nearest R.A.C. agent, and although it was early on Sunday morning a relief car was immediately sent out to tow the "old crock" in, the cost being defrayed in the usual way.

Mr. Morris's New Venture.

The Motor Boat announces to-day (Friday) a new venture of the famous motorcar manufacturers, Morris Motors, Ltd., namely, their entry into marine motoring by the production of an engine suitable for the propulsion of launches and small motor cruisers. It will be rated at 12-24 h.p., and will be sold complete with full electrical equipment at £100. The most important components of the Morris marine motor will be interchangeable with those of the same make of car engine. The new marine motor will be available to the public in the course of a few weeks.



NOT DISFIGURING
THE COUNTRYSIDE.

The architectural treatment of this wayside filling station on the Kingston by-pass is certainly a step in the right direction.

Good Light Essential.

The importance of good lighting for factories and workshops is stressed by the British Electrical Development Assoc. Inc. Good lighting, says the association, reduces lost time, increases output, reduces errors, reduces waste material, reduces eye-strain, reduces accidents, facilitates supervision, and ensures a more contented staff.

Another Rocket Car.

Experiments are being conducted in Germany with a new type of rocket car running on railway lines and somewhat resembling the low-built crocodile truck used by the railways for carrying big castings, girders and so forth. There are thirty rockets in all, these being somewhat smaller than those used on the original rocket car, and they are arranged between the side members of the frame in groups of five. An American enthusiast is experimenting with a rocket-driven model aeroplane which has attained a certain measure of success.

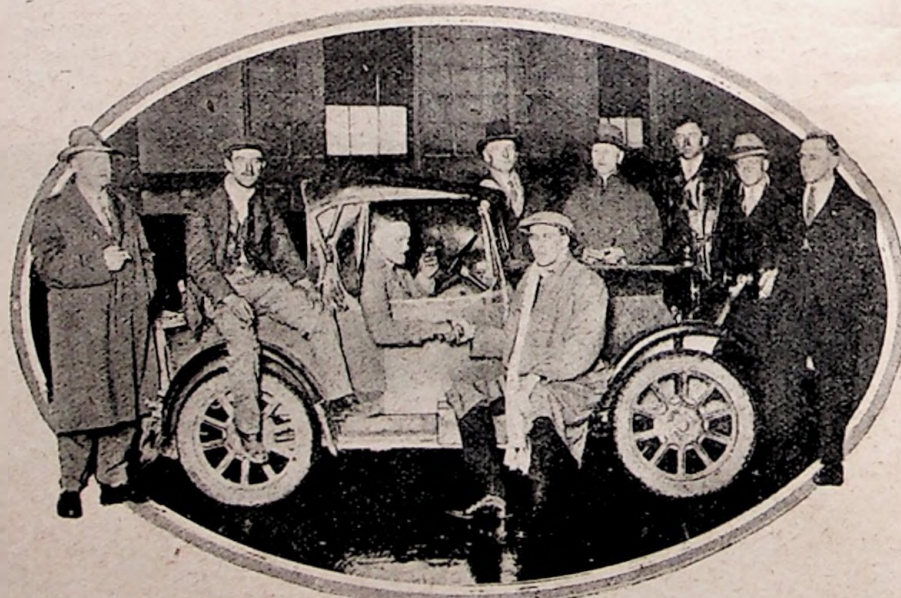
New Yorkshire Road.

The West Riding County Council and the Barnoldswick Urban Council have come to an agreement which will result in a new road being made between Barnoldswick and Kelbrook in place of the present tortuous route—one of the most remarkable pieces of road-making to be found in the country. The road twists and turns over canal bridges in a most amazing fashion, as can be seen from our frontispiece photo. There is a steep descent to the first bridge, seen in the foreground, and the road eventually crosses the canal after half a dozen bends, at the point where the canal disappears in the distance.

B10

Taxation Problems.

In the course of an interesting speech at the annual dinner of the Scottish Motor Trade Association, Sir Alfred Mays-Smith said it had been suggested that they should obtain a



FROM PERTH
TO SYDNEY

Piloted from Perth to Sydney—a distance of 2,900 miles—the Triumph Super Seven, seen above at the end of its practically non-stop journey, ran throughout with clockwork regularity.

reduction in the tax on second-hand cars of a certain age, but before they pushed for any minor modification he thought they should consider first a general reduction of motor taxation and, second, the devotion of all motor-tax proceeds to road construction.

In view of the very rapid growth of motor boating during the past year or two, this new development is of the greatest importance. It is understood that Mr. W. R. Morris is particularly interested in the marine market because of its export possibilities.

Lanslebourg at the foot of Mont Cenis



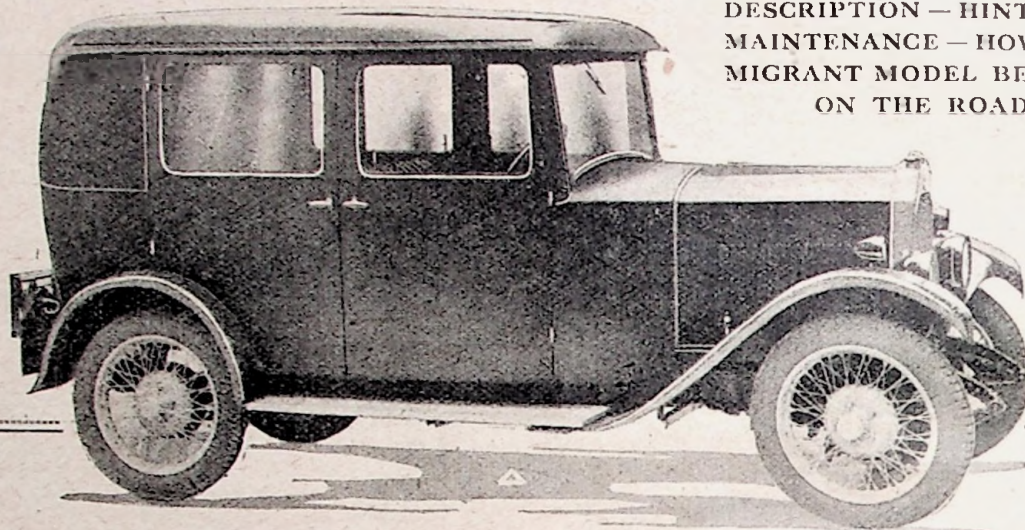
LA PARRACHÉE 1100 FEET



TYPICAL STREET SCENES.

Light Cars of 1929 Reviewed in Detail.

THE 10 H.P. SWIFT.



The Migrant fabric saloon which has twin "Sun or Shade" roller tops.

AN ALL-BRITISH LIGHT CAR WITH A PEDIGREE—A COMPLETE CHASSIS DESCRIPTION—HINTS ON MAINTENANCE—HOW THE MIGRANT MODEL BEHAVES ON THE ROAD.

SWIFT OF COVENTRY, LTD., are in the enviable position of making many new friends every day, and the gradually increasing popularity of this pioneer small car has been obtained by pursuing a very sound policy. Swifts are not made to sell at a low figure; and the directors of the company have placed a reasonable price on their products, believing that the common-sense section of the public which can afford to pay anything between £200 and £300 for a car will find in Swift products full value for their money.

As our readers are already aware, the 1929 chassis has been considerably improved in minor as well as major details: of outstanding interest is the fitting as standard of a four-speed gearbox.

The chassis itself well repays careful examination, for it boasts of a number of original points in construction, a full understanding of which will enable Swift owners the better to enjoy owning and driving this make of car.

In describing the chassis care will be taken to deal specifically with outward characteristics, by which is meant those parts which an owner can see, or to which he has direct access. It is also thought that whilst particular parts of the chassis are being described, a reference to the maintenance which they call for—unless it is obvious—will not be out of place. Every endeavour has been made to avoid explanations of too deep a technical character but, here and there, detailed descriptions have been deemed advisable.

The General Layout.

The general layout of the 1929 Swift is shown clearly in the drawing on ensuing pages which has been prepared especially by an artist of *The Light Car and Cyclecar*. In general principle it is conventional, that is to say, it has a four-cylinder engine, disc clutch and four-speed gearbox—all in unit—an open, tubular propeller shaft and final drive by helical bevel and differential to the rear wheels.

The engine itself consists of three main castings, namely, the detachable head, the cylinder block and

upper part of the crankcase, and the sump. The timing case is interesting in that it has three separate covers, the first giving easy access to the timing chain, the second to the dynamo sprocket and the third to the magneto sprocket. The engine is supported in the frame in the usual way by bearer arms, the rear bearer arms being considerably stiffened by being incorporated with the clutch housing.

Engine Well Cooled.

As cooling is solely by thermo-siphon, care has been taken to design the whole layout so that over-heating shall not take place, and with this end in view the water pipes have been made large in diameter and the head tank of the radiator has a rise of roughly 12 ins. above the outlet manifold.

The return manifold from the lower part of the radiator is fitted with a tap, so that by merely opening this every drop of water can be drained from the system.

Contrary to usual practice the exhaust is led away from the rear end of the block: the manifold is of special shape to ensure an easy flow of the gases. On the same side of the engine—that is, the rear side—are the large combined oil filler and dip-stick, the removable cover giving access to the tappets and the large sump drain plug, which is placed on the side of the sump and

not underneath—a good point.

The four cylinders have a bore and stroke of 62.5 mm. and 97 mm., giving a cubic capacity of 1,190 c.c., and a R.A.C. rating of 9.7 h.p.: the tax is £10. Split-skirt pistons are employed so as to eliminate slap, the con. rods are of H section and a very sturdy three-bearing crankshaft is employed. The chains used for driving the camshaft dynamo and magneto are of unusually short pitch with the idea of reducing noise and increasing longevity, whilst the care with which the whole car has been thought out is strikingly exemplified by a very sturdy ball race which carries the magneto armature driving spindle and which is intended to prevent any possibility of armature trouble developing through distortion.

AT A GLANCE.

ENGINE: Side-valve, three-bearing, four-cylinder, 62½ mm. x 97 mm. (1,190 c.c.). Tax £10.

TRANSMISSION: Single-plate clutch, four-speed gearbox (unit construction), right-hand controls, open propeller shaft and spiral bevel to full differential.

DIMENSIONS: Overall length, 12 ft. 2 ins., overall width, 4 ft. 9 ins., ground clearance, 8½ ins.

MODELS and PRICES: Fleetwing Sports Saloon, £295; Migrant Saloon, £270; Nomad Saloon, £260; two and four-seater tourers, £220; coupe, £235. Wire wheels £7 7s. extra on all models except Sports Saloon.

MAKERS: Swift of Coventry, Ltd.

Adjustment of chain tension is made in the usual way by swinging the dynamo to or away from the chain centre. The oil pump is driven direct off the camshaft and projects skew-wise into the sump, the bell-mouthed opening of the oil intake being covered with gauze.

The oiling system is simplicity itself, the pump delivering oil to a main gallery cored in the crankcase, whence leads are taken to the crankshaft and camshaft bearings.

A pressure relief valve is fitted in the front end of this cored passage, but the system is of the constant-pressure type, and should it be desired either to raise or lower the average oil pressure which is maintained under ordinary conditions the tension of the relief spring itself must be altered to suit, or a new spring with the required tension inserted. Access to this valve is gained by removing a small circular cap on the front of the timing case, but owners are not advised to endeavour to alter the adjustment unless they first consult the makers or their local service station. From the opposite end of the oil gallery a pipe is led away to the oil pressure gauge on the fascia board.

The cylinders themselves are slightly offset, and it is interesting to note that during their construction those surfaces which require machining are merely skimmed up and then ground. The carburettor employed is a horizontal Solex, and it is fitted on the off side of the cylinder block, the mixture passing between the two inner cylinder barrels in the usual way so that it is adequately warmed before being fed into the cylinders themselves.

The generally recommended carburettor setting is as follows: Main jet, 105; auxiliary jet, 57.5; choke tube, 20. The magneto is a B.T.H., the leads from the distributor being commendably short, whilst the

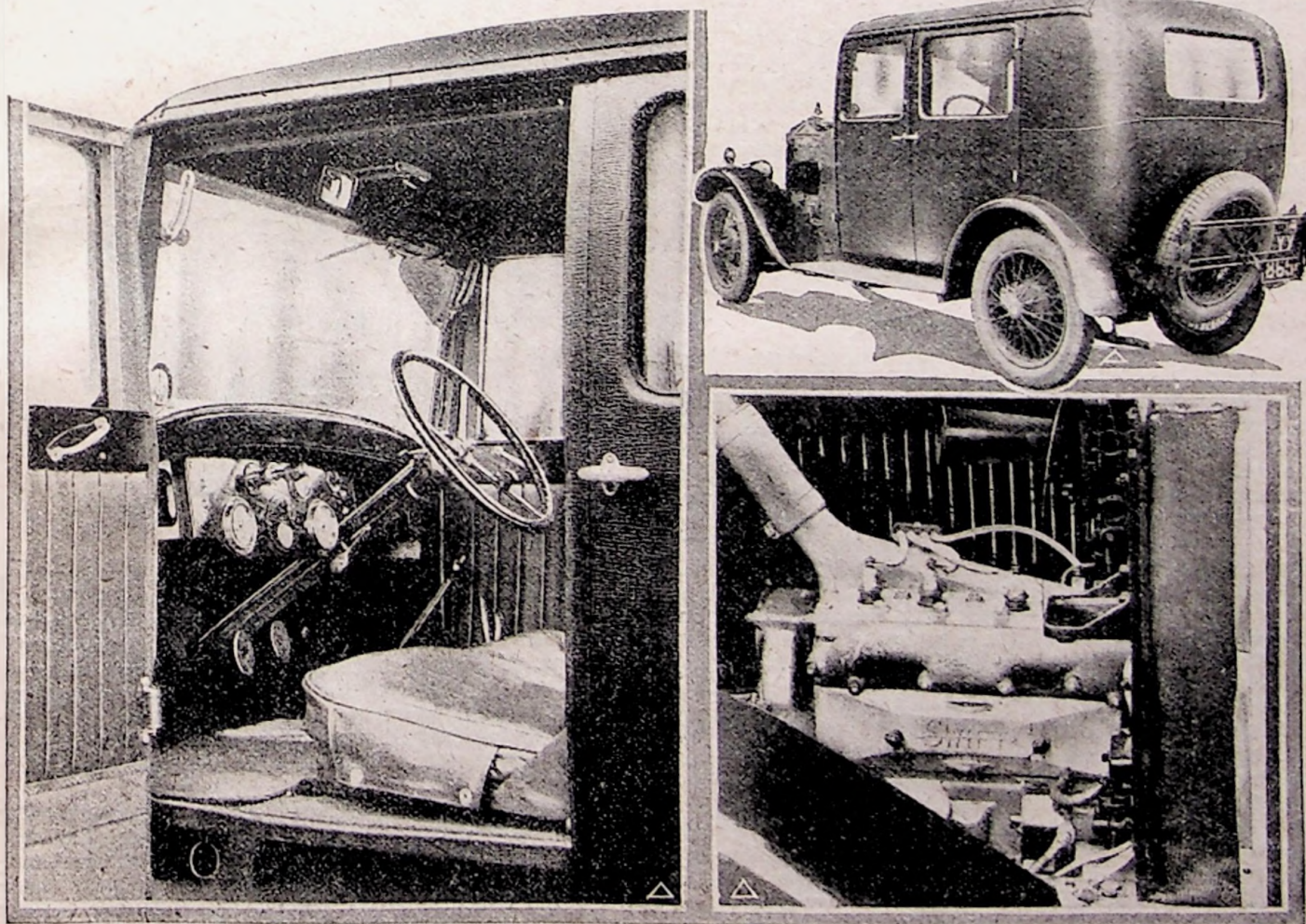
plugs are, of course, easily accessible, screwing vertically into the cylinder head. The electrical equipment throughout is of Rotax manufacture.

It is a simple matter to remove the cylinder head, it being necessary merely to break the upper water connection and remove the sparking plugs, when the cylinder head nuts may be slacked off and the head eased in the usual way. Should it be necessary to re-set the timing at any time it should be remembered that the inlet valve should open half a flywheel tooth before top-dead centre, whilst the exhaust should close three-and-a-half teeth beyond T.D.C. Access to the tappets is easily made, the correct clearances being: Inlet, .002 in.; exhaust, .003 in.; adjustments being made when the engine is warm.

Moving now a stage farther aft, a detailed description of the clutch and so on may be given with real advantage. It is of the single-plate type, the inner driven member being compressed between the flywheel and the outer driving member—when the clutch is in—by helical springs. The drive from the flywheel to the outer driving member is communicated by three studs in the usual way. The inner clutch member is mounted on a spline, the extremity of the same shaft (acting in the capacity of a clutch spigot) being carried in a ball race.

The 1929 models of the Swift incorporate a very useful clutch stop, which takes the form of a rectangular strip of red fibre secured to the top rear face of the withdrawal thrust race housing, which bears up against a rotating flange integral with the clutch shaft.

The existence of this clutch stop makes it essential that the withdrawal race and its housing shall not be able to rotate. A peg is therefore fitted on each side of the race housing so that movement is limited to



The interior view shows, in addition to standard fittings, various extras added by the owner. These include a mirror, Perspectus glare shield and rubber heel-mat. (Inset) A three-quarter rear view of the car and the near side of the engine.

in. in either direction of rotation by one peg or the other coming up against one of the two pins in the withdrawal fork.

This accounts for a knocking sound which is frequently heard when the engine is switched off and which is due to one of the pegs striking one of the pins when the crankshaft gives a characteristic jerk back, owing to compression, as the engine finally comes to rest.

There are three important points to be remembered so far as lubrication of the clutch mechanism is concerned. First, periodical attention to the withdrawal race: oil is fed through a hole in the withdrawal fork and drips into a rectangular hole in the ball race housing, the latter always being immediately under the former because, as previously explained, the ball race and its housing cannot revolve.

The next point is the clutch pegs. On the easy movement of the driving-plate over these pegs depends the smooth action of the clutch. It is essential, therefore, that, periodically, a few drops of oil shall be given to the pegs, the clutch being worked in and out when the oil has been applied.

The third lubrication point is situated in the boss carrying the inner clutch member, and it is a good plan to put a "daub" of white paint on the plate when the oil orifice is at the top so that the task of moving the clutch into the correct position for feeding oil into this orifice can more easily be ascertained.

The clutch fork shaft itself is carried in a bearing on each side of the clutch pit, the fork being splined on to the end shafts and further locked by set screws which can clearly be seen on each side of the bridge piece. Incidentally, the end shaft bearings to which reference has just been made are fed with lubricant by greasers on the outside of the casing which may easily be overlooked.

At the end of a considerable mileage it may be necessary slightly to slack off the stop screw which limits the travel of the clutch pedal when all pressure is removed from it. Should clutch slip develop this screw should be slacked back until the minimum clearance of one thirty-second of an inch exists between the clutch fork pins and the withdrawal ball race housing. The clutch mechanism has been gone into in some detail because it is essential that Swift owners should have a clear idea of how it works and what has to be done in order to maintain the smoothness of this important unit.

The Gearbox.

A feature of the gearbox is that separate selecting mechanism is employed for reverse. When the car is new it may be found that some difficulty is experienced in moving the gear lever from reverse through the gate to the ordinary neutral position. In this case the driver will find that if he presses his right foot against the base of the gear lever it will slide quite easily—the reverse button being, of course, depressed.

The gear clusters are superimposed, the sliding pinions being on top. The level of the lubricant should be kept just below the bottom of the main shaft, which means that the layshaft carrying the fixed cluster of gearwheels, and the reverse pinion, will be entirely submerged. Thick gear oil and not grease is recommended: it is introduced by removing the cover of the gearbox, and no part of the mechanism comes away with the cover when it is taken off.

Between the gearbox and the back axle there is a tubular propeller shaft of the open type. This is self-centring in the universal joint which supports it at each end. There is a greaser at the forward end of the shaft, and it is recommended that the junction of the rear spider with the axle casing should also receive two or three drops of oil every thousand miles.

The rear axle is of the banjo type with a detachable forward housing and a large rear cover. When the latter is removed it discloses the entire differential mechanism, the hole being sufficiently large for the mechanism to pass through in the case of a complete

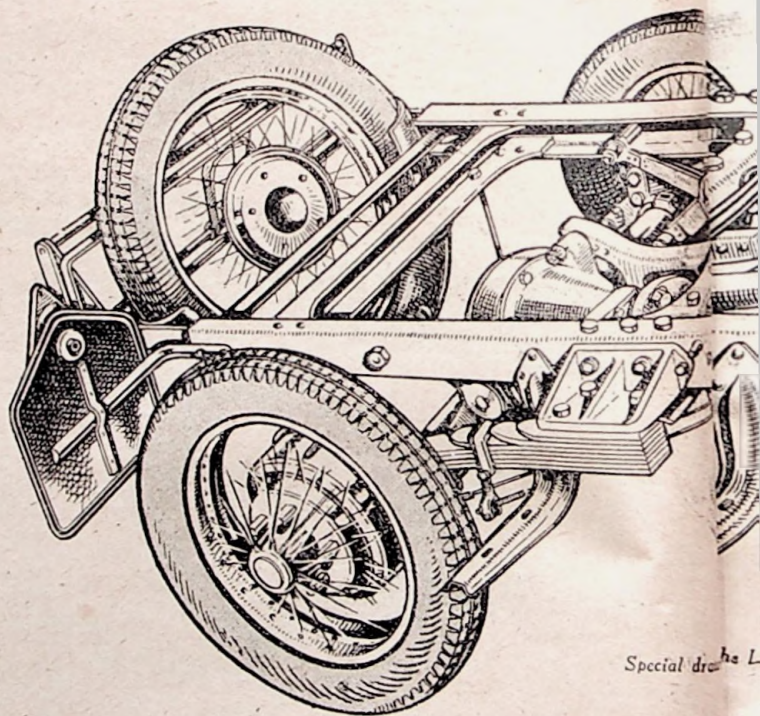
overhaul when the car has covered a big mileage. The actual thrust of the axle casing is transmitted through the master leaves of the rear springs, but a separate arm taking the form of a steel pressing secured to the differential casing at one end and suspended in a spring-loaded housing at the other end absorbs torque reaction strains.

The chassis frame is of channel section with straight side-members tapering outwards slightly towards the rear. The construction is extremely rigid, owing to the introduction of four channel steel cross-members and an additional tubular cross-member at the rear extremity of the frame.

Steering is on the worm-and-nut principle, the steering box being anchored in position by brackets on each side of the adjacent bearer arm, additional strengthening being supplied by a third bracket higher up the column. The drag link runs transversely from the drop arm of the steering box to an extension on the end of the near side of the track rod carrying a ball joint.

Brake Operation.

The four-wheel braking system is of Swift design and manufacture, the internal expanding shoes being applied by means of toggle mechanism. Front and rear brakes are compensated, the clutch pedal arm being coupled direct to the fulcrum point of a vertical whiffle tree. Needless to say, the various yoke ends



Special drive L

should be kept well supplied with oil, but the bearings for all the cross-shafts are fed from nipples on the outside of the frame members, holes being provided in the valances so that the grease-gun can easily be applied.

It should be noted that on the near side, adjacent to the rear spring anchorage, there are three of these nipples, the largest being coupled up by means of a pipe to the spring-loaded joint carrying the forward end of the torque arm. This should be given a plentiful supply of lubricant.

The suspension system itself is of very convincing design. Semi-elliptics with the major length of the spring assembly behind the axle are used at the front, there being six leaves in all, whilst at the rear there are seven exceptionally thick leaves. Two are master leaves, the lower leaf curling round an eye-bolt which provides a rigid connection between the axle and the frame and thus transmits the thrust of the axle to the chassis.

So much for a fairly detailed summing up of the

1920 Swift chassis from the point of view of an owner or prospective purchaser who wishes to gain a comprehensive but general idea of the make-up of the car. We may now turn to our actual impressions of a Migrant saloon, delivery of which was taken by a member of our staff a few weeks ago.

Road Performance.

This model, with its "Sun or Shade" twin rolling tops, was one of the features of the Olympia and Kelvin Hall Motor Shows, and its general finish and interior furnishing can be summed up by saying that it represents closed-car bodywork in an almost lavish form.

The body is particularly roomy, having ample leg-room both at the front and at the back. The pedals as well as the front seats are adjustable, the cushions are of the Moseley pneumatic type and the upholstery throughout is leather.

A single-pane windscreen which can be opened through an angle of 90 degrees, four doors—three having thief-proof catches and the fourth a lock—door pulls, pockets, a roof light, mats and a rear blind sum up the essential characteristics of a very well furnished interior.

Answering a question which has been frequently asked by prospective owners of this model, it may be said that the "Sun or Shade" roof is absolutely weather-tight, although at

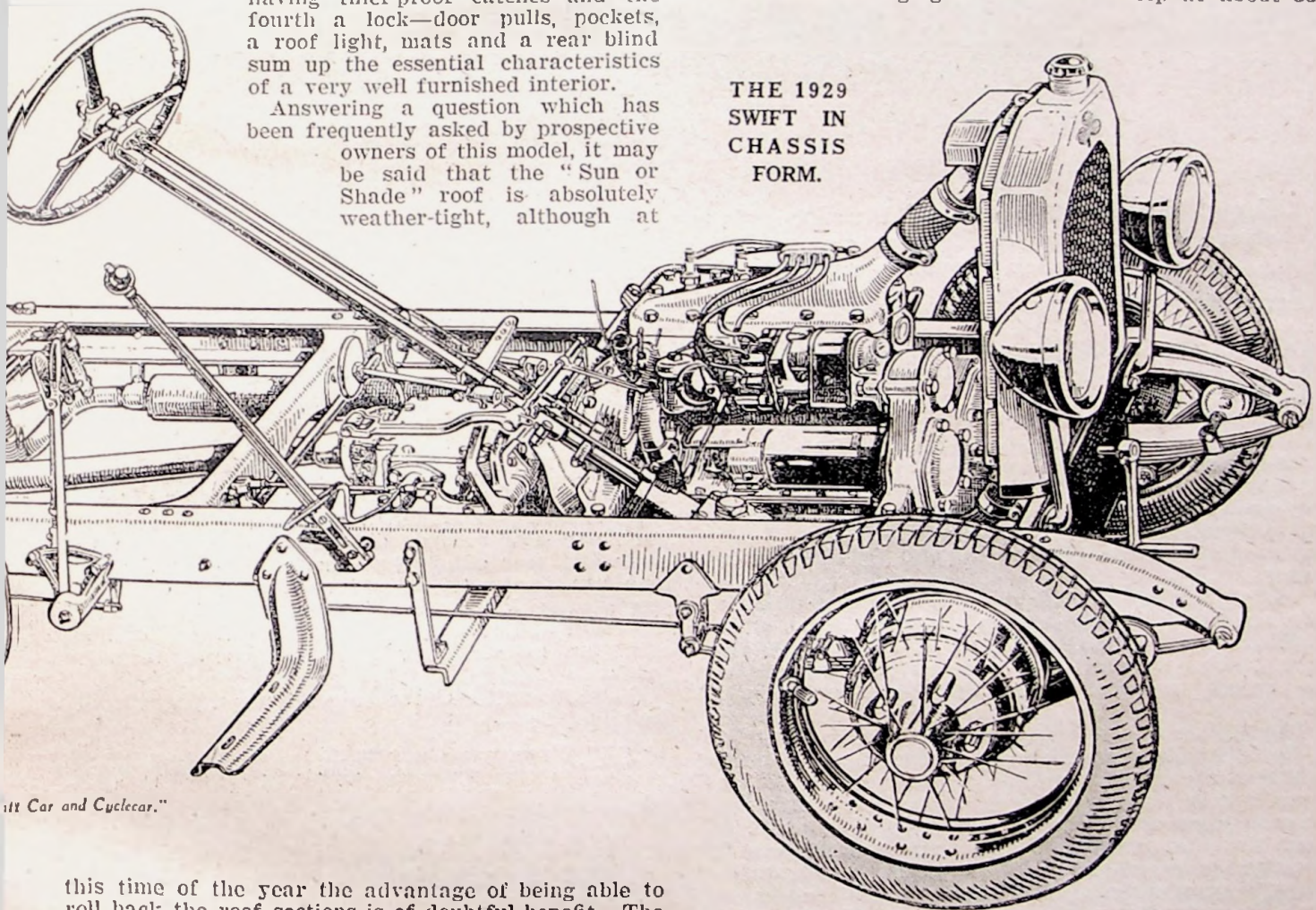
gets the car comfortably under way on the level even with a full load, third is 7.95 to 1, which enables an early change down to be made on hills with a corresponding degree of liveliness, whilst top is 5 to 1, which gives a useful ratio for ordinary cross-country work.

The clutch is very smooth and sweet, the steering offers no serious ground for criticism, the suspension—aided by Hartford shock absorbers all round—is excellent, and the gear change is very quick indeed. When getting away from "cold" one has to be very "snappy" in changing from second to third, whilst third to top at about 25 m.p.h. merely necessitates pulling the gear lever straight back without any pause at all, the clutch pedal being fairly firmly pressed outward so that the full benefit of the clutch stop is felt.

An Easy 35 m.p.h. in Third.

When the car has warmed up slightly to its work a hardly appreciable pause must be made with the gear lever in neutral, but a long pause is unnecessary even when changing from third to top at about 35

THE 1929
SWIFT IN
CHASSIS
FORM.



111 Car and Cyclecar."

this time of the year the advantage of being able to roll back the roof sections is of doubtful benefit. The body itself is of the fabric type, wings and bonnet being cellulosed.

Additions to the equipment made by the owner include a Fabram muff, a Boyce motometer, a Stadium rear view mirror fitted in the interior of the car, a Duco spotlight, and last, but by no means least, a Perspectus glare shield, the real solid worth of which has to be experienced before it can be appreciated. There is a roomy tool locker beneath the rear-seat squab, whilst such things as the jack, jack handle and wheel brace are mounted on the engine side of the dashboard.

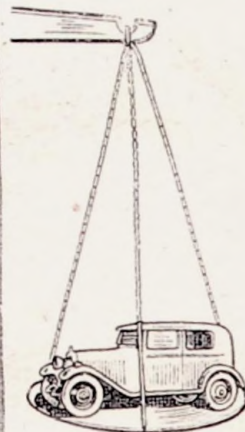
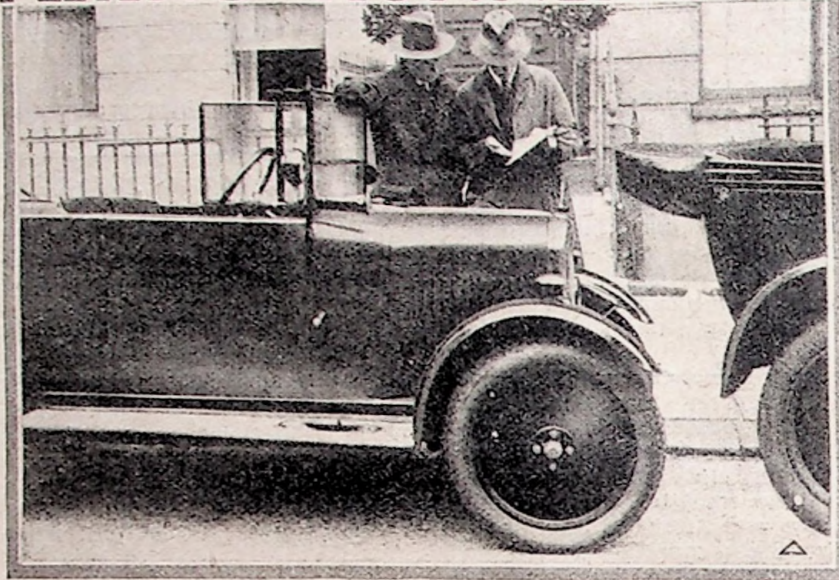
Last year's three-speed Swift was a surprisingly handy little vehicle, but it is difficult to avoid using superlatives when describing the benefit which four speeds give to the new models. The ratios have been happily chosen; first is 21.4 to 1 and provides an invaluable emergency gear, second is 13.45 to 1 and

m.p.h. and the quickness of the change results in a degree of acceleration which is very convincing indeed.

The car under review has not covered its first thousand miles, so its "flat-out" speeds in the various gears have not yet been ascertained. So far, however, its performance fully comes up to expectations and, wet or fine, it is a delight to handle.

Londoners should bear in mind that there is an excellent Swift service depot at Walmer Road, Notting Hill, where customers receive every courtesy and where repairs or adjustments are carried out by highly skilled mechanics. In this connection, however, we venture to quote a remark made by Mr. J. E. Price at the annual dinner of Swift agents which was held during Show week. Mr. Price said: "Our agents have no fault to find with the Swift car, and I'll tell you why. When once they have sold them they never see them again!"

COMPARING RUNNING COSTS



Every light car owner is interested in running costs, many keeping careful accounts, but whilst the results are always instructive great care is necessary in order to obtain a fair comparison between one car and another. In this article the whole subject is dealt with authoritatively by a motoring cost accountant.

THIS is the season when the enthusiastic motorist takes stock of his car and its performance during the past months. Nearly always an economically minded person, he is anxious to satisfy himself that his car has not disappointed him in the matter of low running costs. The next step is to compare the account of running expenses with that of another car owner who possesses a similar make and model. More often, especially if his running expenses appear low, he is anxious to compare with some car of a higher or lower power.

While, given sufficient data, the preparation of one's own account is a comparatively simple matter, it is in this comparison that difficulties make their appearance, leading very often to quite unjustifiable claims and unjust conclusions concerning the other fellow's car.

The big transport companies have discovered that while a regular check on the performance of each vehicle is always worth while, comparisons with other types can be made only by averaging large numbers of each class of vehicle performing similar services. Even then the results of comparison of first, second and third-year vehicles in the same class are remarkably divergent, although accidental damage is excluded from the comparisons. How much more difficult is the problem of fair comparison for the owner of a single car!

Don't Attempt Too Much.

Where we private owners make our chief mistake is by trying to do too much. Anxious to ascertain our full expenses we include all we can recollect, and then endeavour to make the same account do two vastly different jobs—a check upon our own performance and a comparison with our neighbour's. For all that, keep a full account, particularly if you are a professional man using the car wholly or partly for business purposes; the trouble is more than repaid by the income tax rebate.

While it is quite fair to contrast two cars of different power and value, certain features must be common to both. Obviously, it is unfair to compare a first-year

car with another in its second or third year. Similarly, as the performance depends very much upon the driver, a first-year driver's experiences are not comparable with those of older hands.

First-year costs are seldom complete because the end of the second year brings into prominence additional expenditure then necessary upon tyres, tubes, hood, side-curtains, paint, upholstery and so on which the first-year's account did not show, although the wear and tear clearly had occurred. It is the man who can produce a statement showing the average yearly costs for two or three years who is getting at the truth and performing a genuine service for himself, the manufacturer and the general motoring public.

A useful statement for comparison purposes would look like this:—

"X" Touring, four-seater, 1928, 10 h.p., £200. Accessories £25
Purchased April 1st, 1928. Usual load, 40 stone. Mileage, 25,000.

MILEAGE COSTS FOR TWO YEARS:—

	£	s.	d.
Petrol, gallons, 714 at 1s. 2d. ...	41	13	0
Petrol tax, gallons, 714 at 4½d. ...	12	14	0
Engine oil, gallons, 25 at 5s. ...	6	5	0
Grease and gear oil ...	0	8	0
Tyres (6) and tubes (1) ...	16	0	0
	£77	0	0

Cost per mile ...	0.74d.
Miles per gallon—	
Petrol ...	35
Oil ...	1,000

RUNNING COSTS FOR TWO YEARS:—

	£	s.	d.
Decarbonizing 4 times ...	6	0	0
Brake linings ...	2	0	0
Mechanical repairs (including electrical equipment) ...	5	0	0
Repainting ...	10	0	0
Loss on market value ...	85	0	0
Insurance, full, tariff ...	24	0	0
Tax on h.p. ...	20	0	0
	£152	0	0

Average per year = £76.
No repairs or decarbonizing performed by owner. Accidental damage excluded.

It is clear that here we have divided our expenses into two distinct classes: (i) those which are directly

affected by the mileage covered, and (ii) those upon which personal care, skill, choice and other factors may have a considerable modifying effect. Often, paucity of information will confine useful comparison to the mileage costs, but even then we have a valuable account, for these costs may be expected to agree with those of similar cars and to vary from those of higher or lower-powered vehicles.

Petrol figures need not show the actual cost to the individual, the exact number of gallons being the vital figure. Provided the rate per gallon is inserted the value of the figure by comparison is not affected. Engine oil, tyres and tubes should be treated similarly; grease and gear oil, being usually small, may be the actual cost.

In considering the "running costs" mileage averages would be misleading. Most of them would vary inversely according to the number of miles covered. The safe unit for comparison is the average annual cost for each item and the total.

Repainting and repairs to hood, side-curtains and so on may not have been incurred, but if it is clear, on inspection, that the expenditure is necessary, a reasonable estimate of this cost should be included. Of course, a three-years' average would be sure to cover the actual expenditure.

It will be noticed that "loss in market value" is given instead of depreciation. Ideas concerning depreciation vary, but this term makes for easy uniformity. The original list price of the car, plus accessories purchased and finally fitted, is taken. An average present-day value is obtained from the advertisement columns of this journal, the apparent loss being inserted in the account. Naturally, in making this calculation, interest and other costs of hire-purchase must be excluded: they are individual.

What of Insurance?

Insurance, being still a matter of choice, might be omitted, but provided it is clearly stated whether full, third-party, tariff or non-tariff rates have been paid, there is no objection to its inclusion for the sake of completeness. Taxes are at annual rates; in fact, the aim throughout has been to eliminate as far as possible those additions to total expenditure which are purely personal, apart from the possession, or gradual acquisition, of what may be well termed "general motoring skill."

The value of a statement prepared on these lines is two-fold. Average mileage figures and costs provide a sound basis for comparing performance with that of any other car. The full statement is of special value

to any person who desires to estimate his probable running costs, should he become the owner of a similar car.

Just suppose for a moment that you are thinking of buying a new car in a class of which you have no previous experience. A published statement which had been prepared on these lines would tell you that "Mr. A.B., of Berkhamsted, ran a similar car for two years at an average annual cost of £76 plus 0.74 pence for each mile covered." Possibly you, being an experienced motorist, would perform all your own repairs and maintenance, but cover only 6,000 miles per year.

Your estimate is very quickly prepared in this way:—

Mileage, 6,000 at 0.74d.	£	s.	d.
Running costs per year—	18	10	0
Tax and Insurance ...	£	s.	d.
Loss in value ...	22	0	0
Decarbonizing and all repairs at material cost, say ...	38	0	0
	6	0	0
	£84	10	0

Allowing for any variations in prices, and adding your garage costs, you would then know within reasonable limits whether your proposed venture was worth while.

Variable Factors.

Garage costs (rent, rates, heating, light and water) and interest on capital are excluded from the statement. Garaging is a problem affecting the individual owner, and interest lost on capital is not always applicable. The owner who purchases by instalments cannot be said to have lost the interest on capital which he never saved, and might not have saved. The interest he *might* have earned, had he banked the instalments, is too complicated a supposition to be of any value. The person making an estimate may add these items, if he should choose to do so.

A series of statements prepared on these lines could not fail to be of great interest to all users of similar cars, whether they were contemplating the purchase of a new one or not. Nothing could be more misleading than incomplete figures, but however much is attempted, or has to be left out of a statement, uniformity in that which is inserted is essential.

A reasonably accurate mileage cost statement is heaps better than a list of mixed figures vaguely giving petrol, oil, depreciation, interest, repairs and an average mileage cost for the lot. Such efforts are of no real value, and usually succeed in deceiving their compiler.

J.C.



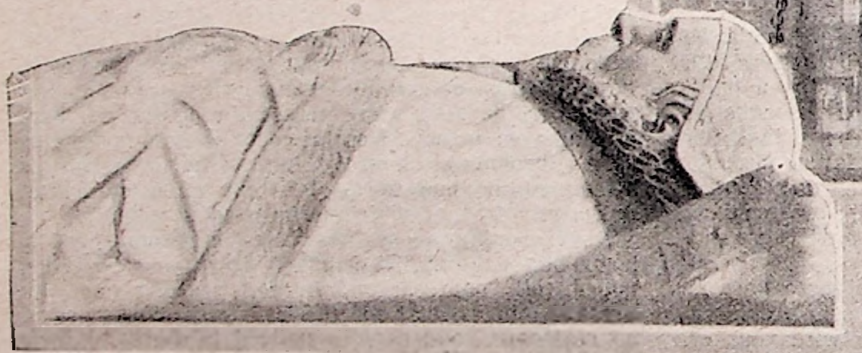
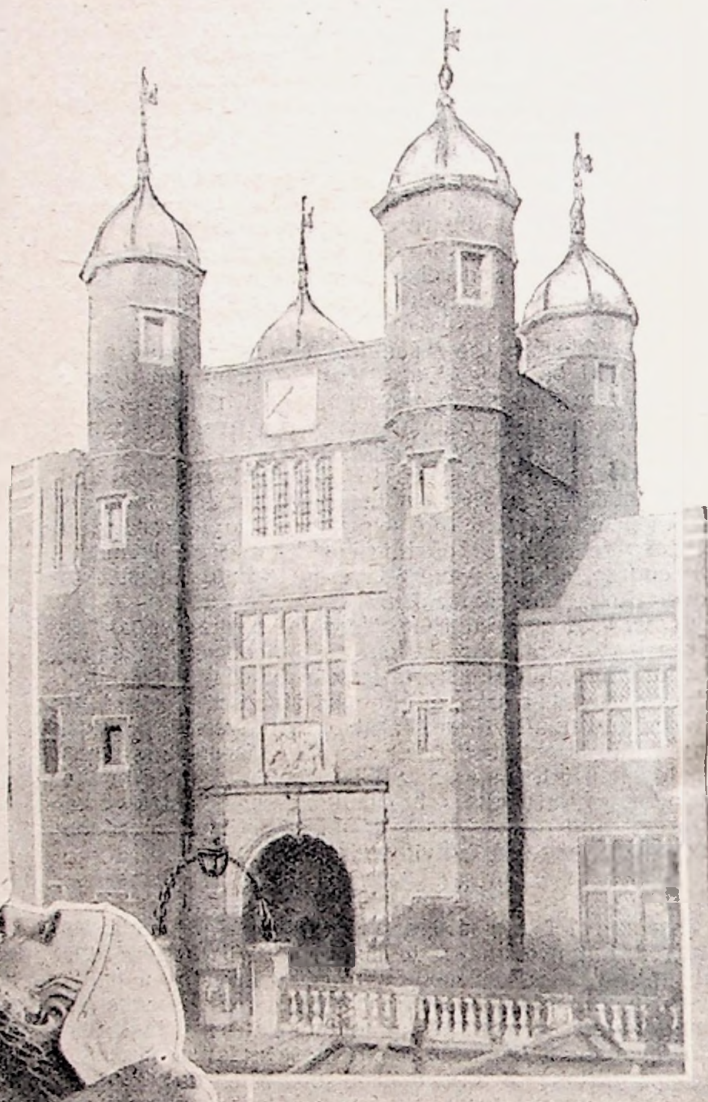
GREAT NORTH ROAD
WIDENING.

Although great improvements have been made to the Great North Road in the past two or three years, work is still in progress at various points. This recent photograph shows widening work at a dangerous bend between Stevenage and Baldock.

B17

A FAMOUS SON OF GUILDFORD

Some Notes on the Beautiful
old "Hospital" in Guildford
High Street, and its Founder,
Archbishop Abbot.



The gatehouse of Abbot's Hospital,
Guildford, and (left) the tomb of
its founder, Archbishop Abbot, in
Holy Trinity Church.

EVEN the most experienced driver has little attention to spare from the road when coming up the steep High Street at Guildford. Yet, at times, the temptation to forget other traffic and look about one is very strong in these old towns, and the mellow red-brick gate-house of Archbishop Abbot's famous Hospital just at the top of the hill is worth more than a glance in passing. It dates from the time of James I, and the brick has that warmth of colour that is one of the glories of Tudor and Stuart brickwork, the secret of which seems lost in later years. Every detail of the building is beautiful, from the wide gateway to the richly varied chimneys—remarkable even in a county as famous for its chimneys as Surrey.

The Hospital is a memorial of the enduring love of a great man for his native town. Archbishop Abbot was born in a cottage near the river at Guildford. His parents were poor, but before his birth the story goes that his mother dreamed that if she could but eat a pike or a jack her son would be a great man. While she was considering how she could get the fish, she went to draw water from the river, and found that accidentally she had taken a fine jack in her pail. The story made some stir in the town, with the result that several influential men of the neighbourhood offered to stand sponsor for the child at his christening.

History does not say whether or not it was to his godparents that George Abbot owed the rapid advancement which came to him. He was brought up "stiffly

principled in Puritan doctrine," and became in quick succession Bishop of Coventry and Lichfield, of London, and then Archbishop of Canterbury. An old historian says of him: "He did first *creep*, then *run*, then *fly* into preferment."

His rigid Puritanism made him many enemies and he has been described as "a man of very morose manners, and a very sour aspect, which in that time was called gravity." Another writes of him in the same sense, but more charitably, when he says of the two Abbot brothers who became bishops, "Gravity did frown in George and smile in Robert." Yet for all his "gravity," the scrolls in the painted windows in the hall of the Hospital show him not too grave to perpetuate a punning jest on his own name—"Clamamus Abba Pater"—and the old glass still sets forth this play on Romans viii., 15.

For years before "the state of his purse"—to use his own expression—made it possible, Archbishop Abbot desired to found in his own Guildford a "Hospital," or rather a glorified almshouse, like the one his predecessor, Whitgift, had built at Croydon, but it was not until 1619 that he had the happiness of seeing the foundation stone laid.

The preface to the statutes he drew up for government of his Hospital scarcely agrees with account of him as sour and morose of character. "My affection leading me," he begins, "to the town of Guildford, where I was born, and where my aged

parents lived many years with good report, I thought upon the erection of an Hospital there which I have dedicated to the Blessed Trinity."

Nor was he hard-hearted or unscrupulous, as is proved by his lasting remorse for an accident which marked all the last years of his life. The Archbishop was hunting at Bramshill when he had the misfortune to wound fatally a huntsman named Peter Jawkins. King James, on hearing of the accident, declared that it was a mischance which might happen to anyone, "in fact," he added, "it hath more than once nearly befallen myself."

Abbot's enemies were not so lenient; they seized on the fact that the Archbishop had killed a man as an excuse for every kind of affront they could offer him, and his great rival and successor, Laud, refused to

accept consecration at his hands, saying that they were stained with blood. Nor did he himself judge the matter lightly: for some years he withdrew into private life, living in seclusion at his own Hospital at Guildford, and fasting rigidly once a month on the day on which he fired the fatal shot.

If we would see more of this severe but kindly Puritan Archbishop, we have only to cross the street to Holy Trinity Church, now the cathedral of the new diocese of Guildford. There, in a chapel to the south of the high altar, he lies on his tomb, which was saved from the ruins of an older church. Pepys writes in his diary on August 6th, 1688: "At Guildford we dined and slept, and I showed them the hospital there of Bishop Abbot, and his tomb in the church . . . kept mighty clean and neat." M.C.

ODIHAM CASTLE.

AS a dower for queens and a prison for princes, King John's Castle, near Odiham, in Hampshire, has seen a good deal of English history. It was granted by Edward I to his wife, Margaret of France, and in the reign of Henry IV another royal Margaret—Margaret of Anjou—received it as part of her dowry.

In earlier days the Castle was granted to a king's daughter, and the wife of an earl more powerful than the king. It was to Odiham that the Countess de Montfort retired while her brother, Henry III, and her husband carried on their long struggle; and here, in his wife's keeping, Simon de Montfort sent his prisoners, the young Prince Edward of England and his cousin, Prince Henry, after the victory of the barons at the Battle of Lewes in 1265.

But the future Edward I was not inclined to be anyone's prisoner for long—least of all a woman's—so, riding one day in all friendliness with his guards, he set them racing one against another until their horses were all exhausted, when they saw the Prince gallop off on his own fresh and untired horse and found themselves powerless to follow.

Shortly before this escape Simon de Montfort had taken his last leave of his wife and ridden away from Odiham to that fatal Battle of Evesham, where the first news that reached him of Prince Edward's freedom was given by the sight of the Prince's standard leading the armies of his enemies. For two months longer the widowed Countess remained in her Castle, and then she, too, rode away, escaping secretly by night with the help of her "Parker" to Porchester, where her son, young Simon, ruled as Constable.

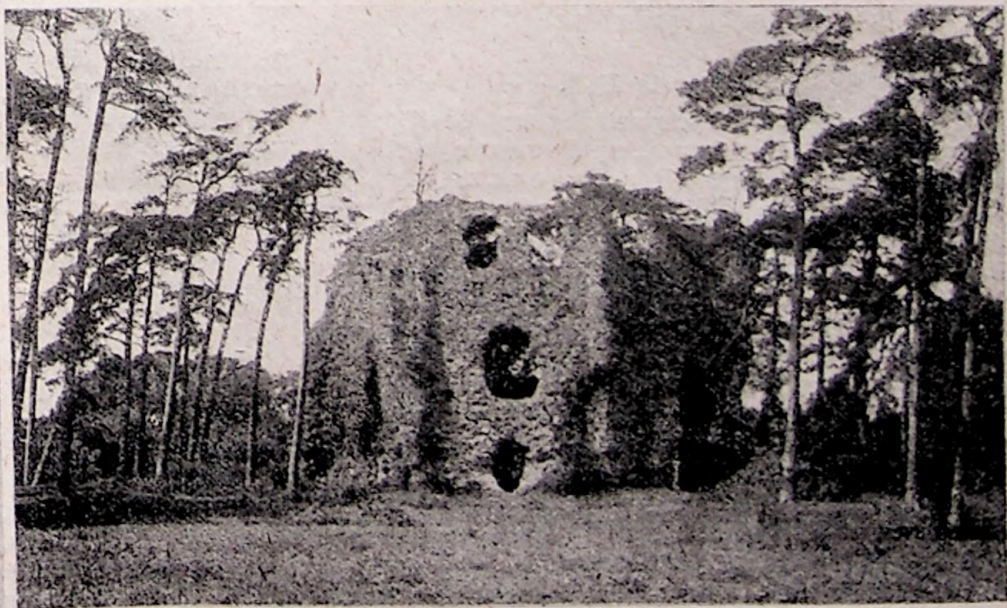
Earlier still, in King John's reign, there were stirring times at Odiham. During one of the numerous French invasions from which all southern England suffered, the Dauphin himself laid siege to the Castle. A state of war was normal in those days, and sieges and battles of frequent occurrence, but, at least, their scale was small. It is strange to our ideas to read of the Dauphin of France and his army spending fifteen days in the capture of one small fortress, when at the end of the siege the entire garrison of *thirteen* marched out with the honours of war bearing the Castle keys!

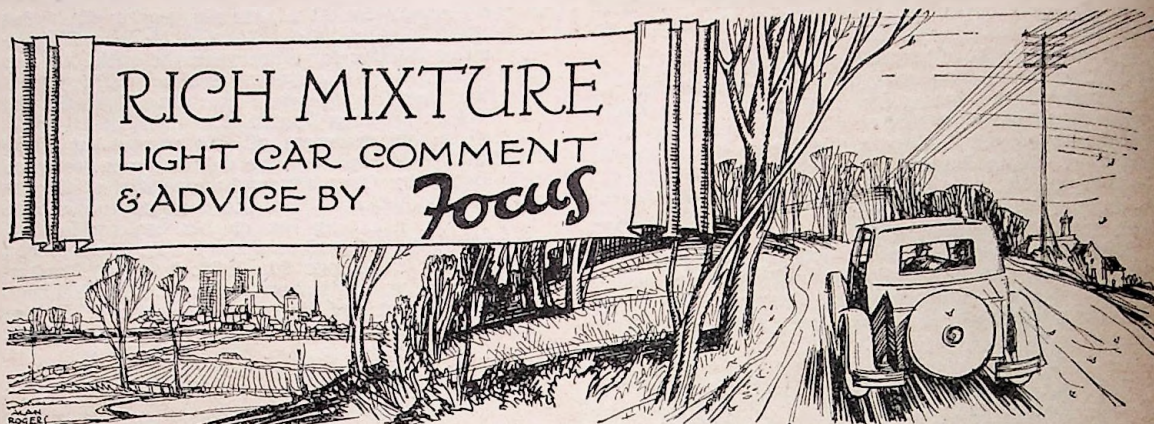
But all these events concerned a building earlier than the present ruin. The walls now standing, surrounded by tall Scotch firs, on the same spot on the banks of the deserted Basingstoke Canal, were built a little later, probably early in Edward III's reign. Here, in this Castle, of which most of the central tower is now standing, another royal prisoner, King David of Scotland, came for a much longer captivity.

The Castle is worth the trouble it takes to find, and the fact that so few people ever do discover it adds greatly to its charm. No road goes within a quarter of a mile of the ruin, and the country people of whom one asks the way look surprised that anyone should wish to find "the old Castle." As a rule only one point emerges clearly from more or less confused directions, and that is a warning on no account to trust the wooden bridge over the canal with the weight of any car, however small. One look at the said bridge, and the recollection that three years ago this same warning was thought necessary, saves the driver from any desire to test its accuracy! M.C.

KING JOHN'S CASTLE, ODIHAM.

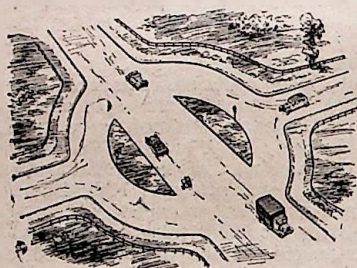
Many visitors to the historic village of Odiham, near Basingstoke, miss the Castle, but the trouble taken in finding it is well repaid.





A Safe Crossing.

SKIRTING through London's northern suburbs the other day I was pleased to notice that at the point where the North Circular Road crosses the Finchley Road care has been taken to avoid the likelihood of accidents. This crossing, which has been recently constructed, is of a type which



The type of cross-roads mentioned herewith.

I have not seen before, and it appears to provide an excellent safeguard to both traffic streams. A very noteworthy feature in connection with it is that the design definitely distinguishes between the importance of the two thoroughfares—a line which

it is very uncommon for a road authority to adopt. In this case, presumably, there was no alternative owing to the Finchley Road having two tramway tracks, but, even so, those of us who believe that every important junction should be planned to provide the least inconvenience to the greatest number must consider that this development shows evidence of official sympathy with our views.

Lord Cecil's Bill.

WHEN a visionary such as Viscount Cecil sets out to "reform" anything there are usually no half-measures about his proposals; consequently it was only to be expected that the Viscount's scheme for making the roads safer would incorporate something drastic. Two million possessors of motor licences are to line up for medical inspection; vehicles, like their owners, are to have their ardour abated by means of some automatic control; and to make matters doubly sure both are to have nice little jolts prepared for them at danger spots. No wonder the Air Ministry is urging municipalities to push forward with the provision of civic aerodromes!

I cannot imagine women drivers (in particular) submitting to the indignity of a medical inspection, yet, presumably, they also are included in the scope of the Viscount's measure. The motto of the Cecil family is "Late, but seriously."

n20

Viscount Cecil has certainly come into the matter late, and doubtless he means it seriously, but he would be much better advised to confine his zeal to the League of Nations.

In Mournful Vein.

ALTHOUGH many people extol the countryside, in winter I must confess that to me its major charm is the comparative absence of traffic on the roads. The fields look mournful, the hedges drear, and visions of farms reveal muddy lanes and other conditions which are anything but cheerful. "Death of things that living once were fair."

I grant that when the sun shines on a frosty day and the air is like wine a run in the country is a sheer delight; but rain, a leaden sky and a crow or two battling against the wind over a forlorn landscape more frequently comprise the picture. It seems to me that unless one hunts, or shoots, rural delights in the winter are becoming far to seek.

Wireless Polysyllables.

YEARS ago people used to tell me they could not possibly acquire a car since the "workings" were too complicated. Such terms as "carburetter," "magneto" and "contact-breaker" were sufficient to scare them away. Yet, to-day, I find some of these very people positively revelling in the technical side of wireless!

They talk in terms of microhenries and microfarads, and such mouthfuls as "cumulative grid rectification" come as glibly to their lips as a sailor's "Aye, aye." Moreover, they seem to understand it! Probably no other diversion has ever loosed on the world such a flood of polysyllabic words as wireless. Certainly two wireless "fans" well warmed up in argument use a language more weird and wonderful than Welsh and to the average man no more intelligible.

Spanners Like Butter.

MY recent paragraph advising readers to use set spanners or box-spanners in place of a "shifter" has brought me a letter from a reader who, whilst agreeing with my remarks, has a few strong ideas of his own to add. His scapegoat is, of course, the car manufacturer. "It is all very well for us to be told that we should avoid the use of an adjustable spanner as much as possible," he writes, "and I agree that the advice is excellent, but how can we follow it when the spanners

supplied with our cars are as soft as butter and 'gape' after a few months' use? I, personally, cannot afford to buy a complete new set made of good steel, but I *can* afford a first-class adjustable."

Whilst I can sympathize with my correspondent, I think it only fair to point out that his grouse does not apply to more than a few makers. All the same, there is room for a general improvement in tool kits.

Lead Hammers.

LAST week's paragraph dealing with the difficulties I have experienced in connection with lead hammers has brought me so many letters that I am prompted to ask the writers of them if they will be good enough to accept this paragraph as an acknowledgment.

I am recommended to Messrs. Burton, Griffiths and Co., Ludgate Circus, London, E.C.4, as a concern from which I can buy a reliable article, whilst another reader points out that Messrs. Buck and Hickman, of Whitechapel Road, supply a combination mould and ladle with a 3-lb. lead hammer for 7s. 6d. complete.

Better than Lead.

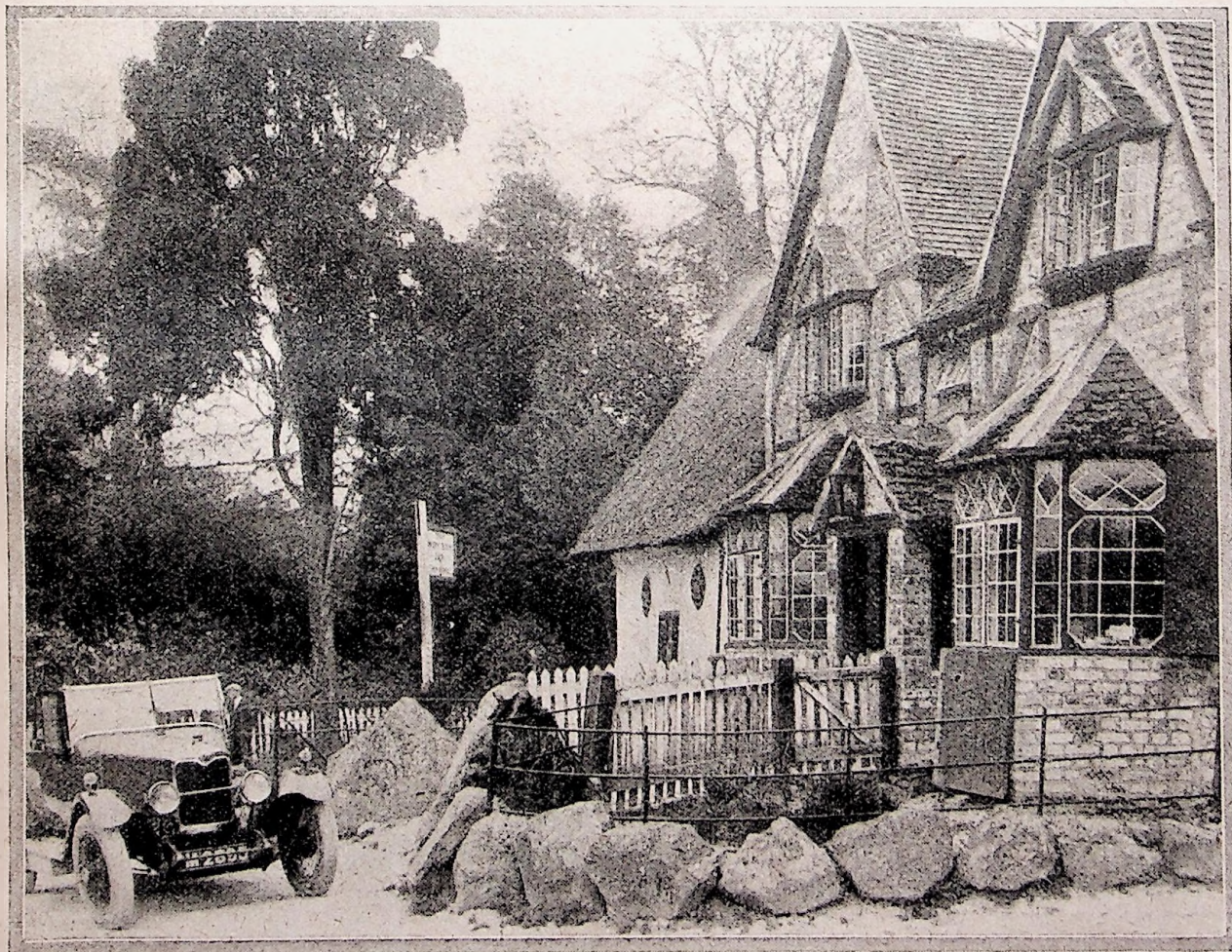
A NORTHERN reader advises me, in place of a lead hammer for the Rudge-Whitworth locking rings, to use a compressed rubber mallet. He tells

me that he has found one very satisfactory. It cost him 4s. 6d. from the Motor Stores, Ltd., 84, Fulwood House, High Holborn, E.C. Another reader advocates the use of a raw-hide-faced hammer, a suitable pattern with a 2-lb. head costing 4s. 6d. He points out that such a hammer can be used for many other jobs.

Yet another suggestion is that I should get a copper hammer. A reader points out—and, obviously, quite rightly—that copper is much more durable than lead. This reader, incidentally, remarks in the course of his letter:—

"Having been a reader of *The Light Car and Cyclecar* for more years than I care to mention, I cannot help expressing my sadness at the lapse into the closed-car habit, which can result only in a race of pukka pale-faces. I feel sure that there must be a few of us still unencumbered with whiskers who would prefer an open sports-car number. 'Rich Mixture' is always enjoyable, but a more frequent mention of open sports types would do much to repel that feeling of Anno Domini that always creeps over me after a drive in a saloon. My motoring dates from the days of surface carburettors, and I have still to erect my first side curtain. I would not own a single-pane wind-screen—no wonder the Press is full of dazzle complaints."

Here is a man who enjoys the fresh-air aspect of motoring, and most of us, no doubt, secretly envy him. We feel for him as we do towards friends who leap nimbly out of bed in the morning and go through physical jerks for half an hour or



IN THE VALE OF THE
WHITE HORSE.

— Berkshire wayside inns are world-renowned. This very picturesque example is at Woolstone, a charming village near Wantage.

so. We should like to have equal courage ourselves, but we lack the moral courage to face the elements or even to admit our fear of them. My own feeling these days concerning open sports cars is that they are splendid things for those who can afford two cars, but for those of us who use the same car almost every day of our lives their advantages are more than outweighed by their drawbacks.

Conditions have changed so much during the past few years. When we drove about our business even in 1924 we were not reluctant to dress like Arctic explorers, but few of us to-day would dream of making a business call clad in leathers and a flying cap.

Importance of Lamp Bulbs.

A FEW days ago when I bought a pair of new headlamp bulbs it was brought home to me that very few of us take nearly enough pains when choosing them. The selection of bulbs of a suitable type can make a remarkable improvement in the power of headlamps, whilst it also makes a difference between the ammeter needle showing a loss or a gain when all the lamps are in use.

It seems that there is quite a considerable number of car owners who do not realize that the type of bulb chosen makes a big difference

to the position which the filament occupies relative to the reflector, whilst it also has a pronounced effect upon the current consumption. In these days most of us have headlamps which provide only three alternative positions for focusing, and, in consequence, a bulb which has its filament so placed that none of those three positions happens to be just right makes it impossible for the projected light to be as good as it should be.

To Save "Juice."

IN connection with current consumption it should be borne in mind that on a six-volt circuit an 18-watt bulb takes 3 amps. and a 24-watt bulb 4 amps. On a 12-volt circuit these figures, of course, are halved. I call attention to this because I met a man the other day who found it necessary to be very economical with his headlamps owing to the manner in which they robbed the battery. His practice was to use a spotlight in place of them except when conditions were such that their use was essential.

On examining the bulbs which he had in his headlamps I found that they were both of the 36-watt variety. A drop to 24-watt bulbs has allowed him to use the headlamps without the battery being called upon to give more than it receives, whilst adding materially to his after-dark averages.



AT BLEWBURY, BERKSHIRE — Near Didcot, this odd little village possesses many quaint old buildings and boasts some fine thatched roofs and ancient timbered walls.

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The Light Car and Cyclecar

"THE LIGHT CAR AND CYCLECAR" WAS
FOUNDED IN 1912 TO CATER FOR THE
NEEDS OF USERS AND POTENTIAL
PURCHASERS OF LIGHT CARS AND
CYCLECARS, AND IT HAS CONSIST-
ENTLY ENCOURAGED THE
DEVELOPMENT OF THE ECONOMICAL
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Compulsory Insurance.

THE question of compulsory insurance for motor owners against third-party claims was before the House of Commons again last week when Mr. Wardlaw-Milne introduced a Bill which was read for the first time. It will be remembered that compulsory third-party insurance also figures in Lord Cecil's Bill about which we commented a fortnight ago. Mr. Milne had very little that was new to say on the subject. He considers that the matter is too urgent to wait for the passage of the Road Traffic Bill, in which this question figures, and he had nothing to say concerning the difficulties which would arise, except that the insurance companies' form of policy would have to be approved by the Minister of Transport instead of by the licensing authorities, as was suggested in a Bill which he introduced last year.

The principal disadvantage which we can see to the Bill is that it might be necessary if insurance were compulsory for Government steps to be taken to prevent excessive rates being charged by the insurance companies, and this view is subscribed to by the Minister of Transport, who has even gone so far as to say that some form of Government insurance might have to be introduced. Another obvious drawback is that there would be difficulties in connection with the application of legislation of this kind unless it were of a rather elaborate nature.

Practical Difficulties.

AS it stands, the function of Mr. Wardlaw-Milne's Bill is to make it obligatory on owners of motor vehicles to be insured against third-party risks. It is a debatable point whether it is not drivers who need to be so insured. If the owner is the man who is concerned, short-term policies similar to short-term licences surely would have to be introduced or hardships would arise. If, on the other hand, it is the driver who is concerned, similar difficulties, but of an even more elaborate nature, would necessarily occur. Take the case of a man whose driving licence expired on, say, September 1st and who proposed to lay up his car during the winter months. He would not mind renewing his driving licence in order to have the benefit of the use of his car until the end of the month, but taking out a 12-month

insurance policy, only the first three weeks of which would be of use during the first six months of its currency, would be intolerable.

We see in this proposed legislation a possibility of the man who covers a small mileage and who lays up his car for a portion of the year having to carry yet another burden which should rightly be borne by his big-mileage neighbour. This is a matter which should be exercising the

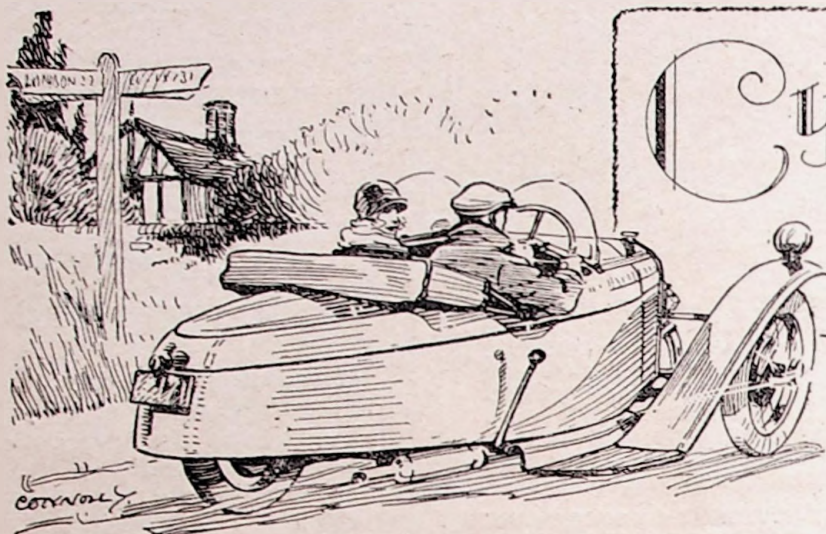
minds of the Motor Legislation Committee, and which should be given the most careful attention when opposition, if any, to Mr. Wardlaw-Milne's Bill is put forward. Perhaps the greatest objection of all to this particular Bill is that it provides one more example of the piecemeal legislative tactics from which we have always suffered. The proper place for such legislation unquestionably is in the Road Traffic Bill, and it is difficult to agree with Mr. Milne that the matter is really too urgent to wait until Parliamentary time permits its passage.

Future of Club Life.

THE title "Motor Club" is in many cases a misnomer, for there are innumerable clubs which have no premises and which exist solely to promote outdoor events. At the present time motor club life is being threatened with extinction, for the support given to sporting events is noticeably decreasing. The first blow was aimed at the continued success of such clubs when hill-climbs and other events which took place on public roads were banned by the R.A.C.; swiftly there followed the trade ban. And now we learn that only clubs promoting events of outstanding popularity are in future to be able to enjoy the limelight of Brooklands.

What, then, is to become of the small clubs? Some, it is feared, will have to be wound up unless their committees adopt the only possible solution; that is, to develop the social side to their utmost ability. With fewer sporting events to attract their attention motorists of the club-member type are much more inclined favourably to view social runs and so forth. If once they can be persuaded to get into the "social habit" we believe that the future of even the smallest clubs is assured. If they cannot be so persuaded there will be nothing to hold the clubs together.

Topics of the Day



Cyclecar = Comments

BY SHACKLEPIN

PROFESSOR LOW'S THREE-
WHEELER SUGGESTIONS—
FEMININE INFLUENCE—
ENGINES OF THE FUTURE—
AND OF THE PAST.

AS fully reported elsewhere in this issue, the New Cyclecar Club's annual dinner and dance was a great success. It was very pleasing to me to hear the remarks of Prof. A. M. Low, the chairman, regarding the advantages offered by a simple and really inexpensive cyclecar.

I had the pleasure, during the evening, of a long chat with Prof. Low, and he amplified his views upon the design of an ideal cyclecar. He is fully in favour of three-wheelers and he thinks that for many purposes, especially so far as women are concerned, a small four-cylinder engine should be used. This would not only ensure very easy starting, but also would provide the smooth running desired by feminine drivers.

Prof. Low was also emphatic regarding the need for providing the maximum of comfort by paying special attention to the suspension system, the seating accommodation, and to weather protection.

I think everyone will agree that a very pleasant three-wheeler could be built to conform with Prof. Low's ideas. I will forestall the vee-twin champions by saying that, in my experience, there are few women who can "swing" a big engine of this type. Electric starters certainly will do the job, but they have to be large, and, therefore, they are somewhat heavy.

A low-compression vee-twin, carefully tuned, will tick over slowly and pull very smoothly, but, all the same, I am with Prof. Low in his preference for a "small four" where women are concerned.

In designing a three-wheeler of this kind it would be imperative, of course, to guard against overdoing the whole thing. Because a four-cylinder engine is being used, there is no need to fit a four-speed gearbox and shaft and worm final drive. Two speeds of the chain and dog-clutch type would be quite satisfactory, or a simple two-speed gearbox

might be used. I think, however, that a reverse would be essential.

Neither the suspension system nor the bodywork should present difficulties, but the need for simplicity and comfort must be kept in mind. Quarter-elliptic springs of reasonable length, and controlled by dampers, could be made to provide smooth riding qualities, whilst the bodywork, without being in the least elaborate, could be carefully proportioned with regard to width, height and legroom. Pneumatic or Sorbo upholstery would ensure an absence of fatigue on long runs.

So much for the "feminine" cyclecar as outlined by Prof. Low and elaborated somewhat by myself.

The next topic of our conversation concerned the shortcomings of petrol engines as a whole. Although they have been vastly improved in recent years and are really wonderful pieces of mechanism, their working principle remains the same as when it was introduced by Otto in 1876. They rely upon their speed for their power and they have no low speed torque; furthermore, they are not self-starting.

That a petrol engine is apt to be noisy we all know; many of us, in fact, have been told so by the police and have had to pay for the information! Another of the shortcomings of a petrol engine is that it is extremely wasteful of fuel. I have not any very recent figures by me, but I believe that not more than 15 per cent. of the potential power contained in a gallon of petrol is delivered at the flywheel.

Of course, mechanical losses which, probably, can never be overcome account for part of the wasted energy, but most of it is lost in the form of heat in the exhaust and the cooling system.

Prof. Low thinks that injection engines working somewhat on the Diesel principle will be the next step forward; after that may come the gas turbine or, perhaps, a reciprocating engine of, more or less,

the steam type, but using, instead of steam, the high-pressure gases resulting from burning petrol in a separate "boiler."

Possibly these advances will not be made in our generation; in the meantime, we must, I suppose, content ourselves with the knowledge that modern petrol engines are very wonderful things.

A reader who sends some very interesting experiences in connection with G.N. cyclecars mentions that he once made the ascent of Parracombe Hill in Devon with one inlet-valve tappet adjustment slacked back so far that the valve only just lifted.

His experience recalled to mind various occasions in the old days when valve gear was renowned for its unreliability and when similar occurrences were within the experience of most of us. Valve springs in those days were generally so weak that the suction created by the descending piston was adequate to lift the valve without any aid from the tappet.

There was a day, of course, probably before 90 per cent. of my readers took any interest in motor-ing, when all inlet valves were of the atmospheric variety. On single-cylinder engines in the hands of reasonably expert people they gave quite good results, but for twins and fours they were rather a failure, because of the great difficulty of getting valve springs of equal strength to give even firing. The great difficulty with the automatic valve was to ensure that it opened at low speeds, gave an easy start and yet did not "flutter" on its seating at higher speeds.

Automatic inlet valves fell into disuse about 1910; it is quite likely, therefore, that a further 18 years' progress may see our modern twin o.h. camshaft units relegated to the scrap heap in favour of injection engines or gas turbines. We all know that Prof. Low's dreams have a habit of coming true.

NIGHT ADJUSTMENTS MADE EASY.

How to Tackle Troubles After Dark.

FEW things are more disconcerting to a comparative novice than to have his car peter out for no apparent reason after dark. Mysterious stoppages are bad enough for the new motorist during the day, but when they happen at night things seem absolutely hopeless! Many a car owner has been towed to a garage during the early part of his motoring career merely because some slight fault has developed and which, in the absence of daylight, he has been at a complete loss to know how to tackle or remedy.

There are numerous ways of obtaining light in dark places, and those who have several years' driving experience to their credit are no more disconcerted if a trouble occurs at night than if it happens under a shining mid-day sun—they may be (and usually are) more annoyed, but that is all. A novice, however, is often so worried that he becomes flustered, and gives up in despair, or attempts to rectify the trouble under conditions which, due to no cause other than his own thoughtlessness, are unnecessarily difficult.

How often, for example, does one see a dim figure bending over the engine of a car drawn up some distance from a street lamp in a suburban thoroughfare? Even if the car would not reach the friendly glow of a lamp under its own power, it could easily have been pushed there; yet the owner goes toiling on in the semi-darkness, cursing cars in general and his own in particular!

An inspection lamp should be regarded almost as a necessity by those who cover any considerable mileage after dark, for if provided with a good length of flex a tolerable working light can be obtained on any part of the chassis.

The engine is the easiest part to illuminate. Quite a useful amount of light can be obtained by holding a handkerchief or a large sheet of white paper—a newspaper will do—in front of one of the headlamps, so reflecting its rays beneath the bonnet. Naturally, the aid of a passenger is desirable for this, so that the driver can use both hands on the job he is doing, but it is often possible to hold a sheet of paper with one hand and work with the other. When both hands



are required it may be necessary to carry on in the dark for a few moments, but if the driver has made himself familiar with the component he is concerned with this is not impossible.

It is a good plan, incidentally, to cultivate the sense of touch, so that parts can be found and adjusted by feel. It is surprising what can be done in total darkness by a man who is familiar with his car and has a delicate sense of touch.

With a good many cars the side lamps are mounted on the wings by means of a ball joint which per-

mits them to be swivelled round, if one of them is turned so that its beam plays on the engine, matters are very much simplified. In the case of a breakdown in which the part giving trouble is well away from the petrol tank or carburetter the glow of a lighted cigarette end can be used. If it is held close to the part concerned it will show up details to a remarkable extent and give the driver a chance to memorize its characteristics. Naturally, he will have to work in the dark, but the examination he has carried out with the aid of the cigarette will have been of considerable assistance.

This, of course, is an idea which should be used only as a last resort, and it is far better to avoid the possibility of having to employ it by making a point of always carrying a flashlamp in the door pocket. Flashlamps and batteries are so cheap these days that there is no excuse for being without one. Even if an inspection lamp is carried, a flashlamp is useful because it saves the trouble of unwinding and plugging in a length of flex in the case of a minor job, and will also prove invaluable in the case of failure of the whole car lighting system. Moreover, a flashlamp is useful for reading signposts if the car is not equipped with a spotlight and a cross-country run over unfamiliar roads is being undertaken.

A driver who bears all these matters in mind should never really be stranded after dark merely for want of a light to work by; but should all the ideas enumerated prove impracticable, the only thing to do is to rely on the charity of a passing motorist and work in the light of his lamps.

TOWNS WHICH HAVE PSEUDONYMS.

LOVERS of literature have doubtless often wondered where were the actual towns and places that popular writers have described under various names in their books. It is interesting, when on tour, to visit scenes that have been mentioned under pseudonyms by famous authors, and which you are able to identify. Who, for instance, when passing through the ancient town of Dorchester, fails to experience a delightful thrill in recollecting that this town is Thomas Hardy's "Casterbridge"? or, when standing within the Close at Rochester, can fail to feel a lively interest in the knowledge that hereabouts "Edwin" and his friends lived and moved—for Rochester is the "Cloisterham" of "Edwin Drood"; and the cathedral and the close described so vividly by Dickens may be easily identified.

Lovers of literature motoring through Gainsborough may find their interest quickened in this town on the river Trent by remembering that this place is the "St. Ogg's" of George Eliot's "Mill on the Floss." If you happen to be there at the time when the "eagre," or tidal bore, comes rushing and seething up the river you will recall how Maggie Tulliver, with Tom, was caught in the boat by the galloping current and nearly swept away.

Similarly, in George Eliot's other famous book, "Adam Bede," are mentioned many places that we are able to recognize under their fictitious names. For instance, "Hayslope," where Dinah Morris preached on the village green, was actually the pretty village of Ellastone. Then there is not a shadow of doubt that the "Eagledale" mentioned in "Adam Bede" is really

Dovedale. William Mottram, in his book describing "The True Story of George Eliot," says:

"We have another sign of locality in the questions and answers which passed between Adam and Hetty, concerning Egleddale. Hetty is longing to know more about the place whither her secret lover, Arthur Donnithorne, has gone fishing. 'Have you ever been to Egleddale?' she asks. 'Yes,' replies Adam, 'ten years ago, when I was a lad. It's a wonderful sight; rocks and caves such as you never saw in your life. I never had a right notion o' rocks till I went there. There's nothing but a bit of an inn where he's gone to fish.'"

"To anyone knowing these parts there could be no manner of doubt that this description relates to Dove-dale and to the Izaak Walton Hotel, which stands on an elevation near the Ham end of the dale. The inn of Adam Bede's time was simply a farmhouse with a licence attached to it; it has now swollen into a comfortable hotel, dear to the hearts of anglers."

In her famous book, George Eliot refers to Derbyshire as "Stonyshire," and to Staffordshire as "Loamshire."

Perhaps some motorists are unaware that Mrs. Henry Wood made Worcester the scene of many of her extremely popular novels. You find the fictitious city of "Helstonleigh" with its cathedral mentioned in her earlier books—and you feel that it was a charming old place. So in reality is her "Helstonleigh" most delightful, for it is her native city of Worcester, a spot that should be visited by everyone touring the county eulogized by Mr. Baldwin.

Disguised Yorkshire Towns.

A popular present-day writer who treats largely of the Yorkshire moorlands and dales in his delightful books has disguised many of the places he mentions by fictitious names, but it is not too difficult to penetrate the disguises. Thus the "Windyridge" of William Riley—the popular author referred to—is found near Bradford, the village being that of Hawksworth. "Netherleigh"—another of his successful books—is the pseudonym of Otley, in the Wharfe valley.

Miss Sheila Kaye-Smith, who has made the Sussex countryside her own and invested it with a distinctive charm, rather effectively hides the identity of many delightful Sussex towns and villages under various fictitious names. But we have no difficulty in identifying Hastings as her "Tamarisk Town."

"Troy Town" is the name given to the old-world town of Fowey, in Cornwall, by Sir Arthur Quiller-Couch, and is the title of the book that has been read by all the novel-reading world. This ancient seaport well deserves the honour that has fallen upon it since the adventures of the notorious "Mayor" were made public. In another tale, the experiences of various citizens continued the theme and made "Troy Town" quite a popular resort with the literary pilgrim.

Links with Dickens.

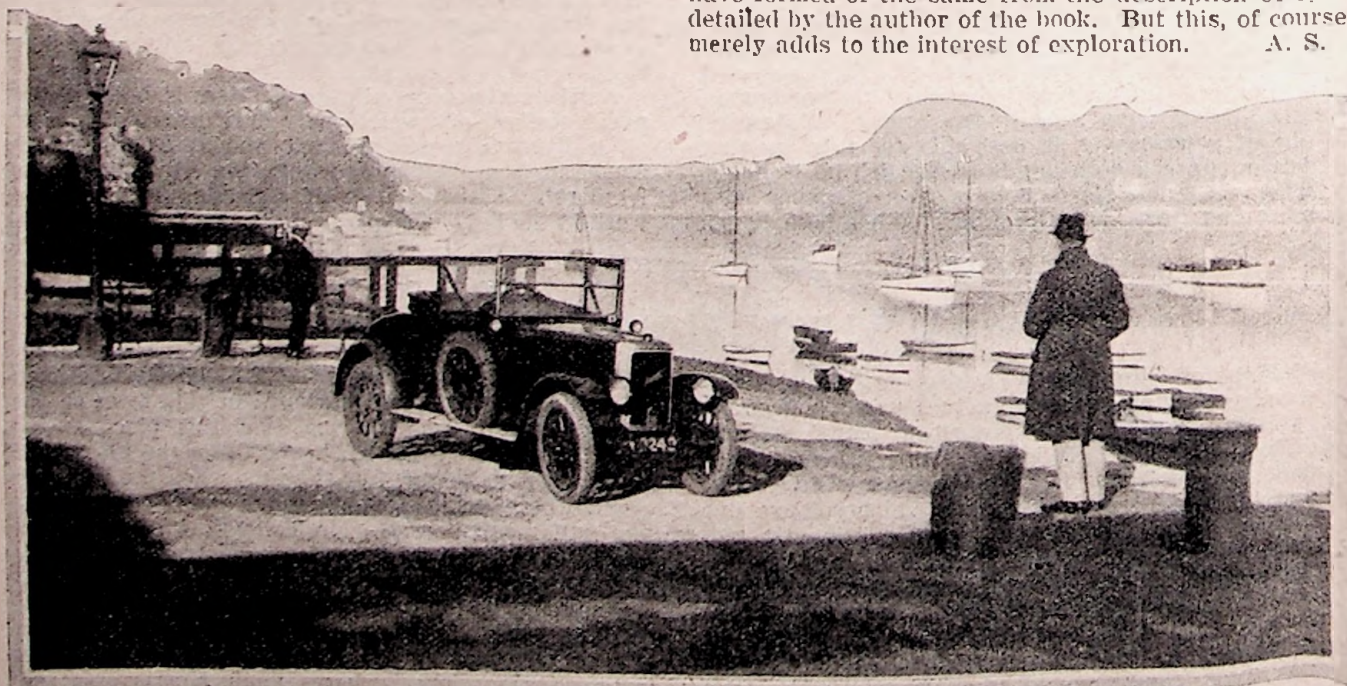
Charles Dickens made much use of pseudonyms when writing of places, but he also wrote largely of actual towns under their proper names. Here and there we may identify some of the places that he would hide. In "Martin Chuzzlewit" Dickens describes the country town where Pecksniff resided: "It was pretty late in the autumn of the year, when the declining sun, struggling through the mist that had obscured it all day, looked brightly down upon a little Wiltshire village within an easy journey of the fair old town of Salisbury."

This place has been identified with the little town of Amesbury, which lies some seven or eight miles above Salisbury, on the River Avon, and is about two miles from Stonehenge.

But perhaps Thomas Hardy gives us the greatest measure of the piquant interest that is to be enjoyed when identifying the places which appear under fictitious names in our favourite books. His books teem with descriptions of pleasant Wessex towns and villages, and there can be no greater pleasure for admirers of Hardy's work than to visit the scenes he so lovingly pictures and describes. His "Casterbridge" we have identified; "Budmouth Regis" is Weymouth; Warborne (Wimborne); "Corvsgate Castle" is Corfe Castle near Swanage; "Shotsford" is Blandford; "Knollsea" is Swanage; Oxford is referred to as "Christminster"; and "Sandbourne" describes Bournemouth.

In the "Woodlanders" we read of "Sherton Abbas" which is really the pretty town of Sherborne. "Anglebury," which figures in "The Hand of Ethelberta" is Wareham on the map.

It is indeed good fun exploring the places made familiar to us by reading our favourite books, and the list given above is, of course, far from complete. Quite frequently the actual place when we visit it differs considerably from the mind-picture that we may have formed of the same from the description of it as detailed by the author of the book. But this, of course, merely adds to the interest of exploration. A. S.



WHEN THE WATERS WERE OUT. — An unusual view of the River Conway—in flood as a result of the recent bad weather. Several of the roads along its banks were affected.



Legal Aspects.

REAR NUMBER PLATE LIGHTING.

By a BARRISTER-AT-LAW.

A CASE OF GREAT INTEREST
TO MOTORISTS—PARLIA-
MENT AND THE MINISTER
OF TRANSPORT—LIGHTING
REGULATIONS—AMENDED
WORDING.

A CASE of interest and some importance to motorists has been decided before the Doncaster magistrates. It concerns the regulations issued in June last by the Minister of Transport regarding the illumination of rear number plates, and originally the case was adjourned in order that the legal position could be carefully considered by the magistrates and their clerk.

The case was one in which a motorist was summoned for not having the rear identification plate of his car illuminated, and it was submitted on his behalf that the Road Transport Lighting Act of 1927 contained no provisions making the absence of illumination of a rear number plate an offence, and that the regulations issued last June, under which the defendant was summoned, were illegal, in that the Minister of Transport had no power to make them. To support this latter contention it was argued that, at the time the regulations were made, there was no statute in force which empowered the Minister to make them.

It is perhaps unfortunate that the different Government departments—not least the Ministry of Transport—have been given such wide powers. The average motorist may imagine that motoring law cannot be altered without an Act of Parliament and that, if he is at the mercy of the Chancellor of the Exchequer (although even his proposals have to be ratified by Parliament), he cannot be dealt with autocratically by the Minister of Transport.

Transport Minister's Powers.

In the broadest sense of the word "altered" the average motorist is right in this belief, in that no radical changes in the law can be made without Act of Parliament, but ever since the Locomotives on Highways Act of 1896 the Minister of Transport has had the widest powers to make regulations under that and subsequent Acts.

It is perhaps not generally known that most of the regulations regarding silencers, travelling backwards, parking, obstruction, licensing and many other aspects of motoring have been made not by Act of Parliament but by the Minister of Transport acting under the powers given to him by Act of Parliament. Nearly if not every Act which is passed concerning motoring law gives the Minister the widest powers to interfere for better or worse with motoring conditions without recourse to Parliament.

It is quite true that in most cases either House of Parliament has power to present an address to His Majesty praying that the regulation shall be annulled, but this is without prejudice to anything that has already been done under the regulations, and, if Parliament does not happen to be sitting, the Minister of Transport's regulation would hold good until it was eventually annulled.

In the case above cited there is no doubt that the regulation is a very proper and sensible one and one to which no reasonable motorist objects—even if he is fined for infringing it. The question to be considered, however, was whether it was a binding regulation or not.

By the Roads Act, 1920 (under which the regulation was made), the Minister has power to make regulations, *inter alia*, "prescribing the size, shape and character of the identification marks or the signs to be fixed on any vehicle and the manner in which those marks or signs are to be displayed and rendered easily distinguishable, whether by day or night."

The Lighting Regulations.

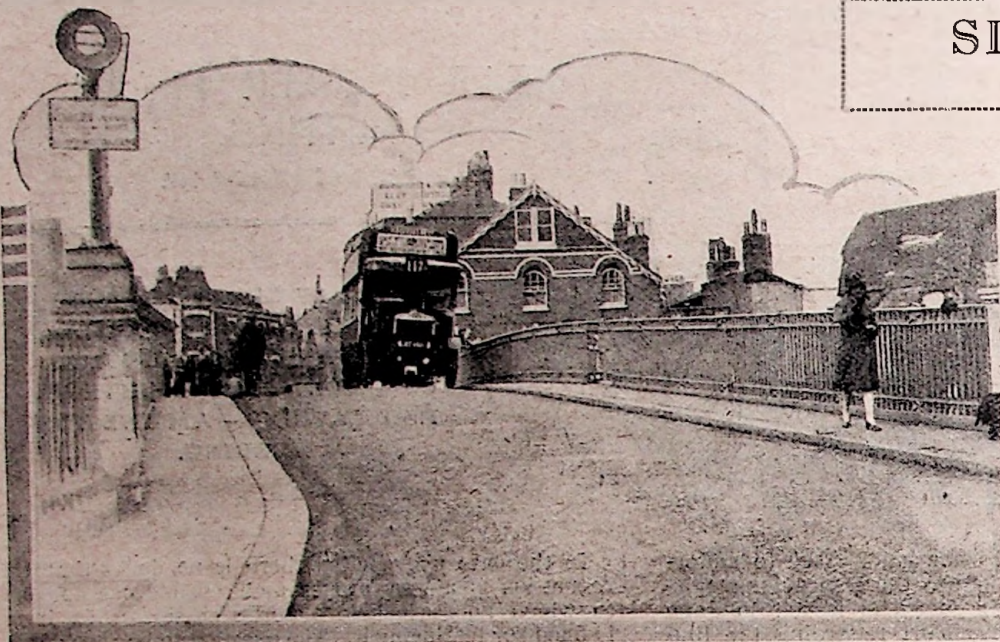
Under that power the Road Vehicles (Registration and Licensing) Regulations, 1924, were made, and one of these laid down that "whenever during the period between half-an-hour after sunset and half-an-hour before sunrise a vehicle is on a public road a lamp shall be kept burning on the vehicle so contrived as to illuminate by means of reflection, transparency or otherwise and render easily distinguishable every letter or figure of the identification mark exhibited on the back of the vehicle."

At the date these regulations were made the ordinary lighting-up time (for the other lights on a car) began and ended at the same period, viz., half-an-hour after sunset and half-an-hour before sunrise respectively. The Road Transport Lighting Act, 1927, altered the ordinary lighting-up time to between an hour after sunset and an hour before sunrise during "summer time" and left the period as before during the rest of the year, but it did not deal with the illumination of number plates.

The result was that during summer time the rear number plate had to be illuminated half-an-hour before the other lights on the car were turned on; consequently, on most cars, the sidelights had also to be lit, and no advantage could be taken by motorists of the extra half-hour given them by the Act. It was to remedy this absurdity that in June last the Minister issued a regulation as a substitute for that made in 1924 and to make the lighting period of rear number plates the same as that for the other lights on the car. The new regulation is in precisely the same form as the previous one except for the first words, which run "whenever during the hours of darkness as defined by subsection 4 of Section 1 of the Road Transport Lighting Act, 1928," the subsection referred to having defined the hours of darkness as stated above.

In the case in question the magistrates decided, finally, that the Minister of Transport had power to make the regulation and that the defendant must accordingly be convicted. It seems quite clear that their decision is correct.

SIDELIGHTS ON HERE, THERE AND



IT is an interesting comment. I have been made in universal deemed necessary when any part is temporary.

Loopways. oval shows, to busy centers towns and cities. The A.A. provided with plain enamel signs, lettering—which, of course, differs on the spot and, therefore, signs have been of very many countries. They are but one by Association.

THE proposal which was recently made to build a new bridge over the Thames at Windsor is receiving strong support from road users: the scheme includes a proposed by-pass road for Eton. The new road is planned to begin at Salt Hill, Slough, and to end on the Berkshire side of the river at Windsor, where it will pass

At Windsor. over the new bridge and continue through Windsor, joining the new main road on the outskirts of the town. The old-world Eton High Street is too narrow for modern motor traffic, whilst Windsor Bridge, shown above, is over a hundred years old and can accommodate only a single line of traffic in each direction.

NOT very long ago the roof of a garage situated near a railway bridge at Ashton-under-Lyne collapsed, burying a number of cars; fortunately, no one was injured. The mishap draws attention to the need which continues to grow for buildings suitable to accommodate cars. In many parts of the country there are ramshackle structures forcing their existence on unsuspecting motorists

A Lesson. by the attractive title of "garage," but which are in the last stages of disrepair, and which should be demolished in order to make room for more up-to-date buildings. The garage problem is still acute, but the conversion of old, and often quite unsuitable, buildings is not the best way out of the difficulty.

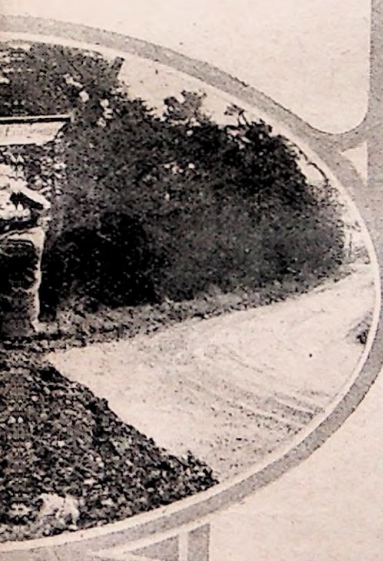
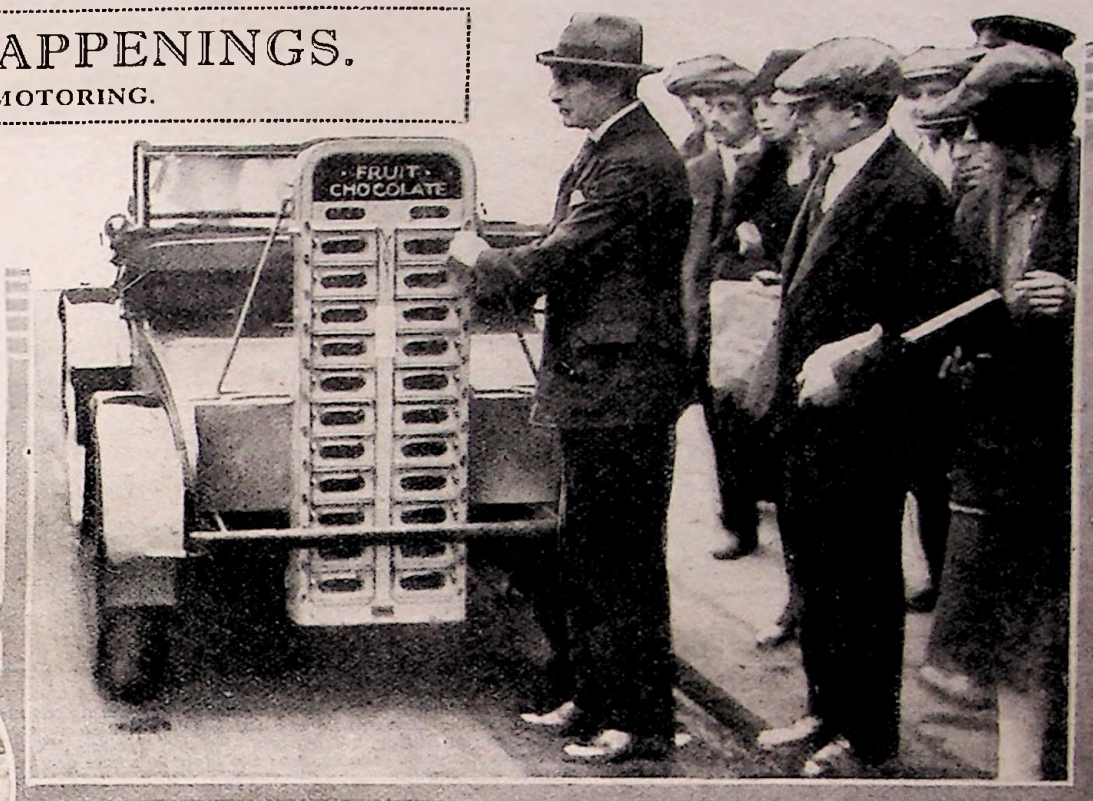


THE disfigurement of the countryside. Educating certain enterprising folk making the roadside beautiful. Here Farewell Hall teler More, Please! the road to Durham pebbles, instantly memory. Incidentally, the R.A.C. is being that the artist must devote only

CURRENT HAPPENINGS.

HERE IN THE WORLD OF MOTORING.

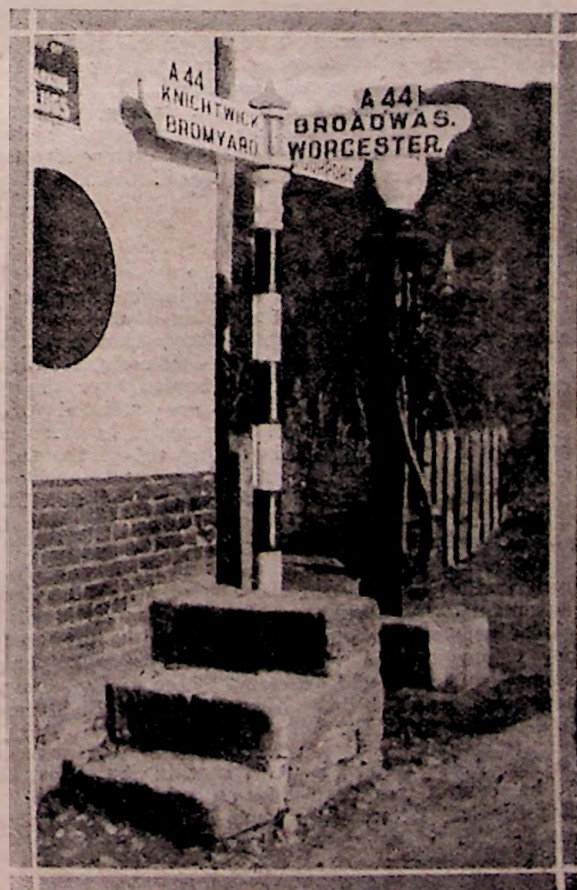
extraordinary strides which
that loopway signs are now
of a much-frequented route
As the photograph in the
off these signs is not confined
main thoroughfares in large
rect the loopway notices, are
stencils so that the necessary
ease—can be done more or
less accurately. These loopway
to motorists all over the
activities of the Automobile



THE coster's barrow has long been threatened with extinction by far more modern methods of carrying and selling produce by the wayside, and now we have a striking new development in the form of a travelling "money-in-the-slot" machine. The machine itself is mounted at the back of a light car, and when it draws up by the kerb all you have to do is to take your choice and pay your money—into the slot. Those who are in the know contend that the automatic-machine business is an exceedingly prosperous one, and when it enables its proprietor to tour the countryside as well it may truthfully be said to be one of the most enjoyable. The photograph shows one of the latest "travelling automatics."

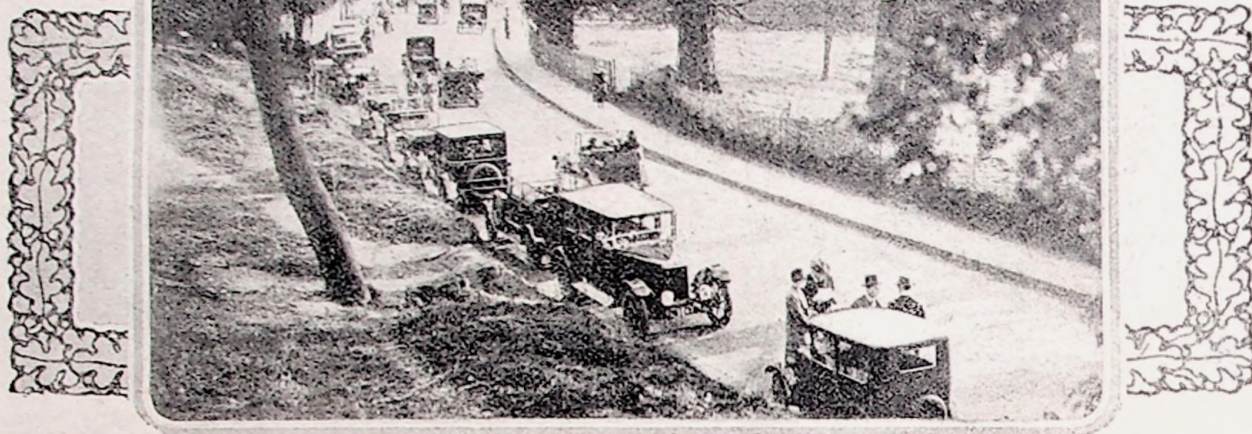
A Relic of the Past.

THE adjoining photograph might be entitled "Monuments to Progress," for it typifies in a very forceful fashion the changes which have taken place in road transport as the years have rolled by. On the left is an old mounting stone, the treads of which have been well worn by gallants and their ladies fair, who used to mount their horses in preparation for a cross-country "run." It is now overshadowed by one of the latest Ministry of Transport direction posts, whilst only a few feet away a petrol pump rears its somewhat ugly head as though to mock this relic of the past. The signpost itself should be a sufficient indication of the whereabouts of this striking collection of memorials, and readers in the district who are looking for an object for an afternoon's run might amuse themselves by endeavouring to locate them from the clues given on the signpost arms. There are, of course, numerous examples of the old mounting stone still in existence. It is to be hoped that they will be carefully preserved.



petrol-pump installations and so forth is
aided of providing a striking contrast by
work of an R.A.C. guide: it is situated at
the junction of the Great North Road and
carried out principally in white stone and
leaves a pleasant impression on the
work of this kind, the main stipulation
to the scheme of decoration.

Our Readers' Opinions



We welcome letters for publication in these columns, but take no responsibility for the opinions expressed. No anonymous communications will be accepted, but writers may use a nom de plume. To ensure publication in the next issue letters should be addressed to the Editor, "The Light Car and Cyclecar," 5-15, Rosebery Avenue, London, E.C.1, and should reach us on Monday. We reserve the right to make any alterations or deletions which we deem necessary. Please write only on one side of the paper and leave a wide margin.

DEAF DRIVERS ARE NOT DANGEROUS. Proof of the Contention—Useless Driving Tests.

A Peculiarity of Deafness.

I quite agree with "Deaf but Contented." We deaf people, when there is a general noise, easily hear such sounds as birds singing, normal conversation, horns, engine and even bodywork noises. Furthermore, being deaf we use our eyes and are more alert than many folk with normal hearing. Possibly a "stone deaf" person should not drive, but we must remember that his powers of vision would be so acute that he would be fairly safe on the road. I have been driving for five years and am happiest when at the wheel, because then I can hear with perfect ease.

ELS349.

Eyesight before Hearing.

If the authorities succeed in eliminating first noisy motor horns and then all forms of warning device—the next step, one presumes—I think it quite likely that far from being a danger, the deaf motorist will actually have the advantage over the majority of us who are afflicted with good hearing! Seriously, however, I am of opinion that "Sightline" is taking things too far. Good eyesight, not good hearing, is the essential qualification for a driver of to-day. I am rather surprised that Mr. A. J. Wilson has not annihilated "Sightline," but possibly this deaf but skilful pioneer amongst motorists is sick and tired of answering the challenge which is so frequently thrown down and so unnecessary in view of Mr. Wilson's entirely uneventful career from the point of motor mishaps.

Deaf pedestrians come under another heading: as a rule, they belong to the vast army of those who have been summed up by the old proverb "There are none so deaf as those who won't hear." Why doesn't "Sightline" turn his attention to them?

BULLSEYE.

* * Mr. A. J. Wilson is at present in Australia, therefore he cannot yet have had an opportunity of reading "Sightline's" letter. We hope that he will reply in due course.—Ed.

v34

Causes of Accidents.

In reply to the letter from "Deaf but Competent," may I be allowed to inform him that although I am not deaf my hearing has been affected since childhood. I am now 47, have spent most of my time on the road, and claim to have a record for freedom from accidents which is second to none. I am touching wood! In all the accidents I have seen not one has been due to the driver's physical disability, and I am sure that the majority of those who are involved in road accidents would easily pass a driving test.

In my humble opinion, most of the trouble is recklessness and bad judgment, and all the exams. in the world will not be of any use. Speed merchants are far too numerous, and where a fine is no punishment for these offenders I think the driving licence should be suspended and on a second offence cancelled.

T. FARRIN.

Driving Tests Useless.

Driving Disabilities.

Although I am fortunate in being in possession of all my faculties I cannot agree with "Sightline" that deaf drivers are a menace. It seems to me that a keen sense of hearing is not particularly necessary when driving; most drivers, nowadays, appear to overtake without giving warning, so that whether one is deaf or not makes little difference. Surely "Sightline" is barking up the wrong tree. Does he not mean that deaf pedestrians are a danger? So far as eyesight is concerned, the matter is very different, and I do think that there is some danger to be apprehended from the driver who sees only with difficulty; but where can one draw the line? I know a one-eyed driver who has never had an accident during his ten years' driving experience. It would, therefore, be most unfair to penalize him when many drivers with perfect eyesight have several accidents to their "credit." In my opinion it is quite impossible to institute any kind of driving test which would be infallible and, at the same time, fair to all.

SENOR.

OUR READERS' OPINIONS (contd.).

Tuning Austin Seven Engines.

I have read with much interest the letters on Austin Seven jet sizes. "YV6770" should certainly be able to better 36-38 m.p.g., and still retain power and speed. May

**Jet and
Choke Sizes.**

I advise any of your correspondents who are interested to try the following setting for the Zenith carburetter: main 80, compensator 80, choke 18 mm., and jet in slow-running tube 26.5 instead of the 26.3.5 normally fitted, and an advance of about half tooth on the coupling over the standard magneto timing. It is important that the large choke be fitted, otherwise heavy consumption will ensue, and the 26.5 must be used to cut out the flat spot on the change-over when using the large jets. With this setting one appears to get a large volume of fast-moving well-vaporized mixture which seems exactly to suit the 7 h.p. engine.

My present car is a 1924 standard chummy in fairly decent trim; using the recommended setting on normal running (including the recent J.C.C. night trial), I get about 55-60 m.p.g., and about 53 m.p.h. maximum in top with excellent power and acceleration. With the same car, using 90 main and 90 compensator, and no alteration from the standard design other than Terry's duplex valve springs, I lapped Brooklands recently in the M.C.C. High-speed Trial

at 51.3 m.p.h. for the hour, my maximum speed being 56 m.p.h. on the railway straight. I subsequently did a week-end run to Sheringham and back and averaged about 45 m.p.g. with the 90 jets, the car being just as it came off the track.

It should, however, be realized that Austin Seven engines vary to some extent. About 18 months ago I tuned up a 1927 Cup model for a young friend of mine using the same setting with 80 jets; I got about 24 m.p.h. in bottom gear, 43 m.p.h. in second and 52 m.p.h. in top gear, with excellent acceleration, but could not better 35 m.p.g. This may have improved by now, however, as the car will have "loosened-up" a little with running; but on the whole this setting will be found to give best all-round results, although the engine will be a little "fussy" until it is warm.

In conclusion, one *does* miss the chatty trials reports and pictures which used to be such a pleasant feature of your paper; would it not be possible to cut some of the dry-as-dust technical stuff and let us hear and see a little more of what our friends are doing?

What do other readers think? GEO. H. R. CHAPLIN.

* * We shall certainly be pleased to receive our readers' views upon this point.—Ed.

Light Cars for Overseas Use.

When perusing your issue of September 21st last, the other evening, I was really much amused at reading a complaint signed by "B.J." criticizing a previous contribution

**The Type
Required.**

by "Focus" relative to "skimming along the roads." Surely "B.J.'s" tyres were overhard, or his springs and shackles required lubrication. Should either of these suggestions be wrong, then a cure for rough riding might be effected by taking a leaf out of each spring.

During six weeks of last summer, my wife, child and self covered 3,624 miles in England, Scotland and Wales, and my own personal experience of the roads is that they are paradise. Can you picture our enjoyment after covering many thousands of miles of South and East African roads, when at last we started off on a real tour around Great Britain?

I know that many readers will immediately want to know what I drove, so I shall make no bones about it and enlighten them right away—it was a long two-seater Jowett! This little bus with the three of us comfortably seated, with over 200 lb. of kit in the back, carried us cheerfully around, doing over 40 miles to the gallon; and on one occasion, reached 55 m.p.h.—on the level!

Our route took us from Land's End to just north of Inverness, and all the East and West Coasts, also the Midlands, and we found the country really beautiful, whilst your roads are truly wonderful. The whole trip, so far as the car was concerned, was a no-trouble one, and I take my hat off to the A.A. and R.A.C. organizations. Then let me say a word of praise for the present-day British cars as well. In all the mileage we covered we hardly saw a single breakdown, and when we did, well, it was a 1910 Ford or something like that!

Here is another item of interest: To pick up an English newspaper would lead one to believe that the streets are crowded daily with accidents, and yet during our tour we never came across one.

I must also pass a word of praise for Dunlop tyres. During our journeys we never had to use the spare wheel, and all we did was to add a little air to each of the tyres on one occasion. But can you imagine our surprise when on returning to Beira in Portuguese East Africa and, after the car had been in the steamer's hold for just on seven weeks, I had to reduce the pressure in my front tyres by 18 lb. and back ones by 22 lb., which left 12 lb. in the front and 13 lb. in the rear.

The corrugations and holes in the roads here made it absolutely impossible to drive the car in top gear. Nobody,

of course, can keep their tyres to standard pressures in these parts, and even now we are liable frequently to have our heads brought forcibly in contact with our hoods. One cannot take a leaf out of the springs in these parts, because should the car strike a hole about 6 ins. deep and 18 ins. across at any time with a full load, it would immediately snap the remaining blades.

This question of suspension must be taken up seriously by the manufacturers. We require very much longer and flatter springs. The Trojan is a wonderfully sprung car, and I often think it strange that other manufacturers do not adopt a similar system. In Africa we do not mind so much the slow rolling motion caused by such springs; it is certainly preferable to the quick jars provided by the short stubby ones fitted to most English light cars.

It is really, in this instance, a case of taking a tip from our Yankee cousins. In England, Scotland and Wales you do not require any springs at all, but think of the poor folk in the Dominions, who have no roads to speak of when once they leave the towns. Not only this, if British makers cater for us, think of the additional comfort they will be providing for home motorists.

We next come to engines. There is not the slightest doubt that the sooner the horse-power tax is removed the sooner the British will find a footing in colonial and foreign markets. Can you not picture a colonial having sometimes to do mile after mile in bottom or second gear, whilst his friend passes him en route in his American car—rolling along comfortably in top. Now you will understand why a few months later the British car is found in the sales rooms of the agent for American cars, having been handed over in part payment for a new Yankee model.

Many British people abroad say "Why don't our manufacturers come over here and see for themselves what we require?" This is not really necessary. All that our car builders have to do is to get hold of a Chrysler, Buick, Nash, Dodge, or other American car, and it is not even necessary to look to such expensive makes, as the Essex, Whippet or Chevrolet are all built on somewhat similar lines. They will then see what the colonists require, especially with regard to the length of the springs, the size of the tyres, the capacity of the engines and the ground clearance.

England has the brains, material and skill; surely a better car in the light car category can be produced for the colonies. At the same time we require economy, and English cars certainly score on this point. In many parts of Africa we pay 5s. and more for a gallon of petrol.

Beira. G. MATHIESON.

HELP YOUR FRIENDS BY TELLING THEM ABOUT THE NEW AND UNIQUE SERIES OF ARTICLES, THE FIRST OF WHICH APPEARS IN THIS ISSUE. THEY WILL BE GRATEFUL.

OUR READERS' OPINIONS (contd.).

Sizing up the New Cars.

Kindly allow me to point out that a misprint has occurred in my letter "Sizing up the New Cars," which appeared in last week's issue. The expression for the figure of merit should read:

$$\frac{\text{Max. h.p.} \times \text{top gear ratio}}{\text{Rated h.p.} \times \text{unladen weight}}$$

or better still:

$$\frac{\text{Max. h.p.}}{\text{Rated h.p.} \times \text{unladen weight} \times \text{top gear ratio}}$$

For example, a car taxed at £10, developing 26 b.h.p., weighing 18 cwt. and with a top gear of 5 to 1 gives a figure:

$$\frac{26}{10 \times 18 \times 5} = \frac{26}{900} = .029.$$

J.M.

Satisfactory Old Cars.

I was glad to see the letter from "Medico" regarding his 10 h.p. B.S.A. in last week's issue, as so little is heard of these cars nowadays, and it is interesting to hear what similar models to one's own can do. I

A 10 h.p. B.S.A. purchased one of these cars just over eighteen months ago from a friend and, barring new piston rings, push-rod ends and tappets, no spare parts have been found necessary. The gearbox is in perfect condition and the back axle has never been touched, and—what is very strange—never requires filling with oil. This point worried me rather at

first, as my previous car, of another make, required filling every 200 miles.

After constantly removing the filling cap (which is, incidentally, at the correct level), both when cold and returning from a run, I have been forced to the conclusion that the car does not need fresh oil, and now I glance at the level once a month or so to ease my conscience.

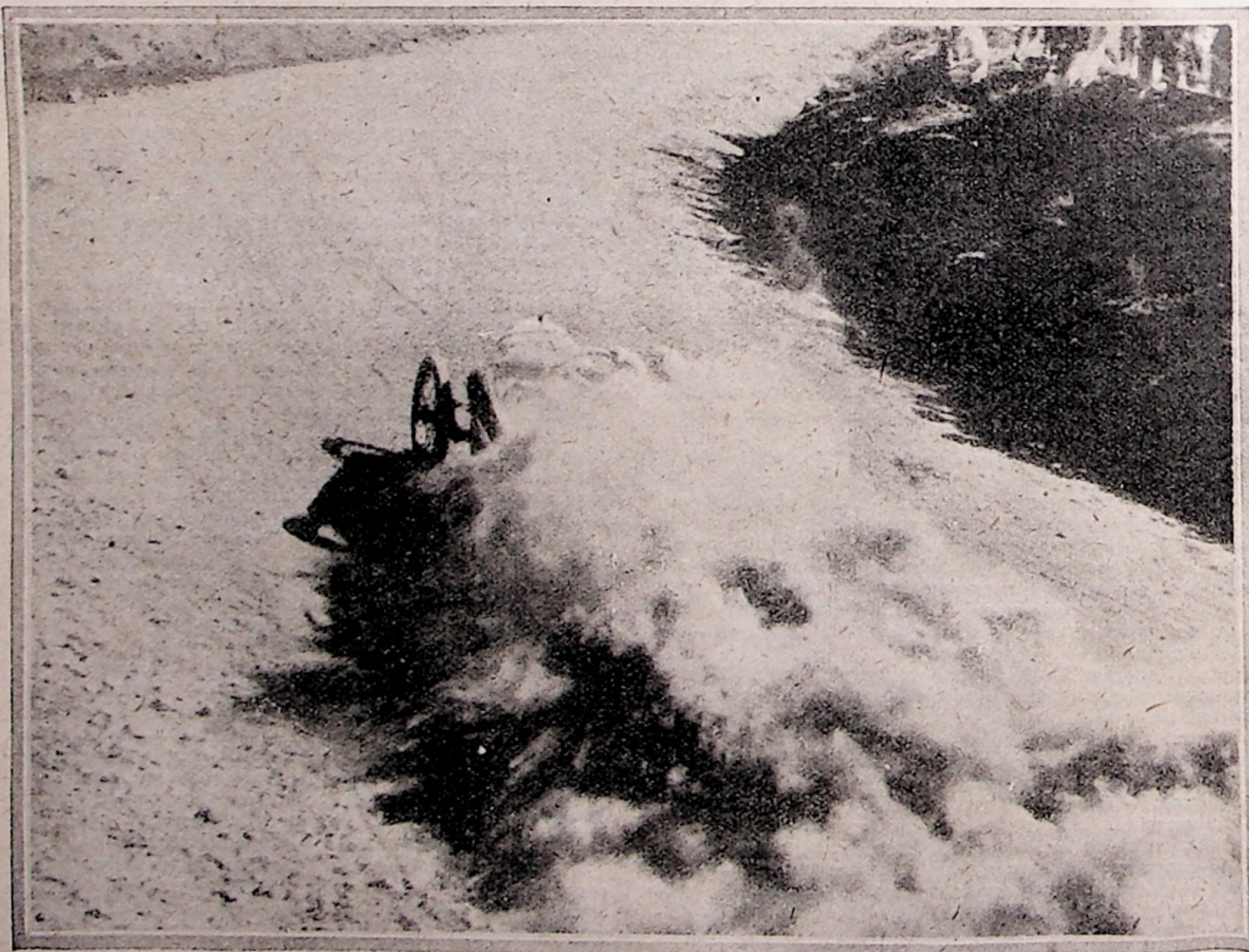
The car will do 40 m.p.g. of fuel and 800 m.p.g. to 1,000 m.p.g. of oil. I am a two-cylinder enthusiast, as previous to a Rover Eight, which served me faithfully for many miles, I owned a 1914 two-cylinder Swift. The mileage of this car was beyond count, but it carried myself and my wife on many journeys over Somerset and Devon roads. Only the other day I saw the same old car, repainted and with a few minor alterations in the bodywork, but still going strong with three up. My B.S.A. can put up a performance equal to any modern car of similar size, although it is, of course, noisier. It is capable of 45 miles per hour comfortably—it has touched 53 under favourable conditions—and it will climb any hill, including our old friend Porlock, with full load of driver, three passengers and complete luggage.

E. STEWART CECIL.

INFORMATION WANTED.

AUSTIN.—Readers' experiences with the two-seater Swallow model regarding reliability and suitability for business use over bad roads, approximate annual mileage 15,000, would be appreciated.—G. C. Stapylton, 10, Burlington Road, Altrincham, Cheshire.

AMILCAR AND SALMSON.—General information as to the running costs, performance, upkeep and so forth of the sports models of these two makes is requested.—H. W. Wilkinson, "Blondaxe," Grasscroft, near Oldham.



NOT A
SMOKE SCREEN!

The expression "You could hardly see him for dust" was very apt in the case of R. Clarke, who is here (partly) seen in his Salmson setting up a new record in the Mulder's Drift Championship Hill-climb in South Africa. The hill has a gradient of one in eight.

CLUB ITEMS AND SPORTING EVENTS.

SWEDISH RELIABILITY TRIAL.

The Swedish International Winter Reliability Trial will be held over a course of 1,000 kiloms., starting from Gothenburg, on February 9th, 1929. The trial is open to any cars coming within the international classes, and competitors will be required to cover the course at speeds varying between 36 k.p.h. (about 22 m.p.h.) and 50 k.p.h. (about 31 m.p.h.). Readers interested in the event should apply to the secretary, the Royal Automobile Club, Pall Mall, London, S.W.1, for copies of the regulations.

CARSHALTON M.C.C.

Thursday, January 10th, 1929, is the day chosen for the Carshalton M.C.C.'s fourth annual dinner and dance, which will be held at the Greyhound Hotel, Croydon. Mr. F. W. Barnes, M.I.A.E., will take the chair, and Mr. F. W. Barnes will present the awards won in the Sharp Trophy Trial and the Captain's Cup Trial. Dancing will continue until 2 a.m., and among the attractions of the evening will be an exhibition of the Motor Cycling Club's official film. There is ample parking accommodation at the rear of the hotel, and the club has made arrangements for members and friends to garage their vehicles at the special rates of 6d. for motorcycles and sidecars, and 1s. for cars.

Tickets for the dinner are priced at 7s. 6d. each, and in order that seating accommodation may be arranged conveniently early application is requested. Tickets are obtainable from the hon. secretary, Mr. G. M. Cooke, Wisley Cottage, The Bridleway, Wallington, Surrey.

SOUTHERN JOWETT L.C.C.

Nearly 80 people—the majority members of the club—inhabited the Clayton Arms, Godstone, last Sunday on the occasion of the closing rally and annual general meeting of the Southern Jowett L.C.C. By 12.30 p.m. the yard of the hotel was chock-a-block full of Jowetts of all types and years, whilst their crews sorted themselves out in the large dining hall of the hotel.

Mr. E. A. Dudley Ward was in the chair, and when dinner had been concluded he lost no time in getting on with the business of the day. The Southern Jowett Light Car Club has never been a slave of convention, and presumably all its members were agreed that "the better the day the better the deed!" The committee and other officers were re-elected en bloc, certain proposals were made, debated and carried, and finally the cups won during the year by members were presented. A surprise presentation was made to Mr. Kent, who has officiated as timekeeper year after year, and after a hearty vote of thanks had been passed to Mr. and Mrs. Dudley Ward the company gave itself over to community singing of a particularly jolly character. As we drove away from Godstone we appreciated anew the reason why this pioneer of "one-make" clubs continues to be so successful; but it deserves even greater support.

CRANFORD AND DISTRICT M.C. AND L.C.C.

A dance will be held by the Cranford and District Motor Cycle and Light Car Club at the Cranford Memorial Hall at 7.45 p.m. on Wednesday next, December 5th. Tickets are priced at 1s. 3d. each, and may be obtained from the hon. secretary, Mr. V. B. French, Springfield, Cranford. The fifth annual dinner and presentation of prizes will be held at the club headquarters, the Berkeley Arms Hotel, Cranford, Middlesex, on Saturday, December 15th, and a smoking concert, for which several artists will be engaged, will follow. Tickets are priced at 6s. 6d.

FORTHCOMING EVENTS.

- November 30.
M.C.C. Annual Dinner.
Surrey M.C. Annual Dinner and Dance.
Brighton and Hove M.C. Annual Dinner, Prize Distribution and Dance.
Leicester and District M.C. Quarterly Meeting.
December 1.
Walthamstow and District M. and M.C.C. Annual Dinner.
December 2.
Civil Service M.A. Social Run.
Wood Green and District M.C. American Hill-climb.
December 5.
Uxbridge M.C. Presentation of Awards.
Enfield and District M.C. and C.C. Annual Dinner.
Cranford and District M.C. and L.C.C. Dance.
December 6.
Essex M.C. Annual General Meeting.
December 7.
J.C.C. Annual Dinner and Dance.
December 8.
North-West London M.C. London-Gloucester-London Trial.
December 9.
Wood Green and District M.C. Run to Box Hill.
December 12.
Cranford and District M.C. and L.C.C. Gramophone Evening.
December 13.
Leicester and District M.C. Annual Dinner, Dance and Presentation of Trophies.
December 15.
Civil Service M.A. Christmas Party.
Cranford and District M.C. and L.C.C. Annual Dinner.

NORTH-WEST LONDON M.C.

The annual dinner and dance of the North-West London Motor Club will be held at the Criterion Restaurant, London, on January 16th, 1929, at 6.45 p.m. for 7 p.m. Tickets, which are priced at 10s. 6d., may be obtained from the vice-captain, Mr. E. E. Thompson, 13 Elmcroft Avenue, Golders Green, London, N.W.11. Phone, Speedwell 5532.

LONDON EAGLE M.C.

The London Eagle Motor Club's fifth annual dinner and presentation of awards was held at the Railway Hotel, West Hampstead, on November 22nd. In the course of a witty and very entertaining speech, the president, Prof. A. M. Low, congratulated the club on a very successful year, and said that it was perhaps unique in the exceptionally cheery atmosphere which always pervaded its social functions. Paying tribute to the charm of the lady members and their friends, he suggested that a trial should be organized for the "fluffy" members, promising to present an award conditional upon his services being utilized as an observer! Events of this character, he stated, would encourage the design of motorcycles and light cars embodying more comfort and greater ease of control.

Great enthusiasm was shown when a special presentation was made to the very popular hon. secretary, Mr. E. L. R. Bonner, as a token of members' appreciation of his services and untiring energy. The evening concluded with a breezy concert arranged by members.

"LONDON-EXETER" ROUTE.

As announced a fortnight ago, the Motor Cycling Club's London-Exeter run, which takes place on December 27th and 28th, has been considerably modified this year, the route being altered to include three "new" hills and to finish at Shaftesbury instead of Slough as of yore. The route card is now to hand, and it is, therefore, possible to consider the new course in detail. The start is, of course, at Slough, as was the case last year, and the route calls for no special comment as far as Sidmouth, just outside of which is Peak Hill, the first non-stop section. From here competitors proceed through Otterton and Clist St. Mary to Exeter, where there is a breakfast stop of 1 hr. 25 mins. Leaving Exeter, competitors will follow the main London road to within three miles of Honiton, where a turn to the right at a signpost marked "Gittissham 1 mile" will lead them to Westgate Hill. This hill, which is quite close to Gittissham Hill, included in last year's run, is the first of the "new" hills.

Having completed the non-stop section, the motorcycles and cars will join the main road from Honiton to Sidmouth and proceed to a point just outside Sidbury, where a turn to the left will take them to Harcombe Village, just behind which is the second of the "new" hills. The route then leads through Colford, Axminster, Birdsmoor Gate, Broadwindor, Benminster and so to White Sheet Hill. Here the restart and acceleration tests have been very materially altered, as explained in a previous issue.

From the summit of the hill competitors will make tracks for Evershot, Batcombe Ridge, up Cerne and Mipterue Cross to the Little Minsterne Hill, another "new" observed section. The strenuous part of the run over, drivers will continue for another 20 odd miles to Shaftesbury, where the run ends, the first competitor arriving a quarter of an hour before midday.

New Cyclecar Club's Second Annual Dinner.

ABOUT 170 members and friends of the New Cyclecar Club were present at the second annual dinner and dance which took place at the Hotel Cecil, London, on Wednesday, November 21st, Professor A. M. Low being in the chair. The function went with a swing from start to finish, and it was a tired but very happy crowd that wended its way home in the neighbourhood of 2 a.m. on Thursday morning.

The toast list was not extensive, but many impromptu speeches were called for, amidst scenes of great enthusiasm. Proposing "The New Cyclecar Club," Professor A. M. Low, who addressed his audience across a glittering barrage of cups won by members of the club during the year, commented on the success with which the efforts of the officials had been met, and he had a word to say about nearly everyone who during the past twelve months has worked so hard in the club's interests. "The New Cyclecar Club," he said, "stands, if I may say so, for exceedingly economical motoring. Even the most enthusiastic motorcycleists admit that there is something wrong with the motorcycle. It is not so comfortable or so weatherproof. I should like to see some kind of trial for small cyclecars in the true sense, and I hope that the committee will get violently busy."

Reverting to the production of de luxe cyclecars, he hoped that the ladies would give their help in this direction. In the world of larger cars the degree of comfort which had now been obtained and the ease of control were, he asserted, due largely to the ladies.

He concluded by urging the claims of a Continental trial—the idea being received very favourably by those present.

Mr. W. E. A. Norman replied to the toast. "The club," he said, "had done what it had set out to do this year, namely, to run an entirely successful Brooklands meeting. For the coming year a similar programme to that of 1928 would be mapped out, including the Brooklands meeting, which was down to be held on August 31st."

The task of proposing the visitors and the Press fell to Mr. D. C. Lorkin, who opened his remarks by saying that the N.C.C. would, he hoped, now be regarded as a younger brother of the J.C.C., as their aims were fundamentally the same, namely, to foster the really economical vehicle.

Mr. Lorkin put forward the suggestion that the J.C.C. and N.C.C. should compete between themselves in a competition such as a mystery run. The speaker concluded his remarks by thanking Capt. A. W. Phillips for the material assistance he had given to the club during the year.

Mr. A. Percy Bradley responding to the

toast, appreciated the welcome extended to the visitors and the Press. He was glad to observe that the J.C.C. and N.C.C. were now working along friendly lines, and he thought that Mr. Lorkin's suggestion was indeed an excellent one.

Then followed the presentation of cups won during the year, the master of ceremonies being Mr. John Yule, whilst Mrs. H. F. S. Morgan very graciously handed the cups to the recipients. This was followed by two surprise presentations, one in the shape of a silver salver to Mr. D. C. Lorkin, who had been so largely responsible for the success of the Brooklands meeting, and the other—which took the form of a handsome silver cigarette box—to Mr. W. E. A. Norman in recognition of his services as hon. general secretary, a post which he has had reluctantly to relinquish for the ensuing year owing to pressure of business.

Mr. Greenaway proposed a hearty vote of thanks to the chairman, the proposition being carried in the usual way by the singing of "He's a Jolly Good Fellow," followed by three resounding cheers.

THE Light Car
AND Cyclecar

Start the day well every Friday morning by reading *The Light Car and Cyclecar* over your breakfast—it will furnish you with ideas for spending the week-end. You can do this if you place an order with your newsagent for a copy to be delivered with your morning papers.

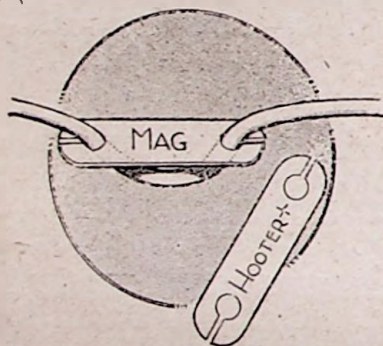
THE Light Car
AND Cyclecar



We invite readers to send us hints gained from their own experiences for inclusion in this feature. Five shillings will be paid to the sender of any hint published, but we cannot undertake to return contributions not used.

Carrying Spare Plugs.

Spare plugs should never be carried loose in a tool locker, for constant contact with the tools is very liable to damage both the points and the insulation. If the original metal boxes have been lost or if the plugs were not supplied in strong boxes, they should be carefully packed in some suitable metal container. The average cylindrical shaving-soap tin is excellent for the purpose, for it is just large enough to take a plug wrapped in paper with a suitable pad at the end to protect the points.



Ancient method of identifying electrical leads after disconnection.

Marking Electrical Connections.

If the fascia board switchbox of the electrical system is removed for any reason it is, in the case of some equipments, no easy matter on replacement to ascertain to which points the wires should be connected. To prevent confusion it is a good plan to mark the end of each lead in an easily distinguishable fashion, and the small marking tabs shown by the accompanying sketch are very handy for this purpose. They may be cut from cardboard or, preferably, from thin ivory, which may be obtained from many electrical stores. In any case a non-conductor should be used, and metal tabs are quite unsuitable as they may cause short-circuits at the connecting terminals.

Small holes should be cut in each tab through which the cable leads may be passed, and the tabs can easily be attached to the leads without disconnecting any wires by cutting very small slots from the edge of the tab to the cable hole. This allows the tabs to be slipped over the wires before they are disconnected.

n42

A Time-saving Idea.

Most people who have a private lock-up garage gradually accumulate a useful collection of tools which belong, as it were, to the garage and are not usually carried in the car. In the course of any but the most trivial adjustment the two sets of tools usually become mixed and time is wasted in carefully sorting them out and making sure that those which are required in the car are not left behind. Quite a good scheme is to mark one set of tools in an easily distinguishable manner, a band of white paint round their handles or shanks being a suitable way of doing so. In the course of a season this scheme will save quite a lot of time and will largely eliminate the risk of the car being taken out with an incomplete kit.

Magneto Brush Replacements.

As the necessity of replacing a carbon brush in the magneto of a car may face any driver when no repairer is at hand and no spare available, it is useful to bear in mind that in an ordinary flash-lamp battery there are three cells, each containing a stick of carbon about $\frac{1}{4}$ in. in diameter. It is not a difficult matter to break up one

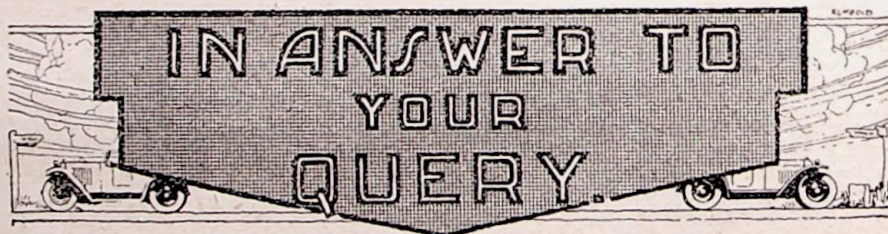
of these cells and extract a carbon, which, if necessary, can easily be trimmed down to the appropriate diameter.

Trimming is best done with a file, the stick being held with one hand, whilst as much as possible of its length is reduced in diameter by a file held in the other. Having reduced it sufficiently to fit into the brush holder, the length required should be determined and a groove cut round the brush with either a file or a penknife to mark the end of the portion needed. It is then an easy matter to break off the stick of carbon and give it a final trimming up, paying particular attention to the end which will come in contact with the slip-ring.

It must be pointed out that a carbon brush made in this way should be regarded only as an emergency spare and should be replaced at the first possible opportunity; the reason is that the carbon in a flash-lamp battery is very hard and if used for any length of time would cause scoring of the slip-ring.

Morgan Steering Wobble.

An owner of one of the older Morgans not fitted with the latest anti-wobble spring-loaded taper pins at the joints of the track rod with the steering arms, informs us that leather washers inserted at these points form a very effective means of preventing steering wobble. The washers should, of course, be fitted between the track rod and the steering arms so as to introduce a certain amount of friction. Stout leather such as that used for soling boots should be used, and it will be found that the life of the washers is about 2,000 miles. If readily obtainable, fibre washers of the type employed in shock absorbers are preferable, as they will not wear so quickly.



Queries of general interest will be answered under this heading whenever possible, but a stamped addressed envelope must be enclosed for reply by post. Telephonic enquiries cannot be answered.

S.T. (Truro).—A hardened steel worm and phosphor-bronze worm wheel is the usual arrangement in axles having this type of transmission.

W.W. (Wigtown).—The 1925 car which you describe certainly is not worth more than £20. Your other questions require rather lengthy answers; if you will send us your full address we will reply to them by post.

M.U. (London, S.W.1).—As you often have occasion to leave your car standing for considerable periods after dark, we suggest that you replace the six-watt side and tail lamp bulbs at present fitted to your six-volt system with the three-watt type. This will result in a saving of $1\frac{1}{2}$ amps.

F.M. (Barmouth).—As a rule, the numbers stamped on carburettor jets indicate the amount of fuel in c.c.s passed per minute under a constant head.

B.O. (Shadwell).—No, the oil used in steam cylinders is quite unsuitable for petrol engines. The oil recommended for your engine by the makers is Mobiloil A.

S.T. (London, E.C.).—The fitting of a new Hardy universal joint in the transmission system of your car is quite a simple job, as it entails nothing more than the removal and refitting of six bolts. Do not forget to replace the split pins which lock the nuts.

B.F.W. (Leeds).—As every other means to remove the nuts of the spring holding-down bolts of your car have failed, your only course will be to split them. This is done by drilling two holes in each nut parallel to the bolt and then splitting the nuts by means of a sharp cold chisel. Provided you exercise care in the job you should not damage the bolts.