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Vol, IX, No, 231 23rd April, 1917 Registered at the GPO as a Newspaper.

Largest Circulation

An after-war model.

The Light Car and Gyclecar

23rd April., 1917.

E.I.H.

Loss in Compression means Petrol Wasted

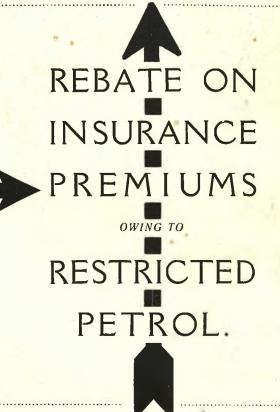
Loss in compression isn't always caused by worn cylinder walls or loose piston rings. Sometimes it is due to leakage between spark plugs and cylinder head. Smear oil or soapy water round the base of your plugs, and you will soon see if you are having this trouble. If so, fit a set of

SIMMS "Non-soot" Plugs.

These British-made plugs make a gas-tight joint, and never rust in. You can remove them with ease at any time. Ask your dealer for Simms "Non-Soot" Plugs, and accept no other.

> PRICE, SINGLE 3/6 METRIC OR or TWIN POINTS 3/6 AMERICAN THREADS.

SIMMS MOTOR UNITS, LTD., PERCY BUILDINGS, GRESSE ST., RATHBONE PLACE, LONDON, W. Sole Makers.



SIMMS

THE LICENSES INSURANCE COR-PORATION & GUARANTEE FUND, LTD., is the only Company offering a discount from Premiums owing to restricted Petrol. The Policy issued is widely drawn, offering a maximum of liberty with the usual "No Claim" bonus and a "Profit" bonus in addition. Write for particulars to 24, MOORGATE STREET, LONDON, E.C.



The Light Car and Cyclecar

In

ODGE

23RD APRIL, 1917.



of 26th March, 1917,

John Gilpin, Jnr., wrote as follows:

"It was a voracious devourer of plugs (I think I was born on a sparking plug day!), and never failed to let me down in every trial for which the machine was entered from this cause alone, until I got a set of Lodge plugs that stood the test of thousands of miles thereafter."

ENGLAND'S PREMIER PLUG.

Manufactured by The Lodge Sparking Plug Co., Limited, _____ Rugby.



Postage 21d.

A2

HOW TO DRIVE A LIGHT CAR OR A CYCLECAR.

THIS new work, apart from containing information on the handling of the lighter types of motor vehicles not to be found in any other work of reference, is the most complete exposition of the art of driving ever published.

OVER 100 ILLUSTRATIONS.

TEMPLE PRESS LIMITED, 7-15, ROSEBERY AVENUE, LONDON, E.C. I. Wholesale-E. J. Larby, Ltd., 30, Paternoster Row, London, E.C. 4.



HELP THE by letting advertisers know that their advertisements in "The Light Car and Cyclecar" interest you.

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10 THE By mentioning "The Light Car and Cyclecar" when corresponding with advertisers, F **READER** you will be working for the cause of the new motoring.

MEMO We cannot avrid ruming risks therefore we must get insured/ Write to the Managers Bot Dreadninght Unotor Policies at floyd's 14 Compill London E.C. Phone 8024 avenue HEyaolds

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HELP THE by letting advertisers know that their advertisements MOVEMENT in "The Light Car and Cyclecar" interest you.



A sunk road, near Petworth, Sussex. The light car is a Calthorpe in touring trim.

NOTES, NEWS AND GOSSIP

The weather has done far more to conserve supplies of petrol than the P.C.C.

Lament of motorists with hoarded supplies of "juice":--"If only Easter had fallen a week later."

The real Hindenburg line is the demarcation between winter and spring. A vigorous offensive promises to see us astride the line very shortly.

An American motor company has patented the name Foursome for its four-seater model. One would think that if any of the owners take to golf there are likely to be complications.

Gamages are advertising a screw-driver with a rubber-insulated handle. What we have long wanted, however, is a hammer with a rubber-insulated business end guaranteed not to injure the tenderest finger.

The outstanding feature of a motor farm tractor recently advertised appears to be a mascot representing, apparently, a rhinoceros. One would have expected a bantam cock, a bull rampant, or, at any rate, a woolly lamb.

For having lost a driving licence and failing to produce it a motorist has been fined 40s. or one month at Faversham. The licence was ortlered to be endorsed, but as the motorist says he cannot find it we imagine that this will be difficult to do.

In to-morrow's issue of "The Motor" appears an extremely interesting article very fully illustrating a remarkable chassis which cost £2000 to build. Probably it represents the very highest art of car construction, and, needless to say, it hails from America.

For driving without a licence, failing to give notification of change of address, and giving a wrong address after an accident a motorist has been fined 40s. for the first offence, 20s. for the second, and 25 for the third, or £8 in all. One's only comment on this is how very rare are incidents of motorists giving wrong addresses.

OF THE NEW MOTORING.

In the Philippines every kilometre of first-class road is marked by a tall, concrete stone.

Only 16 American passenger cars arrived in England during February as compared with 182 in January.

In the Middle West of America there are certain schools built in central positions for which cars are used to bring children in from the surrounding districts.

Elsewhere in this issue, "John Gilpin, Jnr.," solects 10 leading light cars and summarizes their points as a contribution to the vexed problem of "What is the best light car?"

Motorists who are granted or refused supplies of petrol when their licences run out this month are asked to communicate the facts briefly to us (a postcard will do) at once.

An American contemporary illustrates the process of cleaning the exterior of an engine with a petrol spray. Here we would as soon think of anointing our engine with whisky as of using our precious fuel for such a base purpose.

Could we sell cars into America if there were no tariff against us? Undoubtedly, is the opinion of several members of the trade whom we have consulted, especially the modern light car, of which there is no counterpart in the U.S.

According to a very far-seeing member of the industry, the near future of the motor trade will concentrate on the three classes of cars, the light car up to £200 in price, the mediumweight car, being a lighter edition of the 12 h.p. Rover, and a very few big cars of the Rolls-Royce and Napier type.

The same authority views the possibility of a separate light car show as not only unlikely but unnecessary. By 1918 75 per cent, of motor exhibits would come in the light car class, and by 1920 the few remaining big cars exhibited could be mixed with the light cars at the show.

NOTES, NEWS AND GOSSIP (contd.).

For Lagonda Owners.

In our next issue will appear a very fully illustrated article in the series "Getting the Best Out of a Car," dealing with the care of the Lagonda cabriolet, one of the most popular inexpensive light cars. To make sure of obtaining a copy of the paper it must be ordered in advance.

The Cyclecar Club Suspended.

On Monday last, at the annual general meeting, it was decided to suspend the activities of the Cyclecar Club for the duration of the war. It was arranged, however, that the officers of the club should call a meeting within one month of the declaration of peace, or at any earlier period if found desirable, so that the club could recommence its work at the earliest opportunity. For this purpose there is a useful nucleus in the shape of a balance of about £100, and part of which not now invested in war stock is to be placed in Exchequer bonds or other Government securities. After the war the scope of the club will be greatly increased.

When the Steering 'Fails.

As the result of a car suddenly swerving and dashing across the pavement in a crowded street of Swansea recently, five adults and a baby received more or less serious injuries. Presumably some part of the steering gear failed. We believe it is possible to design the steering so that if any part breaks or becomes disconnected the car can be pulled up in a straight line. What happens depends largely upon the part that breaks and the coolness of the driver. The tendency, on finding the steering control gone, is to pull the steering wheel one way or the other, which will almost inevitably send the car in the reverse direction at an acute angle. The steering wheel should be released immediately a breakage in a connection is discovered, and the car braked hard with both brakes. With luck nothing serious will happen. It is worth noting, in view of the prejudice against cable steering used on cyclecars, that this type is much less liable to fail than that used in conventional car practice, while if there is any wear of the cables it can be detected long before the wear becomes serious.

An Oiling Chart.

The Enfield Autocar Co., Ltd., notify us that a lubricating diagram and chart for their four-cylinder light car can be sent free of charge on application, quoting the engine and chassis number of the car. The charts are sent out with new cars, but on purchasing a car second-hand the chart will probably be missing.

Killed in Action.

In "The Times" list of casualties recently has appeared (killed in action) Sec.-Lieut. Edward Thomas, R.G.A., a noted literary man and a brother of Mr. E. H. Thomas whose artistic work has been a prominent feature of THE LIGHT CAR AND CYCLE-CAR. No doubt many readers will sympathize with Mr. E. H. Thomas in his loss.

Blairgowrie Getting Busy.

Oh, listen to Blairgowrie District Committee's chairman! He wants the committee to report to the Petrol Control Committee the circumstance that there are a lot of motor lorries "flying about," thereby causing the committee grievous anxiety about the state of the local roads. There, if we stop all motoring, think what we should save in wear of the roads!

A New Zeppelin Danger.

"Brighton Society" is a little concerned about the powerful lights used on motor ploughs when night ploughing. Well, guiding Zeppelins with motorcar headlights seemed a little incredible, but we will never believe that motor ploughs can be used for that purpose. Really, "Brighton Society," Zeppelins are not so slow as all that, inferior weapons of offence though they appear to be!

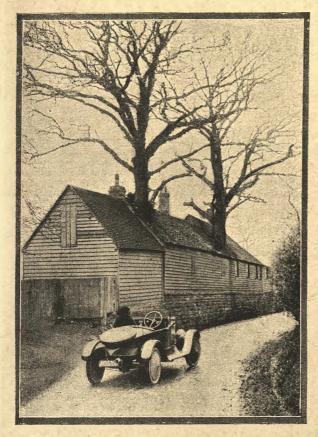
London M.V.C.

In future the Motor Transport Volunteers will be known as the 4th Squadron, City of London Motor Volunteer Corps. The headquarters will be 31, Walbrook, London, E.C. 4. During the first year of its existence the corps has conveyed over 160,000 men in the services across London at night. New members with motorcycles, cars or motor vans, especially the latter, are particularly desired, and can be enrolled at the headquarters.

Second=hand Values.

Based on average prices given in the advertisements of used cars in "The Light Car and Cyclecar."

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Was the barn built round the trees or did the trees grow through the barn, and if so why? A curiosity at Fordcombe, near Tunbridge Wells. A sporting A.-C. in the foreground.

What It Has Got To.

"Can nothing be done to make these people (alleged joy-riders) understand that every gallon of petrol used for joy-rides probably means the loss of a British life?" writes a hysterical correspondent to the "Manchester Dispatch." We have been told on equally hysterical hoardings—that to motor in war-time is "unpatriotic," "helping the enemy," etc., but this is the limit.

Effect of Strong Air.

"I was in the West of England on a business trip, and had the unpleasant experience of having about five gallons of petrol stolen out of the tank, doubtless with the air of a syringe," writes a correspondent to the "Wiltshire News." And the further west you go the stronger the air, we believe, so look out.

Another Famine.

" Does it not seem strange that, while there is a great shortage of motorcars in this country, and our local authorities are very hard pressed as to how to obtain them for purposes of municipal work, there should be seen so many private cars rushing along certain roads on their way to race meetings?" asks "The Surveyor." It is understood that reading this, certain agents in secondhand cars with the record of the past three months lack of trade will rush round in a body to the offices of our contemporary.

Our Front Cover

The post-bellum, water-cooled Morgan, described and illustrated in this issue, appears on our front cover this week. Its long wheelbase, disc wheels, and tapering bonnet give it a very handsome appearance. In many details it is an advance on previous models.

A Poor Outlook.

"The Outlook," like other papers, still meanders on about petrol being refused to those who live some distance from a station. As we have frequently pointed out of late, petrol supplies are being granted for necessitous cases like these, and no motorist so circumstanced refused an allotment should fail to apply again, stating the facts.

Easy Borrowing.

A friend of ours brought up a light car to London and kept it at a western garage. Going one morning to take it out, he was surprised to find the tail lamp missing and inquired of the innocent-looking girl in charge. "Oh," said that young person, airily enough, "I lent your lamp to so-and-so yesterday, but I do have bad luck, every time I lend people anything the owner is sure to want it.'

Objections to the "Chunnel."

The Channel Tunnel project is like King Charles head to some writers, one of whom laments that it is rather surprising to find that motorists are not unanimously in favour of it. The crux of the matter is really the extreme difficulty of properly ventilating the tunnel, the length of time the journey would take, seeing that the tunnel would be about 30 miles in length and the speed of the slowest vehicle would determine the speed of the fastest, the reverberat-ing noises and the excessively boring nature of a The drive through a tunnel under such conditions. practical solution is to carry cars through the tunnel on electrically-driven goods trains.

"Icepacket," London.

There seems to be a very remarkable genius at the Post Office who is responsible for the telegraphic addresses. Recently we referred to his selection of "Engairfroi" as the telegraphic address of the makers of the G.N.—a subtle reference to aircooling. Even worse was the name handed out to another London concern, Messrs. Stewart and another London concern, Messrs. Stewart and Arden, Ltd., the controller enthusiastically proposing "Icepacket." Upon representations being made that the concern was interested in motorcars not frozen meat, the name was reluctantly waived in favour of "Essandaymo," a subtle reference to the "M.O." connection of Messrs. S. and A., Ltd. But what an opportunity the humorists of the trade have missed! "Icepacket," it has great possibilities!

CONCERNING THE ISSUE OF "THE LIGHT CAR AND CYCLECAR" OF 30th APRIL.

THE reader who expects to pick up a copy of "THE LIGHT CAR AND CYCLECAR" at any bookstall in future will probably be disappointed.

Copies on "sale or return" can no longer be countenanced. Newsagents generally will only supply to order. This applies to the next issue of "THE LIGHT CAR AND CYCLECAR,' dated 30th April. Each week in future it will be increasingly

(Continued on next page.)

difficult to obtain a copy of the paper unless ordered for regular supply,

There are three ways for ordering the regular supply of this journal :---

- 1. Fill up order form A, enclose a remittance, and address it to our publishing offices. 7-15, Rosebery Avenue, London, E.C. 1. The cost is only 6/6 per annum.
- 2. Fill up order form B, in which the regular supply of the paper is left to a newsagent, who will deliver it at your home.
- 3. Fill up order form C, or—still simpler—speak to your newsagent or bookstall clerk, and tell him you want a copy-reserved for you regularly.

It is absurd to be diffident about this matter. After 1st May it will be found absolutely necessary to prevent disappointment. Many changes and improvements in the modern light car and cyclecar are impending, and by missing a copy of any issue, some extremely interesting and valuable information will probably be lost.

The following are the forms referred to :-

Cut one of these out.

To be forwarded to "The Light Car and Cyclecar," 7-15, Rosebery Avenue, London, E.C. 1. Form A

Please add my name to your subscription list formonths.

Name.....

Address.....

Remittance forenclosed.

12 months 65. 6d. 6 ,, 38. 3d. 3 ,, 18. 8d.

(Please write distinctly.)

Io be handed to a Newsageut.

Form B

Please deliver a copy of "THE LIGHT CAR AND CYCLECAR" (published on Mondays) each week until further notice.

Name..... Address.....

To be handed to a Newsagent.

Form C

Please reserve for me each week a copy of "THE LIGHT CAR AND CYCLECAR" (published on Mondays), for which I will call.

Name a. E. Small write.

Text Books and Manuals. Notes on Useful Publications for Light Car and Cyclecar Owners.

Callous to Criticism.

Reviewing "How to Drive a Light Car or a Cyclecar"* in "Town Topics," "The Highwayman," who has the grace to say " that it is all interestingly written and illustrated," remarks that he supposes that "there are some perfect babes let loose on the road with little cars, and these may require spoon feeding." Now, it is the absolute callousness, of the Editor of the Temple Press manuals to this sort of criticism which has made them as successful as they are. Do we not all want spoon-feeding at times? Look at the thousands of light car users who would be grateful for a little feeding, even out of a spoon, if it would enable them to change gear like an expert, and handle their cars in difficult situations with the sangfroid of an airman who has just saved his life after having "crashed." And there is much information in this little volume for even high and mighty experts like "The Highwayman," if he is like the average sporting journalist !

Many questions are sent to the Editor of "The Light Car and Cyclecar," which, with the aid of the copious index, could instantly be answered by a perusal of "The Light Car Manual." A copy of this work ought to be in the hands of every owner of a light car, from a Humberette to a luxurious Singer coupé. The cloth edition, by the way, is quite exhausted. but the 1s. copies, in an attractive stiff paper cover, contain exactly the same matter. Everything which the light carist wants to know, from simple diagrams explaining the working of an engine to tracing troubles on the road by the aid of a fault-finding chart, will be found within its 208 pages.

A Long-felt Want.

At the end of this week, or the beginning of next, the new manual on "Motor Repair Work"[‡] should be ready. This will supply a long-felt want, as the vendors of patent medicines say, for there is no book like it obtainable. It deals in simple language with the complete overhaul of a car, including the tyres, and, with the aid of numerous clear illustrations, should enable any ordinary motorist to acquire the best workshop and garage methods of repair and overhaul work. Copies ordered now will be despatched in rotation as the printers deliver supplies: there are already a lot on order. The price is ls. (post free ls. 2d.).

The Temple Press publications cover a wider field in connection with motoring than may be thought. At any rate, a 16 pp. catalogue, which will be sent on receipt of a postcard request, will indicate their very large number.

BAS BLEU.

* "How to Drive a Light Car or a Cyclecar"; cloth, 1s. 6d, net (postage 24d.). † "The Light Car Manual"; paper, 1s. net (postage 3d.). t "Motor Repair Work"; paper, 1s. net (postage, 2d.). Temple Press Ltd., 7-15, Roseberg Avenue, London, E.C. 1, or from any bookseller.

THE RENEWAL OF PETROL LICENCES. Petrol for Officers On Leave.

THE attitude of the Petrol Control Committee with regard to the renewal of licences appears to be very much the same as indicated by us previously. A large number of forms have been printed and issued, totalling, we believe, 40,000, asking motor-ists to supply information as to the purposes for which they use their cars. Providing that such cars are not being used for pleasure purposes, we take it that an allotment of petrol will be made. In other cases allotments of a reduced quantity are being granted.

R.B.F." informs us that he has been allotted 60 gallons at the rate of 10 gallons per month. His car is used solely for business purposes, but he pays the full tax on a so-called "pleasure" car. "J.H.H.," who has a Morgan has received an al-

lotment of 20 gallons (he does not say for what period).

Those in the Services who are on leave, or are con-valescent, recovering from wounds or illness, can obtain an allotment of petrol on personal represen-tations to the Petrol Control Committee, 19, Berkeley Street, London, W. The amount allotted is a matter for bargaining, and the period of the licence depends upon the circumstances of the applicant. The highest amount of which we have

knowledge is 20 gallons per month. It is only fair that officers back from the Front for the usual 10 days holiday should have an opportunity of using their cars, while those on sick leave will undoubtedly be helped to recuperate if they can put in a little motoring. In all cases the super tax of 6d. per gallon has to be paid on the total quantity of petrol allotted. This information should be of great assistance to men in the Services. It is made exclusively in this journal, but we have confirmed it by reports from applicants who have followed our advice to apply for an allotment of petrol.

On the other hand, we are informed by Lieut. "S.," R.F.C., who is now on six months sick leave with lung trouble with orders to keep in the open air as much as possible, that he has applied for an allotmen of six gallons per month, and a month after making his application it was refused. In view of the fact that perfectly healthy officers have been granted allotments of petrol up to 20 gallons per month, the action of the Committee in this case is simply disgraceful.

We should be glad if readers would communicate with us regarding their allotments.

THE IMP PUNCTURE SEALER. Of Particular Interest to Owners of Three-wheelers.

H AVING experienced a nasty flint puncture to a In front tyre during the Easter holidays, we took the opportunity of testing a sample packet of Imp puncture sealer, which had been sent us by the Atkinson Manufacturing Co., Ltd., Guildhall Street, Preston.

This composition, which has a clay like smell, consists of a very fine brown powder, and as this appears to possess the properties of a dye it is well to keep it off the clothes and to prepare the solution where there is no wind. A 3s. 6d. box is sufficient for a 790 by 90 mm. tyre, and therefore ample for light car use. The weight is about 13 ounces.

Following the detailed instructions on the box, we put the powder in a jug and kept stirring it as water was gradually added, bringing it to the consistency of thick cream. The next thing was to turn the deflated tyre so that the valve was at the side, to remove the valve pin, and to get out the tyre pump. By unscrewing the top of the pump and taking the whole plunger out, the barrel was filled nearly to the top with the mixture, and the plunger replaced. Then the connection was screwed on and the mixture slowly forced into the tube. Considerable pressure was required for this, so much so that when the second half of the mixture was being put in, the connection blew off, the wheel and our boots receiving a liberal dose of what an unsympathetic friend described as "cocoa." Investigations with a piece

Complicated Limits.

Speed limits are receiving much attention in parts of America. The speeds proposed recently in Texas are 30 m.p.h. maximum, 18 m.p.h. in "closely built country," 15 m.p.h. in towns, and 6 m.p.h. in dense traffic and at intersecting streets. Despite the reasonableness of the maximum allowance, it looks as if motorists will be kept busy if all the others are to be strictly observed.

of copper wire showed that some minute and undissolved lumps were choking the valve; we got the rest of the charge in with cautious pressure on the pump handle, and cleaned out the pump in a bucket of water.

After rolling the wheel over two or three times on the floor to distribute the mixture, we inflated the cover fully and found the puncture entirely sealed; but, having a few minutes to spare, we thought it would be interesting to see the extent of the damage, and took off a couple of feet of cover and tube. The flint had made a clear cut about $\frac{1}{2}$ in long with a smaller puncture alongside it. Practically none of the puncture scaler had come through, only the edges of the cuts being discoloured, and a short test on the road has shown no signs of further trouble.

In the case of a really large burst or split, any puncture sealer which appears should be washed away and the tyre patched as usual.

Although useful to any owner who is anxious to be free of practically all tyre trouble on the road, this preparation would be particularly valuable to all owners of three-wheelers, owing to the difficulties of repairing back-wheel punctures.

Another preparation marketed by the same concern is Glitterglass, which, apart from rendering it very easy to clean glass, such as the windscreen and the lamps, prevents rust or rain water depositing on it. It is an entire success.

Unsuitable Warnings.

In a recent run through mid-Sussex we noticed that an exceptional number of private house drives and park entrances were provided with warning signs on the main road. This is a decidedly objectionable practice, for when it is obviously reasonable to expect side road traffic to enter a main road slowly how much more so when coming out of a mere private drive?

THE POST-BELLUM WATER-COOLED MORGAN.

The attractive appearance of the afterwar Morgan can be gathered from the illustrations reproduced above. A notable feature is the long wheelbase. The cosy character of the hood, the large outlet and inlet pipes of the cooling system, the capacious radiator, the fan belt (driving off the flywheel), will be noticed. This is the model with the J.A.P. water-cooled engine. The chassis illustrated has an M.A.G. engine.

440

THE LATEST MORGAN. A Serious After-the-War Rival to the Luxurious Sidecar and the Highest Development of the Cyclecar.

HATEVER may be the solution of the £100 car problem, there is little doubt that it is one of the most interesting engaging the attention of light carists and motorists in general. Closely coupled with the possibility of the £100 car is the extremely important subject of the effect of its introduction upon the more expensive motorcycle sidecar outfits. Here, indeed, is scope for conjecture. Will the cyclecar, when it comes into its own, as it undoubtedly will, affect the sales of the £100 sidecar outfit?

These thoughts were engendered by an extensive rinese thoughts were engendered by an extensive trial, afforded to us by the courtesy of the Morgan Motor Co., Ltd., Malvern Link, Worcestershire, of their 10 h.p. post-war model. Although it is not sug-gested that this vehicle will be marketed at the

round figure, the afterwar price will be con-siderably less than that promised by the manu-facturers of the more luxurious sidecar outfits. The results of our trial have shown us, in short, that not only will this after-war Morgan make a big appeal to the motorcyclist, but it will also make an appeal, and to certain manufacturers a danappeal, to gerous motorists who heretofore have been only content in purchasing what may be termed "true" light cars. Although its after-

war design has not been

revolutionary, we find in the new model a general broadening and expansion of those excellent prin-ciples which have made the Morgan cyclecar the most popular vehicle of its type on the road. On the model of which we have had experience the power unit was a 10 h.p. M.A.G., the cylinders having a bore of 82 mm. and the pistons a stroke of 103.5 mm., giving a total capacity of 1093 c.c. It must be clearly understood, however, that the water-cooled 8-10 h.p. J.A.P. engine which has square dimensions of 85.5 mm. and

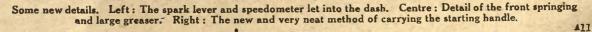
capacity of 980 c.c. is also available as a prime mover. With regard to the technical details of these two excellent engines little need be said. Both are fitted with specially large crankcases; indeed, one may say exceptionally large in the case of the J.A.P., in order to accommodate flywheels of very generous dimensions, which go far to bring the torque of the V-twin up to that of the four-cylinder engine considered a sine qua non of the light car. Indeed, with the M.A.G. running "light," with a fully advanced ignition, and with throttle openings up to one-third it was difficult to say whether the power unit fitted was a four-cylinder one or not. Lubrication is by the simplest of all methods, a hand pump. Once every 10

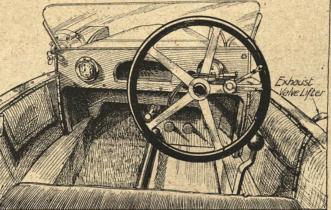
miles the plunger could be drawn out to its fullest extent, the tap turned so as to permit the oil to flow to the crankcase and the oil

allowed to percolate thereto. The future Morgan engine is to be water-cooled, the air-cooled model, except in special instances, being struck from the list, and it is in connection with the water cooling that we find the principal principal Situated alterations. behind the engine is a radiator of ample dimensions, partly enclosing a fan driven by belt from the periphery of the external flywheel,

A view of the dash and controls of the after-war model of the Morgan cyclecar. which by its inner cone transmits the drive to the clutch, which is now Ferodo

lined. The flywheel has been increased some 300 per cent. in depth with an accompanying increase in the width of the clutch material. Here, then, have we a really excellent improvement. Previously, the Mor-gan clutch was inclined to be fierce, or, if lubricated sufficiently, inclined to slip. With the new arrangement we found that the clutch was remarkably sweet in action, taking up the drive progressively and without any sign of jar or fierceness.





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The new Morgan makes light of a notable Surrey "pimple," White Downs Hill, near Effingham. The photograph belies the gradient.

Reverting to the water-cooling system, it will be seen from the illustration of the J.A.P.-engined model that the outlet and inlet pipes are of generous dimensions and of the approximately correct angle as demanded by the thermo-syphon system of cooling. Behind the radiator is carried the petrol tank, the oil tank being nearest to the dash.

Turning to other details, it is notable that the new model is equipped with a much longer chassis than that previously employed, and, indeed, one may say that the post-war model is an attractive adaptation of the Grand Prix and standard models. Carried on the lengthened chassis is a body of much deeper and broader dimensions than that fitted hitherto. The body is in addition provided with well-sprung upholstery and an extremely comfortable seat tilted to the proper angle. The side panels are swept well up to protect the passengers from any side draughts, and we found in this respect that the Morgan was a good deal warmer and more comfortable than many more expensive cars that we have driven.

Comfort for Passenger and Driver.

The proximity of the passenger is not sufficient to cause that somewhat annoying feeling that one's left elbow is constantly being nudged and the steering equally constantly deflected from the path chosen by the driver. Protection for the passengers is further provided by a neat adjustable screen, whilst a Victoria hood of black waterproof material is brought over the passengers' heads, meeting the top edge of the screen and held in position by two permanently attached spring-loaded clips. Thus ensonced, both driver and passenger can face the stormiest weather, it not being possible for any rain to reach them at all, as side valances of the hood are brought well down on either side.

The carburetter fitted to the machine loaned to us was the semi-automatic Amac. For ordinary running we found that the air lever provided merely a comfortable assurance that the maximum quantity of air was being admitted to the cylinders.

A small detail we may mention here is the simple method of controlling the ignition, advance and retard. This consists of a ball-headed rod carried straight to the magneto, driven as usual by a bevel from the mainshaft of the engine. We found that when, after a few experiments the ignition had been properly timed, with a slight retardation of the magneto, it permitted the Morgan to slog up hills on top which in one or two instances caused many gear changes by the drivers of accompanying light cars.

Turning to the equipment, we found that this consists of two nickel acetylene lamps supplied by a generator for which we have nothing but praise. We had occasion to use this generator for a considerable A12 mileage in the dark, and whilst there was a lump of unused carbide in the container a brilliant light was always available. Of the rear lamp, a Dependence, little need be said as it has universal fame.

The tyres fitted to the front wheels, all wheels being provided with Rally discs, were oversize Dunlops, whilst the drive of the back wheel was capably taken care of by a 700 mm. by 80 mm. Stepney road grip. We have heard it said that these three-wheelers are dangerous to drive on greasy roads and on tramlines. In the course of our peregrinations we had much experience of both types of road surface and found that the Morgan was as equally secure and safe as a fourwheeler shod with non-skid tyres on every wheel.

General attention to detail is shown by screw-down lubricators of more than satisfactory size, and the provision of a capacious locker immediately underneath the dash, the finish and equipment of which show marked improvement.

The lengthened chassis permits of the tail piece being covered by the hood when this is folded down, and consequently a large kit-bag can be carried without hindrance.

The brake details remain as before, external contracting bands at both sides of the rear wheel.

The Machine on the Road.

We can say that the behaviour of the Morgan for several handred miles of extremely varying road surface and gradients was very satisfactory. With the engine as fitted to this model, comfortable speeds of from 7 to 42 m.p.h. could be attained. On that wellknown gradient, Ranmore Common hairpin, the top gear could be employed to within 30 yds. of the hairpin corner; low gear being engaged, the Morgan made more than light of the gradient, it being necessary to throttle down in order to spare the engine unnecessary revolutions.

On another well-known Surrey test hill, White Downs, we again failed to find a gradient worthy of testing out to the limit the capacity of the new Morgan. Although the carburetter had been fitted with a jet which gave a mileage of slightly over 60 miles to the gallon, the hill was climbed at over 20 m.p.n. As a top gear car the Morgan will be hard to beat. The generous size of the engine flywheels, coupled with the more than generous outside flywheel, would assist the engine in slogging up extremely stiff gradients without there being the slightest sensation of labour or distress. Easy to control in traffic, extremely economical in running, with a turn of speed more than satisfactory when the present road surfaces are taken into consideration, we think that this after-war Morgan will go far to combat the suggestion made in certain quarters that the cyclecar is dead.

THE WEEKLY POSTE COMMENT ON CURRENT TOPICS AND EVENTS. C.T.C. Eccentricities-What "Bad Roads" Can Mean-Throttling Motoring in France-A Chemical Decarbonizer-After the War Indecision.

VERILY there are some people without the faintest perception of the ridiculous. Only by this failing can we attribute the latest action of the Cyclists' Touring Club. It has actually proposed

FROM THE to the Home Secretary that the light-SUBLIME. ing-up time for bicycles shall revert to the old arrangement of one hour after

sunset and that the necessity for carrying two lamps (one being a tail light) should also be done away with. Now, if there is any vehicle on the road which requires to be lighted, especially in the dim hours of dusk, it is a bicycle, and motorists have not two minds on the necessity for bicycles being provided with a rear light, especially in these days of diminished street and car lighting. But what, if you please, is the reason, the patriotic, self-denying spirit of which fairly staggers us, for this recommendation ? Only this—the great saving in lamp oil which would be effected! As our associated journal "Motor Cycling" suggests, if the C.T.C. wants to augment the country's resources, why does it not advocate a tax of 2s. 6d. or 3s. 6d. on bicycles, calculated to add about £500,600 to the revenue? To cyclists such a tax would be most obnoxious-most taxes are, by the way, to all of us—but this sort of nonsense will do more actively to promote a spirit of antagon-ism to cycling than anything else. It is time that "Cycling," instead of encouraging the humorists of the C.T.C., sat upon them a little violently.

THE photograph reproduced on this page will give some idea of what a bad road really looks like. The David cyclecar has sunk up to the axles in a soft rut

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in the Pyrenees. A correspondent who forwards the photograph writes REAL BAD ROADS. that a party of his friends made a

journey to the Pyrenees for the winter sports week at Camprodon. "What would English readers think if the car sat down, so to speak, with

the wheels churning. up soupy mud in the ruts, which are too deep to allow 'them to touch firm ground" he writes. Two David cyclecars, however, made the journey, and after-wards returned to Barcelona by the s a m e way, the double journey being done in the same week. It proved a very good test for belt drive, and except for occasionally digging the vehicles out of the mire no trouble was experionced. Each car carried two peoplenot four, as might be supposed from the photograph. The photograph. one illustrated is

What bad roads really can be like. A David cyclecar up to the axles in a soft road in the Pyrenees.

fitted with a Blumfield engine. The other David was fitted with an M.A.G. engine. If Spain enters the war, we presume sporting events in that country will cease temporarily.

AFTER being free of all restrictions, France is now threatened with the stoppage of motoring, or, alternatively, a petrol control committee, it is stated in "The Motor." As in this country, it

A FRENCH does not appear to be understood the CHAMPION vital part played in commerce and industry by the motor vehicle, but a

MOTORING. champion for the motorists' cause has arisen in M. Louis Renault, the well-known French car manufacturer. M. Renault points out that, of the petrol used in France, 90 per cent is consumed by the Army, of the remaining 10 per cent., 6 per cent. is used in public service vehicles. The remainder is absorbed by farmers who have to employ motor vehicles to replace their horses, business men and a few pleasure-seekers, mainly foreigners who, "despite the war, prefer to travel in France and en-rich the country by so doing." No doubt in France, as in this country, the greatest waste of petrol is under the control of the military authorities, and M. Renault wisely suggests that if petrol cars are issue ! they should apply to military as well as civilian motorcars. Whether France is in a position to manufacture petrol substitutes or not we do not know, but such a practical nation is not likely to allow itself to be throttled by an academic committee, if such supplies are obtainable, as has happened in this country. Meanwhile, a nice little point, referred to in a recent issue, has occurred over the use of solvent naphtha. Large supplies of this substitute are available, and, if they are not disposed of, the output of munitions will be checked. The Petrol Control Conmittee so far has resisted all suggestions that they should be handed over to private motorists in lieu

of petrol, and now states that when there is a surplus it will be handed over to the Navy and Army-where it will no doubt be used for washing cars, we presume! It is not difficult to see the working of the official mind in this matter. It is not the shortage of petrol with which the Committee is concerned; there is no shortage and that is a cloak for their attitude. The real point is that the Committee is out to discourage pleasure motoring, in which, so far as race-goers are concerned, it is singularly unsuccessful. A13



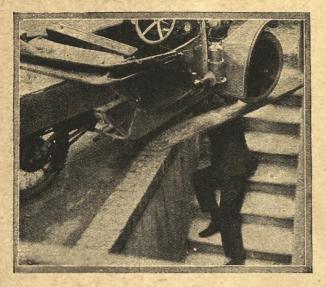
THE WEEKLY POSTER (gontd.).

NOT the most pleasant task is to get under a car to carry out any adjustment which is otherwise im-possible. It was for this reason that garages were equipped with a "pit," although the



garage pit is rapidly becoming a dream of the past thanks to the overhead accessibility of the modern car. In an experimental Morgan which we had

under test recently it was found that the only way to get at the clutch was by getting behind and under



Once more illustrating the handiness of the cyclecar. It was the work of a few seconds to manœuvre the Morgan into this position, so that access to the clutch was facilitated.

it. (It must be understood that this will not be necessary on the finished post-bellum model, where proper provision for easy adjustment is being made.) To lift the machine on to a couple of petrol tanks was not very difficult, owing to its light weight, but we struck a better idea, which is illustrated in the accompanying photograph. The car was simply wheeled along with one wheel on a plank laid across an area, which was a fortunate adjunct of the house, and thereafter the work of adjustment was as simple to carry out as could be wished. This illustrates the handmess of the light cyclecar rather well.

WE should not like to hazard a guess as to the number of people who have written us for particulars of any satisfactory chemical which would quickly remove carbon deposit from an engine

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DECARBONIZ-without the labour entailed now. We

EASY_ DERHAPS. of which chlorate of lime appears to be the essential ingredient, and various

other chemicals, without over-much success. Now a methylated spirit-ether-ammonia mixture is sug-gested. A correspondent to "The Motor" gives the following mixture, which perhaps a few readers would like to try for themselves and report upon :--Methy-lated spirit 30 parts, ether 18 parts, solution of ammonia (3 per ceut.) 52 parts. Mix, by shaking together, pour half ounce into each cylinder while the latter is not after a run and leave over night. The mixture should be sprayed round the combustion chamber when pouring it in, and if there is any difficulty in starting up after applying it this can be overcome by injecting petrol into the cylinders. The writer states that with a muslin bag at the end A14

of the exhaust pipe he has captured half a teacupful of hard carbon deposit. Writing of carbon deposit removed if large valve caps, such as are fitted to the Chiribiri light car, were to be adopted. With a set of Brown Bros. spring scrapers, the carbon deposit can be completely removed from the combustion chamber of this engine in a surprisingly short time, and the necessity for removing the cylinder block is obviated. The valve caps are almost the diameter of the pistons.

IN a previous issue we commented on the skill and care which would have to be exercised in demobilizing the Services so that important industries did not

have to wait intolerable periods for the "WAIT AND return of much-needed labour. To dis-SEE !" band the Army at the rate of 5000 men

per day, as was proposed, would take nearly three years before all the men could be returned, which is obviously absurd. Recently Mr. John Hodge, M.P., has stated that in the process of demobilization the Army Council would release first the men belonging to industries which were in a position to start right away after the war. We imagine that that will be the position of most industries, and if this arrangement is adopted, it will be the business of the motor industry to see that they are ready. At the present moment most of the manufacturers appear to be drifting on in a manner which is disquieting. That, the great offensive, the entry of lately neutral countries into the war, and the peace overtures from Austria, Turkey and Bulgaria, are likely to bring about the cessation of hostilities at an early date is manifest, yet the great majority of the manufacturers have not the vaguest idea as to what types of cars they will produce after the war. Everybody is waiting to see what everybody else is going to do, what class of car to specialize in, and what price to charge for it. Some little time ago the Society of Motor Manufacturers and Traders appointed a committee, we understand, to bring the industry into line over this important matter. What has this committee done? Surely it is time that meetings were held and a definite policy decided upon. The crux of the question is the light car, and here again, if the R.A.C., as the present governing body, laid down definite lines upon which it intended to distinguish the modern light car-a cubic capacity of 1400 c.c. is the limit believed to be approved-with some statement as to the activities to be pursued in this direction, after the war, the industry would have something to go upon. At present the only fixed idea is to build engines exceeding a cubic capacity of 1100 c. so as automatically to take the harmful control of the movement out of a purely motorcycle body, with strong anti-light car interests, viz., the Auto-Cycle Union.

SEEN any icebergs about lately? Anyway, the very latest theory regarding the abnormal winter is that an extraordinary number of icebergs have been

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detached owing to the concussion of THE CAUSE the heavy firing on the various fronts. OF WINTER The theory is rather difficult to swal-

IN SPRING? low. We have met people who, in the heart of rural England, distinctly heard gunfire on the Somme last July. This would heard gunfire on the Somme last July. This would be a tall order, but from the nearest front to the Arctic circle is a good many hundred miles. At one hundred miles distance it would be a very delicate instrument which would record the concussion of the heaviest gunfire, and, admitting the susceptibility of ice to concussion, we fail to see that the effect would be what the "experts" imagine. The "loss" of the Gulf Stream, by the way, seems out of fashion.

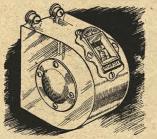
TESTING A POST-BELLUM ENGINE. The Latest 10 h.p. A.-C. Merely Plays with Ordinary "Freak" Hills.

(See illustrations on the centre pages.)

T will be remembered that last May two 10 h.p. A.-C.s set out for a hill-climbing demonstration, in an unsuccessful search for an unclimbable hill in the Lake District. The event was fully described and illustrated in THE LIGHT CAR AND CYCLECAR of 29th May, 1916, with further illustrations in the issue following. Honister Pass from the steeper (Butter-mere) side, Wrynose and Hard Knott were success-

fully climbed, one car being driven by Mr. K. E. Don and the other by Mr. A. Noble, the works manager of Auto Carriers, Ltd.

Having established the fact that, the 10 h.p. A.-C. is a car of remarkable hill-climbing merit, it becomes essential that post-bellum model a shall live up to its reputation. For this model



The gradometer.

tation. For this model The gradometer. two new engines have been designed, and whichever proves superior will be adopted. Opportunities for testing engines, however, are somewhat rare, for, of course, Auto-Carriers, Ltd., are engaged, except for occasional releases on special orders, exclusively on munition work, but we recently accepted the offer of putting the engine, and a car containing a few after-war features, to as severe a test as possible. We contemplated an attack on two celebrated West of England test hills, with gradients much steeper than 1 in 4, dition of the roads made it a task for which we but the snowfall on Good Friday and the bad condecided another day would be more suitable. We were therefore hard put to it to find any freak hills nearer to headquarters which would in any way test this new engine—and we failed. True, every hill tackled was climbed with ease; but so easily that it was no test at all, so far as finding out the absolute limit of the power of the engine, as the following description will show.

The Experimental Engine.

The engine has a cubic capacity a little under 1500 c.c. so that it is just within the light car classi-fication. Its actual dimensions, or any features of its design, it would be premature to mention. The car was of standard weight, with quite a luxurious body, hood, screen, disc wheels, a C.A.V. dynamo lighting set, and a few other extras, notably a Smith

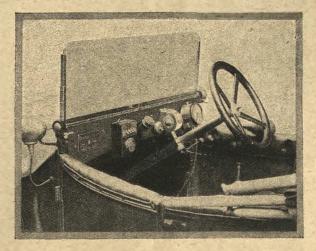
engine revolution counter and a gradometer. A Zenith carburetter was fitted, but not heated, as will probably be a future feature. Preliminary tests showed that some amount of tuning was neces-sary, and the best results were obtained with a high level, a 15 choke tube and a square setting of the jets, both being 85. With this setting an engine speed of 3600 r.p.m. on second gear on the level was obtained. Trouble was experienced with preignition, the engine got unduly hot after sustained "revving," and would misfire and finally peter cut. Most people would probably attribute such symptoms to the carburetter, but previous experience led to the plugs being examined, and their unsuitability for a high-speed engine was revealed at once. They were replaced with a set of ordinary standard Lodge plugs and the trouble was cured.

The worst hills of the Cyclecar Club Efficiency Trial and a few famous freak hills in Kent were selected. Wray Lane, near Reigate, was the first, a 1 in 51 gradient after a long pull up of 1 in 12 to 1 in 8. It was very nearly rushed on second, and topped at 3200 r.p.m. Ranmore Common (1 in 7) was climbed on second speed at 3200 r.p.m., with a great skid on the famous corner, only the commencement of which was obtained by the photographer (see centre pages). Pebble Coombe (1 in 6) was nearly climbed on second speed, finishing at 2800 r.p.m. on first. White Downs (1 in 8 to 1 in 6) was climbed on second, although, owing to the greasy condition of the hill, the car was often slewed half-way round, which, of course, pulled down the revs.

Playing with "Freak" Hills.

It was evident that these hills were quite insufficient to test the car, and accordingly a few in Kent which have caused many failures in past motorcycle trials were sought out. The famous Salt Box Hill was first tackled. The gradometer gave the gradient as 1 in $5\frac{1}{2}$ at the worst bit, but the needle of the rev. counter, pointing to 3400 r.p.m., either belied the gradient or indicated the enormous reserve of power gradient or indicated the enormous reserve of power. The surface was in fair condition.

Cudham Hill, the steeper gradient of the two, was essayed. The revs. fell a little at the very top, from 3400 to 3200, but otherwise only the gradometer would have indicated that the gradient was 1 in 41 (close in,

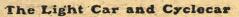


The dash of the experimental car, showing the switchboard of the C.A.V. lighting set, the gradometer, and engine revolution counter.

at the extreme corner, 1 in 35). Again the surface was not so loose as usual although a little bumpy. These tests showed that there was nothing in

These tests showed that there was holding in ordinary freak hills to do more than very slightly slow up the car, and even hills of 1 in 2½ are not likely to trouble the new engine. In fact, it will probably make light of the previous performances in the Lake District. During these tests a photographer or other passenger was carried. Afterwards the car was reversed down the hills for photographic pur-poses—a tribute to the A.-C. brakes—and restarted -even on the 1 in 3½ portion of Cudham-with the greatest ease. Some engine!

445





Bellum Engine



AC-3871-

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Coombe

ane

White Downs

23RD APRIL, 1917.

Jopies of the Day

"The Light Car and Cyclecar."

WING to the paper restrictions, it has become more important than ever to avoid the waste of paper involved by catering for "chance" sales of periodicals. In this issue appear three alternative order forms, providing for the regular supply of THE LIGHT CAR AND CYCLECAR, and the public are asked to co-operate with the publishers in a matter which is a vital necessity and may soon be compulsory. Readers are also asked, so far as is possible, to share their copies of this journal with their friends, and finally to hand them over the counter at any post office for the troops (no label is required, no trouble has to be taken, and it costs nothing to do this).

"Cuthberts" in the Force.

IN the report on the work of the Special Constabulary during 1916, just issued, an important paragraph relates to the circumstance that the regular force still contains many men of military age. The voluntary service has greatly assisted the recruiting authorities in obtaining men who by their very calling are admirably fitted for military duties, but the attitude of certain chief constables has left a number in the force who could very well be spared. Need we add that reference is made to the men whose duties are of no greater importance than in trapping motorists. or, as at Exeter and other places, seeking for motoring offences of a trivial character, the penalties for which in a future Motorcar Act will either be abolished or very much lessened? The report states that these men are being retained by the police authorities for essential duties directly connected with the prosecution of the war. Motor trapping is not essential; it does not assist in the slightest in the prosecution of the war. Yet many able-bodied young men are being employed in this work. Motor trapping was discouraged by a former Home Secretary before the war; its continuance now is intolerable under present conditions, and it would be a matter of commonsense for the present Home Secretary to abolish it once and for all.

Wanted-a Live Motoring Body.

A18

STUDENTS of the motor Press cannot fail to have been struck by the insistent demand for a motoring association which really represents motorists; a live, active body, and, above all, independent in its action. The opportunity of producing such an association after the war is not unlikely to be found, and will be materially helped by two factors which are of considerable importance taken together. The first is that the energetic, if small, body of men controlling the Cyclecar Club, the suspension of which body is a merely temporary measure, have long chafed at the absurdity of the dual control of the new motoring movement, and will adopt energetic measures to bring it to an end after the war. The second is the undoubted tendency for the development of the modern light car on such a scale that the numerical superiority of the lighter vehicles over all other types is a practical certainty in the near future. Here we have the nucleus of a live and active body, stronger than any other association, and eventually absorbing the members of such bodies. Already an option on an admirable title, "The Junior Automobile Club," has been obtained, and efforts of the R.A.C. to upset this right to a title have proved abortive. Given the Junior A.C., and an energetic executive with modern ideas, unfettered by the shibboleths of the older associations, and its possibilities are very great. It would have the sympathy and support of motorists generally, who are entirely disgusted with the apathy shown by the recognized governing bodies over all matters affecting motoring during the war, and it would not be without the support of the industry, which realizes the pressing need The development of the scheme will be a of such an association. matter of urgency after the cessation of hostilities.



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LIGHTING-UP TIMES Saturday 28th April

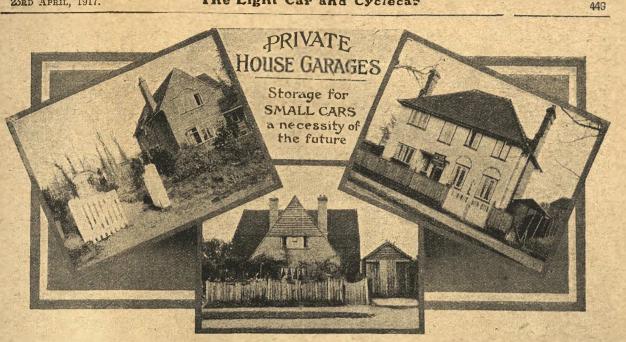
for Saturday,	Zotti April.
London 8.47	Edinburgh 9.44
Newcastle 9.5	Liverpool 9.5
Birmingham 8.58	Bristol 8.57
Dublin	9.48

Lighting-up time in Ireland and Scot-land is one hour after sunset, but the Scottish lighting regulations (vehicles) come into effect half an hour after sunset. Lighting-up time in England and Wales is half an hour after sunset.

MOON. - In first quarter; rises in morning.

LIGHT CAR & CYCLECAR IS PUBLISHED ON Aondays.

It is the leading light car journal, established in 1912, with far and away the largest circulation and greatest number of advertisers, but to prevent confusion, readers are asked, when ordering the paper, to give the title in full ("Monday's 'Light Car and Cyclecar.'")



MATTER of more moment to the spread of private motoring than might appear on the surface is the question of the provision of car storage. Unless this is settled satisfactorily cheap motoring is bound, to a large extent, to miss its mark, for it is useless to give a man a low-priced, economical running car, cheap spirit, and reasonable taxation if he has nowhere to put the car, or can only store it at a disproportionate expense-and then perhaps at an inconvenient distance. So far as the speculative builder is concerned, there are signs that, in regard to future operations in well-to-do dis-tricts, he has come to recognise the persuasive powers of accommodation for a small car as a letter, or seller, of his "eligible residences," and on this point a stroll round suburbs like Northwood, Ruislip, Gerrard's Cross, or Beaconsfield is instructive. The last three places named, only dating from the opening of the new railway in 1906, belong entirely to the motor age, and although, possibly, one ought to feel surprised at the number of houses that have not been supplied with garages attached. most visitors from older suburbs will probably be more surprised at the number of houses which have.

A Feature of Gerrard's Cross.

Not many houses, all told, have this modern convenience-10 per cent, at a guess-but nevertheless the thing is sufficiently in evidence to be quite a feature of the place, in the case of Gerrard's Cross. and although most of the garages are attached to large, highly-rented houses, and are designed for big cars, some are to be found on a more homely scale and of simpler construction, obviously intended for small vehicles. It is noteworthy, however, that a very large number of houses in all these new suburbs have enough ground at the side to pass a car, and there are generally double gates, too, so that it is quite an easy matter for the occupier to put up a simple wooden car shed, as indeed, has often been done. On the other hand, it has to be admitted that in the lower rented houses-those, say, between £39 and £30—there is rarely any possibility of erecting a motor shed, and it is here that there is a serious restrictive influence on the market for the less expensive types of light car. People capable of meeting the higher rentals will, when they are converted to motoring, have no difficulty in securing houses with car accommodation—they will merely leave the late Victorian suburbs and migrate to the

neo-Georgian ones, where, we may be sure, very few large houses will in future be built minus garages.

Those whose incomes preclude a rental of over £45 or £50 will, unless there is a change, not find the solution so easy, and this is a class which comprises a particularly substantial proportion of the light car's potential clientèle. The builder's justification is probably that at the lower rentals he cannot afford to put up houses with the requisite amount of frontage—unless situated two or three miles from a demand—but I fancy that with the experience already gained of the ease with which such houses let, and with the desire to lure prospective tenants away from the okler suburbs it will not be long before he rises to the occasion, once building conditions become normal again. He will possibly hit upon the idea of erecting a composite garage on some odd corner in each block, but this plan is hardly likely to be very popular with the owner-driver, who naturally prefers to have his car on the premises, where he can tinker at it in any old clothes, at any time, and where, moreover, it will be more secure from thieves. Again. the builder may try the back lane idea, but a carriageway between each set of gardens means curtailing grounds already none too long, as it is. This would certainly be a practical way out of the difficulty, but I am by no means convinced that it is the best.

Replanning Residential Roads.

There are some architects of eminence, interested in town planning, who consider that residential roads in modern suburbs tend to be unnecessarily wide, holding that it is waste of good land to cut down the gardens just to make what is merely an accommodation road broad enough to carry trunk route traffic. and likewise waste of ratepayers' money to make and maintain such useless width. Now, why not strike a new note in suburb planning, making the roads no wider than needed for the light local traffic and utilizing the space so saved for motor accommodation? The houses would stand further in from the street than is usual, and the best rooms would look out on to an ornamental rear garden, while the space customarily devoted to that dismal piece of conven-tion, the front garden, would be usefully occupied by the approach to the main and tradesmen's doors and by a car shed—in advance of and detached from the house. probably, to comply with insurance require-R.W. ments.

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A WELL-MEANING but misguided optimist, in a letter published in THE LIGHT CAR AND CYCLE-CAR for 9th April, asks me to state my opinion as to which is the "best" light car, the "best" cyclecar, and to amplify some previous remarks comparing the two types.

I have no doubt that in the minds of most readers this is an extremely easy task. If you have opportunities of driving a large number of cars, what could be simpler than to pronounce one "bad," another "indifferent," another "fair," and so on, until one is found to be "excellent," head and shoulders, or dash and hood over any other ? Further, I have no doubt that, in the popular view, I have the very best means for forming an opinion, all the cars loaned to me being naturally in the pink of condition, even super-tuned.

Well, I have known cars passed over to me like that; cars that do great things, which run along without cause for a moment's anxiety; cars of which you can lose the key of the tool locker and not know it. They form memorable exceptions that prove the rule. It is more generally the case, however, that the whole whicle is fairly shouting for an overhaul; a twelve-month's growth in the cylinders " pinks " a sharp pro-test; a distressing looseness in the universal joints and the steering connections does not soothe one's nerves; a punctured float in the carburetter is an occasional joy; a gentle trickle from the radiator rewinds one of the value of a spare can containing water (except when one absent-mindedly tilts it into the petrol tank); the sparks department, positively at its last volt, proves the inaccessibility of the average magneto; and a few other trifles help one to obtain a reliable impression of the car. Sometimes the works manager obligingly hands over a few choke tubes and jets with the suggestion that I may like to experiment -an offer to be accepted gratefully as an intimation that all is not well with the carburetter, a circumstance which it is well to know beforehand.

The consequence is that one's impressions of the good, bad and indifferent cars are not very easy to sort out. Some, it is true, can be put down as rather premature, a little before their time; of others, a sub-

THE BEST LIGHT CAR?

sequent experience shows that first impressions are not always very reliable, or the car would be condemned right away; while with a few, one's first impressions—good or bad—are confirmed. Therefore, I can only write of cars as I find them, and prefer to say nothing about those which, so far as my experience goes, ought to be condemned. There is no best car.

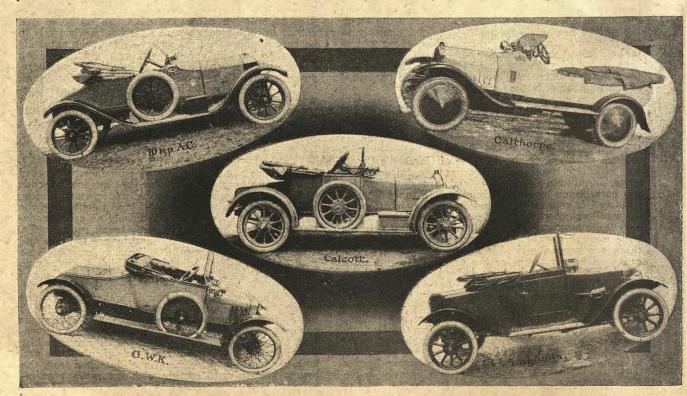
The cars that have left the most favourable impressions are (in alphabetical order—I could not attempt any other):—The 10 h.p. A.-C., Calthorpe, Calcott, G.W.K., Lagonda, Morris-Cowley, Morris-Oxford, Singer, Stellite, and 10 h.p. Swift, and the following are their most distinctive features, to my mind:—

10 h.p. A.-C.—Wonderfully good springing. A highspeed engine which accelerates in that special way which gives the modern light car its attribute of "liveliness," and, especially the latest model, a wonderful hill-climber. Has a remarkably efficient hand-brake and a very roomy body.

Calthorpe.—Experience with this car has been brief. The springing of the four-seater model struck me as very good, and it holds the road. Engine very responsive indeed. Controls very accessible.

Calcott.—Having a large and comparatively slowspeed engine, it is a top-gear car, taking most secondspeed hills, like Reigate, for instance, very easily on top. Steering sweet and casy. Brakes excellent. A very easy car to drive.

G.W.K.—The simplest of all the light cars, requiring absolutely no skill to drive, with only two pedals one operating a combined clutch and brake lever and the other controlling the throttle. A delightful car for pottering; but the latest model has a very good turn of speed as well, and is a good hill-climber. The fact that there are four speeds forward will often be appreciated. When the gearbox—i.e., the friction disc—is worn out, a new one costs only a few shillings,



A COMPARISON OF FEATURES.

so that one of the principal features of the transmission never requires an expensive overhaul. The latest model is a particularly comfortable car.

Lagonda.—Very extraordinary value in light cars, moderately well sprung, with a comfortable cabriolet body and a four-cylinder engine, costing, before the war, only £150. The central control levers are conveniently placed. The one fly in the ointment is the direct steering, which is apt to get stiff, and, in any case, makes steering a little difficult.

Morris-Cowley.—Built to English designs of American parts (a temporary necessity, owing to the war). Top-gear hill-climbing, very excellent springing, and substantial construction the most notable features. Steering wheel could be lowered with advantage; central control levers are a little too far over to the near side. In every respect otherwise a most excellent car, deserving the superlatives which have been bestowed on it. Low petrol and oil consumption. Will hold the road at 50 m.p.h. and easily averages 30 m.p.h. on hilly main roads without recourse to gear changing, which, by the way, is remarkably easy, with an oscillating type of lever.

Morris-Oxford.—A small engine, with a great power output at high speeds is its most distinctive feature. Can be kept "revving" for long periods on hilly roads, without any sign of overheating, owing to the scientific design of thermo-syphon system. Gear changing notably easy. Springing very good and comfortable. Steering excellent. Engine, gearbox and clutch lubricated from a common reservoir.

Singer.—The high-speed engine is the most remarkable of all the light cars. A very dainty car of attractive appearance, and an easy one to drive, the steering being particularly light. It is necessary always to let the clutch in gently when changing gear. which is otherwise easy, not requiring double-clutching when changing down. Weakest feature is the rear springing, which is being improved.

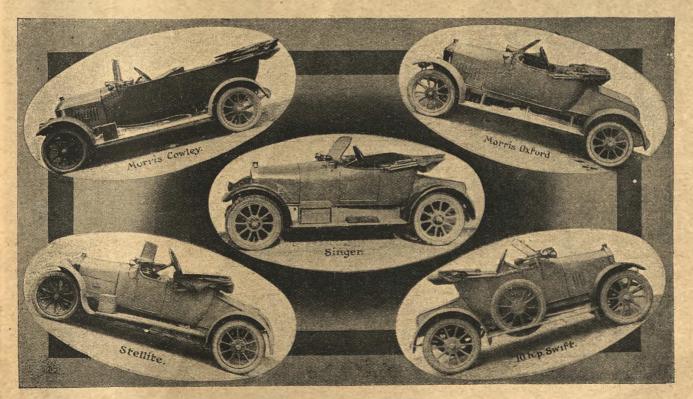
Stellite.—A car that is going to make a great name for itself after the war. Sound constructional methods are exhibited in every part of the chassis, and the fewness of the parts that require attention from oiling, etc., is notable. Springing very good indeed. An easy car to drive and, the latest model particularly, a good hill climber, and flexible on top gear.

ticularly, a good hill climber, and flexible on top gear. 10 h.p. Swift.—The most flexible car on top gear which I have driven—whether a standard feature or due to special tuning I do not know. Would actually run from 5 m.p.h. to 50 m.p.h. on top gear. Steering excellent, springing fair; general comfort much above the average. Many thoughtful details, such as the roller accelerator pedal. Weak point, foot-brake is placed behind the gearbox, where it tends to get overlubricated—or it did on the model tried. Petrol consumption low.

The Baby Peugeot is not mentioned in the foregoing list, as it is about the one notable light car which, so far, I have not actually driven; its reputation amongst my colleagues has made them "bag"'it on each occasion when I might have had the opportunity.

In your defined that have had the opportunity. Mr. Fawell also asks me to amplify my comparisons between the cyclecar and the light car. I am afraid this is even more difficult, and not very necessary. If anyone asked me: "Shall I have a cyclecar or a light car?" I should feel inclined to reply: "Choose according to your means, just as you would if the choice were a motor-bicycle or a car." The low first cost and low upkeep of the cyclecar make lightcarring comparatively expensive in these days when petrol is 3s. 3d. per gallon, including all the taxes, and oil, too, has advanced in price considerably. When one drives a machine like the latest Morgan, there is a fascination in cyclecarring which no car can give. Motorcyclists will appreciate its subtlety: the command of power, the speed, the acceleration and the handiness of the little vehicle make the stronger appeal to those who set such features before luxurious bodywork and greater dignity.

JOHN GILPIN, JNR.



THOUGHTS & OPINIONS

NOTICE TO CORRESPONDENTS.

Preference is given to letters intended for publication which are to appear above the writer's name and address, but where this is not desired, initials or a nom de plume will be substituted if requested. In view of the

The Cost of Overhauls.

Referring to my letter on the subject of the cost of overhauls published in your issue of the 19th ult., I was very pleased to see the replies from Mr. Gordon Stewart and the Colmore Depot.

Light car owners are of two classes: (1) a small minority having practical knowledge sufficient to enable them to do their own repairs and overhauls, and (2) the great majority, whose practical knowledge is almost nil, and this class will, if anything, tend to become greater after the war when things have settled down, and cars are produced on such a scale as to be much cheaper in price. Of the first class very few are in the happy position of possessing those conveniences and equipment necessary to carry out a proper overhaul, and unless the car is overhauled at the beginning of each season then the owner will have to be constantly "tinkering" with it, spending his Saturday afternoons inside or underneath it in order that he may use it on Sunday.

I cannot see why a repairing firm cannot have a scale of charges for certain definite work. Every part of each of the popular makes of light cars must be so well known to the average repairer that he will know just what time will be taken in such jobs as cleaning the cylinders and rings, examining and adjusting brakes, etc., and so should be able to quote an approximate price which would, of course, be exclusive of any actual repairs or renewals required. Such a course would enable the inquirer to select one firm to whom to take his car, as suggested by Mr. Stewart, for a trial run, whereas at present he is compelled to take it to two or three, which takes up a day or two of his time. SMILAX. London, E.C.

Repair Work in War Time.

The following account of how a cyclecar was "repaired" may interest you.

Six months ago my little car, which up to then had run very well, began to misfire in one cylinder, and as I could not locate the trouble I took it into a garage, where I was told they would send me word when ready. After waiting three weeks I received word that the magneto was very weak and required remagnetizing. They then sent the magneto away for overhaul, and I heard nothing more for a month, when I received a wire to go to the garage, the car being ready. Arriving there, I asked for the proprietor, and was informed he was out, so I endeavoured to start the car up myself. After nearly exhausting my energy I gave up in disgust, and said I would write to the proprietor for his explanation.

After another long wait I received information that they had found a large hole in the top of one of the pistons, and a new one would be required. A certificate had then to be obtained from the Ministry of Munitions before the makers of the engine could supply. This was obtained, forwarded to the makers, and the new piston duly came to hand from the J.A.P. people (a beautiful piece of work), and was fitted. I went over to take delivery of the car last week. In the first place it had to be pushed to get it to start, and then, after going less than half a mile it gave up the ghost, and not another kick could we get out of it, so we pushed it home and set to work ourselves. On dismantling I found both pistons broken, and further examination revealed the fact that the new piston was minus gudgeon pin screw and split pin. In the crankcase was found the cause of the mischief—a piece of the old broken piston. Further than this, a very thick nut had been screwed on the timing wheel shaft, and had been scrubbing against the cover. Four nuts were also missing from the timing cover. ▲22

The Suggestions of To-day may be the Realities of To-morrow

peculiarly wide publicity afforded to letters on light car and cyclecar subjects appearing in these columns, readers are asked to make thek letters as brief as possible so that a greater number may be published. Letters received up to Wednesday morning first post usually appear in the following Monday's issue.

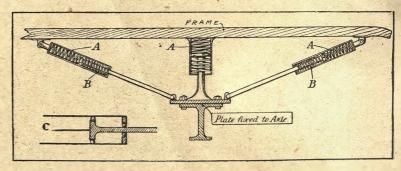
Two new pistons, the cylinders regrinding, and flywheels trueing up will now be required to complete the repair, besides welding a cracked cylinder. I have decided in future to do my own repairs, and if I cannot make a better job than has been done in this case I will eat my hat. G.E.C.T.

Serviceable, Cheap Small Cars.

I have read with keen interest the leader on page 403 of THE LIGHT CAR AND CYCLECAR, and consider your remarks sound, excepting, perhaps, the statement that "the £100 field can only be exploited by the cyclecar like the Morgan and the G.N." If this statement is limited to immediately after the war it may be correct, but I am quite sure the British industry can profitably produce light, four-wheeled, two-seater cars selling complete for £100.

In the first place, experience and ability should combine to produce a lighter vehicle than those at present in use, and, instead of utilizing poor workmanship and common materials, the design should have the minimum number of parts, and those as much alike as practicable and readily machinable.

However, it appears sound to make notes of the "snags" of present vehicles and to test out the remedies on the current design of light cars, most of which are cyclecars. There is enough work here to keep factory staffs busy, apart from pro ducing a new model which, after all, until it has been tested out, should not engage the factory's staff at all. New models should be worked out by engineers in engineering works, rather than in factories, and it is a common mistake for the models. A



A novel springing system, suggested by M. Maurice Blanchard. (A) Springs which take the upward shocks. (B) Springs which take the downward shocks. The pistons could have ball bearings, as shown inset.

separate staff and shop are essential for such work if the one firm is to produce new designs.

The example of the Ford supports my contentino that the £100 car may first be sold at, say, £175, until the output justifies the price reduction. Ford kept to one model and prospered, whereas the bulk of British concerns gradually increase the weight of their cars. A. E. PARNACOTT.

Penge.

A Novel Springing System.

I should be glad to have any criticisms from your readers of the enclosed suggested spring suspension for a car. It seems to me that the springing would be very soft and quite suitable for cyclecars, light cars, and some medium light cars. It could be made in several sizes and adjustable for different pressures or weights. It is intended to take the place of leaf springs. MAURICE BLANCHARD. Care of John Jakson and Co., Ltd.,

Mitcham Road, West Croydon.

FREE TRIAL. The Reference Number of this offer is 351. Send us your card or letter-head with this number written on it, and we will despatch, without prepayment, an H.F. "Baby" to any address in the U.K. for 14 days FKEE TRIAL.

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The Light Car and Cyclecar

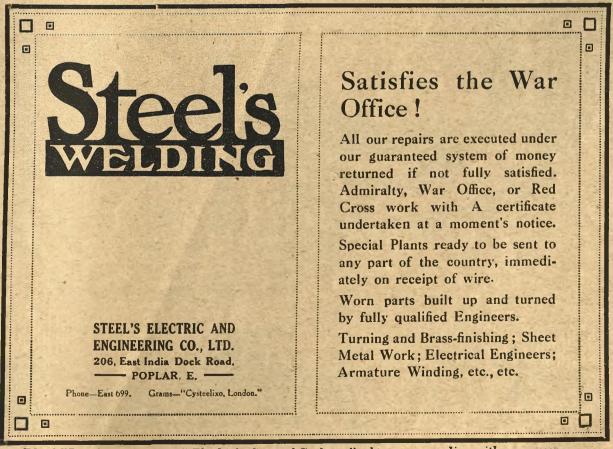


D you realise that the majority of tyres come to a *premature* end? They do not *wear* out; they are destroyed by more or less preventable causes. This is especially true of covers, which seldom burst as the result of accident merely, but because they have been weakened by a process of disintegration that could have been arrested in the initial stages by the use of an H.F. "Baby" Vulcanizer.

Barring accidents of exceptional severity, you can get every ounce of possible work out of your covers and tubes if you keep them road-perfect by the H.F. Process. There is no other way of ensuring this.

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TO THE READER

By mentioning "The Light Car and Cyclecar" when corresponding with aaverusers, you will be working for the cause of the new motoring.

A23

11 1

I had excellent results

from Oversize Three-Rib Palmers 710 x 85 m/m on 650 x 65 m/m rims, on which the car was appreciably faster, in spite of the weight, and skidding was reduced to the minimum."

JOHN GILPIN, Junr., in "The Light Car and Cyclecar,"

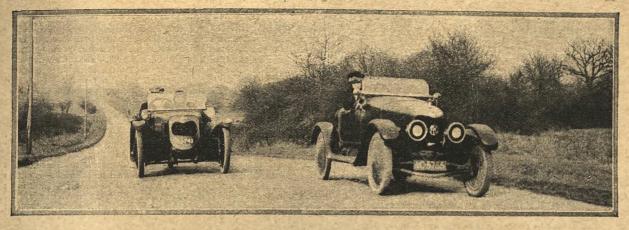
Write for "Palmers, Petrol and Power," showing petrol saving possible. Post free.

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A24 **HELP THE** by letting advertisers know that their advertisements **MOVEMENT** in "The Light Car and Cyclecar" interest you.

The Light Car and Cyclecar



The latest model Morgan on test (see pages 440 to 442) and a 10 h.p. A.-C. with a post-bellum radiator.

What Has Happened to It?

Now that fuel is so scarce, even paraffin being difficult to obtain, what about the wonderful carburetter described by Mr. Henry Sturmey, an invention of an Antipodean? This carburetter was described in your issue Vol. II, No. 36, 30th July, 1913, and a $2\frac{1}{2}$ hp. motorcycle did 420 miles per gallon with paraffin. Some carburetter, if we could only get it now ! A. SOMMERVILLE.

17, Woodfield Road, Ayr.

Wind on Disc Wheels.

With reference to your remarks on the effect of wind on disc covered front wheels, I would like to say that I have driven an A.-C. sporting model so fitted for 10,000 miles, and certainly, as the life of the car progressed, this movement of the wheels in a side wind became quite perceptible. The irreversibility on my 1915 model is almost a reality, but I would suggest that any movement conveyed to the steering wheel in my case was through play in the tie rod joints and wheel in my case was through play in the tie rod joints and wear in the worm and sector rather than the failure in the irreversibility of the design. Anyway, I am confident that such movement has been experienced, and at times was most disconcerting when at high speeds on a narrow road. The appearance of the car was so improved by the addition of Rally discs, and the washing so simplified, that this defect paper lad me to discort the disc.

never led me to discard the discs.

GEOFFREY C. GRIFFITH.

96, Kenilworth Court, Putney, S.W.

The Tappet Adjustment of the A.-C. Light Car.

Referring to my note in THE LIGHT CAR AND CYCLECAR of 2nd April and Mr. Noble's reply in the issue of 9th April as to tappet adjustment on an A.-C. car, I have had a further test with the adjustment given by him, viz., 6-1000ths inlet and 8-1000ths exhaust, and the maximum speed I could get was 36 m.p.h.; on reverting back to 8-1000ths inlet and 18-1000ths exhaust I covered 40 m.p.h. on the same stretch of road and the car nulled better on a bill of road, and the car pulled better on a hill.

I have driven several light cars, but none has given me such all-round satisfaction as the A.-C. I have fitted, in addition to the hot air arrangement to the carburetter, an extra air device, as illustrated in your paper on 26th March, with very satisfactory results.

I have had a test run of 100 miles with one stop last weekend, with the following result :- Two gallons one quart petrol consumption; 40 m.p.h. maximum speed; 25 m.p.h. average outward journey; 20 m.p.h. average homeward journey; half-pint water evaporation; one passenger with driver, total weight 19 stone; carburetter, 75 main jet, 80 compensating. With this test I am very well satisfied, and I cannot quite understand Mr. Noble's wording as to the engine being in an whyl data as the tangent divident I have made given in awful state, as the tappet adjustment I have made, given in inches, is 1-125 on inlet and 1-55 on exhaust. On several cars

I know every satisfaction is given with tappets 1-50 in. apart. For Mr. Noble's attention I bought the car second-hand 12 months ago. Have driven it 2600 miles without a mechanical defect. The only replacements I have had to make are two universal grease cups.

The car is splendidly sprung, and has a special wide seat for three, and is the envy of all my friends, both for comfort and appearance. F. GIBBINS. Gloucester.

Hunting v. Motoring.

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May I recommend to those of your readers who need an emetic a perusal of the following letter gleaned from the "Daily Telegraph" of 4th April? It is typical of many others which appear from time to time in the daily Press in an endeavour to justify the most unjustifiable of luxuries :-

HUNTING AND WAR.

I have just been reading the very graphic account by your able correspondent of the brilliant charge of the cavalry in the recent pursuit of the enemy, and also the good work done by their patrols. Our Commander-in-Chief and other Field-Marshals always say that there is nothing like hunting to bring out the courage and dash necessary to make a good cavalry officer, so I sincerely hope this will cause the captious critics to cease their attacks on hunting and racing. It is a well-known fact that the good qualities of horses all over the world are due to the excellence of the English thoroughbred. It has been a great pride and pleasure to me to recollect that many officers have hunted with our hounds who have during the war by their valour won the highest distinctions .- Your obedient servant.

A MASTER OF HOUNDS AND AN OWNER OF RACEHORSES.

The British public weekly accepts this type of rot without protest, but it is ever willing-as in the past-to take up the cry against motoring. It would appear that you may spend thousands on keeping and training racehorses, but if you spend as many pence in going to business in a motor-heaven help you! For the benefit of those who find the above screed too much for their stomach, may I be permitted to append a parody by way of an antidote? It is a thousand times nearer the truth :-

"MOTORING AND THE WAR."

Sir,-I have just been reading some graphic accounts by your able correspondents of the brilliant charge of the tanks your able correspondents of the brilliant charge of the tanks and armoured cars in the recent pursuit of the enemy and also the good work done by motorcyclists. Our C.-in-C. and others always say that there is nothing like private motoring to bring out the nerve and dash necessary to make a good flying officer, so I sincerely hope this will cause the captious critics to cease their attacks on motorists and motor-ing. It is well known that the good guilting of the entering. It is well known that the good qualities of the petrol engine which is saving us to-day are due to enterprise and determination of motor manufacturers and motorists in the past in the face of severe opposition. It has been a great pride and pleasure to me to recollect that many flying officers have cultivated the motoring cult with our cars and have during the war won by their valour the highest distinctions.— Your "Captious Critic."

A MANUFACTURER OF MOTORS AND A SELLER OF PETROL.

Royal Corps of Naval Constructors. C. W. KERRIDGE.

NOTICE TO CORRESPONDENTS.

Correspondents are particularly requested to write their letters in ink, on one side of the paper only, and to enclose sketches drawn (even roughly) on a separate sheet.

The Light Car and Cyclecar

DIFFERENTIAL GEAR NOT REQUIRED.

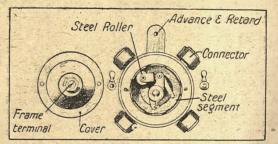
"A.B." (London) contemplates building a light cyclecar with a wheelbase of 7 ft. 6 ins. and a wheel track of 3 ft. 10 ins. The transmission would be by chain running in an oil bath to the centre of the back wheel. He asks whether a differential gear would be required with this narrow track. REFLY:—It is not necessary to employ a differential gear to the back axle of a light cyclecar. It is of doubtful advantage in any car.

DIMENSIONS OF VARIOUS CARS.

"J.H." (Glasgow) desires to know the wheelbase, track, length and breadth, overall, and turning circle of the follow-ing cars:-Stellite, Lagonda, Horstmann and G.N. REPLY:-Ing cars:--Stellite, Lagonda, Horstmann and G.N. REPLY:---We can only give the following particulars, wheelbase, track and overall width of the cars mentioned as follows:---Stellite: W.B., 8 ft. 3 ins., T., 3 ft. 10 ins., and O.W., 4 ft. 9 ins.; Lagonda: W.B., 7 ft. 9 ins., T., 3 ft. 10 ins., and O.W., 4 ft. 8 ins.; Horstmann: W.B., 8 ft. 8 ins., T., 4 ft.; G.N.: W.B., 8 ft., T., 3 ft. 4 ins., and O.W., 4 ft. 2 ins.

ACCUMULATOR IGNITION.

"Capt. W.J." (Lyndhurst) who has a two-cylinder Swift cyclecar asks whether he can fit accumulator ignition in order to facilitate starting. REPLY :- An accumulator cannot be used with a magneto. If accumulator ignition is fitted, a coil distributor, which must be driven by the engine, and double ignition plugs are required. If the magneto is in good order this is unnecessary. Most causes of difficult starting are carburation or the dirty condition of the magneto.



We are frequently asked if the magneto spark can be "strengthened" by fitting coil ignition. This is impossible. Separate ignition can be provided to facilitate starting by fitting an accumulator, a coil, a distributor (illustrated above) and double ignition plugs. The subject is dealt with fully in "The Motor Manual."

A HEAVILY-BUILT CAR.

"A.B." (Leeds) asks whether the Morris-Oxford car ranks among the more heavily built light cars. He is of the opinion that a little extra weight caused by sturdiness of build is infinitely preferable to making a car as light as possible, and would rather have real strength plus extra weight than speed plus flimsiness of construction. He is attracted by an old type 9 h.p. French car, and asks what we consider to be the nearest in build and reliability to this car. REFLY :-- We con-sider the Morris-Oxford to be a far better production than the car referred to. While the light construction of several makes of light cars is open to question, it is certainly not so in the case of the Morris-Oxford, the design and construction of which are particularly several of which are particularly sound.

AN EXTRA AIR DEVICE ON A 10 h.p. A.-C.

"C.F.J." (London) wants to fix up an "extra air" to his 1916 10 h.p. A.-C. for use mainly as a brake by engine com-pression, but as the horizontal Zenith carburetter has no external induction pipe but is bolted direct to the cylinder casting he finds this difficult. He asks if it would do to drill the very small amount of barrel between the body of the car-buretter and the flange and solder in a copper pipe, and whether $\frac{3}{2}$ in. pipe is large enough. REPLY — The only way to fit an extra air device on an A.C. light car where the to no an extra air device on an A.-C. light car where the carburetter is fitted close up to the cylinder block is to drill a hole in the induction pipe to take a copper pipe with an outlet controlled by a tap on the dash. We think this can be done quite safely. We understand that Messrs. Auto-Carriers, Ltd., Hercules Road, Westminster, S.E., have sup-plied the necessary fittings, and advise communicating with them.

-NOTES & QUERIES. Selected Replies to the Most :: Interesting Questions.

IMPORTANT NOTICE.

IMPORTANT MOTION. The queries and replies published in these columns are just a few of general interest. All replies are sent by post, and we cannot guarantee to answer questions through the paper. A stamped-addressed envelope must be enclosed for the reply. No notice is addressed envelope must be enclosed for the reply. No notice is taken of anonymous letters. Questions cannot be answered per-sonally or over the telephone.

CAR TAXES.

"G.W." (B.E.F.) asks whether motorcar taxes are the same as before the war, or whether there has been any increase. REPLY :- The car taxes remain as before the war.

WASHER FOR A PETROL PIPE

"G.H.D." (Northampton) who has an air-cooled Humber-ette, the petrol tap of which is screwed into the tank without a washer, thinks that this is causing a slight leakage. He asks what would be the best material out of which to make a washer, suggesting black-leaded asbestos. REFIX — Asbestos would be of no use as a washer for a petrol pipe. The proper material to use is leather or fibre.

THE PURCHASE OF A CAR.

"J.K." (Treorchy) has been offered a 1915 Standard light car, but as the streets in his district are in a bad condition he wonders if this car will stand up to the work. He asks whether we would recommend two other lesser known cars. REFLY:—We think the Standard, which is a very sound little car, is preferable to the other two mentioned. It is a fairly well-sprung car, as light cars go, and has a fair reserve of power; it should stand up to the work.

AMPLE STRENGTH REQUIRED.

For experimental purposes "H.J." (Plymouth) wishes to replace the countershaft of his Crescent cyclecar, and to use one which is square in section and 1 in. across the flats. In order to obtain ample strength he asks whether mild steel or tool steel would be suitable. REPLY:-Mild steel would be quite unsuitable for the job; tool steel is not much better, but might answer; what you require is the very best chrome nickel steel. We expect you will have considerable difficulty in obtaining any steel at the present time.

WELDING BROKEN CYLINDERS.

"F.C." (Rotherham) has broken one of the cylinders of a J.A.P. engine fitted to a 1913 Morgan. The J.A.P. works cannot supply a new one at present, and our correspondent asks if it is possible to have the parts welded satisfactorily. asks if it is possible to have the parts weided satisfactorily. We are also asked for the names and addresses of concerns likely to carry out the repair. REFLY:—It is quite possible to have a J.A.P. cylinder welded satisfactorily. The large garage people in your district should be approached. Fail-ing them, the Laystall Repair Works, 34, Queen Street, London, E.C. 4, should be communicated with, but at the present time we donkt if private work can be understore. present time we doubt if private work can be undertaken. As a last resource a second-hand cylinder should be advertised for.

THE MONTHLY PETROL ALLOTMENT.

"W.H." (Gravesend) had a three months petrol licence (covering the latter end of last summer) which he did not renew. This licence granted him six gallons per month for the three months. He did not use up the 18 gallons, although he paid his vendor for the full amount. When the licence expired there were still eight gallons to come, but the vendor thinks he will be doing wrong in supplying the remaining quantity. Our correspondent asks whether he can still obtain these eight gallons without getting into trouble with the authorities. REPLY:—The remaining quantity of petrol allotted on the old licence can be purchased providing that not more than the monthly allotment in any one month is taken. This fact has been stated in the paper more than once. It applies to the old licences equally with the current ones.

Lines Span

A26

The Light Car and Cyclecar

Warre erostella Gara

LONDON W.

Supplement i.

Although

our works are exclusively engaged upon National and Imperial Service, our extensive stock still enables us to give prompt delivery of most of our Electrical Specialities

For EVERYTHING ELECTRICAL in connection with MOTORING

> STANDARD MODEL.—2 cyl. engine, water - cooled, friction crive, with automatic lubrication. **PRICE 200 GNS.**

—the light car which is looked up to by all people

G. W. K.

The reason for this being, the fact that the G.W.K. is the ideal light car. Its efficiency, durability, and smartness help to make it so. An important feature is the famous friction drive, which gives "a gear for every gradient." At present we are on Government service, and our output of pleasure cars is at a stand-still—but, when the war is ended, we shall again be able to produce pleasure cars, utilising the experience we are now gaining. Add your name to our waiting list.

G.W.K. Limited, Cordwalles Works, Maidenhead Telephone-562 Maidenhead. Telegrams-"Cars, Maidenhead."

TO THE READER By mentioning "The Light Car and Cyclecar" when corresponding with advertisers, A27 you will be working for the cause of the new motoring. SECOND-HAND LIGHT CARS, CYCLECARS, and ACCESSORIES FOR SALE

Rate for Advertisements in this section : sixteen words, 1/-(minimum), 6d. per eight words after. The Rates for Trade Advertisements are 18 words 1/6, and 1d. per **Trade Advertisements are 15 words 1/6, and 1d. per word after.** These are designated "TRADE," for the guidance of the reader. Subject to a discount of 5 per cent. for 13 consecutive insertions, 10 per cent. for 26, 15 per cent. for 52. Terms: Cash with order, and otherwise net. Cheques, Postal Orders, etc., should be crossed and made payable to Temple Press Ltd. N.B. — In the interests of our readers we shall not hesitate to take proceedings against any persons in the trade who succeed in obtaining the insertion of their advertisements as "Private" and shall insist to the utmost upon the payment of all law costs incurred.

utmost upon the payment of all law costs incurred.
 BOX NUMBERS.—Advertisers desiring to have replies sent care of
 "The Light Car and Cyclecar" may do so on payment of a nominal fee
 of 6d. to cover booking and cost of forwarding such replies. The
 words Box , c/o "The Light Car and Cyclecar," count part of
 the advertisement.
 DEPOSIT SYSTEM.

 For the convenience and security of our renders we have an approval-deposit system.
 The intending buyer forwards to our office the amount of the purchase money,
 which will be acknowledged to both parties. Notes or money order save time,
 Cheques must be made payable femple Press Ltd., and are acknowledged to seller
 when "cleared. If a sale is concluded, we forward to the seller the amount
 agreed upon. If no sale is made, we return the amount deposited. In either case
 we deduct a commission of 11 per cent. 361 in the £1, 'minimum,', on amounts
 advort expenses booking, cost age, set. Carriage is
 be paid by the duryer. If the article is, Artimete bo aparts are use to be retained
 be settled by the arbitration of the Editor of "THE LIGHT CAR AND
 VCEECAR."

CYCLECAR." WARNING.—Acknowledgments of deposits or instructions to forward goods advertised are only written on our special headed paper, which bears a facsimile of the title of this journal. To prevent fraud, the advertiser should ACKNOW-LEDGE HMEDIATELY any such letter apparently coming from us, and delay forwarding the goods for a day or so. Should we, on receiving such an acknow-ledgment, find that no letter has been sent by us, we will wire the advertiser not to part with the goods advertised.

DISPLAY ADVERTISEMENTS, ordinary issues, £14-0-0 per page. Scale of charges with reduction for series, sent on application.

REGULATIONS WITH REGARD TO ADVERTISEMENTS. advertisement orders are subject to confirmation in writing from the Head

An advertisement orders are subject to contraction in writing room the frequencies of the contraction that "Copy" is subject to the approval of the Publishers generally, who also reserve the right to reject any advertisement, in whole or in part, referring to cars or accessories which in the ophion of the Publishers are outfor above the scope of the journal, and such returns to copy shall not be a good ground for advertisers to stop a carrent contract or to refuse to pay for the same of for taking action for breach

adurrent contract or to refuse to pay for the same or for taking action for breach of contract.
 Whilst every precaution is taken to ensure accurate printing, the Publishers will not be responsible for printer's errors, nor will they be responsible for advt.
 blocks that are left in their possession for more than one year.
 Copy for, and all matter relating to, advertisements must reach the offices first post Wednesday, and should be addressed to THE MANAGER. "THE LIGHT CAR AND CYCLECAR." 7-15, ROSEBERV AVENUE, LONDON, E.C.I, to whom all communications concerning advertisements should be forwarded in sufficient time to allow of it being submitted and returned.
 Head Offices --7-15, Rosebery Avenue, London, E.C.I. Telephone No. 5292 Holborn (four lines). Telegrams: "Pressinus. Phone, London."

[Addresses of Branch Offices on "Topics of the Day" page.]

------NOTICE. Owing to postal delays and integralacities, it is advisable to post advertisements EARLY ON TUESDAYS so as to ensure, as far as possible, that they reach us by the FIRST POST on Wednesdays. Lately several advertisements have been received too late for inclusion, although despatched on Tuesdays.

LIGHT CARS AND CYCLECARS FOR SALE

A.C. Sociable, hood, screen, speedometer, lamps, etc., good condition, painted Rover grey, spares, £35; after 7. Mackay, 32 Princess RJ, S. Norwood, S.E. 231-f942 Norwood, S.E. A.G. Sociable, 1913, hood, screen, lamps, good order, £39 10s. Motor Ex-change, Horton St., Halilax. A.C. Sociable, 1913, hood, screen, speedometer, lamps, new Liversedge, £35. Marsh, Sandridge, Camberley. A.G. Sociable, 1915 type, special body, hood, screen, electric lamps, several refinements, full equipment, sound condition, all oversize tyres recently new, any trial, £42. 'Jesmond House, West Berghalt, Essex. 231-a689 LIGHT CARS AND CYCLECARS FOR SALE (continued).

A.C. Sociable, 1915, fully and well equipped, equal to new, 2 speeds and reverse, £65, a bargain. Percy and Co., 337 Euston Rd., London. Trade 231-48

A.C. Sociable, hood, screen, hamps, horn, etc., good condition, £35. The Park Motor Co., Ld., Wells St., Jermyn St., S.W. Ger. 1927-8. T'de 231-992 A.C. Sociable, 1913-14, good condition, specially built-in sides, complete with hood, side curtains, windscreen, lamps, speedometer, tyres practically new, unpunctured, numerous accessories and spares. Corner House, Dol-lis Park, Finchley. 231-a709

A.C. 10np light car, late 1913, discs to wheels, spare wheel and tyre, com-pletely equipped, £130. Main, 36 Parade, Leamington. Trade 232-a701 A.C., 10bp, 1915, sporting 2-seater, staggered seats, centre control, disc wheels, C.A.V. lighting set, clock, speedometer, in perfect condition and very fast. Alfred Wastnage, 65 Great Portland St., W. 1. Tel., Mayfair 3005.

A.C., 10hp, sporting model, 2-seater body, staggered seats, centre gear change, hood and screen, speedometer, C.A.V. dynamo lighting, detach-able wheels and spare with tyre, in exceptionally fine order and condi-tion, £75; easy-purchase terms if desired. Harrods Ld., Motor Dept., Brompton Rd., S.W.

A.C. tricar for sale, complets with hood, lamps, etc., in good running order, price £25 for quick sale. Apply to W. E. Pearkes and Sons, High St., Watford. 231-2712

ALLDAYS, 1914, torpedo 2-seater, 8hp, water-cooled, magneto, hood, screen, lamps, expert examination, any trial, great bargain, 85 guineas; exchange motorcycle combination. Brown, 1 Ebner St., Wandsworth. Trade 231-h645

BABY PEÙCEOT, sporting model, pointed back, outside exhausts, very smart in appearance, painted marcon colour, bucket seats, very fast, £135 net. Motor Supply Co., 29-31 Oxford St., Manchester. Trade 222-855

£135 net. Motor Supply Co., 29-31 Oxford St., Manufester. And Eng-BABY PEUCEOT, 1916, just tuned by Pengeot Co., and repainted. Eng-lish screen, hood, side curtains and 2 spare opvers, a splendid climber, comfortable and very fast, in magnificent running order, does 50 m.p.g., £160, no offers. Seen Putney. Box No. 714, c/o "The Light Car and Cycle-car."

BABY PEUGEOT coupe, very late 1915, smartest little coupe in town, Royal blue, red lined, wire wheels, tyres as new, perfect throughout, will do 60 miles to gallon, the most economical car to run, bargain at £210. Mebes and Mebes, Original Light Car Specialists, 154-6 Gt. Portland St., W. Tel., 3426 Mayfair. Trade 231-16

W. Tel, 5420 Maynett. BABY PEUGEOT, 1916, de luxe, as new. The Talbot Garage, Ld., Stock-Trade zzz-988

BABY PEUGEOT, sporting model, in perfect condition. The Talbot Garage, Ld., Stockport. Trade zzz-289

BABY PEUGEOT, 1915, de luxe, complete with speedometer, luggage grid, mechanical horn, lamps and tools, colour grey, £135. Main, 36 Parade, Leamington. Trade 232-a703

BABY PEUGEOT, 1916, sporting model, almost new, £160.

BABY PEUGEOT, 1915, 2-seater, £145. Percy and Co., 337 Euston Rd., London. Trade 231-44

BABY PEUGEOT, 1915-16, de luxe model, 7-5hp, hood, windscreen, lamps, all accessories, excellent condition, price £140. R. Bamber and Co., Id., Birkdale, Lancs. Tel. 41B.

BABY PEUGEOT, 6-Shp, 1913 model, in nice running order and condi-tion, fitted with hood and screen, spare wheel and tyre, lamps and horn, painted green, £110; easy-purchase terms if desired. Harrods Ld., Motor Dept., Brompton Rd., S.W.

BABY FEUGEOT, sporting model, 6-9hp, complete with hood and screen, luggage platform, 3 lamps, horn, speedometer, pump, jack and tools, appearance like new, £160; casy-purchase terms if desired. Harrods Ld., Motor Dept., Brompton Rd., S.W.

BAYARD, 1914, 7hp, speedometer, mirror, disc wheels, painted very smart red, bargah, £175. Bayard Cars, Ld., 155-7 Gt. Portland St., W. 1. 'Phone, Maylair 3513. Trade 231-12

BAYARD, 8:10hp, 4:cylinder, 2-seater, 1914, condition petfect, mechanical and otherwise, dickey seat, Zenith carburetter, Bosch magneto, wire wheels, 760 by 90 tyres and spare covers, electric side and acetylene head-lamps, tools and spares, dark green, £175, no dealers, ideal car for pro-lessional man. 10 York House, Highbury Cres., Islington, N. 232-36

CALCOTT, 10hp, 1914, dynamo lighting, engine recently thoroughly over-hauled, new steel-studded tyre on back, £195. W. W. Smith, 5 Cheyne Gdns., London, S.W.3. 232-a496

CALCOTT, 1915, good as new, complete with dynamo and all accessories, owner will accept best offer between £255 and £270. Colmore Depot, 49 John Bright St., Birmingham. Trade 231-32

CALCOTTS, 1914 and 1915, 2-seaters, actually in stock, complete with dy-namo lighting, detachable wheels, etc. Bayard Cars, I.d., 155-7 Gt. Port-land St., W. 1. 'Phone, Mayiair 3513. Trade 231-13

CALCOTT, 10hp, 1916, special 3-seater clover-leaf, dynamo lighting.

CALCOTT, 10hp, 1915, 2-seater, dynamo and self-starter.

CALCOTT, 10hp,1915, 2-seater, dynamo lighting.

CALCOTT, 10hp, 1914, dynamo lighting and self-starter, dickey. Alfred Wastnage, 65 Gt. Portland St., W. I. Tel., Mayfair 3005. Trade 231-998

CALTHORPE light car, early delivery from the authorised agents, Exeter Light Car Co, Ld., 7 Bath Rd., Exeter. Trade zzz-934

CALTHORPE, 10hp, 4-seater, electric lighting, complete with all accessories, very smart, in perfect condition, £185. Motor Supply Co., 29 Oxford St., Manchester. Trade zzz-249

CALTHORPE, 1914, 10hp, 2-seater, Cambridge blue, black fittings, hood, windscreen, 5 detachable wheels, tools and accessories, guaranteed condi-tion, £155, exchanges arranged. Service Co., 292 High Holborn, London, Trade zzz476

Readers desiring to purchase older types or larger cars than are advertised here, are referred to "THE MOTOR," which contains each week many hundreds of advertisements of new and second-hand cars. "THE MOTOR" is published on Tuesdays, price 1d.

.....

LIGHT CARS AND CYCLECARS FOR SALE (continued).

CALTHORPE cars. Storey and Co. have always the largest stock of Calthorpe cars. Agents for London, Surrey and Kent. The following cars are actually in the showrooms for immediate sale, no Government permits necessary, and a guaranteed supply of first-class petrol substitute for every purchaser; 40 miles to the galion in every case.

CALTHORPE, 1 new three-quarter coupe, self-starter.

CALTHORPE, 1 new single coupe, self-starter.

CALTHORPE, 1 new coupe, dynamo lighting.

CALTHORPE, 1 new cabriolet coupe, self-starter.

CALTHORPE, 1 new G.D.M. 2-seater, dynamo lighting.

CALTHORPE, 2 new sporting 4-seaters, 60 miles per hour.

CALTHORPES. Also several second-hand, up-to-date models, in first-class order and ready for the road. Telephone, 5923 Mayiar, Storey, 118 Gt. Portland St., W. Trade zzz-574

CALTHORPE, late 1915, 12-volt dynamo lighting, speedometer, shock ab-sorbers, £235. Motor Exchange, Horton St., Halifax. Trade 232-5

CALTHORPE coupe, 1915, 12-volt dynamo lighting, overhauled and just repainted blue, with black domed mudguards, fully equipped, upholstered Bedford cord, privately owned, bargain, £235. Box No. 712, c/o "Tho Light Car and Cyclecar." 231-a683

CALTHORPE, 1915, electric lighting, speedometer, clock, 5 Sankey de-tachable wheels, quantity spares, dickey, first-class condition, any trial, £195. Rowley, 4 Lumley Rd., Skegness.-231-a662

CALTHORPE Minor, 1914, 10hp, 2-seater, C.A.V. dynamo lighting, over-hauled, repainted, £180. Below.

CALTHORPE coupe, 1916, 10hp, dynamo lighting and self-starter, dickey seat, as new, perfect condition, £340. Below.

CALTHORPE, 10hp, G.D.M., run 300 miles, equals new, £275. Percy and Co., 337 Euston Rd., London. Trade 231-43

CALTHORPE, 1917, 11hp, 2-seator, sporting model, leather hood, alm minium bonnet, guaranteed 60 miles per hour and to be in excellent condition throughout. The Talbot Garage, Ld., Stockport. Trade zzz-984 CALTHORPE coups de luxe, 1916, 11hp, special low-built body, Brolt dy-namo lighting set and self, starter, Bedford cord upholstery, paintwork unscratched, car as new. The Talbot Garage, Ld., Stockport. T'de zzz-985 CALTHORPE. CALTHORPE. I have a very special saloon, just from the coachbuilder's, one of choicest light cars ever produced, complete with dynamo lighting and starting, 400 gns. P. J. Evans, 87 John Bright St., Birmingham. Trade 231-861

Trate 231-931 cALTHORPE light cars, immediate delivery of coupes, 2-seaters and 4 seaters, at list prices to doctors, controlled works and anyone engaged on work of national importance. P. J. Evans, Sole Midland Agent, 87-98 John Bright St., Birmingham. Trade 231-962

CALTHORPE, 1917, 10hp, sporting 4-seater, aluminium bonnet and dash, white with black wings and wheels, dynamo lighting, very fast, on the premises, available immediately, brand new, £360. Particulars, Robinson's Garage, Green St., Cambridge. Telephone, 388. T.A., "Cars." Trade 231-976

Trade 231-976 CHARRONETTE, 1915, 10hp, 2-seater, C.A.V. dynamo lighting set, 5 dc-tachable wheels, £180. Cass's Motor Mart, only address 5 Warren St., Euston Rd., W. 1. Museum 623. Trade 231-29

CHATER LEA, 1915, 10hp Dorman 4-cylinder engine, 2-seater, solid alu-minium body, racey, wire wheels, Palmer cords, electric lighting, 55 miles gallon, speedy car, little used, any trial, bargain, £140; photo, if necessary. Wright, 98 High St., Hornsey, N.8. 231-a335

DAY-LEEDS, 1915, 10hp, dynamo lighting, dickey seat and all extras, un-scratched, indistinguishable from new, mechanically perfect, £215. Motor Supply Co., Oxford St., Manchester. Trade zzz.733 DEEMSTER, 1914, 4 cylinder, newly repainted, fitted with various extras, excellent condition all through, £135. Motor Supply Co., 29 Oxford St., Manchester. Trade zzz.723

DEEMSTER coupe, 1915 model, recently overhauled and renainted, fitted with dynamo lighting set, self-starter, 5 Sankey wheels, dickey scat, etc.. 200 guineas. Roper and Wreaks, 112 Arundel St.; Shefield. Trade zzz-977

DEEMSTER 1914 10hp 4-cylinder light car, hood, screen, lamp, tools, Zenith, in fine order, £120. Batchelor, Clarence St., Kingston. Tde 231-a594

ENFIELD 1916 ccupe, 10hp, 4-cylinder, speedometer, horn, tools, dynamo lighting, nickel fittings, Bedford cord upholster6d, mileage 2000 guaran-teed car, £255; exchanges and easy payments. Service Co. 292 High Hol-born, London. Trade zzz-233

ENFIELD, 1916, 10hp, 4-cylinder, dynamo lighting, 5 Sankey wheels, uphol-stered double dickey, painted white, nickel fittings, perfect and new condi-tion, any trial or examination, £210. Taylor, Butcher, 353 Lordship Lane, Dulwich. 'Phone, Syd. 915. 231-a699

GLOBE 2-scater, exactly as new, will take good 4-scater in exchange and pay cash difference. Also 2 1914 Globe 2-scaters, sound order, including regainting, £65 and £60. Tuke and Bell, I.d., Makers of Globe cars, Carlton Engineering Works, Tottenham. Trade 231-15

G.W.K., de luxe model, in new condition, fitted with dickey scat. and spares, £145. Motor Supply Co., 29 31 Oxford St., Manchester. Trade zzz.853 G.W.K., 1914, Stepney wheels, hood, screen, 3 lamps, horn, reflecting mirror, just repainted, in good condition, £115. Freeman, Oakes and Co., Sheffield. Trade zzz-881

C.W.K., 1915, model de luxe, dynamo lighting, painted white and black, £185. Cass's Motor Mart, only address 5 Warren St., Euston Rd., W. 1. Museum 632. Trade 231-21

G.W.K., 1915, repainted. 5 lamps, speedometer, oversize tyres, £150. G. T., Francis and Co., 21 Panton St., Leicester Sq. Trade 231-38

G.W.K., 1914, splendid condition, only run 7000 miles, coachwork as good as new, electric side and tail lamps, acetylene headlamps. 5 new tyres, speedometer, mat, tools, engine and transmission in first-class order, re-cently overhauled, £132, no offers. Wintle, 37 St. Luke's Rd., Maidstone. 231-4661

G.W.K., 1913, brand new engine, car just completely renewed and all worn parts replaced at cost of £40, good outfit and spares, a bargain. £105. Box No. 701, c/o "The Light Car and Cyclecar." 231-a659

G.W.K., late 1914, de luxe model, dynamo lighting, Riley detachable wheels and spare, 1916 Zenith carburetter, new pistons, Stewart speedo-meter, spare disc, £165: after seven. & Campdon Mansions, The Mall, Notting Hill Gate, W. 8. 231-a783

LIGHT CARS AND CYCLECARS FOR SALE (continued).

HILLMAN, 1915 model Lucas dynamo, double dickey seat, all extras, almost new condition, £220. Motor Supply Co., 29 Oxford St., Manchesier. HILLMAN, 1214, 2-seater, in perfect condition, lamps, spare wheel, etc., 2195; exchanges or extended payments. Service Co., 29 High Holborn, London. Trade zzz-730

HILLMAN, in first-class order and condition, owner will accept best oner between £180 and £195. Colmore Depot, 49 John Bright St., Bir-mingham. Trade 231-33

HILLMAN, 1915, 9hp, 2-scater, dickey seat, Lucas dynamo lighting set, speedometer, clock, hood, windscreen, spare wheel and tyre complete, disc wheels, as new, price £225. R. Bamber and Co., Ld., Birkdale, Lancs. Tel., 144B.

HILLMAN, 1915, with dickey seat, 5 detachable wheels, car painted green, fully equipped and guaranteed to be in absolutely perfect condition throughout. The Talbot Garage, Ld., Stockport. Trade zzz-986

HORSTMANN. Edwards and Parry, the special London agents for Horst-mann cars, have a 1915 model for immediate delivery. This car has been overhauled and is guaranteed to be in good mechanical condition. It is fitted with speedometer and dickey seat, £135. 69 Great Queen St., Kings-way. Regent 5086. Trade 231-34

HORSTMANN, 8.9hp, 4-cylinder engine, mechanical starter, hood and screen, detachable wheels and spare with tyre, horn, 2 lamps, in very nice order and condition, £125 cash. Harrods, I.d., Motor Dept., Brompton Rd., S.W. Trade 231-971

HORSTMANN, 1915, fitted with mechanical kick starter, 4-cylinder, 5 de-tachable wheels, in perfect condition and ready for the road. The Tal-bot Garage, Ld., Stockport. Trade zzz-990

HUMBERETTE, alr-cooled, thoroughly overhauled and new parts fitted, and repainted grey, splendid condition, ±65. Roper and Wreaks, 112 Arundel St., Sheffield. Trade zzz-697

HUMBERETTE, 1914, water cocled, all accessories, painted green, £105. Cass's Motor Mart, only address, 5 Warren St., Euston Rd., W. 1. Museum 633. Trade 231-22

HUMBERETTE, 1914, a.-c., in splendid condition, runs well on Petrofin, auxiliary tank fitted, fully equipped lamps, tools, speedoneter, mat, etc., price £65. Apply, W., 5 The Chine, Winchmore Hill. 231-a713

HUMBERETTE, 8hp, twin-cylinder, hood, screen, etc., £68 10s. Motor Exchange, Horton St., Halifax. Trade 232-6

HUMBERETTE, a.-c., fully equipped, good condition, disc wheels, speedo-meter, etc., for good combination. Avondale, Bath Rd., Woking. 231-a657

HUMBERETTE, air-cooled, in excellent condition, lamps, hood and side curtains, soreen, speedometer, clock, dash light, exhaust whistle, 2 fucl tanks, oversize tyres (new) on back, 3 spare tubes, full kit of tools and spares, speeial lockers containing full picnic outift, over 55 m.p.g., £78. McCall, Woodside, Belvedere. 'Phone, Erith 130. 231-a680

HUMBERETTE, 1913, air cooled, good condition, 3 lamps, tools, 2 new tubes, hood and screen, offers. F. Gluyas, Stythians, Perranwell, Cornwall. 232-3679

423-245/9 WUMBERETTE, late 1914, water cooled, excellent condition, thoroughly overhauled, carefully owner-driven 7000 miles, lamps, speedometer, clock, mirror, insurance, etc., 2 new tyres, £105. Crow, Williams Farm, Steb-bing, Chelmsford. 231-a671

HUMBERETTE, 1914, smart 2-seater, 8-10, magneto, 3 speeds, reverse, hood, screen, lamps, only 59 guineas, motorcycle part payment. Wands-worth Motor Exchange, Ebner St., Wandsworth (Town Station). Trade 231-h646

HUMBERETTES, 10 actually in stock, all models, all prices, from ±60. Percy and Co., 337 Euston Rd., London. Trade 231-50 HUMBERETTE, water-cooled, 2-cylinder, with dickey seat, hood and screen, 5 acetylene lamps. The Talbot Garago, Ld., Stockjort. Tde zzz-991

HUMBERETTE, 1914, water-cooled, with speedometer. Stepney wheel dickey seat, hood, screen, lamps, horn, splendid condition, price £110 near offer. Julian's, 84 Broad St., Reading. Biggest light car and motor-cycle dealers in the South. 'Phone, 1024. Trade 231-978

JOWETT, late 1915, fitted dynamo lighting set and many other extra fit-ments, repainted, all tyres as new, perfect order throughout, very economi-cal and smooth-running car, £165. Colmore Depot, 49 John Bright St., Birmingham. Trade 231-31

JOWETT, 8hp, 1915, hood, screen, side curtains, 5 lamps, trip speedo-meter, spare wheel, 5 new 700 by 80 tyres, perfect condition, £160. Hon-son, 21 Clarendon Place, Leeds. 231-a684

LAGONDA coupe, 1915, little used, has not been out since February, 1916. 5 lamps, 5 Sankey detachable wheels, 6 excellent tyres (3 of them new), 2 horns, valve gauge, new speedometer. 6 gallons petrol, just overhauled. #135. 35 Lesbury Rd., Newcastle-on-Tyne. 231-a667

LAGONDA coupe, 1914, in fine order, complete, lamps, horn. tools, spare wheel, £130. Batchelor, Clarence St., Kingston. Trade 231-a595

LAGONDA coupe, 11hp, open or closed at will, C.A.V. dynamo lighting system, electric inspection lamy, 2 horns, speedometer, detachable wheels and spare with tyre, repainted French groy, in fine order and condition throughout, £175: easy-purchase terms if desired. Harrods, Ld., Motor Dept., Brompton Rd., S.W. Trade 231-972

LAGONDA coupe, 1914, 11hp, C.A.V. dynamo lighting, overbauled, re-painted grey, fully and well equipped, £135. Below.

LAGONDA coupe, 1915, 11hp, at £145. Percy and Co., 337 Euston Rd., London. Trade 231-51

MATHIS, 10hp, new, latest model, V radiator, 3-seated body, 5 detachable wheels, complete equipment, price £300. The Morris Garages, Oxford, 'Phone, 238. Tel., "Auto." Trade 222-123

MATHIS, 10hp. new, latest model, standard radiator, 2-scater, with dickey seat, 5 detachable wheels, complete equipment, price £275. The Morris Garages, Oxford. 'Phone, 238. Tel., 'Auto.'' Trade zzz-124 MATHIS, 10hp, 1914, G.P., sporting, racy, fast, 2-seater, in exceptionally nice order, C.A.V. dynamo lighting, £175. Percy and Co., 337 Euston Rd., London. Trade 231-47

MORGAN, G.P., 1915, fitted electric lighting, disc wheels, finished cream and black, perfect condition, extremely smart, £130. Motor Supply Co.. 29 Oxford St., Manchester. Trade zzz-717

MORGAN, 1917, G.P. model, M.A.G. engine, complete all fittings, £135. Turpins, 22-29 Preston Rd., Brighton. Trade zzz-747



in second-hand light cars and cyclecars are offered in these pages.

Supplement iv.

LIGHT CARS AND CYCLECARS FOR SALE (continued).

MORGAN runabout, 1917, special racing model, with streamline body, painted dark red, dise wheels, 700 by 80 tyres, C.A.V. side and tail lamps, from accumulators, switchboard and lamp on dash, 16hp water-cooled M.A.G. engine, long exhaust pipes, extra tool lockers, and many small special fittings, a very fast sporting car, what offers? Exeter-Light Car Co., Ld., 7 Bath Rd., Exeter. Trade zzz-231

MORGAN runabouts. We can give good deliveries of new Morgans to doctore, farmers and users of national importance. Exeter Light Car Co., Ld., 7 Bath Rd., Exeter. Trade zzz-232

MORGAN, 1915, Grand Prix, hood, screen. 5 lamps, speedometer, disc wheels, watch, mechanical horn, etc., in first-class order, E100. F. J. Young's, The Parade, Kilburn. Trade zzz-695

MORGAN, 1913-14, standard, splendid order, hood, screen, lamp, numerous spares, £46. Peek, Richmond House, St. Ives, Hunts. 231-a705 MORGAN, 1913-14, de luxe body, hood, screen, lamps, speedometer, tyres as new, in perfect running order, not done 600 miles sinces August. 1914. cheap, £65. Lieut. Phillips, R.F.C., Dover. 231-a697

MORGANS. I am booking orders for the after-the-war model described in this issue; it will be better than ever; can I book yours? Potter, Con-tracting Agent, Leeds. Trade 231-a685

MORGANS. Potter, Contracting Agent, Leicester Grove, Leeds, has some 1916-17 Grand Prix Morgans, a. and w. cooled, for immediate sale. Trade 231-a686

MORGAN, G.P., water cooled, late 1915, disc wheels, only done 2700 miles, condition perfect, spare chains and tube (unused), £110. Land, Highfed Villas, Woodford Rd., Bramball, near Stockport. 233-a678

MORGAN, 1915, Grand Prix, hood, screen, lamps, 2 horns, many spares, splendidly equipped, disc wheels, 700 by 80 tyres, engine overhauled by makers a month ago, finished Royal purple and black, everything in new condition, any trial or examination, £110, or near offer. Maythorne, Wood-field Ave., Penn, Wolverhampton. 231-a673

MORGAN, sporting, late 1914, special body, with side door, finished laven-der and white, air-cooled J.A.P., hood and bag, screen, F.R.S. side lamps, Lucas car generator, rear lamp, mechanical horn, Lucas dynamo lighting set (including 2 headlamps and horn), 700 by 80 tyres, disc wheels, spare chains, valves, etc., in first-class condition, splendidly equipped with many improvements, any examination, £105. Tétley, Molineux Hotel, Welverbampton. 231-a674

MORGAN, 1917, Grand Prix, specially built for a famous airman, special streamline body, bulbous back, staggered seats, 10hp racing water-cooled M.A.G. engine, specially tuned, 60 miles per hour, disc wheels. 700 by 80 tyres all round, lamp sets and horn, finished maure, very smart, been 300 miles only, as new, £145 cash. Wallis, 51 De Freville Ave., Cambridge. 23Ja620

MORGAN, £68. 1915. sporting body, good condition, consider combination and cash. White, Hatherley Court Rd., Cheltenham. 231-a670

MORGAN, 1914, sporting, hood, screen, lamps, toolas, speedometer, high up-holstered back, spares, 2 Dunlops, Stepney road grip, spare studded, 1915 chains, back fork, back wheel, other improvements, good condition. #75. Pratt, North Parade, Bradlord.

MORGAN, 1915, Grand Prix, disc wheels, 10hp water-cooled J.A.P. engine, hood, screen, acetylene headlamps, oil lamps, horn, clock, speed indicator, spare chain, tools, well kept, 2112. Car now at Broadstairs, Kent. Apply, R. E. Bush, Fishguard Bay Hotel, Goodwick, Pembrokeshire. 231-a65

MORCAN, G.P., 1914, hood, screen, electric side and tail lamps, oversize byres, £100. Cass's Motor Mart, only address 5 Warren St, Euston Rd., W. 1. Museum 623. Trade 231-23

MORCAN, 1916, de luxe model, fitted M.A.G. engine, hood, screen, lamps, horn, special tool lockers, petrol carriers, waterproof hood cover, £120. Colmore Depot (below).

MORGAN, Grand Prix model, fitted J.A.P. overhead-valve engine; com-plete, screen, lamps, oversize tyres, and other fitments, very fast car, per-fect, £110. Colmore Depot (below).

MORGAN, sporting model, completely overhauled and repainted, com-nlete hood, screen, lamps, etc., £85. Colmore Depot, 49 John Bright St., Birmingham. Trade 231-29

MORGAN, 1916, de luxe, hood, screen, speedometer, etc., £115; also 1914 de luxe Morgan, £87 10s. Motor Exchange, Horton St., Halifax. Trade 232-7

MORGAN, 1916, Grand Prix, water-cooled J.A.P., hood, screen, lamps, disos, etc., finished gsey, £120. Below.

MORGAN, 1917, Grand Prix, air-cooled M.A.G., complete with hood, screen, lamps, horn, spring cushion, fixed starting handle, finished mauve, £118. Below.

MORCAN, 1915, late, Grand Prix, o.h.v. water-cooled J.A.P., hood, screen, lamps, horn, discs, finished dark blue, thoroughly overhauled, £115; and others; call and see our selection. Elce and Co., 15-16 Bishopsgate Ave., Camomile St., E.C. Phone, Avenue 5548. Trade 231 883

MORGAN, 1914, in fine order, complete, hood, screen, lamps, horn, etc., £73. Cross, Jeweller, Rotherham. Trade 231-979

MORGAN, 1916, G.P., as new, £120.

MORGAN, 1915, G.P., in nice order, £105.

MORGAN, 1914, G.P., in nice order, £90. Percy and Co., 337 Euston Rd., London. Trade 231-52

MORRIS.COWLEY 4-seater, 1916, full equipment, speedometer, clock, etc., small mileage. Below.

MORRIS-COWLEY coupe, 1916, oversize tyres, fully equipped, equal to

MORRIS-COWLEY 2-seater, dickey, oversize tyres, speedometer and other fitments, revarnished, £280. Percy Worger, Ld., 29 Chester Mews, Gros-venor Pl., S.W. Victoria 4961. Trade zzz-894

MORRIS-COWLEY, 1916, 11.9hp, 4-seater, fitted with Lucas dynamo light-ing set, speedometer, clock, mirror, the whole machine is perfect in de-tail, and new in condition, £320; exchanges or extended payments. Ser vice Co., 292 High Hofborn, London.

MORRIS-COWLEY, 1916, slightly used, fitted with brand new limousine-coupe de unxe body by Hollick and Pratt, most exclusive design, uphol-stered in antique leather, dynamo lighting with interior light silk blinds, concealed dickey seat, nickel fittings, painted white with black mouldings, black domed wings. G. L. Francis and Co., 22 Panton St., Leicester Sg. Trade 231-37

LIGHT CARS AND CYCLECARS FOR SALE (continued).

23RD APRIL, 1917.

MORRIS-COWLEY, 4-seater, in perfect condition, fitted Lucas dynamo, seen and tried London, small mileage, engine just overhauled. 661, c/o "The Light Car and Cyclecar." zzz-850

MORRIS-COWLEY coupe, three-quarter body, dynamo lighting, dickey seat, brand new.

MOBRIS-COWLEY, 4-seater, dynamo lighting, brand new. Percy and Co., 337 Euston Rd., London. Trade 231-46

MORRIS-COWLEY, July, 1916, demonstration car, 4-scater model, fitted with 710 by 90 tyres all round, Lucas lighting set with 6 in, side lamps, electric horn, side curtains and many extras, £300. The Haslemere Motor Co., Ld., Station Rd., Haslemere, Surrey. Trade 233-2

Co., Ld., Station Rd., Haslemere, Surrey. MORRIS-OXFORD, quick deliveries, free tuition, etc., wholesale and retail agents for Surrey and parts of Sussex and Hants., The Haslemere Motor Co., Ld., Haslemere. Phone, 43. MORRIS-OXFORD. Stewart and Ardern, Ld., the sole authorized London agents for Morris-Oxford cars, have for disposal a number of second-hand 1914 de luxe rodel Morris-Oxford cars which have been taken in part payment for Morris-Oxford; These cars which have been thoroughly over-hauled, repainted, and are practically as new. IS Woodstock St., Bond St., London, W. Trade zzz-11

MORRIS-OXFORD, 10hp, 2-seater body, dickey scat, 5 detachable wheels, tyres, etc., lamps, hcod, screen, £135 or near offer. Barton Lodge, Tot-teridge, High Wycombe. 231-a669

MORRIS.OXFORD, 1914, 2-seater standard model, complete with hood, screen, 5 detachable rims and tyres, guaranteed perfect mechanical con-dition, dickey seat, luggage carrier, £145 cash. Edwards and Parry 69 Great Queen St., Kingsway, Regent 5095. Trade 231-25

MORRIS-0XFORD 10hp 1913 light car, well equipped, very good condition, just repainted, £140. Main, 36 Parade, Leamington. Trade 232-a702

Just repainted, £140. Main, 35 Parade, Leamington. Trade 2324-002 MORRIS-OXFORD, 10hp, 2-seater, in real good order and condition, £135. Percy and Co., 337 Euston Rid., London. Trade 231-49 PERRY cars. Sole London and District Agents, Cars and Motor Sundries, Ld., 175-177 Shaftesbury Ave., London, W.C. 'Phone, 1432 Regent. Trade zzz-745 PERRY, 1914, in really excellent condition, great climber, 45 m.p.g., had very careful use, all extras, £130. Motor Supply Co., 29-31 Oxford St., Manchester. Trade zzz-743

Mandresser PERRY, 8hp, 1915, No. 667, long wheelbase, Sankey wheels, detachable, electric lights, speedometer, £118 10s. The Walsall Garage, Walsall. Trade 231-a688

PREMIER cyclecar, good order and tyres, running well, £45. Worboys, Willow Dene, Hassocks, Sussex. 231-a709 ROLLO-J.A.P., 8-10, sporty, 2-seater, good order. Seen Hinckley. Motor-bike exchanges, £35 quick sale. Lt. Railton, Cocker Hall, Co. Durham. 231-a664

231-a.664

SINCER light cars, phaeton or coupe models. Particulars of delivery on application from Singer and Co., Ld., 17 Holborn Viaduct, E.C. Telepione, Central 1313.

SINCER, 1914, dynamo lighting, exceptional condition, £195; motorcycle or Morgan part Young's, The Parade, Kilburn. Trade zzz 322 SINCER, 1914, 2-seater, all spares, in perfect condition, £180; exchange or extinded payments. Service Co., 292 High Holburn, London. T'de zzz-731

SINCER light car, only done 10,880 miles, in excellent order, £155. Sharp, Haygate Rd., Wellington, Salop. 231-a354

SINCER 1915 coupe, with dickey seat, dynamo lighting, speedometer, in very good condition, £259. Main, 36 Parade, Leamington. Trade 231-a516 very good condition, 2.20, Main, or terrent, events, speedometer, clock, SINGER 1915 light car, dynamo lighting, dickey seat, speedometer, clock, hood cover, very good condition, 2235. Main, 36 Parade, Leamington. Trade 231-a517

SINGER, 1915, 10hp, dynamo lighting and born, excellent condition, any trial, £250. Bayard Cars, Ld., 155-7 'Gt. Portland St., W. 1. 'Phone, Maylair 3513. Trade 231-10

Mayant 50.0. SiNGER, completely overhauled and repainted, hood re-covered, all standard equipment, green, £160. Colmore Depot, 49 John Bright St., Birmingham. Trade 231-30

SINGER, 1916, dynamo lighting, speedometer, extra air, Klaxon, un-scratched, usual equipment, £265. G. L. Francis and Co., 22 Panton St., Leicester Sq. Trade 231-40

SINCER coupe, 1916, dynamo lighting and self-starter, specially painted suede grey with black wings and mouldings, Bedlord cord upholstery, with loose covers, car only run 1500 miles, and is as new. Alfred Wasinage, 65 Git. Portland St., W. Tel., Mayfair 3005. Trade 231-955

Borse Cortand St., W. Tel., Maylair 3005.
 SINGER, 10hp, 1916, 2-setter, dynamo lighting set and self-starter, fully equipped and in splendid condition, £285. Alfred Wastnage, 65 Gt.
 Portland St., W. Tel., Maylair 3005.
 SINGER car, 1915, 10hp, for sale, first-class condition, all tyres good, dynamo lighting set, price £210. Apply, Briggs's Garage, Trade 231-993

SINGER, 10hp, 1916 model, painted buff, spare wheel complete with tyre, electric-lighting dynamo outfit, new. Albert Farnell, Manningham Lane, Bradford. Trade 233-980

SINCER, 10hp, 1914, dynamo lighting, dickey seat, detachable wheels and spare with tyre, hood and screen, horn, speedometer, pump, jack and tools, in very good order and condition, £215; casy-purchase terms if desired. Harrods Ld., Motor Dept., Brompton Rd., S.W. Trade 231-973

SINGER, 1915, dynamo lighting, dickev scat, side curtains, clock, in per-fect running order, owner driven, £230, bargain. Dr. Croft, Marymont, Edgwick, Coventry. 231-a693

Edgwick, Coventy. SINGER, 1916, 10hp, 2-seater, dynamo lighting, 5 lamps, 6 wheels and tyres, in excellent condition, Klaxon horn, trip speedometer, perfect me-chanical condition and appearance, £270 or reasonable offer, owner going overseas. Rickards, 25 Corfton Rd., Ealing, W. 5. SINGER, practically new, latest 1916, 10hp, 2-seater and dickey, dynamo lighting, mechanical horn, only been in use a short time, guaranteed splen-did condition, £255. Taylor's Garage, Kings Lynn. Trade 232-a675 SINGER, latest model, 10hp, 2-seater, dynamo lighting, speedometer, per-fect mechanical condition, paint, etc., equal new, only run 1000 miles, £250. Taylor's Garage, King's Lynn. Trade 232-a676

PRIVATE OWNER alike recognise the value of these pages for the disposal of their goods AND TRADER

A30

LIGHT CARS AND CYCLECARS FOR SALE (continued).

SINCER light car, 10hp, brand new, dynamo lighting, very latest 1917 model, in stock, immediate delivery, ready to drive away. Wilkins, Simp-son and Co., 11 Hammersmith Rd., London. Trade 231-h618 SINCER, 1914, 2-seater, fitted with dynamo lighting set and many extras, in good sound condition. The Talbot Garage, Ld., Stockport. T'de zzz-987 SINGER 10hp coupe, brand new.

SINGER 10hp 2-seater, brand new.

SINGER 10hp coupe, 1916, run 500 miles.

SINGER 10hp 2-seater, 1916, run 100 miles.

SINGER 10hp all-weather coupe.

SINGER 10hp 1914 2-seater. Percy and Co., 337 Euston Rd., London. Trado 231-45

STANDARD, 9.5hp, 1914-15, Rotax dynamo lighting, speedometer, horn, mirror, 8-day clock, dickey seat, 5 Sankey wheels, tyres perfect, condition as new throughout, £235. Mebes and Mebes, Original Light Car Special-iets, 154-6 Gt. Portland St., W. I. Tel., 3426 Maylair. Trade 231-19 STELLITE, latest model. 2 speeds, repainted, 5 lamps, speedometer, dickey seat, spare wheel, fine condition, £170. G. L. Francis and Co., 22 Panton St., Leicester .Sq. Trade 231-39

St., Leicester. Sq.
 SWIFT, 1914, 7-9hp, 2-seat, all accessories, £110. Cass's Motor Mart, only address, 5 Warren St., Euston Rd., W. I. Museum 623. Trade 231-24
 SWIFT, 1915, 10hp, dynamo lighting, only run 2000 miles, splendi condition, £250. Bayard Cars, I.d., 155-7 Gt. Portland St., W. I. 'Phone, Mayard St., W. I.' Phone, Mayard St., W. I.

SWIFT, 1915, 10hp, 4-cylinder, dynamo lighting, extra good, £235.

SWIFT 7-9hp 2-cylinder light car, hood, screen, lamps, £85, or exchange. Motor Exchange, Horton St., Halifax. Trade 232-8

SWIFT course, 10h, open or closed at will, 1915, 4-cylinder engine, dynamo lighting system and 5 lamps, horn, pump and jack, in very fine order and good mechanical condition, £350; easy-purchase terms if desired. Harrods, Ld., Motor Dept., Brompton Rd., S.W.

SWIFT, 7-9ap, 1914 model, with hood and screen, horn, 3 lamps, jac's and tools, Stepney wheel and tyre, repainted and in splendid order and condition, $\pounds 125$; easy-purchase terms if desired. Harrods Ld., Motor Dept, Trade 231-975

SWIFT, 7-9hp, 2-3-seater, perfect condition throughout, hood, screen, 2 horns, 4 lamps, generator, Stepney, complete, jack, tools, £70, any trial. Fisher, 34 Cavendish Gdns., Clapham Park, S.W. 4. 231-a691

SWIFT evelcear, -9-Data Chapman Fark, S.W.4. SWIFT evelcear, -9-Dap, practically new, fully and well equipped, £20. Percy and Co., 337 Euston Rd., London. Trade 231-42 VICEROY, 1-cylinder, 10hp, 4-seater, up-to-date light car, full equipment, electric lights, detachable wheels, £150. Motor Supply Co., 29-31 Oxford St., Manchester.

WHITING-GRANT, 1915. 11hp, 2-seat English body. dynamo lighting, hood, screen, £135. Cass's Motor Mart, only address 5 Warren St., Enston Rd., W. 1. Museum 623. Trade 231-25

MISCELLANEOUS LIGHT CARS AND CYCLECARS.

MEIGH light car, hardly used. In new condition, very smart and up-to-date, double dickey seat, painted buff colour, £140. Motor Supply Co., 2031 Oxford St., Manchester. Trade zzz-994

CASS'S MOTOR MART have the following light cars for disposal:-Martheory, 3-seat, D.I.O., £215; G.W.K. de luxe, D.I.O., £185; Charron-ette, D.I.O., £180; Whiting-Grant, £135; Humberette, 1914-15, £116; Switt, £110; Humberette, w.e., £103; Morgan, £100. Above cars are indistin-guishable from new in every respect. See small advertisements for fall particulars of the above cars; deferred terms; exchanges; iuition free. We are open to purchase or sell first-class cars; see advertisements. Above cars can be seen and tried at our only address, 5 Warren St., Euston Rd., W, 1. Museum 623.

SEVERAL new light cars for sale, in stock, too large to advertise in these columns. Send for list. Mebes and Mebes, Original Light Car Specialists, 1346 Gt. Portland St., W. Tel., 3426 Maylair. Trade 231-17

COLIBRI, 10hp, 4-cylinder, Chapuis-Dornier engine, 2-seater, hood and screen, in first-rate running order, seen and tried any time, £75. Lieut. Saunders, 9 Maltese Rd., Chelmsford. 231-077

VERY sporty monocar, £28, photo, must sell at once, joining up. Bricket's Laundry, 23 Martell Rd., West Norwood. Also Morgan run-about, exchange ior Douglas and cash. 231-a710 CYCLECAR, built last October, single Buckingham, 2 speeds, fast and economical, bargain, with stock of petrol, £45. Mundy, 24 Church Walk, Hampstead, N.W. 3. 231-a658

CYCLECAR, 6hp, 2-stroke, water-cooled, 3-speed and reverse, 5 wheels, hood, electric lamps, horn, etc., practically new. £50 to clear.- R., 60 East Dulwich Rd., S.E. 231-a666

SWIFT, 7-9hp, 2 cylinders, 2-seater, painted green, electric side and tail lamps, horn, speedometer, tools, side curtains, hood and screen, £115; also 10hp Singers, 10hp Calthorpe. Clark and Co., Motor Engineers, Doncaster. Phone, 176. Trade 231-994

MISCELLANEOUS.

THE Vulcan superheater is the paraffin vaporizer you are looking for. Sizes from 10hp to 100hp; immediate delivery; descriptive booklet graffs. Alvaston Motors, Derby. 'Phone, 1 Alvaston.' Grams, 'Motors, Alvasto.?' Trado zzz.825

BOLTS, nuts, washers for motor repairs, less than hall pre-war prices, packed in lots 1s, to 2is.; write for list. Mindows, Bankubid Lane Southport, Trade 243-860

RENEW and preserve the body and paintwork of your car by varnishing it with Hartley's fine body varnish, 2s. and 3s. 6d. per tin, with full par-ticulars, postage free. Sold only by J. H. Hartley, 97 Railway Rd., Leigh, Lanc. Trade 236-1545

SPECIAL line for light cars, an exceptionally well-made set of torpedo-pattern electric lamps, guaranteed British make throughout, consisting of 2 side and tail lamps with metallic filament bulbs, 34s., or with 4volt 25-ampere-hour accumulator in metal case 54s. The Essex Accumulator Co. Ld., 497 Grove Green Rd., Leytonstone, E. 11. Trade zzz-584

MISCELLANEOUS (continued).

CENERAL INSURANCE CO. issue Lloyd's motor policies by monthly payments. Lowest premiums for light cars. Before insuring elsewhere write for prospectus. Head Office, 199 Piccadilly, London. zzz.359 write for prospectus. Head Office, 199 Piccaduly, Lonuon. FOR replacements, accessories, etc., new and second-hand, as well as gear-cutting, radiator repairs and overhauling, try the Hardcope Motor Mart (Manager, S. G. Hardisty), 90, 92, 94 Old Kent Rd., London, 8.E. Trade 231-28

8hp NEW Precision water-cooled cyclecar engines, shafts for starting handle and clutch, inlet, exhaust pipes, silencer, cog, chain and platform for magneto, £25. Box No. 709, c/o "The Light Car and Cyclecar." 234-a669

ACCESSORIES.

NEW and second-hand tyres, tubes, Stepney wheels and accessories for light cars, cheapest in the trade. Write for lists or call and inspect. St. Martin's Motor Works, 12 Upper St. Martin's Lane, London, W.C. Regent 5070.

ZENITH No. 22 carburetter, as new, suit 8-12hp, £2 10s. Harnett, North St., Chichester. Trade 231-6704 LONG horn, model J, 16s.; Nesthill pump, 10s.; Hawthorn 4-eylinder pump, 25s. Fisher, 34 Cavendish Gdns., Clapham, S.W. 4. 231-a692

SET new Ford wheels, detachable rims, 700 by 80 Sankey wheel, cover and tube, acetylene head, tail and side lamps, shock absorbors, horns, vulcanizer. Beardshaw, Wood Green. Trade 231-a695

AGENCIES.

MOTOR Insurance at Lloyd's. Liberal terms, low premiums. General Insurance Co. (Agency Dept.), 199 Piccadilly, London. zzz-323

BATTERIES.

HIGH-GRADE 3-volt American batteries for sale, 14 in. diameter by 6 ins. long, 7-10 amps., sample sent on receipt of 3s.; special quotation for quantities; also quantity of nickel-plated and fibre torches and motor bulbs. Particulars on demand. Ascog, Ld., 57 Hope St., Glasgow. Trade 233-b5(0

CONSULTING ENGINEERS.

HUGH P. McCONNELL, the light car expert, automobile engineer and advisory expert, 15 years practicar experience, consultations, examina-tions, advice on repairs, shipping expert. 199 Piccadilly, W. Gerrard 1960. 251-46

EXCHANGES.

EXCHANGE. Motor-bicycles and light cars taken in nart exchange for light cars, balance in cash or extended payments as preferred. Service Co., 292 High Holborn, London. Trade zzz-683

WANTED, Morgan, G.N., etc., exchange Rover 3-speed coach combination and cash. F.G. (top flat), 20 Northlands St., Camberwell, S.E. 5. 231-a650

EXTENDED PAYMENTS.

EXTENDED payments: all makes supplied; lowest terms. Service Co.. 292 High Holborn, London. Trade zzz-538 GENERAL INSURANCE CO. issue Lloyd's motor policies by monthly payments. Lowest premiums for light cars. Before insuring elsewhere write for prospectus. Head Office: 199 Piccadilly, London. zzz-359

FOR HIRE.

DRIVE yourself in a Calcett. Singer, Merris-Oxford, Standard or Hillman. Rev's can let you have one for a day, week-end, week, or month; moderate charges. Rev's are the largest light car hirers in London. Call, write, or telephone (Regent 4219), Rey's, 378 Euston Rd., N.W. Trade 235-177 G.W.K., good running order, offers wanted for long period. Box No, 713, c/o "The Light Car and Cyclecar." 231-a682

HOODS AND SCREENS.

HOODS for light cars, 60s.; hoods re-covered in black waterproof leatherette, 45s.; in khaki, 35s. Stockport Garage Co., 37 Wellington Rd. N., Stockport. Trade zzz-189

IGNITION.

ATWATER-KENT distributor parts from stock, platinum blades, screws, lifters, latches, springs, speciality, battery, coil, dynamotor repairs. Frank Edward Morriss, 54-55 Piccadilly, W. Telephone, Gerrard 7711. Trade zzz-727

INSURANCE.

GENERAL INSURANCE CO. issue Lloyd's motor policies by monthly payments. Lowest premiums for light cars. Before insuring elsewhere write for prospectus. Head Office: 199 Piccadilly, London. zzz-361

PARCELCARS,

1915 LIGHT delivery van, carry 8 cwt., new condition, bargain, 52 guiness. 18 South Bruton Mews, Bond St Irade 231-a.00

PATENT AGENTS.

INVENTORS advised free. Write for free handbook, King's Patent Agency, I.d., 165 Queen Victoria St., London, E.O. zzz.376

REPAIRERS.

THE AZ.NU Works, 251 Church Rd., Mitcham, S.W., radiater, lamp and welding specialists, American radiators a speciality. Trade 222-847 and weiding specialists, American radiators a speciality. Trade zz-847 OVERHAULS to any make of light car. Morgan expert, official re-nairer to the Morgan Co.; fully-equipped workshop; experienced mechanics; best work only, moderato charges. Hall's Garage, Ld.. Stevenage, Herts., 30 miles from London on the Great North Rd. 2017 TO Singer owners. G. Harper, late of Singer Motor Co.. undertakes re-pairs, overhauls, etc.. satisfaction guaranteed. 62 Linden Grove. Num-head, S.E. 'Phone, New Cross 40. 232 and

"THE LIGHT CAR, is the best medium and has the largest circulation.

REPAIRERS (continued).

LIGHT car repairs of all descriptions and to any make, high-class coach-work, painting, etc., priority given to cars used on work of national im-portance, inquiries invited. Swift Motor Co., Ld., 132-134 Long A3-27 London, W.C. 233-27

REPAIRS. All kinds of repairs to Singer, G.W.K., Calcott, Hillman, and any make of light car or cyclecar. We specialize in light car and cycle-car repairs. Wilkins, Simpson and Co., 11 Hammersmith Rd. (opposite Olympia), London. 231-a617

TRANSMISSION.

NEW ZILLA is only belt to stand heavy work. The Zilla Accessories Co., 101 Gt. Western St., Manchester. Trade 240-550

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23RD APRIL, 1917.

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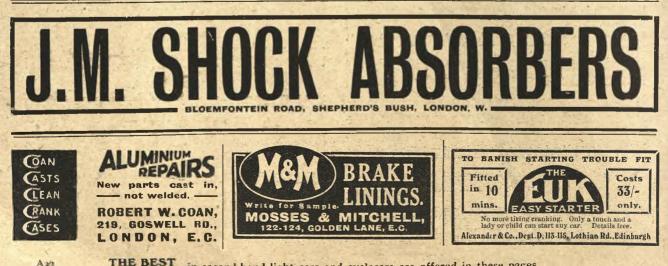
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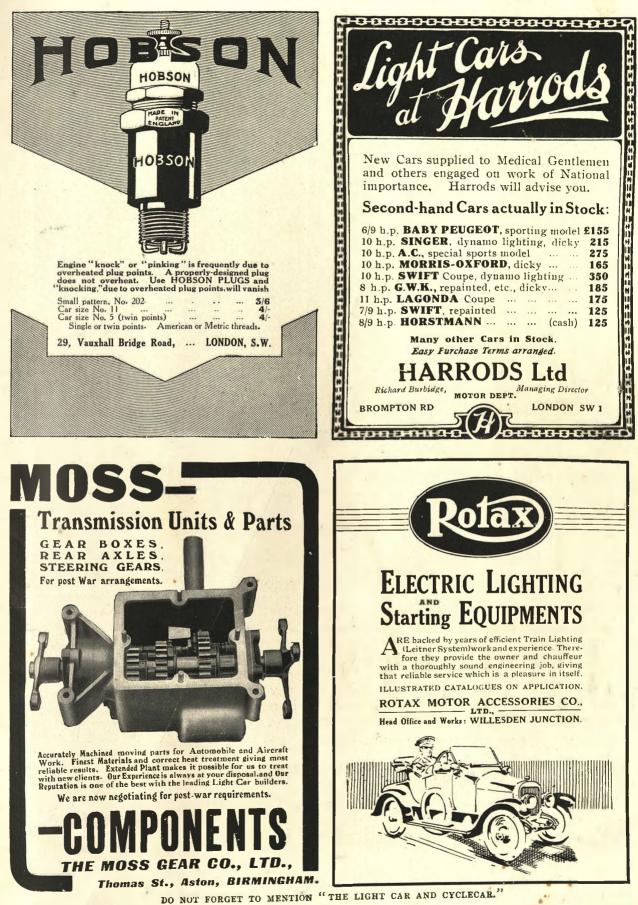
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