

The Light Car and Cyclecar

1^p

Vol. VII, No. 179
24th April, 1916
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The Bear, Woodstock.

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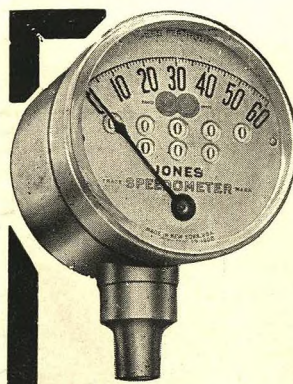
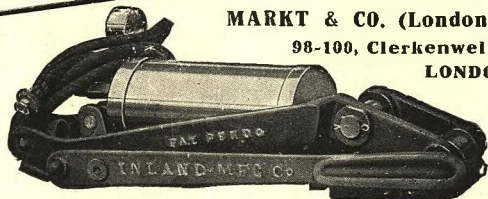
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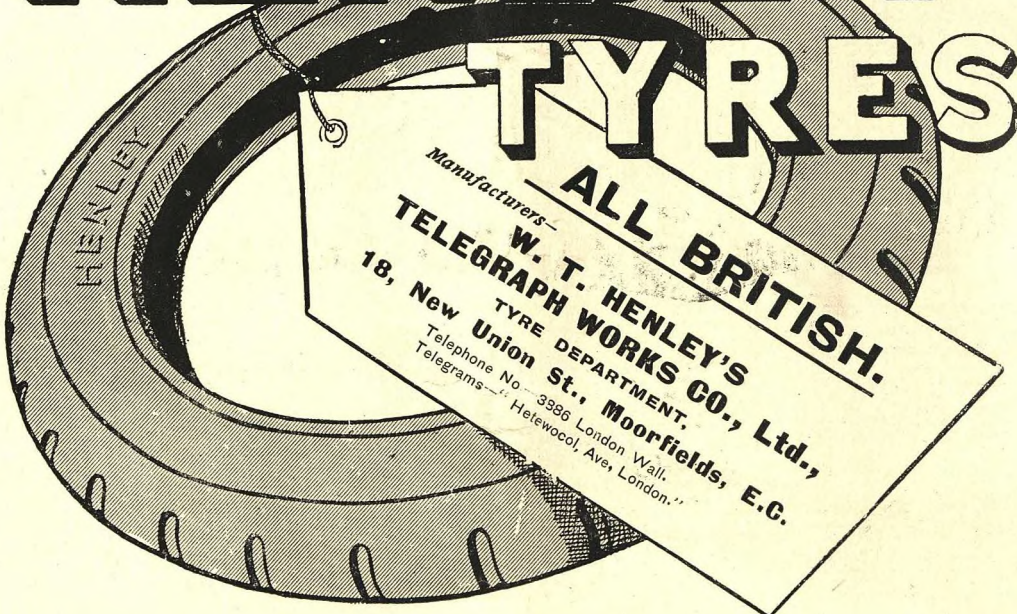
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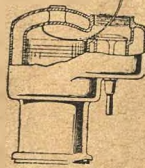
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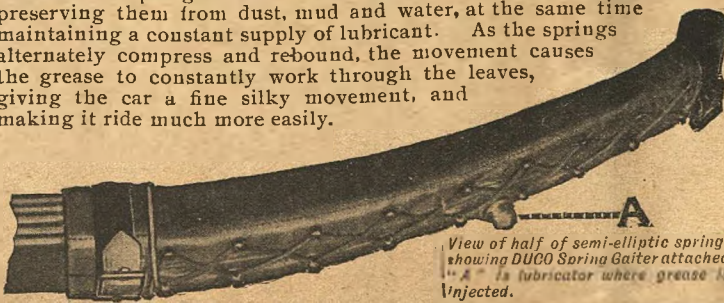
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View of half of semi-elliptic spring, showing DUCO Spring Gaiter attached "A" is lubricator where grease is injected.

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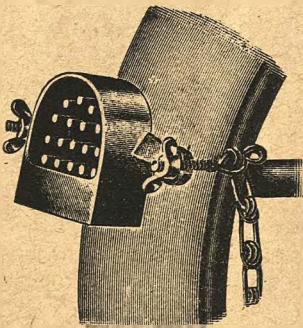
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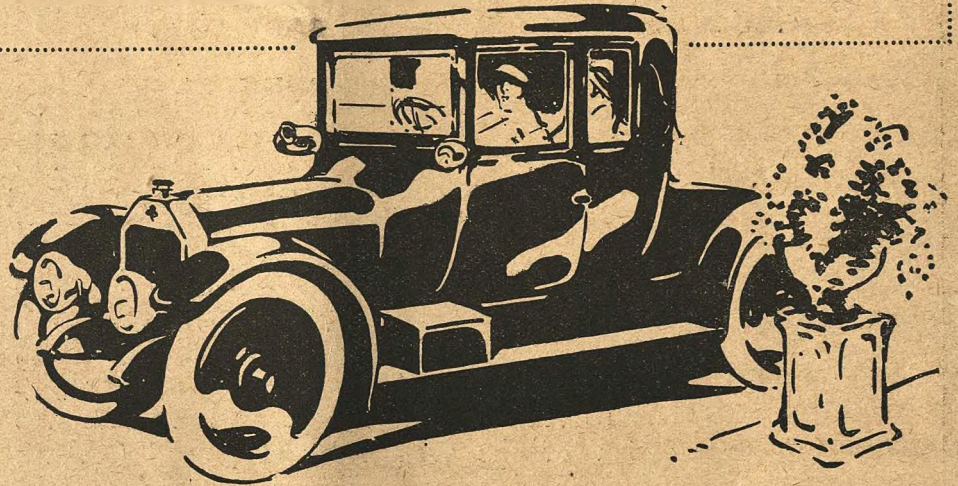
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A TAX ON SEATING CAPACITY. (See Page 502.)



NOTES, NEWS AND GOSSIP OF THE NEW MOTORING.

A tax on seats?

Not seats at entertainments, but car seats.

We put forward editorially a scheme of a super tax on seating in lieu of the present Budget proposals.

One effect of the Budget taxes is the great depreciation of American car prices that has set in.

Do the Budget proposals favour the development of the light car? Many hold that they do, but they press hardly upon cyclecarists.

The Budget passed its third reading last Tuesday. However, it is still possible for modifications in the motor taxes to be made.

According to "The Motor," whose representative has had an interview with Sir John Bradbury, of the Treasury, some modification of the new motor taxes is to be looked for.

The Automobile Association has addressed a letter of protest to the Chancellor of the Exchequer making some proposals (not affecting light cars) for modification of the Budget taxes.

The privileges enjoyed by doctors and veterinary surgeons with regard to remission of the motor taxes should certainly be extended to clergymen, architects and surveyors, council officials, farmers, commercial travellers, and other business men. We have made several representations to the Treasury to this effect.

When you have finished with each copy of THE LIGHT CAR AND CYCLECAR, you can send it to the Front, to interest some light car owner in the trenches, by merely handing it over the counter at any post office, and saying "For the troops." There is no charge for transmission.

Early spring, like the whole of last winter, has been chiefly characterized by cold northerly winds.

In the photograph of Alfriston Hill, reproduced above, one of the latest Singer light cars figures.

Avoid making chance purchases of this journal, and save waste by giving a definite order to a newsagent.

Our front cover this week hardly needs a paragraph to describe it, while the make of the two cars in the foreground will be instantly recognized as the popular A.-C.

Although Easter fell late this year, owing to the cold snap and snow in March vegetation was very much retarded. The trees will not be in leaf generally until the middle of May.

Twelve cars were obtained for the first wounded outing run of the season of the Southend-on-Sea and District A.C., which, considering the price of petrol and the taxes, was not bad.

Traces of the recent storm have not yet been swept away, as in many parts of the country large numbers of trees are down, which, owing to the shortage of labour, have not yet been removed.

There was plenty of "pleasure" motoring this Easter, but it was perfectly legitimate, for it afforded a much more economical and necessary holiday for many busy business men than other forms of recreation.

In the "First Hundred Thousand," which is the war book of the year (Blackwood), Ian Hay mentions how petrol cans are being used at the front as water buckets! And the shortage of cans is attributed to hoarding by selfish motorists!

NOTES, NEWS AND GOSSIP (contd.).

A Tax on Seats.

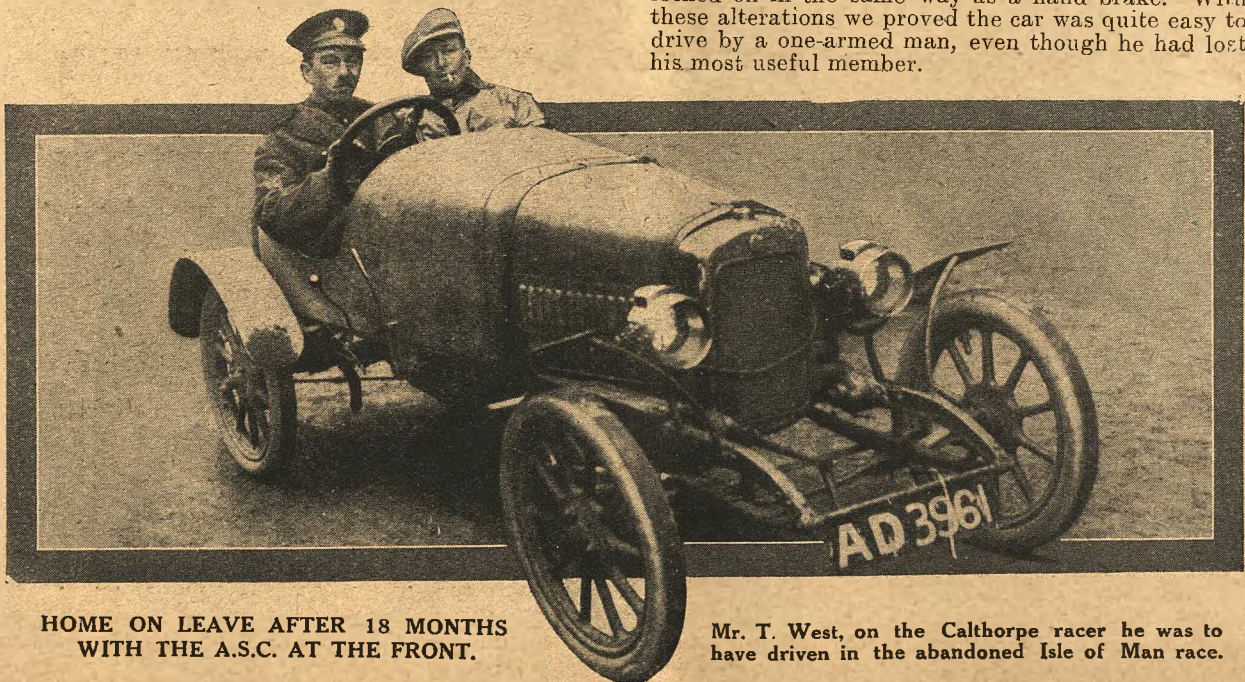
In "Topics of the Day" we outline a new scheme of super taxation on seats to replace the present scheme of doubled and trebled motorcar taxation. We think this scheme, if examined, will be found to produce a greater revenue in the aggregate than the new taxes, although its incidence will be less oppressive in many cases, bearing in mind that many users of high-taxed cars under the latest Budget proposals will be compelled to lay their cars by instead of paying the increase. The amount proposed is £1 ls. per seat, in addition to the old scale of taxation. The following scale shows how it would work in a number of instances:—

| Car and price. | Old tax. | Seat tax. | Total. | Budget tax. |
|----------------------------------------|----------|-----------|--------|-------------|
| | £ s. | £ s. | £ s. | £ s. d. |
| A-C. Sociable (£84) | 1 0 | 2 2 | 3 2 | 3 3 0 |
| Morgan (£105) | 1 0 | 2 2 | 3 2 | 4 14 6 |
| Carden (£75) | 2 2 | 1 1 | 3 3 | 4 4 0 |
| G.N. (£112) | 3 3 | 2 2 | 5 5 | 6 6 0 |
| 6½ h.p. light car (£150) | 2 2 | 2 2 | 4 4 | 4 4 0 |
| 10 h.p. light car (£220) | 3 3 | 2 2 | 5 5 | 6 6 0 |
| 12-16 h.p. car, 4-seater (£350) | 4 4 | 4 4 | 8 8 | 8 8 0 |
| 20 h.p. Ford, 4-seater (£135) | 6 6 | 4 4 | 10 10 | 13 18 0 |
| 20 h.p. car, 5-seater (£450) | 6 6 | 5 5 | 11 11 | 13 18 0 |
| 30 h.p. car, 6-seater (£600) | 8 8 | 6 6 | 14 14 | 25 4 0 |

For motorcycles the tax would be £1 per seat. Thus a solo motorcycle would pay a tax of £2—double the present amount, and that would be quite high enough—and a sidecar outfit £3. Our associated journal, "Motor Cycling," comments favourably on the proposals.

How An Old Tyre Affects Hill-climbing.

Recently we had an opportunity of making an interesting demonstration of the dragging effect of an old tyre. Two ascents on the same day and with the same car were made on Reigate Hill. On the first occasion the off-side back wheel was shod with an old steel-studded cover which was a little on the soft side for fear of bursting, and the car had to come down to first speed just beyond the bend. Later on, a new tyre had to be put on, and the hill was again ascended, but on the second occasion the driver did not have to drop below second speed. Undoubtedly the difference between the drag of the old tyre and the liveliness of the new tyre accounted for the ability to climb the hill on second instead of first speed.



HOME ON LEAVE AFTER 18 MONTHS
WITH THE A.S.C. AT THE FRONT.

Mr. T. West, on the Calthorpe racer he was to
have driven in the abandoned Isle of Man race.

The "Motor Cycling" Gipsy Picnic Club held a meeting on Easter Monday at Newlands Corner, a feature of which was a ladies dress competition for prizes amounting to £20.

A Strange Coincidence.

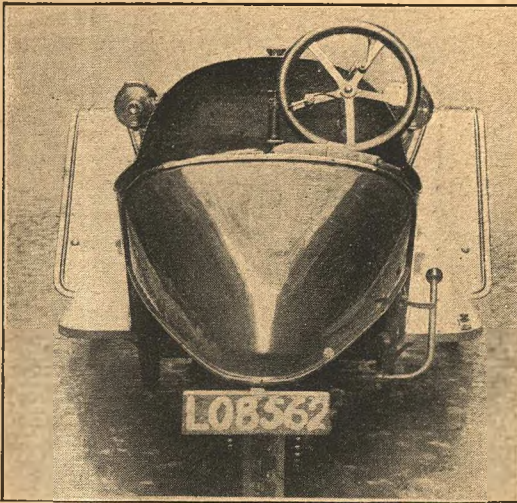
The other week-end a little party of motorists went out on three light cars which started together for a 50-mile run, most of which was over country by-lanes. Before the run was completed each car was found to have broken its speedometer drive. The coincidence was attributable to wet grit being thrown up by the front wheel, causing the brass end of the inner cable to seize at its bearing and pull the screw coupling off. The speedometers were not of the same make, however.

26,000 Cars a Year!

A big concern in the Midlands is working on a scheme of turning out a popular light car after the war with a minimum output of 100 per week, which it is expected will be increased ultimately to 500 a week, or 26,000 cars a year. It is obvious that if this scheme fructifies the concern will be the biggest in Europe, and, indeed, a rival to the enterprise of Ford. The car will be of British manufacture throughout, the engine coming under the 1500 c.c. limit, and it will be made with two and four-seater bodies. The price will be a very moderate one, and will include a self-starter and detachable wheels, and it will be built on the accepted lines of English light car practice.

A Calcott for a One-armed Driver.

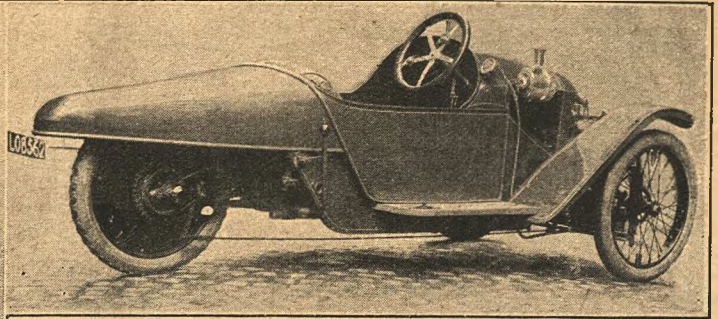
We have had an opportunity of making a trial of a light car which had been converted to suit a wounded officer with only one arm—his left. The car in question was a Calcott, and the chief alteration was a central gate change in place of the gate at the right-hand side of the car. The steering had been slightly stiffened so that the car continued on its course when the driver left go of the wheel to change gear. When the clutch pedal was depressed fully a brake, formerly operated by a hand lever, was brought into action, while the pedal of the foot-brake was provided with a ratchet, so that it could be locked on in the same way as a hand brake. With these alterations we proved the car was quite easy to drive by a one-armed man, even though he had lost his most useful member.



A new sporting Morgan, with a streamline body.

A New Sporting Morgan.

A special sporting Morgan, with a handsome streamline body, has been turned out by the Morgan Motor Co., Ltd., and is illustrated on this page. The front part of the car is quite standard, with a water-cooled M.A.G. engine. The wings are curved down from the top of the wheels, and meet the short aluminium-covered running-boards at an easy angle, in place of the usual gap between the running boards and the wings. The special feature of the car is the domed, tapered tail, which hangs out well over the rear wheel. The seats are slightly staggered and lower than the Grand Prix model, allowing the driver more room for steering and the passenger greater leg-room. No hood or screen is fitted, the dash sloping well up diverting the rush of wind over the driver's head. The only one of this model at present on the road was seen recently at Messrs. Elce and Co., 15-16, Bishopsgate Avenue, Camomile Street, London, E.C., finished in elephant grey, and it is an exceedingly fast and smart-looking car selling at about £130.

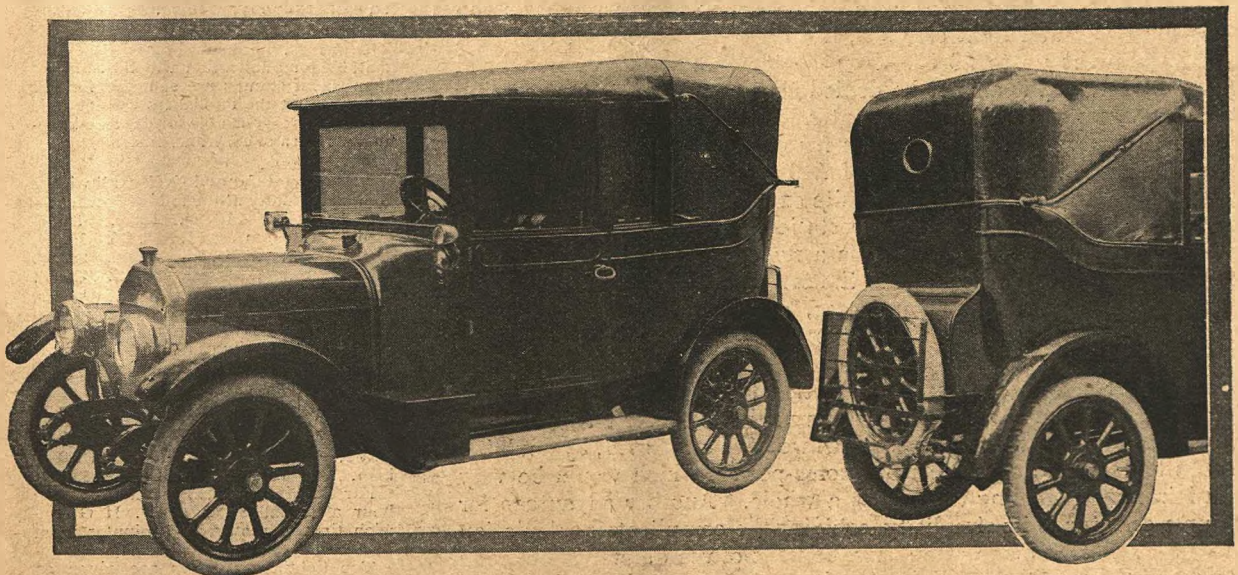


Specializing Conversions.

Messrs. Hurlin and Co., Ltd., of 13a, Ellingfort Road, Mare Street, Hackney, London, N.E., have undertaken a new departure, viz., to convert old cars into up-to-date sporting models, both with regard to chassis and bodywork, and to do any other conversion work. As many light car owners instead of buying new models are modernizing and improving their old machines, this news may be of interest to numbers of our readers. For some time past Messrs. Hurlin have specialized in converting motorcycles into cyclecars.

A Swift 10 h.p. Three-seated Coupe.

A three-seated car of simple and comfortable design is provided by a new Swift coupe, which we illustrate on this page. The seating arrangements, as in the other three-seater Swifts, are in the form of a clover leaf, with the third seat arranged behind and between the other two. A standard 10 h.p. Swift chassis is used, and the body of the car was built entirely at the London repair works of the Swift Motor Co., Long Acre. The bonnet, wings and hood of the car are finished in jet black, while the bodywork is dull red with black moulding. The interior of the car is finished in fawn. The neat arrangement of the spare wheel and luggage carrier at the rear of the car will be noticed. The car is fitted with dynamo lighting and self-starter set. It has many special features and a luxurious finish, having been specially built for a customer.



A special Swift Shamrock coupe, built to a special order. It has three seats, arranged in clover-leaf form. The photos. show the side view and tail.

Topics of the Day

A Solution of the Taxes Problem.

WHILE it is obvious that the new taxes, owing to the fact that they are calculated on a wrong basis, will provide many cases of acute hardship, it is hardly to be expected that the Chancellor of the Exchequer is willing to waive the anticipated increased revenue of £200,000 altogether. As we have frequently pointed out in the past, a tax on cubic capacity and not upon bore would provide a much fairer basis, but we understand from the Treasury that it is extremely unlikely that they will make such a drastic alteration at the present time. It is necessary, therefore, to cast about for some means of raising revenue in as fair a way as possible, and we have a suggestion to make which, while we put it forward with some reserve, seems to be free from any serious objections. Our proposal is that the old taxes should be retained exactly as they were before, and an additional revenue raised by a tax on seating capacity of every car on the basis of one guinea a seat. If it is still felt desirable to penalize cars of high horse-power (by R.A.C. rating), the wisdom of which we fail to see, however, the super-seat tax can be doubled in the case of cars over a certain power. However, the object of all taxation is to produce revenue, or should be, and we think that the trebling of the taxes on what are considered to be high-powered cars, but very often are not, is more likely to place such vehicles on the scrap heap than to produce any additional revenue. Therefore we think our additional tax on seats, while not being too repressive, would undoubtedly produce more than the amount which the Chancellor of the Exchequer hopes to obtain by his present scheme.

How the Seat Tax Would Work.

NOW let us see how this tax on seating capacity would work. We will begin with the three-wheeler like the A.-C. and the Morgan, which at present pay a tax of £1. Both these vehicles under this scheme would be raised to a tax of £3 2s., which, in relation to other vehicles, would be fair enough. A special three-wheeled monocoar would pay only £2 1s., and this again is equally fair. The Carden monocoar pays a tax of £2 2s., and, plus the seating tax of £1 1s., would be liable for a total of £3 3s., and here again we have a very fair tax on a small vehicle that does little harm to the roads. Now we take the larger four-wheeled cyclecars with two seats. Their present tax is £3 3s. with the seating tax £2 2s., total £5 5s. The tax would be the same for a two-seater light car, but, if a dickey were added, the total would be brought up to £6 6s. Four-seater cars would be penalized another £1 1s., and it cannot be denied that the capacity for carrying three passengers should be paid for at a little higher rate than for the car in which there is accommodation for only one. On this basis the four-seater Ford would pay a tax of £10 10s., which, looking at the matter from a fair point of view, is quite enough to penalize the popular American cheap car, now that its importation has been stopped. A very popular type of car in this country is a five-seater, on which a £4 4s. tax is paid, and under this scheme the tax would be £9 9s. instead of £8 8s., as the Treasury now proposes, and certainly the difference between an ordinary two-seater light car and a five-seater car of 12-16 h.p. demands a wider difference in the taxes than the present new scale of £6 6s. and £8 8s. An objection that may be urged against this scheme is that the super-tax on powerful two-seater cars would be far too small. This can be overcome, as we have suggested, by doubling the seat tax for cars over a certain horse-power, which would be very much fairer than trebling the tax as a whole. Another advantage for the super-seat tax is its simplicity, avoiding the complicated calculation that will have to be made when three-fourths of the difference between the old and the new taxes fall due on the 30th June or the 15th August next. There is the scheme, which our readers can criticise.

The Light Car and Cyclecar

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MOON.—No moonlight this week-end.

THE ADAPTABLE LIGHT CAR.

An Account of Some Actual Work Done, and Ideas for the "Utility Light Car" of the Near Future.



A LIGHT car has to be put to many strange uses nowadays, but it is an adaptable vehicle and can be run at a very low cost, while its utility is boundless. I will relate the practical use to which one is being put now.

To begin with, its storage accommodation can hardly be called palatial, since it consists of a wooden shed in which an A.-C. Sociable originally dwelt. Thus, with an average light car there is about 6 ins. to spare, and only at one end, when the doors are shut! On either side there is a certain amount of room, although this is of necessity occupied by other things; a bicycle and mowing machine stand against the wall, carpentry tools are on a shelf, while the numerous motor requirements of the looked-after-at-home car are arranged with a certain amount of order on all sides as space allows. A serious drawback is the meagre size of the so-called work bench—in reality only a shelf below the window—and this, combined with the general limits of space, require that a considerable amount of work on the car be done out of doors, which is not pleasant either in very hot or in very cold weather. But then we are not discussing what might be, but what of necessity is. Yet the light car flourishes on all this, even if, after two years use, its general appearance is getting a little shabby and a trifle worn.

The washings, when they do occur, are carefully carried out, but they are certainly infrequent, and at times in the summer two or three months may pass without the hose being used. Car cleaning takes time, and can be much reduced provided rust is not allowed to develop; the finish will suffer to some extent, but a good coating of wax polish after each cleaning will help to preserve it. Brass polishing is as bad as frequent washings from the point of time required, and early in its life this car had almost all its brasswork, even lamps and radiator, enamelled over. Several modern enamels which can be applied at home give quite good results, both in wear and finish, so that when the car's beauty has eventually

faded to the extent of being really an eyesore, there will be 10 days or so off duty and a careful rubbing down with sandpaper, followed by a couple of coats of enamel, the wings and underparts being probably done, as they always should be, in black or a dark shade. The materials for this renovation will hardly cost £1, whereas £5 or £6 is the usual charge for a complete repainting and varnishing by a coach-builder.

No actual trade work is done with this car, but in household and domestic matters the motto is "Nothing if not adaptable"! The "food" of the car has to be considered, and every three or four months a load of 24 gallons of petrol is brought from the station some four miles away. The petrol comes from a co-operative society in cases containing four of the usual cans, and a light car is fully packed with all this on board. It is true that owners so seldom notice that if the hood is temporarily removed, high and bulky packages can be carried much more easily at the back. When the hood is taken off (a matter of only two or three minutes) two of the petrol cases can just fit on behind and the third goes on the passenger's seat. Anything large carried on the seat needs to be carefully arranged, so that neither upholstery nor paint will suffer. Even more important is to see that it cannot lurch forward when the car is on a hill and break the windscreen. If a rug is first spread over the seat and back, then a piece of canvas or sacking, almost anything can be carried, though, of course, the seat is only to be used when all other luggage space is occupied.

Most shopping is done at this same station, and it is a common event when two people are on board to have the car so filled with groceries, bacon, fish, a bag of potatoes or a case of apples and numerous small packages that the driver has to clamber in from the offside. Indeed the car has been driven right across England in this condition, not only the back filled with luggage, but all the inside packed with belongings ranging from lubricating oil to jam!

THE ADAPTABLE LIGHT CAR (contd.).

One of the most awkward articles ever carried was a large roll of linoleum, which, first of all, was difficult to lash across the back of the car, and then was found to project well beyond the wings on either side. It is a mistake to design the back just the same height as the top of the wings, as they are far more liable to be damaged in a case like this, for when the linoleum roll sagged a little it began to touch the wings, and its slight movement had rubbed off a considerable amount of paint even in the few miles it was carried. On another occasion a child's iron cot was taken some distance across country, and though nominally folding up flat it had numerous projections which threatened to do damage. The usual rather inadequate rubber-covered area on this car had been long since enlarged, but even rubber sheeting is apt to suffer from sharp angles and rough edges of metal. It is a useful practice to keep a few odd pieces of stout cardboard packing, which can then be simply laid upon the rubber in cases like this to take any excessive wear.

The Dickey Seat Comes In Useful.

Sometimes, with a dickey, an awkward load can be best arranged by opening it up, and several large shrubs and plants were once carried in this way, the root ends being in paper among the tools and the tree ends sticking out over the dickey back, where they were firmly tied. Incidentally, the effect was rather amusing, since it looked as if the car had sprouted a large bushy tail! The wooden case of a wall-clock for repair was recently carried in the same way, though the mechanism was taken out and entrusted to a passenger to hold.

Fixing much luggage of any kind on the conventional light car is somewhat of an art. An ample supply of "Ds" is essential. Both straps and light rope have their uses, but the former should have holes punched for at least half their length, as few things are more annoying than to have to pierce them in a hurry. Nothing should be in contact with the hood, and only the lightest articles, gloves, scarf, etc., should ever be kept in it, for it is surprising how quickly the vibration will cause a hole to be rubbed through. Another point often forgotten is that if a long journey is being undertaken with much luggage on the back, at least the pump, jack, spanner and screwdriver should be kept out in some accessible place, even if they have to lie at one's feet. If a wheel has to be changed, or a minor adjustment made, one is then spared the trouble of having to unstrap and remove a pile of luggage, and put them back again after the tools have been found.

The war, curiously enough, has not increased the practical uses of the car in question, though a certain amount of vegetable collecting has been done for a local hospital, and the car often loaded to half way up the screen with cabbages and such like, while an assisting Boy Scout is wedged among further garden produce on the dickey. Even as regards passengers, the car (which luckily is stoutly built) has a full load, and frequently is expected to carry for short distances three grown-ups and a child, the latter being between the occupants of the front seat.

The above experiences, and many similar ones which need not be detailed, have developed a belief in the future of a "utility" body, very much on the lines which "The Motor" recently suggested for the large car of the country house.

With its proved reliability, new uses and adaptations are being found for the large car day by day, and since the light car also has come to its own the case for utility is just as real with it. There will always be a class of owners, particularly town-dwellers, who will seldom use their cars for anything except



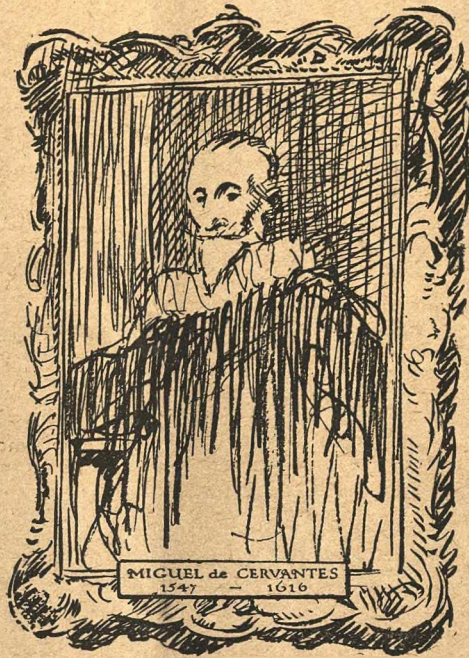
"An assisting Boy Scout wedged among garden produce."

ordinary passenger work, but this class will be in a minority. Again, the future of the light car lies with the three and the four-seater rather than with the two-seater, the use of which will, generally speaking, be confined to doctors, trade or commercial travelling, or as a runabout where a large five or seven-seater car is kept. The unsatisfactory dickey can hardly be expected to last much longer, and in its place the three-seater body is indicated.

The Ideal Utility Car.

Such a design has already been used in one or two forms, but, for the utility car, three, or certainly two, removable seats are required, enclosed within a "boat" body. The third seat has the additional advantage that it is large enough to take one ordinary passenger and a child, or two children, together in perfect safety, there being no doors to open and no dickey to fall out of. The driver's seat need not be removable, but could be adjustable over a range of 8 ins. or 9 ins. to allow for drivers of varying height. If the sides are kept reasonably high, access by steps from the running board is rather a climb, and the arrangement of a passage between the front seats is probably the most satisfactory. An external tool locker can still be provided at the rear of the car, and even with three people there is ample room for odds and ends on either side of the back seat. The third seat is, of course, enclosed within the hood, and by some arrangement of slides on the hood sticks it should be possible to avoid the excessive projection of hood at the rear which disfigures some of the present three-seater cars. The whole point of the design is that when goods, luggage or many parcels are to be carried, the second and third seats can be removed bodily and a large floor space utilized. If two people wish to travel with luggage the third seat can be removed and the luggage stowed there out of the way of rain, mud or dust. With a four-seater, removable seats would no doubt be an advantage, but less of a necessity for utility work, as a great deal of impedimenta can be carried in the back just as it is, if paint and upholstery be protected by rugs and the packing carefully done.

S.F.B.L.



Tercentenary of Cervantes.

Dunlop (loq.): "I very much doubt whether so great a satirist as the creator of Don Quixote could have found a theme more to his liking than the picture of this country engaged in a gigantic war, urgently impressing upon its people the necessity of restricting unnecessary imports and of retaining gold in the country, and yet allowing the importation without a murmur of unneeded tyres at the rate of £3,500,000 worth a year!"

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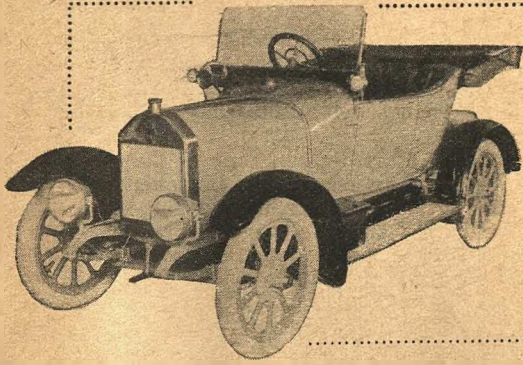
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LIGHT CARS AND CYCLECARS AND THEIR UPKEEP.

VIII.—The 7 h.p. and 10 h.p. Swift.

THE mechanical features of the 10 h.p. Swift light car and the 7 h.p. cyclecar are very similar, and so the instructions which are given apply to both types of car. The various adjustments were shown to our representative at the London repair works of The Swift Motor Co., Ltd., at 132-134, Long Acre, London, W.C., where complete overhauls and the work of rebuilding chassis and bodies are undertaken.

The principal adjustments which can be effected to the engine are those to the gaps between the tappets and the valve stems and to the magneto timing. A peculiarly simple form of adjustable coupling is fitted to the magneto driving shaft. It is composed of two flat metal plates, one fastened to the magneto and the other to the shaft from the skew gear, with a leather disc interposed. The adjustment for the timing of the spark in relation to the position of the piston in the cylinder is effected by sliding the coupling bolts in slots in metal plates. The leather acts as a flexible joint to take up side strains on the driving shaft if the magneto is fitted out of line with the driving shaft.

The tappets are of the ordinary nut and locknut type, in which the large nut forms the head of the tappet and can be screwed up and down to adjust the gap between the tappet rods and the valve stems. To reduce the clearance the locking nut should be screwed down the tappet stem, that is from right to left, about half a turn, until the upper nut is slack, then the upper nut should be screwed upward until the correct adjustment has been found; the locknut is again tightened to keep the upper nut in position and resist the hammering of the valves downwards.

The valve spring cotters of the Swift are of very simple design and consist of a flat piece of metal with a forked end. Each valve stem has an annular slot cut in it about half an inch from the foot. The forked end of the cotter fits in this slot and is kept in posi-

tion by the pressure of the valve springs. To release the valves the springs must be slightly raised with a valve spring lifter, and the cotter can easily be withdrawn with the fingers.

The steering is by a worm and segment, which is not adjustable except by replacing the worn segment. A greaser is provided for the lubrication of this gear at the top of the casing and should be replenished frequently. Greasers or oilers are also provided on the bearing of the steering arm, at the ball joints, and at each axle bearing. The vibrations and wear on steering are taken up by buffer springs acting on the ball joints at either end of the operating rod, and excessive wear on these parts can be taken up by increasing the pressure on these springs. The other joints on the steering rods are of the pin type, which can easily be replaced when they wear.

The clutch is of the leather-to-metal cone type with springs placed under the leather to ensure an easy engagement. Owing to this property the driver is apt to neglect the clutch and allow the leather to become hard and burnt through excessive use. The leather should be kept in good condition by dressing it with neat's-foot or collan oil. The gearbox is provided with a large inspection plate, the top of which is easily removable by unscrewing six flynuts. The oil which the makers recommend is Price's gear oil of a moderately heavy grade, as thin oil finds its way out of the gearbox on to the foot brake drum and neutralizes the effect of this brake.

To ensure the easy action of the gear operating arm a greaser is fitted on the top of its casing, which should be frequently filled. Should the operating arm become stiff at any time a small inspection cover can be removed by the unscrewing of four nuts and two bolts, and the mechanism can be washed with paraffin and repacked with grease.

The foot brake operates on a large drum immediately at the rear of the gearbox. It is of the



POINTS FOR
ATTENTION ON
THE SWIFT.

The illustration on the left shows the large inspection plate and oil filler on the gearbox, and immediately in the rear the foot-operated brake and the flynut adjustment. That in the centre shows the valve gap adjustment and the valve spring cotters, while on the right is the magneto adjustable coupling.

LIGHT CARS AND THEIR UPKEEP (contd.).

external-contracting type, the band being made in two pieces hinged on one side, which makes dismantling and scraping an easy operation. The brake is actuated on the opposite side, and is provided with a large flynut on a long stud to adjust it on the right-hand side of the brake drum. The rear universal joint is of the leather flexible joint type and easily replaced by undoing four nuts, and removing the old leather. When the new leather disc is fitted care should be taken that it is properly fitted, otherwise it will crack under strain.

The band brake is operated by cables to ensure that the brakes in each rear hub grip equally. The cable is fastened at each end by a simple form of

clamp, consisting of two metal plates and a nut and bolt. The brakes can be adjusted by this means. The back axle can be lubricated with the same oil as the gearbox, and is filled at the nut facing upwards at the rear of the differential casing. The springs have oil holes at each shackle and these should be lubricated frequently.

The wheels of the 10 h.p. light car are of the three-bolt detachable type, and care should be taken when replacing them that the largest hole in the hub of the wheel corresponds with the stud and not one of the retaining bolts, otherwise constant trouble will arise if the wheel is forced on the stud. The studs and the bolts should be greased every time the wheels are removed.

DULL DIALOGUES. ✨

THE Novice's car was a sporting "creation" and it promised to be fast. This was the first great speed trial, and he had sought me as a companion. "Not because of your powers of pleasing," he said with the most winning frankness, "for you are often extremely irritating, but because you seem to have some power of criticism." I could not refuse an invitation so delicately put, implying, as it did, that my critical skill was even greater than my charm of manner. Besides, I like driving in fast cars.

We were flying along a Fen road, a dyke on either hand, and the road stretching out into the sky the way those Fen roads do. Evidently the Novice was enjoying it, and I was listening and watching him. It's very odd how the old hand always listens to engines. He hears them all the time, whether he knows it or not. This one was a good one. Even opened right up it gave me the feeling it could do more if you asked it. It's a way good engines have, although I do not attempt to explain it.

Presently I saw a little dark spot on the road ahead, that when we got nearer resolved itself into a common object of the countryside—a tumbrel loaded with manure. We drew closer, and then in a moment were down on it, past it. Speedometer the wrong side of forty-five, too. I looked back and saw the horse still steadily plodding along.

I hadn't the heart to disturb his enjoyment then; but after we were through a village, where the speedometer needle sank reluctantly back to 15, I said gently "Novice, you are kind-hearted, and wise withal, and have borne up bravely under my preachings. May I make a little suggestion?" "Certainly you may," he answered, smiling, "that's what I brought you for." "Well, then, stop after another couple of miles. I want to show you something; in fact, I want to drop you on the road and drive your car—"

"Oh, I say—"

"I'll be careful of her."

"I know that."

"I shall let her out a bit, perhaps."

"You may."

When he stopped and got out I disposed myself at the wheel and tapped the accelerator appreciatively. Prr—prrr—prrr. "How well she answers to it, doesn't she?" I remarked casually, and then "I say, you've always been a town-dweller, haven't you, Novice? I want you now to imagine yourself a horse. Put your hands at the sides of your face to represent blinkers,

No. IV.—A Lesson in Speed.

and walk along in the road where a horse would. I am coming past you at speed." I avoided looking at him, and tapped the accelerator again—Prr—prrr—prrr—

"You don't mean to say that I—"

"I'm afraid I do; but only for want of thought."

He was evidently distressed. "Oh, come now," he said, "I think I know."

"Always face these things, boy. It is better."

"As you will."

So I went back towards the village. She was a jolly little 'bus. I'd driven things with chains, that weighed two ton and over, all out, and at such times there was always a sporting chance they'd take charge. One of them very nearly did once—but that's another story, as Kipling used to say until his admirers hacked the phrase out. In those old days people were motorists; now they motor, which is infinitely safer—and less interesting. I turned in the village and came along comfortably. I saw a small blue in the distance that I knew was the blinkered Novice pacing slowly along. 35—I might open a little now. 40—42—43—44—44½—45—45—45½. That would do. I was getting pretty close to him now, and I saw he was edging gently towards the near side of the road. At 50 yards I touched off his electric horn—KRR—KRRK. It was wrong of me to take my eyes off the road—but these little modern things are so safe, and it felt about 25 there behind the screen—and as I was on him I looked, and saw him take a step and a half to the left.

They are jolly little beasts these light cars. I eased up quietly, backed and turned, picked up the Novice and backed and round again, and he sat silent beside me while I drove on towards Ely. After a time I said "You shied the right way, Novice."

No answer.

"Suppose you had been pulling a girl in a cart with two or three little children? She might have pulled your head so you shied the other way, Novice. I was travelling about the speed of an express through a station, you know."

Still silence. Suddenly he said savagely "Suppose that horse we passed had? You might have been—why didn't you tell me, you old fool?"

"It is no matter. I am over military age, and a bachelor," I replied pleasantly. It was rather nice of him—and entirely on the right lines according to my way of thinking—that he had not seen he ran an equal risk.

M.G.

SPRING CLEANING THE GARAGE.



EVERY woman takes a pride in her household, and it is the general impression that she is never happier than when giving it a thorough spring cleaning. This may be a mistaken idea, but certainly the annual cleaning is carried out very thoroughly. It follows naturally, therefore, that the woman who has the entire management of a car should at this time of the year devote some consideration to a systematic overhaul and spring clean of the garage. This may seem a somewhat trivial undertaking, for, as a rule, the motor house is not of very large proportions, but if it is carried out as it should be, it will occupy some considerable time.

In the first place, a fine day with sunshine and a drying wind should be chosen for the operation. The cleaners, donning their "cow coats," and carefully covering their heads, should commence to take out of the motor house every movable article. Of course, the car itself is first removed and covered over with dust sheets, so that the dirt which must arise from the cleaning shall not settle upon the enamel. Next are carried out old tyres, petrol cans, oil drums and tins, dirty rags, etc. In a well-arranged garage there are nails and hooks above the table and bench for all spanners and appliances which are not carried in the usual kit, but how seldom these articles, after being used, are replaced in their proper positions. Before cleaning operations are commenced, everything portable is taken to a safe place, and, when the walls have been cleared and the bench emptied, actual work commences. The walls and ceilings must be brushed down and every cobweb and trace of dust removed. It is a good plan then to distemper the walls. The paint or distemper dries quickly, but if the work has been neglected in previous years a second coat may be necessary.

The floor is then swept quite carefully again, and its cleaning follows, and here hot water—and plenty of it—is necessary. Nothing has such a bad effect

on rubber as oil, so every trace of grease should be removed. Petrol was a favourite medium for taking out oil stains, but it is far too expensive now, and elbow grease must be substituted. Bath brick or fine sand, well rubbed in when scrubbing, will prove very efficacious, and with the help of a good scrubbing brush, house flannel, and a little soft soap, the floor, when dry, will be a credit to the proficient housewife.

The cleaning over, the re-arrangement of the motor house commences, and the amount of rubbish which has been collected will be surprising. Probably some of the old tyres are worth patching up or retreading, and these should be put on one side, but others, from heavy wear and neglect, will be found useless, so should be sold for what they will fetch. Empty petrol tins occupy space, and are badly needed by agents, so they should be returned. Empty oil tins and drums are valueless, and are an encumbrance, while oily rags should on no account be allowed to accumulate, as, in addition to harbouring filth, they are liable to set up spontaneous combustion.

All the tools should be carefully placed in their proper positions on the walls above the working bench, so as to be handy when required. Sponges, spokes brush and leathers used for cleaning the car must be carefully washed, dried and hung up in their accustomed places. Hooks must be provided for the "cow coats" and cleaning gloves, and it is a capital plan to have a small tin box under the bench, in which clean rags and dusters are kept.

When all this work has been done and the car brought back, the owner will probably be amazed at the amount of room there is in what was before an overcrowded garage, and she will doubtless register a vow that it shall never again lapse into untidiness. With most men such a vow would be broken in less than a week, but with a woman owner, who is proud of her car and of its appearance, she will see that its surroundings harmonize with its smartness.

MARY HARTLEY-SMITH.

OPENING NEW WAYS AND IN



(1) An uneven and grass-grown stretch breaking the continuity of an important link defect—a length of greenway that only needs metalling to join up two useful for want of

THE activities of the Road Board are more or less temporarily suspended, but when once again the chariots of pleasure can mingle with the wheels of commerce, and the business of war is at an end, there is going to be a lot of work for it to do. The most obvious, of course, is the restoration of the road crusts, destroyed by the joint effects of neglect and extra-heavy war traffic. There is also the equally urgent question of improving old ways and opening up new, of which a seemingly endless list of examples could be given. Many more people will take up motoring, and the greater the number of motorists the less content will they be with existing ways, many of which are merely bad compromises.

Competent authorities have long talked of the coming necessity for trunk routes 90 ft., 100 ft., and even 120 ft. wide, and eventually, no doubt, through routes on such a scale will be needed on certain lines of communication, but it is a question if, except possibly, in a few special cases, this is the first step that requires taking. If, say, instead of doubling the width of the Bath Road, two alternative routes were opened, the old road would be relieved of some of its traffic and of a portion of the wear and tear, while at the same time new and convenient lines of travel would be opened up between many different points.

Compared with the labour of constructing brand-new roads over entirely fresh tracks, only a relatively small amount of work would be needed to convert many a series of these minor roads into through routes of considerable value. How frequently does it happen that one has to take a very roundabout course to reach one given point from another, not because there is any natural obstacle, such as a mountain or a river, in the way, nor even because the country directly intervening is roadless, but simply from the absence of a

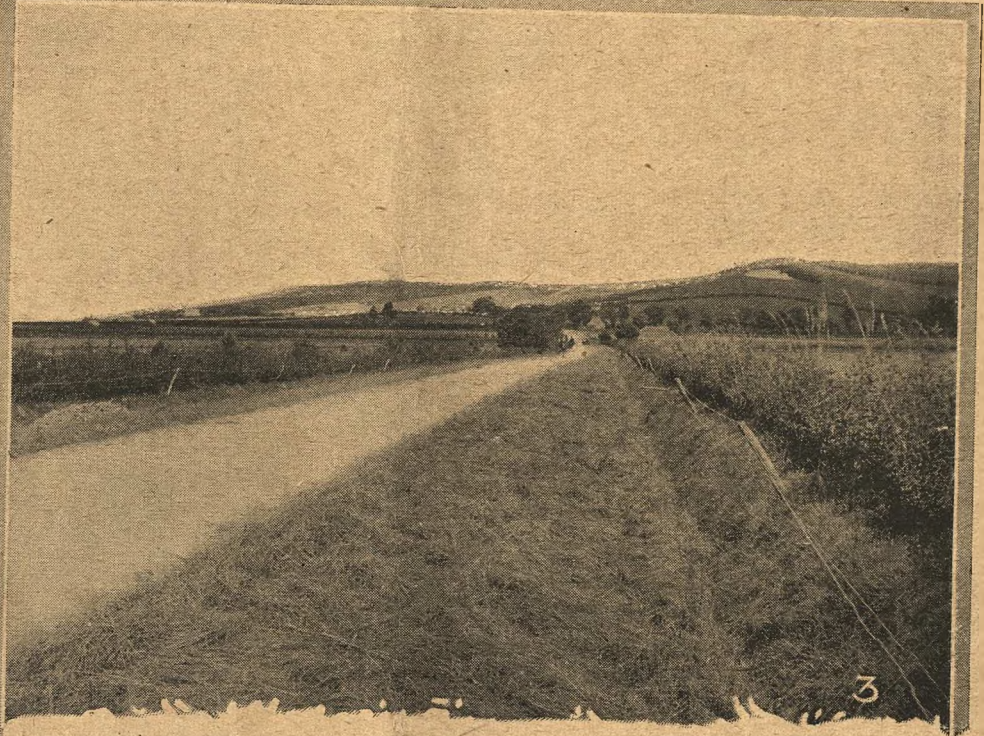
suitable through route. If the matter is looked into, it is usually found, in such cases, that a certain sequence of the lanes lying directly in between the two places only narrowly misses being that suitable through route. The circumstances that prevent it from sufficing are rarely such as would be difficult to remedy for only a moderate outlay. Sometimes it may be poorly kept up, or it may be dangerously narrow in parts, or be spoiled by a ford, or a very steep or awkward hill. Very commonly the sequence is interrupted, some trivial link being missing, so that to get forward half a mile it may be necessary to go round a couple of miles or more. Very nasty corners and totally unnecessary kinks are other drawbacks, while a frequent defect is that two lane ends which should, so to say, butt together accurately, miss one another by a few hundred yards.

The London motorist who wants to realize, by a concrete illustration, the kind



(4) A by-way obstruction: a wide for m

PROVING OLD. By Our Touring Editor.



connection between Leicester and Doncaster. (2) A good example of the missing lengths of road. (3) One of the good stretches on the Icknield Way, largely wasted suitable connections.

of imperfections that may mar a series of lanes running in a tolerably direct line should set himself the task of getting from Uxbridge to Marlow through the by-ways, or he may even start at Starch Green and attempt to steer a course between the two western main roads. At one point a gated, semi-private road will stop him, and, together with an unbridged river, will cause him to make a wide detour. Farther on, the road becomes a sort of glorified tow-path along the canal side, approached by some very tricky corners, while some miles further there is a narrow and extremely hump-backed canal bridge, followed in its turn by a wide water-splash. At one point the continuity of the route is broken by a piece of open common, the detour involving a sharp V turn on the middle of a steepish rise. At the end of the same common it will be necessary to turn into a cross-road for the space of a furlong before picking up the thread, a

situation repeated, with variations, some five miles beyond, the road there being inconveniently narrow.

On the eastern side of the Metropolis there is one of the most striking instances in the country of what may be called the missing link defect. Leaving the main Chelmsford Road at Ilford, there is a very clearly-defined line of by-way through Beacontree Heath, Uppminster, and Wickford, and so on to either Burnham or Southend, a route of very considerable convenience, were it perfect. The sequence is interrupted between E. Horndon and Dunton Wayletts by a mile and a half of green, unmetalled lane, and to circumvent this hiatus five miles has to be covered!

Instances of by-way routes which, with the very smallest acquisition of private land, might be usefully opened up, could be cited from various parts of the country, but it must suffice to mention the need of direct through routes between Northampton and Banbury, Bury St. Edmund's and Clare, Dunmow and other places lying to the south-west, Ludlow and Presteign, St. Albans and Berkhamsted, and Sheffield and Buxton. There is also that exceedingly convenient route between the eastern counties and the south-west, i.e., the Icknield Way; this stands much in need of a direct connecting link between Hitchin and Dunstable, while there is some "maining" required between Watlington and Wallingford. The Icknield Way, its many fine stretches of straight, wide, and fast highway, half-wasted for want of adequate links here and there, supplies as admirable an example of neglected opportunities as could well be found.

When, at the close of the war, labour becomes available for road improvement, the question of the "maining" of lane routes will be deserving of the most serious consideration.



rendering the road impracticable

THE ECONOMY OF HOME-BUILDING.

A Simple 5 h.p. Two-seater, Constructed by a Reader, which can Attain 50 m.p.h. and has a Consumption of 70 m.p.g.

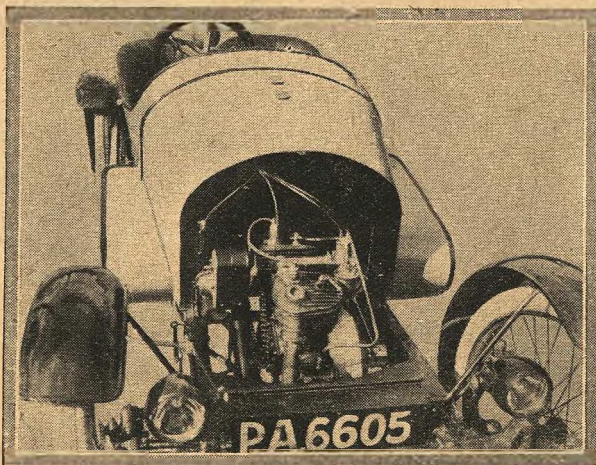
At the present time, when the upkeep of even the lightest car seems likely to present an increasingly difficult problem to its owner, the description of a car which may be built by anyone with the least mechanical ability, and maintained with a minimum of expenditure, may perhaps be of interest.

To achieve such a result something must, of course, be sacrificed. Low running expenses demand lightness, simplicity, and economy of fuel. To that end all imitations of the family car must be avoided: all the unnecessary refinements must be dispensed with.

The Builder's Aims.

The aim of the builder in this case was to produce a car which would carry two moderately-sized people for a day's run of 150 miles without discomfort; to achieve an easy average, under such a load, of 25 m.p.h., with a reserve of power to ensure a notable hill-climbing capacity and an indifference to the steepest gradients on its low gear; a consumption of at least 70 m.p.g., and a simplicity in the production and transmission of energy which would make it mechanically as near fool-proof as possible, and reduce replacements, including tyres, to a minimum.

The car illustrated here is the result of that conception. The framework of the chassis is of English ash, selected both for its strength and lightness. The first car, built as an experiment, was struck amidships at a cross-roads by a heavy motorcycle and side-



The power-plant of the home-constructed two-seater, showing the 5 h.p. J.A.P. engine, the magneto and the carburetter.

car going at 40 miles an hour. Its ash frame was the only part which emerged uninjured from the medley of wreckage, and served as the basis of the re-constructed vehicle.

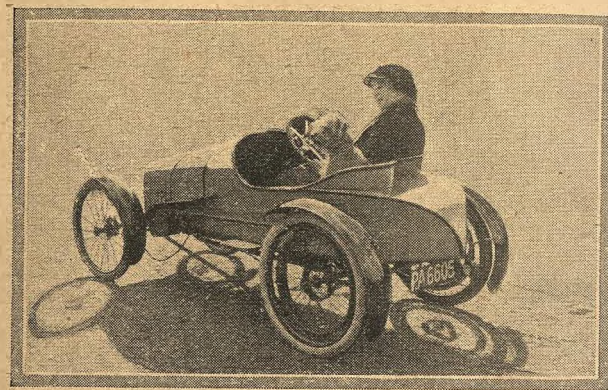
The frame is "armoured" where the quarter-elliptical springs, anchored to the axles, are attached. The body is of three-ply wood, the bonnet of tin, with a lattice in front to protect the engine, which is a J.A.P. 5 h.p. air-cooled, 70 mm. by 85 mm., which has proved equal, with two up, to a speed of over 50 miles an hour.

The transmission is a positive drive by a Hans-Renolds chain from the engine to the countershaft, on Skefko ball bearings, then by two belts over 6-in.

B18

fixed pulleys. A two-speed epicyclic gear on the engine shaft, direct on top, is fitted, the ratios being roughly $4\frac{1}{2}$ and 10 to 1, this type of gear being as fool-proof as any gear can be, requiring only reasonable greasing to keep it in order.

A B. and B. carburetter was selected to ensure easy starting, and very considerable flexibility has been obtained with it, a speed of 7 m.p.h. being possible on top gear, and the car springing into its stride the instant the throttle is opened.



The complete machine showing the neat appearance of the final belt drive.

The steering is by wheel, cable and bobbin, a method simple, light, and most dependable. The petrol and oil tanks are under the scuttle, enough spirit being carried for a run of 150 miles, and a large filler and oil pump are fixed to the dashboard. The wheels are 26 in., and $2\frac{3}{4}$ in. heavy rubber-studded tyres have been fitted. The tyre consumption is not a serious matter, the experimental car, though very severely tested, running over 10,000 miles before a change was required.

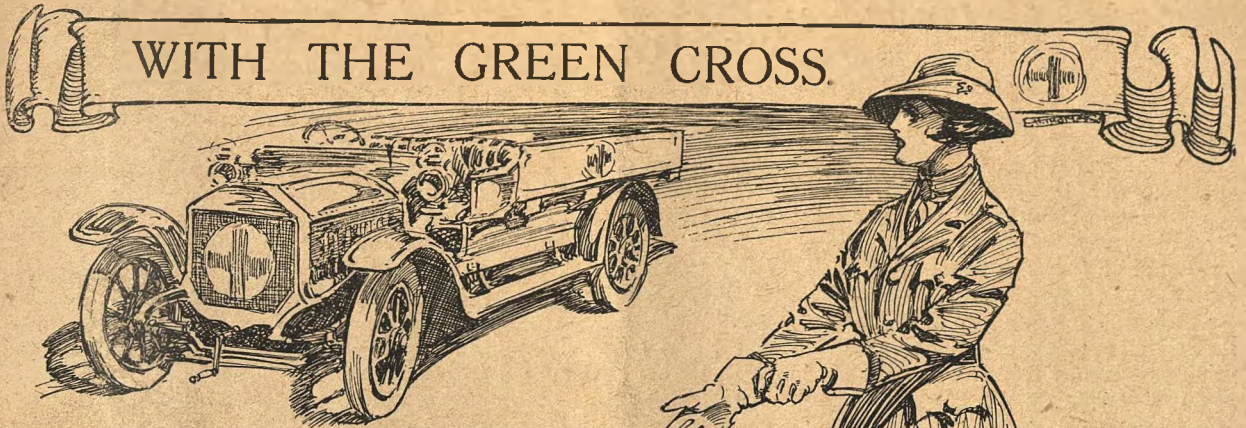
A Weight of $3\frac{1}{4}$ Cwt.

Neither windscreen nor hood has been fitted, but that is merely to suit the owner's preference for anything but the draughts they create. There is no reverse, but the car is so light, only $3\frac{1}{4}$ cwt., that it can be pushed about as one pleases; indeed, the tail can be lifted completely round in the road if one is in a hurry. The seats are staggered for greater comfort, and there is plenty of leg-room.

Of course, in such a car all luxurious accessories have been omitted; but the real luxuries are there—freedom from worry and the sense of power. It is surely a luxury to run so many thousand miles without changing a cover; to go from London to the Solent and back on a single tin of petrol; to pass at your pleasure, on the hills between, cars with ten times your horse-power; and to know that your fill of fresh air and pleasure is costing you no more than a third-class ticket.

And the car that achieves this can be made by anyone with the assistance of a carpenter and the very simplest of workshop appliances. The car illustrated was designed and built by Mr. G. W. Wadden, of Weybridge, with no more of mechanical assistance than any amateur might command, and its extreme simplicity and the accessibility of every part make care and repairs an easy matter.

WITH THE GREEN CROSS.



The Work of the Women's Reserve Ambulance.

By E. M. Wood.

LIKE the Navy, the work of the Women's Reserve Ambulance is never done, and, like the Navy too, the society is well disciplined and non-advertising. Most Londoners are familiar with the green-faced khaki uniform of the women volunteers, but few are conversant with the vast amount of invaluable work quietly and unostentatiously carried on by the corps.

General utility orderlies are provided by them for nearly all the big London hospital supply depots, including the head workrooms in Cavendish Square, canteens are staffed, hospital orderlies are furnished, and the society even supplies cooking orderlies for one well-known institute for disabled soldiers and sailors.

The Mud-stained Tommy.

In the motor transport section of the society, the work is almost as varied, though its chief aim still is, and must remain, the care of the wounded, though many a mud-stained Tommy homeward bound on furlough from the trenches has cause to bless the Green Cross cars, ready to convey him from the train to the Y.M.C.A. huts.

Wounded soldiers are met at all the principal London termini and transported to and from the station, whilst the limbless are carried to Queen Mary's Artificial Limb Hospital, at Roehampton, for "fittings." Hospital supplies and comforts are also transported by the society's cars.

But their activities do not end here. Much of the National Milk Supply Association's milk is delivered through the agency of these cars, and at least one big London hospital's mails are collected by them.

Munitions and munition material are carted for the Metropolitan Munition Committee—this last is O.H.M.S. work. At first sight it would not appear that there was much work here for a light car, but that is a mistake, for the corps also provides cars for inspectors of munitions and district managers. This is where the small car comes in, its handiness in traffic making it an especially quick and economical mode of travelling from factory to factory.

A short time ago a friend of mine, who is an excellent mechanic, had something of an experience whilst driving one of the corps' cars. Arriving at the garage



in Marylebone Road for the first time, she reported herself for duty, and was at once asked, "Can you drive a car with a quadrant change?" "Yes," was the reply. "All right. Then you shall take the 'Antiquated Auntie' to Messrs. ——— and pick up 150 shell cases and take them on to Messrs. ———. Here is your orderly—and I wish you luck."

This last, as she soon learned, was highly necessary. The "Antiquated Auntie," as its name implied, was a well-known car of extreme age—a "munificent gift," as my friend sarcastically remarked, "from a generous donor to the W.R.A." They started, but had not gone far on their way before the switch fell off—the car was fitted with low-tension ignition and a coil. Patching up the connection with some insulating tape, they proceeded on their way, some odd screws and the orderly holding the switch in its place on the dash.

Reaching the factory, they started loading up with shells, but hardly half had gone in when the foreman opined that if he loaded the rest the bottom would in all probability fall out of the car. "Never mind," said the driver viciously (she was beginning to hate the "Antiquated Auntie"), "put 'em all in, and if the floor falls out it falls out." So the foreman complied, and "Auntie" started with her load for the other factory.

A Failure of Power.

Half way there she stuck, but, aided by a small company of soldiers, my friend succeeded in pushing her and her heavy cargo out of the traffic into a by street, where she got her going again at her leisure. This time they succeeded in getting within 150 yards of

WITH THE GREEN CROSS (contd.).

the factory gates, and then the "Auntie's" age and other infirmities again asserted themselves. The factory was at the top of a hill, and, willy-nilly, the car had to be unloaded in the street, though the manager protested vehemently that such a thing had never been heard of before. Rid of their shells, they turned to go home, and it might be expected that their troubles were ended, but not a bit of it, for, going down a hill, the antiquated one's brakes failed to act, and it was only by braking with the engines and steering into the kerb that an accident was averted.

Telephoning to headquarters for further instructions, they were told to bring the car home under her own power if possible. So they took her home, boiling like a kettle on low speed. Truly those who can do their work with such "worn-out tools" are above any idle praise we can give them. Fortunately, there are not many cars like the "Antiquated Auntie" in the society's garage, though one—the "Ancient Briton," an elderly "dug-out," doing and causing others to "do their bit," and a bit more, some of us think—is little better.

Drills are part of the corps' regular routine, and the ordinary Army Infantry Drill Book (1914) is used. For stretcher drill, the R.A.M.C. drill book is used. Every night a detachment of the W.R.A. is detailed for Zeppelin duty, ready at a moment's notice to proceed to the scene of action. This branch of the society works directly under Division D of the Aerial Defence Department, and their ambulance was the first to come to the assistance of the injured during the big September raid.

By means of the drills and an adaptation of military rules, physical fitness and discipline are assured, and the mournful spectacle of heads of departments squabbling amongst themselves—a sight by no means confined to the fairer sex—is avoided. Recruits for the motor transport are badly wanted, and they may join with their cars. Uniform is obligatory, and an enlisting fee of 1s. is paid by each recruit on joining. Members are requested to state how much time per week they can give to the corps, which wisely insists on a medical examination, and attendance at certain appointed drills is compulsory. Insubordination is punishable by dismissal. The headquarters of the Women's Reserve Ambulance are at 199, Piccadilly.

INJECTION AND FLOODING IN WARM WEATHER.

With the arrival of the warm weather, the old chestnut of difficult starting will crop up again. Air-cooled engines which, during the cold spell, would start up beautifully first pull over, after an injection of petrol, will now misbehave themselves badly. The cause is that the petrol, vaporizing more readily during the warm weather, affords a temporarily richer mixture, often too rich to fire. The remedy will have

to be found by experience; on some cars a slight closing of the throttle will effect an improvement; with a two-lever carburetter, or an extra air inlet, the air lever should be opened very slightly. Letting in a little air from the compression taps, if fitted, is another method, but, generally speaking, cars that require injection and flooding before starting in cold weather will not require it in warm.



The use of motor vehicles is apparently sanctioned by the Government, if used for attending race meetings. While the light car does not afford the same facilities as a taxi, its claims from the point of view of economy cannot be overlooked.

ENGINE FAULTS AND THEIR REMEDIES.

Some Points for the Novice in the Maintenance of a Light Car

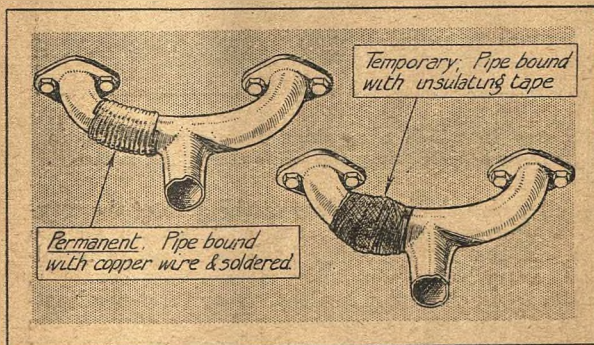
WHEN an engine commences to misbehave, either by suddenly developing an extremely high temperature, combined with a sudden and noticeable loss of power, or by absolutely refusing to run at all, the novice is very apt to waste time in experiments and profanity.

Fortunately, the inherent troubles connected with the light car engine are now few, thanks to the combined influence of experience and attention by designers.

Still, there are one or two inseparable items, which will probably always need occasional attention from the owner-driver, and it is the aim of the present article to indicate the commonest of the simple little failings in order that the driver can at once identify and remedy them without professional assistance. These notes, which are applicable to practically any petrol engine, should, if carefully followed out, render anyone capable of overcoming all minor engine troubles as surely as if he were a trade expert, though not, of course, quite so expeditiously.

The Causes of Engine Failure.

Generally, the sources of engine failure are three-fold: First, carburation troubles—the easiest to remedy; second, ignition faults; and, third, breakage of vital parts of the engine. From this list it will be seen that the majority of the motorist's minor troubles lie under the bonnet of his car. It is seldom that anything goes wrong with the transmission or any other part of the chassis, and should trouble be experienced in this direction, it will generally be found to be too big a job for roadside repair or adjustment.



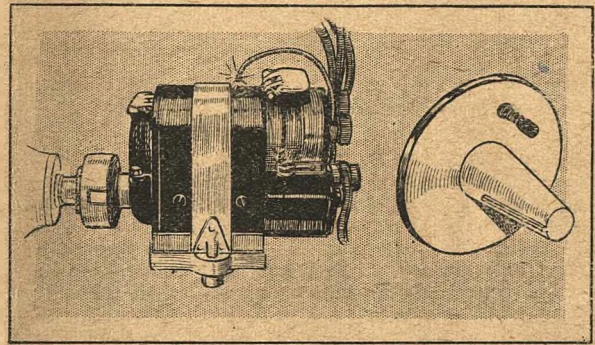
Two methods of repairing a cracked induction pipe. On the left is the permanent repair made with copper wire sweated on with solder, and on the right a temporary repair with insulating tape.

The preliminary to carburetter failure is generally a period of erratic running, owing to a failure of petrol. The first thing to inspect is the tank, in order to see that it contains sufficient petrol and that the tap is turned on. If all is correct here, next try to flood the carburetter. This operation is termed "tickling the carburetter," and it is astonishing what a small minority agitate the float-needle correctly. If a plunger is provided, it is pressed intermittently downwards with great force, or else the needle itself is violently agitated, with the result that the needle and weights which are really of delicate construction, are damaged by such rough treatment.

Now, it is plain to anybody who has mastered the

rudimentary treatment of a carburetter that the whole idea of tickling is to spray a small quantity of petrol out of the jet. If, therefore, the needle is simply held off its seating for a moment or two, it follows that when the petrol reaches its correct level, the needle not being allowed to seat, the level of the spirit naturally rises and a small quantity sprays from the jet.

If, after the operation is performed, the usual overflow takes place, it is clear that the petrol is reaching the float chamber freely, and the trouble, consequently, must be between the chamber and the spraying jet. Some experienced owners, by listening for a faint sucking noise which takes place in most carburetters when the starting handle is rotated, can tell whether or not the jet is obstructed.



The illustration on the left shows the method of testing the magneto, and on the right is the back view of the contact breaker showing the carbon brush.

However, the novice not having acquired the little knack, will probably have to take his carburetter to pieces. If this is done, the two main points to observe are:—(1) If the gauzes are clean (if choked by grit or dirt, clean with petrol), or (2) if the jet is obstructed. If possible, look through the jet, and, if choked, clean it by means of a fine wire.

A Remedy for a Cracked Induction Pipe.

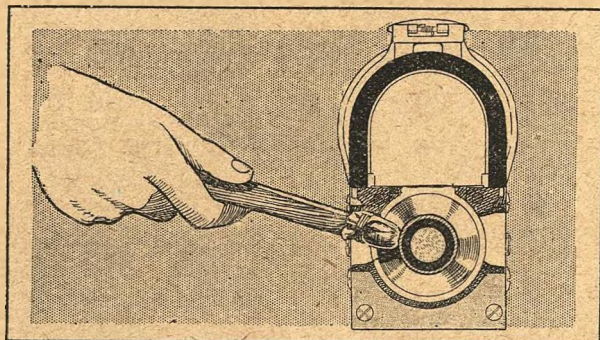
It is worth noting that a lot of carburetter troubles can be avoided by observing that the fuel pipe is properly fitted and is annealed throughout. It sometimes happens that parts of the pipe are not annealed and in this case the pipe should be removed and correctly annealed by bringing it to blood-red heat and cooling in water. Another point which will often remedy carburetter trouble is to strengthen the carburetter by staying it to some part of the engine. This is very necessary when the carburetter is a heavy one, for in this case, if the carburetter is only supported by the induction pipe, it is highly probable that a crack will be caused in the latter.

Should the owner be so unfortunate as to have a cracked induction pipe through this cause, a very stout repair can be made by wrapping copper wire round the pipe, the turns being laid as close as possible so as to cover the crack entirely. Both pipe and wire should have a thorough clean before the job is begun, so that when the wire is bound round it can be sweated together with solder. This, of course, is a job to be done in the garage, and will, if carried out as stated, effect a very satisfactory repair.

ENGINE FAULTS AND REMEDIES (contd.).

Should the crack take place on the road, ordinary insulating tape bound round the pipe will often make a good temporary repair, although this method obviously will not strengthen the pipe, as in the case of the wire method, but is only valuable for preventing leakage.

A good many amateurs experiment with various types of carburetters in order to ascertain the most



A common method of cleaning the slip ring of the magneto with a stick and a piece of cloth.

satisfactory type for their particular engine. In this connection a point that should be remembered is that carburetters can be had with either flange or union fittings. When the induction pipe will allow it and space is not too restricted, the flange with two bolts is most satisfactory. The reason for this is that a damaged thread on a union is an awkward thing to remedy, while a bolt can easily be replaced, and, furthermore, is cheap.

Sometimes new piping has to be fitted, and, bearing in mind that most owners are now their own mechanics, perhaps the following hints on this class of repair work will not be out of place. When bending piping, the latter should be first annealed and bent while cold. To bend a piece of piping nicely and correctly requires a little skill, and patience. The best method is to fill it up with resin or lead before bending. If this is done, bruises and dents will, to a large extent, be avoided, and if a tube is properly curved and not marked or bruised, it should polish up and look a good job, a credit and a satisfaction to the fitter.

Failure of Ignition.

If the float chamber is full of petrol and the carburetter is working satisfactorily and the engine still refuses to start, the owner should next proceed to test the ignition. The first things to examine are the plugs. These should be unscrewed and laid on the cylinder head, with the magneto wires attached and the thick head of the plugs touching the head, and the starting handle quickly rotated. If no sparks are visible across, the plug points should be examined to see that they are clear and free from burnt oil and also that they are separated slightly. If only one plug is faulty, the trouble can generally be found connected with either the wire from the magneto to that particular plug or the distributor contact of the magneto to which the wire is fixed.

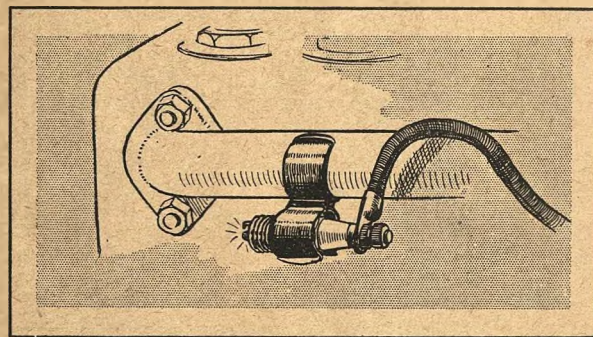
Should, however, the points of the plug be in good order and yet give no spark, the next thing to test is the magneto. To test the latter, remove the cable connecting the plug to the magneto and fasten a small piece of copper wire to the aperture from which the cable has been taken, bending the end into a position about $\frac{1}{8}$ in. of the magneto. Should no sparks appear, it is the magneto which is causing the trouble.

The commonest fault in this connection is that the

rocking arm carrying one of the platinum points is seized in its bush. To get at this, simply turn aside the flat spring that holds the contact-breaker cover. If the arm is stuck, gently ease the fibre bush with a small spill of sandpaper. If, however, the platinum points meet correctly, the next step is to examine the high-tension brush. This is done by unscrewing the terminals and removing the projecting part clear. In here is the high-tension brush, viz., a small carbon rod pressed outwards by a spring. It should be noted that this should slide easily up and down, and that the ends are flat and clean.

Cleaning the Magneto.

Next, with the aid of a piece of stick having some clean rags wound round it, clean the slip-ring beneath the terminals to give a path to the current. To do this properly, the engine should be quickly turned, the rag being held inside the aperture while the magneto rotates. If after replacing the parts and again testing no effect is produced, it may be that the low-tension brush is at fault. To enable this to be tested, the contact breaker cover must be removed and also the brass ring connected to the ignition lever. This will expose the contact breaker, which is held in place by means of a central stud. Remove this, and with the aid of two suitable screwdrivers gently prise the contact-breaker off its spindle. Another carbon brush will then be revealed, and this should be easy and quite clean in its bearing.



The way in which a sparking plug may be held in position by a cycle pump clip while the spark is tested.

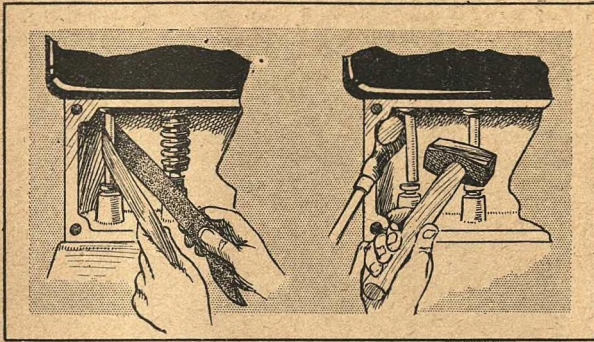
Finally, give the brass plate at the side of the magneto a thorough clean up, and re-assemble all the parts. If these instructions have been properly followed, everything should now be working correctly, and the spark should be healthy. Any further adjustment to the magneto is rather beyond the scope of the tyro, and should no effect be produced by the above attention, it is desirable to get professional assistance.

It should be remembered that unless certain minor points are observed, no magneto in existence will give satisfaction. For example, the magneto should be quite free from water and superfluous oil, also the contacts should be periodically examined. The platinum points must be clean, and if at all rough or uneven, a few rubs with a special file will soon put them right again. The space between the points is another item, and should not be excessive. The correct distance may be ascertained by placing between the points a stout visiting card and bringing the adjustable point nearer the other until the card just bites as it is moved. When sparking takes place at the plug, and other things are in order, but the engine will not start, the timing may have slipped.

Generally, from the novice's point of view, the most troublesome ailment connected with the petrol engine is that of misfiring. It may be that the cause is simply a sticking inlet valve, in which case the valve should

ENGINE FAULTS AND REMEDIES (contd.).

be removed and the stem examined for slight kinks or bends. If not very pronounced, a rub over with a piece of emery cloth may effect a cure. The emery should be of the smooth variety, and the rubbing action should be evenly distributed in order to avoid making flats. Care should also be taken not to re-



Two methods by which a valve can be removed from its guide when the stem has been bent.

move more metal than is necessary to bring the stem up true.

A pronounced bend or kink may be straightened by slightly tapping with a piece of copper or brass, used hammer fashion, after which the valve should be tested in a lathe or by rolling to and fro along a surface plate, or other perfectly flat surface. Sticking valves cause loss of power, sluggish running, etc., and, to obtain good running, it is essential that the valves be as nearly perfect as regards truth as it is possible to get them.

When an engine misfires badly the correct procedure is "to ascertain whether the trouble is common to all cylinders or is peculiar to one. The test for this is "shorting" or temporarily robbing each plug in turn of its current so that the engine runs on the re-

maining cylinders. A wooden-handled screwdriver held so that the blade connects the plug terminal to the engine is the easiest method of shorting. If one cylinder is faulty, the engine will run properly when that cylinder is shorted.

If the test shows that one cylinder is the cause of the trouble, the sparking plug should first be removed and cleaned, or, if possible, a new one inserted. If no effect; the magneto cable should be inspected, and should be quite sound. If both these are in correct order, look for a sticking valve or faulty adjustment of tappet. If, however, the misfiring is common to all cylinders, the trouble must be with the magneto or the carburetter, and these should be tested and faults remedied according to instructions given in this article.

Breakage of Vital Points.

As regards breakage of vital parts of the engine, this is, fortunately of rare occurrence. Generally it is denoted by a suspicious clatter, indicating a fracture or derangement, and generally the engine will come to an abrupt stop. In any case it is advisable not to turn the engine too quickly or violently, or some damage may be caused.

If the owner suspects breakage or derangement of some working part, he should test in the following order:—(1) The valve spring; this should be intact and the washers and cotters in place. Place a screwdriver under the stem of each valve, and, after raising it, let it drop sharply on its seat. (2) Compression: If there is none, remove the exhaust caps from each cylinder and take out the valve. If the trouble is here, the valve will generally be found to have broken across the head. Any breakage of the stem of the valve will probably have been noticed when testing by raising the stem with the screwdriver. The remedy is, of course, obvious—a new valve should be inserted.

If all valves are in correct order and the compression is faulty, it is highly probable that the trouble is due to a broken piston. Finally, if loud knocks are heard when the engine is slowly rotated, a connecting rod will generally be found to have broken. The raps are due to the broken rod falling from side to side in the cylinder. G.B.

"A Little Knowledge—"

I was filling up with petrol outside a garage the other day, writes a correspondent, and as the usual impassive youth poured the spirit in I was surprised to see a broad grin spread slowly over his face. As it was apparently nothing in my person which was causing him to spill petrol on to the floor, I looked over my shoulder and saw a lady driver with a 10 h.p. Whizzer in earnest conversation with the manager.

Then the Whizzer "revved" violently, scratched at the ground and stopped. I heard the manager suggest plaintively as he cranked again that the brake might be on. More "revving," and the car shot across the road, swung back, and, to a grating of gears, vanished round the corner. The manager stood entranced, and then strolled over mopping his forehead.

"She ran 'em dry—bone dry—a month ago! Three new crankshaft bearings just in. 'Better take it easy the first 100 miles or so,' I said, 'they'd be rather tight.'"

"'Tight?' she says, snapping at me. 'How tight? Do you mean you haven't fitted them properly?'"

"I tried to explain the idea of bearings in general and soothed her down."

"'Ah!' she says, 'I quite see. You mean they might be broken again—get tired, the engineers say, don't they—if I drove too fast?'"

"They do break your heart, some of these ladies! Both ways, I mean."

Paraffin Lamps.

Paraffin lamps are being used much more than a year or so ago, owing to the lighting restrictions, and the following notes on their care may be useful. To enable an oil lamp to burn satisfactorily it is important that good oil be used—"kerosene," not "paraffin," should be purchased—and a wick sufficiently large enough to allow the oil to flow freely. The wick should properly fit the burner and should touch the bottom of the reservoir. The latter must never be quite filled, or the heat will cause the oil to overflow. It is advisable to clean the lamp periodically, the reservoir being rinsed well with hot water and the burner soaked in hot soda water. The air holes in the lamp should be occasionally brushed out, or the lamp may smoke. An excellent plan to increase the brightness of the light is to put a small piece of camphor into the oil. Another point worth noting is that if the wick is dipped in vinegar and dried before being inserted in the burner, clogging or charring may be prevented. It should be seen that the wick is thoroughly dry before being put into the lamp. Trim the wick, and before lighting turn it up about half an inch and spread out at the sides. When lit turn it down to the proper height. The reflector and lens of some lamps are very apt to get greasy and smoky. The former may be easily cleaned with a little paraffin and the latter by means of methylated spirit.

THOUGHTS & OPINIONS.

Influence of Tyre Design on M.P.G.

At the present time, when the study of economy is being brought to a fine art, it is rather surprising that more attention is not paid to the influence of the design of the tread of a tyre upon petrol consumption. During the autumn of last year the writer had on the rear wheel of his Morgan a plain Kempshall retreaded tyre with the usual grooves running across it about every three inches or so. When this wore through it was replaced by an oversize Kempshall. It was then noticed that it took quite a more throttle opening to run the car at the same speed as before. There is no better tyre made for the rear wheel, as it will grip the road when other tyres fail to do so. As an instance, the writer was able to climb a steep hill during the recent snowy weather where a light car fitted with studs on both wheels had to turn back and go up another and easier turning, considerably further round.

Budleigh Salterton.

F.W.D.

Wounded Outings in Essex.

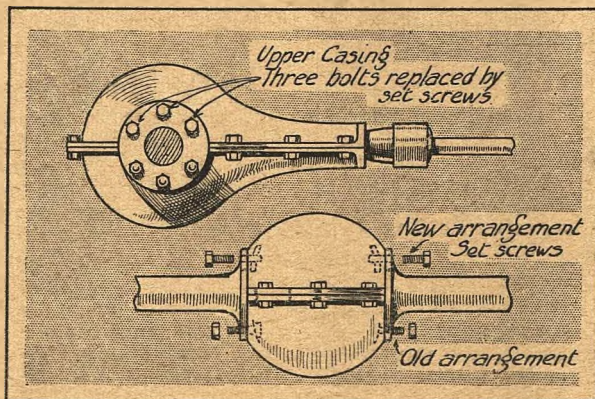
The Southend-on-Sea and District A.C. are again this year endeavouring to arrange motor outings for the wounded soldiers in the borough. There may be many motorists in south-east Essex who would be pleased to help the club in their work, and I should be glad of offers of assistance. Each week throughout the season we hope to be able to take out a large party of wounded soldiers to various country residences near Southend, there, by the kind hospitality of the owners, to be entertained to tea. I should be pleased if any car owners desiring to help would communicate either with the hon. secretary of the club, Mr. Wm. C. Mellor, 25, St. George's Park Avenue, Southend, or with myself.

Westcliff.

A. MAITLAND F. KEDDIE.

Improvements on a Humberette.

The article by "P.G.F." appearing on page 438 of THE LIGHT CAR and CYCLECAR for 3rd April has interested me. I have had on my Humberette for some 18 months an exactly similar petrol-tap control arrangement as described therein, and also an extra-air arrangement on similar lines. My chief



The old and the new arrangement for holding down the differential casing of a Humberette. (Letter from "L.R.")

improvement has been effected to the differential gearbox on the rear axle. As turned out by the makers it was nearly impossible to fix the bevel on the driving shaft, and, if further adjustment was required, a good amount of dissembling was necessary to remove the top cover of the gear. I therefore had the three top bolts on each side attached to the top half of the cover removed; the inside was secured by rivets to the cover and six set screws replaced the bolts. It is now possible to take off the top part of the differential casing without difficulty; the gear can thus be seen at work and any adjustment easily effected in the usual way.

I also replaced the composition thrust washer on the crown wheel side with a thrust ball washer.

L.R.

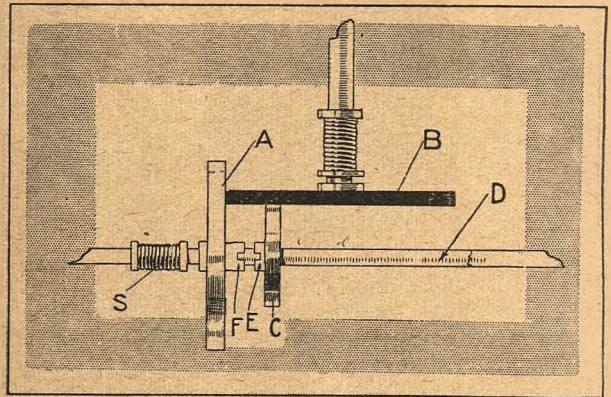
221

A Friction-drive Suggestion.

I have considerably simplified my suggestion for a friction drive incorporating a direct drive on top gear referred to in your issue of 17th April, by doing away altogether with the ordinary cone clutch and replacing it by a flywheel (A), the dog-clutch (F) forming part of A. This flywheel, by means of a spring (S), could be brought into contact or withdrawn from the friction-driving disc (B). As in my first suggestion, the movements of the flywheel (A) and of the friction-driving wheel (B) must be conjugated. All the other operations and results remain the same with this contrivance, as in my first suggestion.

FRANCIS M. E. DEMBLON.

4, Fairmount Road, Brixton Hill, London, S.W.



A further improvement of Mr. Demblon's friction-drive suggestion.

The Anti-Motorists.

Light car owners should thank you for your outspoken comments on the new taxes. I cannot understand the frame of mind of the writer, in a motor paper, too, who considers that a tax of six guineas on a light car is a moderate one. One can understand such opinions in an anti-motoring daily newspaper, but why the motor Press generally cannot, in the interests of their readers, back up motorists instead of those who first slander the pastime and then endeavour to tax it out of existence is unintelligible.

A PLAIN MAN.

W. Dulwich.

The Tax on the Perry.

In your article under "Taxes Stop Wounded Outings," I note the following: "So far as the new motoring movement is concerned, there are only six machines now made that come under the six-guinea tax. These are the A.-C. Sociable, the Morgan, the Aviette, the Wall tricar, the Carden and the Jowett." Why leave out the 8 h.p. Perry rated 6.4 h.p.? This was taxed at £2 2s. prior to the Budget.

J. D. HARGREAVES.

71, Gayville Road, Wandsworth Common.

* * The list was confined to cars still being made. We understood that the 6 h.p. Perry was not now manufactured; if this is not correct, then it should have been included. The tax will be £4 4s., and the amount payable on 15th August is £1 11s. 6d.—Ed.

The Tax on the Morgan.

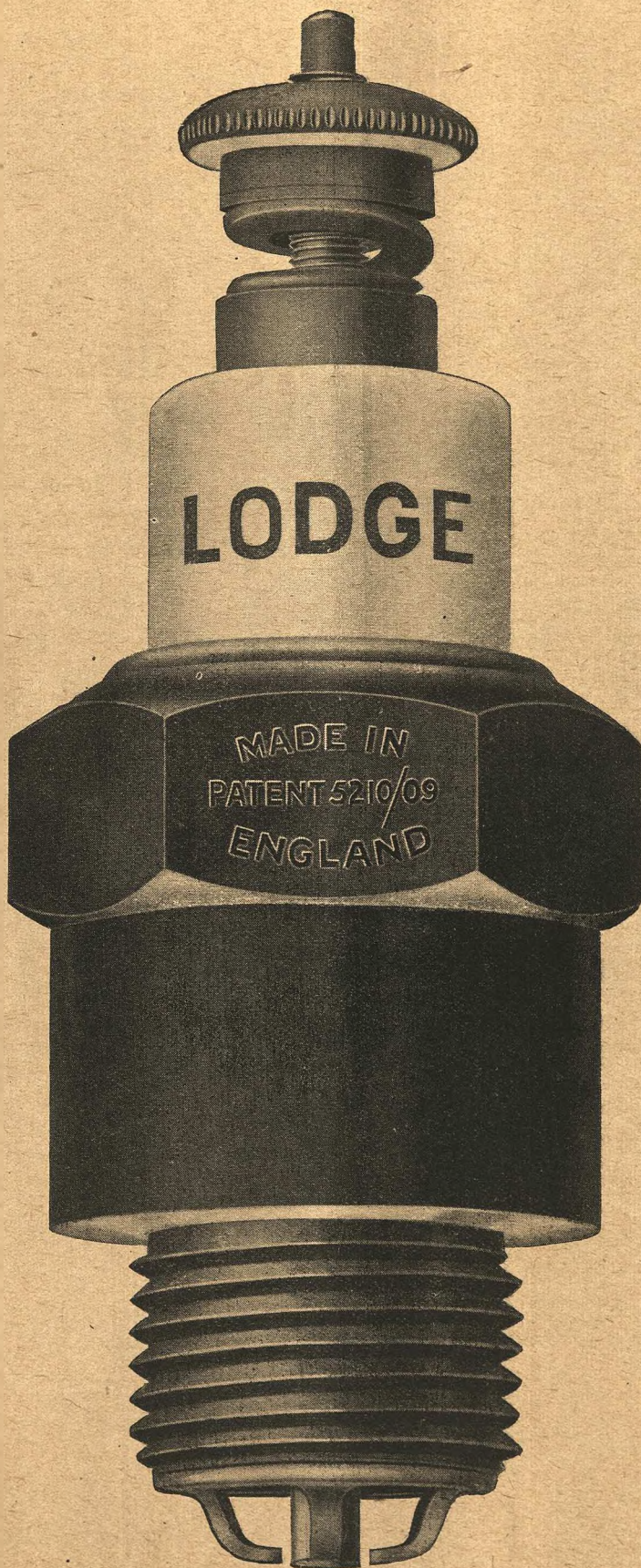
Cannot anything be done with regard to the tax on the Morgan cyclecar? I do not think, under any circumstances, a Morgan owner would have grudged a £2 tax; but, well—£4 14s. 6d. is nearly five times the amount we have to pay now. To say the least, it is hardly fair, and it is not even a "foreign" or "luxury" car. The Morgan owner, I take it, on the whole is a person of moderate income, and uses his car often as an aid to business. When all things are considered, the tax seems entirely out of proportion. Thanking you for the complete details of the new taxation in your most excellent journal.

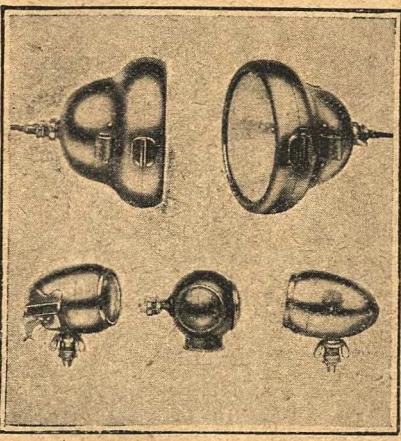
"A PROTEST."

Cheltenham.

* * We consider the tax on cyclecars costing about £100, viz., £4 14s. 6d. on the Morgan and £6 6s. on four-wheelers like the G.N., grossly unfair, and have drawn the attention of the Chancellor of the Exchequer to the matter.—Ed.

(A number of letters are held over this week.)





2 7-in. LAMPS
2 Sides,
1 Tail,
complete
with bulbs,
£6 - 0 - 0
Exquisite
finish.

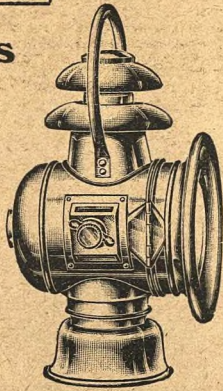

**1 pr. Sides,
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All Brass, **22/6** each.

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FOR ALL TRADES AND FOR
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E. J. LARBY, LTD.,
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Every phase of Motoring. Practical articles well illustrated. All the news of the automobile world.

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DIXIE 20TH CENTURY MAGNETO

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P. J. Evans

The Birmingham house for small Cars

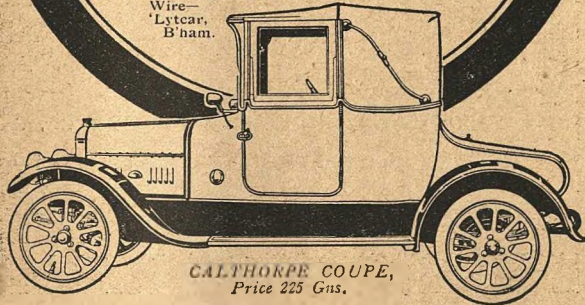
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 Price 225 Gns.

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IT IS ESSENTIAL

to have a **CARBURETTER** which gives you the maximum of efficiency with the least fuel consumption,

AND THAT IS, FIT

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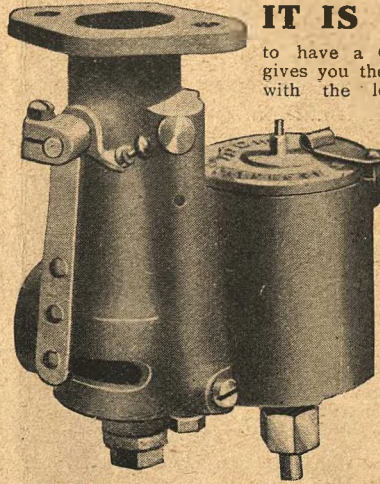
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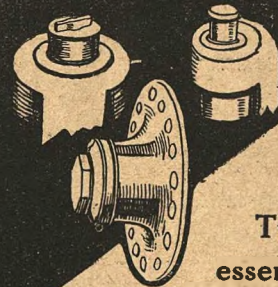
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For cups and hubs

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"It makes them dumb."

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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.

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

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, ROSEBERY AVENUE, LONDON, E.C., to whom all communications concerning advertisements should be sent. If proof of displayed advertisements is required, copy should be forwarded in sufficient time to allow of it being submitted and returned.

Head Offices—7-15, Rosebery Avenue, London, E.C. Telephone No. 5292 Holborn (four lines). Telegrams: "Pressimus, Holb., London."

Midland Offices—9 & 10, Burlington Chambers, New St., Birmingham. Telephone No. 2498 Midland. Telegrams: "Presswork, Birmingham." 6, Warwick Row, Coventry. Telephone No. 983, Coventry. Telegrams: "Presswork, Coventry."

Northern Offices—196, Deansgate, Manchester. Telephone: Central 2467. Telegrams: "Presswork, Manchester."

These advertisements are now set in smaller type to meet the Government demand for economy in paper. At the same time the distinctive style of the setting makes it as easy as before to find the advertisement of any particular make of car.

LIGHT CARS AND CYCLECARS FOR SALE.

A.-C. Sociable, 1914, hood, screen, side curtains, electric side and tail lamps, auxiliary fans, speedometer, spare tube, done 250 miles, tyres not punctured, £65 or near offer. Day, High St., Amersham, Bucks. 179-4784

A.-C. Sociable, October, 1912, hood, screen, tyres good, engine perfect, all tools, 3 lamps, splendid running order, £35. Cattle, 28 Streatley Rd., Brondesbury, N.W. 179-4782

A.-C. Sociable, 1913, good condition, new tyres, hood, screen, speedometer, horn, lamps, tools, jack, clock, mirror, lots of spares, etc., £40 or nearest. W. F. Hurdall, 84 Blackfrigs Rd., Phone, 1033 Central. Trade 179-4769

A.-C. Sociable, in excellent running order, only £40. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-7729

A.-C. 1914, 4-wheeler, 2-speed and reverse, complete with all accessories, 50 m.p.g., owner exchanged for larger car, cost over £100, sell £50. Greenhouse, Dogpole, Shrewsbury. Trade 179-4167

A.-C., 1914 10hp, two-three-seat and dickey, hood, screen, side curtains, just repainted blue and black, 4 lamps, generator, speedometer, 5 700 by 80 Sankey wheels and tyres, £155, 3 months guarantee, 12 months insurance free, tuition free; exchanges, deferred terms 5 per cent. Cass's Motor Mart, only address 5 Warren St., Euston Rd., W. Museum 622. Tde. 179-701

A.-C., 10 h.p., late 1913, two seated torpedo, large size headlamp, speedometer, mirror, petrol gauge, extra air, Stepney wheel, wire wheels, painted grey, black wings, good tyres, mechanically perfect, fully equipped, bargain, £135. Mebes, Light Car Specialists, 156 Gt. Portland St., W. Telephone, 3426 Mayfair. Trade 179-746

A.-C., 1913, 10hp, 4-cylinder, just repainted, very good running car, absolute snip, £99. Rey, 378 Euston Road, N.W. Trade 179-667

LIGHT CARS AND CYCLECARS FOR SALE
(continued).

ACE (Salmon Motor Co.), 8hp, 1913, hood, screen, 3 lamps, Stepney, speedometer, just overhauled, run under 1900 miles, £40. C. J. Packe, Rothley, Leicester. 179-d562

ALLDAYS, 1914, 4 cylinders, 5 detachable wheels, hood, lamps, horn, tools, first-class condition throughout, a bargain, £100. London Rd. Garage, Stony Stratford. Trade 179-4775

ALLDAYS, 10hp, 1915, dynamo lit, good as new, £195. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-727

BABY PEUGEOT, immediate delivery from stock, £131 model, exchanges entertained. R. Bamber and Co., Ltd., 33 Liverpool Rd., Southport. Trade 182-464

BABY PEUGEOT, body only, dark green, de luxe model, complete with hood, screen, lamps, oil and petrol tanks, luggage grid, generator, horn, upholstery, etc.; also Zenith carburettor; what offers? Box No. 8033, care of "The Light Car and Cyclecar." 180-4208

BABY PEUGEOT, 1916, 8hp, only delivered 3 weeks, new condition, officer gone to the front, cost £165, accept £135. P. J. Evans, John Bright St., Birmingham. Trade 179-732

BABY PEUGEOT, 1915, racing model, special engine, outside exhausts, speedy, economical, disc wheels, speedometer, electric light, roomy body, fully equipped, cost £217, will accept £152. Letters, 10 Saunders St., Southport. 180-4547

BABY PEUGEOT, 1915, 4-cylinder, 3 speeds and reverse, complete with hood, screen, electric head and tail lamps, electric horn, dashboard lamps, splendid order, £130. Maudes', 100 Great Portland St., London, W. Trade 179-682

CALCOTT cars. Watkins and Doncaster, Ltd., The Hall, 95 Great Portland St., authorized retail and sole wholesale agents for London and the Home Counties. Telephone, 6565-6 Mayfair. Trade zzz-345

CALCOTT, exceptionally fine 1915 2-seater, special black hood, with curtains entirely enclosing seats, lighting set, dickey seat, tyres practically new, small mileage, bargain, £230. Peall, 11 Leicester St., Leicester Sq. Giffard 1901. Trade zzz-560

CALCOTT, 1916, 2-seater, long wheelbase chassis, 12-volt dynamo set, usual accessories, almost new. Below.

CALCOTT, 1915, 2-seater, dynamo lighting, dickey, speedometer, clock, mileage 4500, just repainted, £235. Below.

CALCOTT, 1914, 2-seater, dynamo lighting, spare wheel, usual equipment, recently repainted and overhauled, £195. Smith and Hunter, 15 Little Portland St., Oxford Circus. Mayfair 1550. Trade 179-737

CALCOTT, 1915, dynamo lighting, in splendid condition throughout, fully equipped, £225. Stretton and Smith, 23 Woodstock St., Bond St., W. Trade 179-716

CALCOTT, 1915 (July), dynamo lighting model, dickey seat, 5 lamps, spare wheel, 2 spare tyres, Klaxon, tools, Wood-Milne pump, etc., mileage 2000, whole condition perfect, £220. 94 Gloucester Rd., S.W. Trade 179-685

CALCOTT cars. Appointed agents. Special list with particulars. English Light Car Specialists, Robinson's Garage, Green St., Cambridge. Telephone, 388. Telegrams, "Cars." Trade 179-694

CALCOTT, 1914 (late), Royal blue, runs like a new one, bargain, £170. Rey, 378 Euston Rd., N.W. Trade 179-671

CALTHORPE. P. J. Evans, John Bright St., Birmingham. Prompt delivery; no premiums asked; Grand Duc Michael, four-seater, Standard, and coupe models. Trade 179-733

CALTHORPE, 10hp, new, special Grand Duke Michael, ready. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-722

CALTHORPE, 10hp, 2 second-hand, 2-seat and 4-seat. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-726

CALTHORPE Minor cars. Specially-appointed agents. Comprehensive list with particulars; early deliveries. English Light Car Specialists, Robinson's Garage, Green St., Cambridge. Telephone 388. Telegrams, "Cars." Trade 179-687

CALTHORPE, 1916, 4-seater, immediate delivery, 205 guineas. Freeman, Oakes and Co., Sheffield. Trade zzz-677

CALTHORPE. A laugh is worth hundreds of groans. Buy your car from me, and you will have no need to groan. Calthorpe, late 1914, absolutely perfect condition, used very little, full of extras, paint and varnish like new, upholstery unsoiled, £175; cash offers entertained, exchange and deferred terms arranged; cars on view at my garage, two minutes from office. Write, wire, phone, or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly, London (an office opposite the Piccadilly Hotel). Tel., "Womaaish, London." Phone, Gerrard 4417. Trade 179-660

CALTHORPE Minor, 1914, side and tail lamps, horn, speedometer, detachable wheels, etc., £120. Moore, Coach Motors, Andover. Trade 179-659

CALTHORPE, 1916, Grand Duke Michael model, with double folding screen and dickey seat, 195 guineas. Julian's, Broad St., Reading. Biggest motorcycle and light car dealers in the South. Phone, 1024. Trade zzz-687

CALTHORPE, 1914 coupe, upholstered in Bedford cord, just repainted and in tip-top running order, £175. Rey, 378 Euston Rd., N.W. Trade 179-669

CALTHORPE Minor, 1915, done very little running, good condition, very fast, bargain, £175. Rey, 378 Euston Rd., N.W. Trade 179-668

GARDEN, 1914, 5-6, 2-speed, free engine, smart and speedy, lamps and horn, £45. Collier, Deal St., Hallifax. Trade 181-639

GARDEN monocap, 8hp, late 1915, Green-J.A.P. engine, not done 780 miles, fully equipped, perfect condition, £60. N. H. Noble, Holm Place. 179-6548

CHARRONETTE, 2-seater Charronette, sports 2-seater, £250 and £270 respectively, with C.A.V. lighting set. 65 Piccadilly, W. Trade 181-708

One of many similar letters:—

BIRMINGHAM, 21st Sept., 1915
Dear Sirs,—Please cancel further advertisements for Cars as per cuttings enclosed, as these Cars are sold. Thanks for the medium of your excellent paper. Yours faithfully,

LIGHT CARS AND CYCLECARS FOR SALE (continued).

CRESCENT. A laugh is worth hundreds of groans. Buy your car from me, and you will have no need to groan. Crescent, 1914, newly painted, overhauled, tip-top order, £75. Cash offers entertained; exchange or deferred terms arranged. Cars on view at my garage, two minutes from office. Write, wire, phone, or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly, London (an office opposite the Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerard 4417. Trade 179-658

CROUCH. A laugh is worth hundreds of groans. Buy your car from me, and you will have no need to groan. Crouch, 1918, sporting model, expected through from the works this week, one of the fastest models on the market. Cheap to run and cheap to buy, £145. Cash, exchange, deferred quarter down and the balance by 12 monthly instalments. Cars on view at my garage, two minutes from office. Phone, write, wire or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly (office opposite Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerard 4417. Trade 179-662

CROUCH, in perfect order, 1914, owner-driven, done little mileage, expecting Army reason for selling, £85 or offer. Rogers, 90 Kingston Rd., Oxford. 179-d54

DAY-LEEDS light cars. Sole agent for West Lancs. and Chester; also N. Wales. C. Croft Griffith, 14 Tempest Hey, Liverpool. Trade zzz-959

DAY-LEEDS, 1914, 10hp, 2-seater, suede grey, hood, windscreen, dickey seat, Sankey detachable wheels and spare, oil side and tail lamps, acetylene headlamps, clock, and full equipment, any examination, price £162 10s. R. Bamber and Co., Ltd., 33 Liverpool Rd., Southampton. Trade 179-463

DEEMSTER, September, 1914, 4-cylinder, 2-seater, green, 40 m.p.g., £120. Graham, 104 Victoria St. 180-550

DEEMSTER, 1914, 10hp, 4-cylinder, live axle, 3 speeds and reverse, smart 2-seater, fine order, bargain, £115, any trial. Maxwell Agency, 96 Crown St., Ipswich. Trade 179-4798

DUO, 1914, smart 2-seater, 8-10 J.A.P. twin, waterproof Bosch, hood, screen, only £48 10s.; exchange motorcycle. 1 Ebner St., Wandsworth. Trade 179-4759

ELBURN, 6-8hp, 2-seat, high side doors, friction drive, hood, screen, 5 wire wheels (detachable), Zenith carburettor, Bosch magnet, in perfect condition, £35. Wilkinson, Red Cottage, Addlestone. 179-d558

ENFIELD, 10hp, 3-seater body, clover leaf type, dynamo lighting, 5 Sankey wheels, speedometer, etc., hardly used, guaranteed, £210, cash, deferred payments or exchange. Service Co., 292 High Holborn, London. Trade zzz-364

ENFIELD, 1915, 2-seater, 10hp, 4-cylinder, 5 detachable wheels, dynamo lighting set, speedometer, clock, electric horn, and other extras; just re-painted grey, and guaranteed in thoroughly good running order, £185; exchange or deferred terms considered. Service Co., 292 High Holborn, London. Trade zzz-609

ENFIELD 1916 light cars, 10hp, 4 cylinders, spare wheel and tyre, dynamo lighting set, 2-seater £215, 3-seater £230, coupe £255; cash, exchange and extended payments; 2-seater, £43 deposit and 12 monthly payments of £14 13s. 10d.; similar terms for other models, or other figures considered; quick delivery. Sole London Agents, Service Co., 292 High Holborn, W.C. Trade zzz-570

ENFIELD, 1915, 10hp, 2-3-seat, double dickey, hood, screen, painted green, dynamo outfit, 5 lamps, speedometer, clock, 2 horns, 5 wheels, bargain, £170, 3 months guarantee, 12 months insurance free, tuition free, exchanges, deferred terms 5 per cent. Cass's Motor Mart, 5 Warren St., Euston Rd., W. Museum 623. Trade 179-702

ENFIELD Autolette, 1914, 8hp, 3 speeds, complete, Stepney, 5 lamps, horn, etc., thoroughly sound, £85. P. J. Evans, John Bright St., Birmingham. Trade 179-734

ENFIELD, 10hp, dynamo lit, £215, just received from works. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-723

ENFIELD, 1916, 2-seater, lighting set, hood, side curtains, spare wheel, etc., screen, biscuit colour, in stock, £215. English Light Car Specialists, Robinson's Garage, Green St., Cambridge. Telephone, 388. Telegrams, "Cars." Trade 179-695

ENFIELD, 10hp, latest model coupe, improved engine, finished black and white, and fitted ready for delivery, complete with anti-door rattlers, Watford clock, and speedometers, aluminium number-plates, plated finish, a particularly handsome car and ready to drive away. Maudes', 100 Gt. Portland St., London, W. Trade 179-684

GLOBE cars and vans, new and second-hand, in stock; also all components; overhauls undertaken. Tuke and Bell, Ltd., Globe Car Manufacturers, Carlton Engineering Works, High Rd., Tottenham. Trade 179-674

G.N. cyclecar, 8hp J.A.P. engine, fast, reliable, simple, good climber, £60 or near offer or part exchange 2/4 Douglas. 211 Garratt Lane, Wandsworth, S.W. 179-3770

G.W.K., 1916 models, buff or blue finish, in stock. Palmer, 202 Great Portland St., London, W. Mayfair 4942. Trade 183-297

G.W.K., hood, screen, 5 lamps, speedometer, complete, bargain, price £35. 71 Oaklands, Cricklewood, N.W. 179-d204

G.W.K., late 1915, de luxe, 3-seater, detachable wheels, spare wheel and tyre, 5 lamps, etc., car is absolutely indistinguishable from new and unscratched, done few miles, £155. Stretton and Smith, 23 Woodstock St., Bond St., W. Trade 179-718

G.W.K., 1915, 8hp, 4-seat, hood, screen, just repainted green and black, 5 lamps, 2 horns, clock, mirror, 5 wheels, 3 months guarantee, 12 months free insurance, tuition free, exchanges, deferred terms 5 per cent. Cass's Motor Mart, 5 Warren St., Euston Rd., W. Museum 623. Trade 179-703

G.W.K., new April, 1914, just overhauled throughout, repainted, sporting body, with pointed tail, speedometer, screen, lamps, oversize tyres, any trial in London, £105 cash, no offers. G. N. Higgs, 31 Vauxhall Bridge Rd., Victoria, S.W. Trade 179-700

G.W.K., 1913, in excellent condition, 5 lamps, hood, screen, Stepney, speedometer, clock, mechanical horn, 3 new tyres, 2 almost new, any trial, £100. Gilpin, 20 Swainson St., Blackpool. 179-4788

G.W.K., 1913, run only 5700 miles, hood, screen, speedometer, clock, tools, re-enamelled, overhauled, new cylinders, friction disc, and oversize tyres rear wheels last season, splendid condition, £90. Lieut. Woodward, Wire-less Station, Carnarvon. 179-4787

G.W.K., 1913, in exceptionally fine order, complete with 5 lamps, speedometer, hood, screen, spare wheel, £95. Elce and Co., 15-16 Bishopsgate Ave., Camomile St., E.C. Phone, Avenue 5548. Trade 179-748

LIGHT CARS AND CYCLECARS FOR SALE (continued).

G.W.K. A laugh is worth hundreds of groans. Buy your car from me, and you will have no need to groan. G.W.K.s, first-class condition, engine and body, Stepney wheels, newly painted, a bargain, £99; also one at £97 10s. Cash, exchange or deferred terms arranged. Cars on view at my garage, 2 minutes from office. Phone, wire, write or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly (office opposite Piccadilly Hotel). Tel., "Womanish London." Phone, 4417 Gerrard. Trade 179-656

G.W.K. 2-seater, hood, screen, lamps, headlights and horn, recently repainted, £92 10s. Collier, Deal St., Halifax. Trade 181-663

HORSTMANN'S. The best light car irrespective of price, luxurious economy combined with efficiency. Edwards and Parry, the special London agents, can give delivery from stock; every car specially tuned and tested by our Brooklands racing expert, increased power and more miles per gallon for no extra cost; trial runs by appointment. Write for illustrated catalogues, or call at 69 Great Queen St., Kingsway. Regent 5095. Trade zzz-359

HORSTMANN, 1916, Colonial model, in stock, £175. Jones, Garage, Droitwich. Trade 181-1348

HORSTMANN, 1916, 10hp, electric light and seat starter, run 150 miles, £180, cash or easy terms. R. E. Jones (Garages), Ltd., Swansea. Trade zzz-460

HORSTMANN car, great bargain, new last July, 2-seater, seat starter, six detachable wheels and tyres, speedometer, any examination, £125. Stanger and Son, Spalding. Trade 180-604

HORSTMANN, 1915, 2-seater, speedometer, 5 lamps, 2 horns, perfect condition, £140. Welton, 60 Smithford St., Coventry. 179-1781

HILLMAN, 9hp, late 1914, 2-seater torpedo, painted buff, black wings, 5 Sankey detachable wheels, electric side and tail lamps, acetylene headlamps, generator, speedometer, fully equipped, perfect condition, bargain, £185. Mebas, Light Car Specialists, 156 Gt. Portland St., W. Telephone, 3426 Mayfair. Trade 179-747

HILLMAN, 1914, repainted buff colour, 5 lamps, very nice condition, real bargain, £155. Rey, 378 Euston Rd., N.W. Trade 179-656

HUMBERETTE, 1913, air cooled, good condition, £75 cash, or easy terms. R. E. Jones (Garages), Ltd., Swansea. Trade zzz-866

HUMBERETTE, in perfect condition, painted grey, new Palmer cord tyres, all accessories, and dynamo lighting set, £82 10s. Greenhouse, Dogpole, Shrewsbury. Trade 179-1698

HUMBERETTE, 1913, complete with hood, screen, lamps, horn, in magnificent condition, just overhauled, including Stepney wheel and tyre, repainted, and revarnished, indistinguishable from new, 70 guineas, most wonderful bargain: light car or motorcycle taken in part payment. Julian's, Broad St., Reading. Biggest motorcycle and light car dealers in the South. Phone, 1024. Trade zzz-517

HUMBERETTE, water-cooled, very fully equipped, cost £145, in excellent condition, £100. Plant, Beechcroft Ave., Stafford. 179-d149

HUMBERETTE, with 5 lamps, 2 spare tyres and full equipment, 1914 model, overhauled and repainted by Humbers, £75. Smith and Hunter, 15 Little Portland St., Oxford Cir. Trade 179-740

HUMBERETTE, late 1914, 8hp, perfect condition throughout, hardly used, bargain, £77 19s. Stephens, New Year's Cottage, Knockholt. 179-d559

HUMBERETTE, 1914, fitted with electric lights, lately overhauled and repainted by makers, guaranteed perfect condition, speedometer and spares, accept £80. (Private.) 179 Brixton Rd., London, S.W. 180-d549

HUMBERETTE, 1914, 3, a.c., 3-speed, perfect condition, £62. 22 Gilmore Rd., Lee. Trade 179-d333

LAGONDA, 1914, coupe, elaborately equipped, O.A.V. dynamo lighting and 5 special lamps, grand order, absolute bargain, £130. Maxwell Agency, 96 Crown St., Ipswich. Trade 179-1797

LAGONDA coupe, late 1914, new Pantasote head leather, car just repainted, mechanically in really good condition, fully equipped, £220. Stretton and Smith, 23 Woodstock St., Bond St., W. Trade 179-719

LAGONDA coupe. A laugh is worth hundreds of groans. Buy your car from me and you will have no need to groan. Lagonda coupe, 1915, complete with lamps, etc., tip-top order, price £160; cash, deferred terms arranged. Cars on view at my garage, two minutes from office. Phone, write, wire, or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly (office opposite Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerard 4417. Trade 179-654

LAGONDA coupe, 1915, complete, electric horn, new Dunlop tyres, £115. Money, 1 Clarendon Terrace, Stoke, Devonport. 179-d560

LAGONDA, 1914 coupe, headlamps, detachable wheels, speedometer, nice order, any trial, £105. 125 London Rd., Kingston, Surrey. Trade 179-d537

LUCAR, 1915, 10hp, dynamo lighting, detachable wheels and spare, double dickey, £210. Maudes', 100 Gt. Portland St., London, W. Trade 179-681

MARLBOROUGH engine, 10hp, 4-cylinder, 3-seater, late model, wire wheels, worm drive, painted mauve, £110. Beardshaw, Auctioneer, Wood Green. Trade 179-1774

MORGAN for comfort, safety and economy. Early delivery all models. Free trials and driving lessons. Spare parts stocked. Repairs and overhauls; satisfaction guaranteed. Boddington, Morgan Specialist, Worcester. Telegrams, Compression, Worcester." Code A.B.C. 5th. Phone, 370. Trade 182-a66

MORGANS. We are contracting agents. Book for early delivery. Repairs and overhauls guaranteed. Burelli's, 2 Albany Rd., Cardiff. Trade 167-c176

MORGAN, G.P., 10hp, disc wheels, just delivered, officer ordered abroad, for sale listed price. Particulars, Gaston, 30 Evelyn Gardens, London. Trade 182-314

MORGAN, latest model, 1916, Grand Prix, received from works 27th March, 1916, with M.A.G. air-cooled engine, complete with hood, screen, lamps, horn, etc., maker's list price, no premium; light car or motorcycle taken in part payment. Julian's, Morgan Specialists, Broad St., Reading. Biggest Motorcycle and Light Car Dealers in the South. Contracting agents for Morgans for the South of England; 45 years reputation. Phone, 1024. Trade zzz-467

MORGAN, latest 1916 sporting model, absolutely guaranteed in stock. This little car, complete with hood, screen, lamps, Stewart horn, etc., is supplied at maker's price, no premium; motorcycle or light car taken in part payment. Julian's, Morgan Specialists, Broad St., Reading. Biggest Motorcycle and Light Car Dealers in the South. Contracting agents for Morgans for the South of England; 45 years reputation. Phone, 1024. Trade zzz-466

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

LIGHT CARS AND CYCLECARS FOR SALE (continued).

MORGAN. A laugh is worth hundreds of groans. Buy your car from me, and you will have no need to groan. Morgan De Luxe model, perfect condition throughout, newly overhauled, a bargain at £87 10s. Cash, deferred terms arranged. Cars at my garage, 2 minutes from office. Phone, wire, write or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly (office opposite Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerrard, 4417. Trade 179-657

MORGAN, Grand Prix No. 2, overhead valves, water-cooled, bought October, 1915, painted red, disc wheels, Low generator, five lamps, speedometer, clock, all accessories, 65 m.p.h. guaranteed, cost £142 complete, sell £110, trial. Elliott, 27 Middle Rd., Bournemouth. 180-d546

MORGAN, 1915, de luxe, hood, screen, side curtains, Isochronous speedometer, special toolbox at side, drip feed, all tools, good condition, mechanically perfect, thoroughly reliable, £95. Ridley, Homestead, Keele Rd., Newcastle, Staffs. 179-d542

MORGAN, late 1915, just over 2000 miles, sporting, 8hp J.A.P., hood, screen, speedometer, special lamps, cost 7 guineas, Steppney Road Grip back and Dunlops, condition perfect, complete with extras, price £92. R. Isaac, 28 South St., Exeter. 179-536

MORGAN, 1916, Grand Prix No. 1, hood and screen, oversize tyres, just delivered, unused, exchange for 10hp modern light car. Willson, 22a Prince's Sq., Bayswater, W. Trade 179-d534

MORGAN, 1915, No. 2 Grand Prix, nothing better, £115; 1914 de luxe, £79 10s. Collier, Deal St., Halifax. Trade 181-691

MORGANS. For all models write Potter, Morgan Specialist, Leicester Grove, Leeds.

MORGANS, Grand Prix, air and water-cooled models. Write, Potter, Morgan Specialist, Leeds. Trade 179-1791

MORGANS. 1915 sporting model, complete, with hood, screen, lamps, horn, speedometer, Precision engine, all tyres good, £80. Potter, Morgan Specialist, Leicester Grove, Leeds. Trade 179-1792

MORGAN de luxe, 1914, repainted, very smart, 1915 improvements, good going order, tyres like new, hood, screen, lamps, price £70. Apply 6 to 7.30, 5 Clovelly Gardens, Upper Tulse Hill, Brixton Hill. 179-4786

MORGAN, 1913-14, standard model, 8hp J.A.P. engine, magneto, just been overhauled, perfect condition, £56. Rolls, Kano, Crewe. 179-4771

MORGAN, 1914, 8hp, special de luxe body, nicely fitted up, £68. P. J. Evans, John Bright St., Birmingham. Trade 179-736

MORGAN, Grand Prix No. 2, special car, fitted with latest 1916 10-12hp J.A.P. engine, water-cooled, overhead valves, 90 by 85, 4-speed gearbox, 80 mm. tyres, special body, speedometer, screen, many extra fittings, car recently the property of Mr. E. B. Ware, of J. A. Prestwich and Co., Tottenham; finest Morgan on the road, £135. Elce and Co., 15-16 Bishopsgate Ave., Camomile St., E.C. Phone, Avenue 5548. Trade 179-749

MORGANS, new and second-hand, varied stock, from £70 to £126; motorcycles taken in exchange. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-724

MORGANS! Morgans! Morgans! We alone are in the position to give immediate delivery of Morgans; sporting and de luxe models in stock. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-725

MORGAN, 1914, standard model, complete, very fine condition throughout, £76. Layton's Garage, Bicester, Oxon. Trade 179-730

MORRIS-COWLEY, January, 1916, only done 500 miles, speedometer, clock, including insurance policy, lowest £210. Howland, Denmark St., High Wycombe, Bucks. 179-1778

MORRIS-OXFORD, quick deliveries, free tuition, etc., wholesale and retail agents for Surrey and parts of Sussex and Hants., The Haslemere Motor Co., Ltd., Haslemere. Phone, 43. Trade zzz-281

MORRIS-OXFORD, special sporting, late model, dynamo lighting, very sporty and fast, £215. Rey, 378 Euston Rd., N.W. Trade 179-672

MORRIS-OXFORD de luxe coupe, late 1914, Bedford cord upholstery, speedometer, 5 lamps, clock, spare wheel, exceptionally fine condition throughout, £235. Below.

MORRIS-OXFORD de luxe 2-seater, late 1914, just repainted, fully equipped, perfect throughout, £170. Stretton and Smith, 23 Woodstock St., Bond St., W. Trade 179-715

MORRIS-OXFORD, 10hp, late 1913, fitted special de luxe body, hood, screen, 5 Sankey detachable wheels, 5 lamps, fully equipped and ready for immediate use, splendid condition, bargain, £155. Mebes, Light Car Specialists, 156 Gt. Portland St., W. Telephone, 3426 Mayfair. Trade 179-743

MORRIS-OXFORD de luxe, 10hp, late 1914, painted green, black wings, 5 lamps, 5 Sankey detachable wheels, speedometer, petrol can carrier, dickey seat, good tyres, mechanically perfect, fully equipped, bargain, £185. Mebes, Light Car Specialists, 156 Gt. Portland St., W. Telephone, 3426 Mayfair. Trade 179-744

MORRIS-OXFORD de luxe, late 1914, C.A.V. dynamo lighting set, mirror, electric horn, speedometer, dash lamp, clock, luggage carrier, petrol gauge, spare petrol can and carrier, 5 Sankey detachable wheels, good tyres, mechanically perfect, painted grey, black wings, dickey seat, bargain, £195. Mebes, 156 Gt. Portland St., W. Telephone, 3426 Mayfair. Trade 179-745

O.T.A.V. 2-seater, 5-6hp, two-speed, chain and belt drive, a good little runabout, £20. Tuke and Bell, Ltd., Motor Department, Carlton Engineering Works, High Rd., Tottenham, N. Trade 179-676

PERRY cars. Sole London and District Agents. Cars and Motor Sundries, Ltd., 175-177 Shaftesbury Ave., London, W.C. Phone, 1432 Regent. Trade zzz-745

PERRY'S, 1916, 11.9hp and 8hp models, 2-4-seaters and coupes, earliest deliveries; exchanges entertained. R. Bamber and Co., Ltd., 33 Liverpool Rd., Southport. Trade 182-462

PERRY car, 1914, with dickey, £85. Seen at 61 St. Paul's Sq., Birmingham, Saturday or Sunday. Trade 179-4143

SAXON, prompt delivery, 1916 models. Obtainable from the Pioneer Agents, Western Motor Works, Chislehurst, Kent. Phone, Sidcup 160. Trade 192-689

PERRY, 1916, 2-cylinder, actually in stock, 140 guineas, complete. Julian's, Broad St., Reading. Biggest motorcycle and light car dealers in the south. Phone, 1024. Trade zzz-658

LIGHT CARS AND CYCLECARS FOR SALE (continued).

PERRY, 8hp, delivered from Birmingham 9th April, 1916, speedometer, extra heavy tyres on back, cost £155 with extras, will accept £145. Can be seen at 19 Battersea Rise, Clapham Junction. 180-d551

PREMIER cyclecar for sale, 8hp air-cooled twin, Bosch magneto, 2 speeds and reverse, very little used, a bargain, price £60. Edward White, Bargate End, Boston. Trade 180-d659

PERRY'S, in stock, standard and coupe twin models. P. J. Evans, John Bright St., Birmingham. Trade 179-735

PREMIER light car, hood, screen, lamps, splendid climber, £69 10s. Collier, Deal St., Halifax. Trade 181-692

ROLLO-J.A.P. 8hp cyclecar, side-by-side seating, lamps, screen hood, etc., £23 10s. Collier, Deal St., Halifax. Trade 181-690

SAXON. A laugh is worth hundreds of groans; buy your car from me, and you will have no need to groan. Saxon, 1915, tip-top condition, full of extras, done little running, kept in good order, £115 cash, deferred or exchange terms arranged; cars on view. Phone, wire, or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly (office opposite Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerrard 4417. Trade 179-659

SAXON cars. Although the tax is doubled, the Saxon tax is now only £6 6s. Petrol 40 m.p.g. Plenty of latest 1916 models for instant delivery. All spare parts stocked. We usually have demonstration Saxons of latest type at bargain prices. Lowe and Wood, Ltd., 280 Broad St., Birmingham. Trade 190-d197

SAXON, 11.9, August, 1915, done 300 miles, spare tyre, 2 inner tubes, speedometer, as new, £115. Waldo Thomas, Elm Villa, Liandysul. 179-d561

SAXON new 1916 model, in stock, painted cream and black, complete with magneto, £150. Tuke and Bell, Ltd., Motor Department, Carlton Engineering Works, High Rd., Tottenham, N. Trade 179-675

SINGER, 1916, 10hp, 2-seater, dynamo lighting, in stock. Palmer, 203 Great Portland St., W. Phone, Mayfair 4942. Trade 182-296

SINGER, phaeton or coupe, 1916 models, dynamo lighting, prompt delivery. London Depot, 17 Holborn Viaduct, London, F.C. Trade zzz-39

SINGER, 1915, dynamo lighting set, in new condition, £240. R. E. Jones (Garages), Ltd., Swansea. Trade zzz-634

SINGER, 1916, standard model, lighting set, fully complete, practically as new, very little used, owner buying coupe, first nearest cheque to £245 secures. Castle Motor Co., Kidderminster. Tel., 226. Trade zzz-590

SINGER. A laugh is worth hundreds of groans; buy your car from me, and you will have no need to groan. Latest model Singer, brand new, just from works, dynamo lighting, £275 cash, deferred terms arranged. Cars at my garage, 2 mins. from office. Phone, wire, or call, Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly (office opposite the Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerrard 4417. Trade 179-653

NOTICE.

Owing to postal delays and irregularities, 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.

SINGER, 1916, coupe, brand new, dynamo lighting, upholstered Bedford cord, finished blue, 5 grooved Dunlops, just delivered, available immediately, maker's net price £310. Particulars, English Light Car Specialists, Robinson's Garage, Green St., Cambridge. Telephone, 388. Telegrams, "Cars." Trade 179-695

SINGER, 1914, 10hp, dynamo lighting, dickey seat, disc wheels, speedometer and clock, £188. Maudes', 100 Great Portland St., London, W. Trade 179-683

SINGER, 1915½, 10hp, electric horn and lighting set, dickey seat, spare wheel, hood, screen, speedometer, recently overhauled by makers, in splendid condition, £205. Maddock, Great Western Works, Oakengates, Salop. 179-d552

SINGER, 1914, 10hp, dynamo lighting, speedometer, etc., in very fine condition, £170. Rey, 378 Euston Rd., N.W. Trade 179-654

SINGER, 1915, 10hp, dynamo lighting, speedometer, splendid condition, £225. Below.

SINGER, 1915, 10hp, with special coupe body by Mulliner, dynamo lighting, speedometer, prettiest coupe in London, £300. G. L. Francis and Co., 22 Panton St., Leicester Sq. Trade 179-713

SINGERS, new season's, delivery from stock. We will take your car in part payment, unequalled allowances. Stretton and Smith, 23 Woodstock St., Bond St., W. Trade 179-720

SINGER, coupe, 1916 model, brand new, dynamo lighting, immediate delivery, £325. Below.

SINGER, 1914, 2-seater, dynamo, speedometer, clock, new tyres, just repainted and overhauled, £180. Smith and Hunter, 15 Little Portland St., Oxford Cir. Trade 179-733

SINGER, 1916, 10hp, 2 cars in stock, 1 with dickey, dynamo lighting in both cases, modern light cars considered in part payment. Layton's Garage, Bicester, Oxon. Phone 35. Trade 179-731

SINGER, 1916, dynamo lighting, 2 R.O.M. combination non-skid tyres, just received from works, tuned up and ready for immediate delivery. Oford and Sons, Ltd., 94 Gloucester Rd., S.W. Trade 179-710

SINGER, 10hp, late 1915, dynamo, dickey, speedometer, 5 grooved Dunlops, under 3000 mileage, condition as new, £240; Birmingham district. Box No. 8076, c/o "The Light Car and Cyclecar." 179-1795

SINGER, 1915, 10hp, 2-seater, hood, screen, dickey, dynamo lighting, speedometer, grey with black wings, any trial or photo, £200. H. W. Gardner, Thurland Street, Nottingham. Trade 179-1794

SINGER, 1915½, green, dynamo lighting, speedometer, dickey, toolbox, Bowden extra-air, inspection lamp, and spares, small mileage, unscratched, price £235. Robson, 88 Hastings St., Sunderland. 179-1780

LIGHT CARS AND CYCLECARS FOR SALE
(continued).

SINGER, 10hp, 1915, September, dynamo lighting, disc wheels, electric horn, clock, speedometer, £230. Coker, Manor Croft, Berkhamsted. 179-1779

SINGER, 1915, dynamo lighting, speedometer, electric horn, spare wheel, bargain, £220. Stretton and Smith, 23 Woodstock St., Bond St., W. Trade 179-1771

SINGER, 10hp, 1915, dynamo lit, good as new, £220. Colmore Depot, 49 John Bright St., Birmingham. Trade 179-728

STANDARD 1914 light car, £185. R. E. Jones (Garages), Ld., Swansea. Cash or easy terms. Trade zzz-103

STANDARD 2-seater, 9.5, late 1914, speedometer, hood, screen, 5 lamps, in splendid running order, £178 for quick sale. 10 Lenbourne Rd., Sheffield. 179-d544

STANDARD, 1914, 9.5hp, late, very nice condition, all accessories, bargain, £165. Rey, 378 Euston Rd., N.W. Trade 179-670

STANDARD 1915 coupe, with dynamo lighting, spare wheel and tyre, speedometer, dash lamp, very completely fitted, £295. Below.

STANDARD 1914 2-seater, 5 lamps, dickey, speedometer, repainted, £182 10s. Smith and Hunter, 15 Little Portland St., Oxford Cir. Trade 179-739

STANDARD, 9.5, 1914, 2-seater, in new condition, £180. G. L. Francis and Co., 22 Panton St., Leicester Sq. Trade 179-718

STELLITE, 1914, as new, perfect throughout, lighting set, side and rear lamps, horn, speedometer, dickey, hood, screen, tools, 5 Sankey wheels and tyres, guaranteed, first cheque £155; motorcycle part, or combination. Nicholson, 50 Gordon St., Hull. 179-1785

STELLITE, just tuned up, specially fine engine, thorough condition, fit for road, £160 cash; private sale. Stanley, W.O.R., 3 New St., Birmingham. 180-1777

STELLITE, 10hp, 1914 model, chassis delivered new in 1915, fitted with a very nice 2-seated coupe body with dickey seat, 5 Sankey detachable wheels and tyres, 3 electric lamps, horn, and tools, perfect condition throughout, £195. The Light Car Co., 331 Euston Rd., London. 'Phone, Museum 3143. Trade 179-707

SWIFT, 7.9hp, 1914, 2-seater, complete, mechanism and coachwork as new, £120. Peall, 14 Leicester St., Leicester Sq. Tel. No., Gerrard 1901. Trade zzz-54

SWIFT, water-cooled, 1912, 2-seater, just overhauled and rebushed, Stepney, tools and accessories, in perfect order, will accept £75. Millard Bros., Ld., 123 Houndsditch, E.C. Telephone, Avenue 3737. 179-d555

SWIFT, 1915, 10hp, dynamo lighting, speedometer, clock, absolutely un-sold, only done 200 miles, beautiful car, £220. Rey, 378 Euston Rd., N.W. Trade 179-655

SWIFT, 7.9hp, 2-seated torpedo, complete and absolutely like new, £115. The Light Car Co., 331 Euston Rd. 'Phone, Museum 3143. Trade 179-706

VICTOR cyclecar, 8hp twin Precision engine, w.-c., 2 speeds and reverse, very smart body, blue, handsomely upholstered, complete with all lamps, speedometer, hood, screen, etc., specially finished and fitted for officer, new, price £120; full particulars on application. Tyler Apparatus Co., Ld., 11 Charing Cross Rd., W.C. Trade 182-663

WARNE, 3hp, 1913 (late), a new car, only used for demonstration purposes, hood and screen, 3 speeds and reverse, Stepney, 5 lamps, dash-board clock, speedometer, £285, a bargain. Maudes', 100 Great Portland St., London, W. Trade 179-680

WHITING-GRANTS in stock, cash or easy terms. R. E. Jones (Garages), Ld., Swansea, London, Cardiff. Trade zzz-919

WHITING-GRANT, 1915, 11.9hp, dynamo lighting, electric self-starter, electric horn, speedometer, wire wheels, smart 2-seater, shop-soiled, only £140. Rey, 378 Euston Rd., N.W. Trade 179-673

WILKINSON, 1914, 10hp, 4-cylinder, water-cooled, splendid little car and guaranteed perfect, £85. Greenhous, Dogpole, Shrewsbury. Trade 179-d169

These advertisements are now set in smaller type to meet the Government demand for economy in paper. At the same time the distinctive style of the setting makes it as easy as before to find the advertisement of any particular make of car.

PARCELCARS.

KEEP expenses down by running a Morgan; delivery from stock; tubes and tyres. Burrelli's, 2 Albany Rd., Cardiff. Trade 180-613

KEEP expenses down by running a cyclecar; delivery from stock; roomy body. Rurrelli's, 2 Albany Rd., Cardiff. Trade 179-614

MISCELLANEOUS LIGHT CARS AND CYCLECARS.

LONDON'S light car and cyclecar experts. If you are considering purchase of a light car or cyclecar, call and see us; we guarantee satisfaction; exchanges arranged. Percy and Co., 37 Euston Rd., London. Trade zzz-453

BRIGHTON. Perry, Morgan, and other small cars. Turpin's, 22 and 29 Preston Rd. Trade 204-m843

TWIN Phoenix, 8hp, water-cooled Fafnir engine, Bosch magneto, 2 speeds, reverse, 650 by 65 wire wheels, tyres, underslung chassis, good condition, complete, less carburettor, £20, or exchange good Triumph, or sell parts. Dickinson, Potato Merchant, Great Nelson St., Liverpool. 179-d540

CASS'S MOTOR MART, at the time of going to press, have the following light cars actually in stock:—G.W.K., 1915, 4-seat, £185; Enfield, 1915, £175; A.-C., 1914, £165. All above cars overhauled, repainted, guaranteed three months, 12 months insurance free, tuition free, exchanges, no combinations, deferred terms 5 per cent., trials free. For full particulars of above cars see small ads. If you do not see what you require, call, 'phone, write or write, same may have arrived after going to press, as you observe our stock is always changing. If you are in want of a light car, it will pay you to inspect our stock of guaranteed light cars before going elsewhere. You will not regret doing so. Remember, we are always willing to purchase or exchange first-class light cars as per our "Wanted" advertisement, for cash. We will personally call and inspect your car within 150 miles. Above cars can be seen and tried at our only address, 5 Warren St., Euston Rd., W. Museum 623. Trade 179-704

PRIVATE OWNER AND TRADER

alike recognise the value of these pages for the disposal of their goods.

MISCELLANEOUS LIGHT CARS AND CYCLECARS
(continued).

INCREASED tax. Economize by purchasing a light car from us. We were the original firm to specialize in this type of car; purchasers allowed half present tax; inspection of stock invited; list on application. Mebea (established 1893), 156 Gt. Portland St., W. Telephone, 3426 Mayfair. Trade 179-742

MISCELLANEOUS.

ACCUMULATORS. Over 100 sizes always in stock. The cheapest and best house in the trade for reliable accumulators for car lighting, ignition, etc.; stock of slightly shop-soiled accumulators at greatly-reduced prices. The Essex Accumulator Co., 497-499 Grove Green Rd., Leytonstone, London, N.E. Trade zzz-505

LIGHT-CAR manufacturers and dealers requiring cheap but well-made and reliable sets of torpedo electric lamps of British manufacture should communicate with the Essex Accumulator Co., 497, 499 Grove Green Rd., Leytonstone, London. Trade zzz-183

A LARGE stock of Ranger cyclecar parts, chassis, ash sides, with steel liners and tubular cross members, complete with springs, £3 each; front axles and wire-wheels, 26 by 2 1/2, £2 each; also back axles, £2 each; gear-boxes, two-speed-and-reverse, £4 each; clutches, adjustable cone leather-to-metal, £3 each; radiators, £2 10s. each; steering columns, 30s. each; bonnets, 10s. each; dome mudguards, 50s. set; Precision engines, 85 by 85, water-cooled, £15 10s. each; Polyrhoe carburetors, suitable for 6hp to 10hp engines, £1 each; all-brand new. Baines, 165 Belgrave Gate, Leicester. Trade 180-c800

ALUMINIUM number plates, best quality, any number, raised letters, very handsome, 9s. 6d. per pair. Freeman, Oakes, Devonshire St., Sheffield. Trade zzz-605

CYCLECAR components: Channel steel reinforced wood frames, with quarter-elliptic springs, £1 5s. 3d.; countershafts, friction sets, axles, wheels. Denby and Co., Ld., Ilkley. Trade zzz-936

LIGHT car components, new. Pressed-steel frames, fitted spring brackets, £2 5s.; set of semi-elliptic, 1 1/4 in. wide, back 3 ft., front 2 ft. 6 ins., £1 7s. 6d.; ball-bearing wire-wheels, 26 ins. by 2 1/2 ins., fitted spindles, £1 7s. 6d. pair; steering wheels, 15 1/2 in. diameter, aluminium centres, black finish, 12s. 6d. Elephant, below.

HUMBERETTE bevel-drive back axle, fitted 700 by 65 wire wheels, £5; Humberette front axle, £1 10s.; Humberette 3-speed-and-reverse gearbox, £5; frame suit above, £1; set of springs, £1; all first-class order. Elephant.

RADIATORS, latest type, pointed front, 18 ins. wide, 18 ins. high, £1 17s. 6d. (usual price £5.5s.); petrol tanks, all sizes, from 5s. Elephant Motor Mart, 10-18 Elephant Rd., London, S.E. 'Phone, Hop 3224. Trade 179-686

HEXAGON, cane-built, English-make, trout fly-fishing rod, never been used 10 ft., cost £4, sacrifice £2, or exchange first-class electric horn, mutual approval. Thomas Price, Harewood House, Cardiff. 180-d535

ENGINE, 8-10, water-cooled, magneto and carburettor, Ferodo clutch, complete, with exhaust pipe and silencer, £12 10s.; gearbox, 3 and reverse, chain drive, differential shaft, sprockets and levers, £3 10s.; honeycomb radiator, £25; back axle, chain-drive artillery wheels, 700 by 85, sprocket brakes, £1 15s.; front to suit, £1; steering worm and quadrant, complete, 16 in. wheel, £1 10s.; tyres (5), 700 by 85 covers, 5 tubes, £4 10s. lot. McLaren, Harden, Melrose. 179-1793

LIGHT car chassis, 5 detachable wheels, complete, less engine, for friction drive, £10; green leather motor hide, 48 sq. ft. and trimmings, new, cheap. 76 Bootle St., Preston. 179-1790

SET of wood patterns for light car, engines, gearboxes, axles, parts, etc., also about 50 copper-plate engraving blocks of same, cheap. Particulars, 35 Lytleton Rd., Leyton, Essex. 179-1776

ACCESSORIES.

BONNIKEN speedometer, perfect condition, drive for 700 by 85, £3. Jack Scriven, Alma Mount, Cutler Heights, Bradford. 179-d556

MAGNETO for sale, suitable for 2-cylinder light car, Eisemann type EDD2, guaranteed sound condition. Harvey, 36 Goring Rd., Swan Lane, Coventry. 179-d554

ARTICLES for sale, all new: Pair of small Lucas side lamps, nickel, £2; Lucas King Road horn, £1 1s.; and Dunlop inner tube, 710 by 90, 12s. 6d. Pratt, Bank House, Minehead. 179-d567

LARGE new case Bosch parts, type D.R. 4, 45s.; small Solex carburettor, £2. Taylor, 49 Broadgate, Preston. 179-1789

810 by 90 **STEPNEY** cover and tube, dynamo, electric head, side and tail lamps, horn, accumulator, clock, mirror, carburettor. Beardshaw, Auctioneer, Wood Green. Trade 179-1773

700 by 80 **SANKEY** wheel, 20s.; Stewart's speedometer, 35s.; bevelled oblong mirror, 7s. 6d.; pump, 5s.; C.A.V. headlamp, 5s. Kett, 90 Pevensy Rd., Eastbourne. 'Phone, 859 Eastbourne. 179-1772

EXCHANGES.

EXCHANGE. Motor-bicycles and light cars taken in part exchange for light cars, balance in cash or extended payments as preferred. Service Co., 292 11th Holborn, London. Trade zzz-689

1914 **SPORTING** 2-seater, 8-10, air-cooled, very smart, fully equipped, £75; exchange first-rate sporting combination, or, with cash, for modern 4-cylinder light car. 29 Portland Rd., Southall, Middlesex. 179-c814

IF you wish to effect an exchange of any description, consult the specialists. We please ourselves by pleasing you. The Light Car Co., 331 Euston Rd., London. 'Phone, Museum 3143. Trade 179-708

EXTENDED PAYMENTS.

EXTENDED payments; all makes supplied; lowest terms. Service Co., 292 High Holborn, London. Trade zzz-688

ALBERT LAW (late motorcar manager for Wm. Whiteley, Ltd.). Deferred payment specialist, is now the managing director of the Purley Motor Garage, Ld., Purley, Surrey. All makes of cars supplied by deferred payments, and he will be glad to advise on these matters free. Ring up 103 Purley (not a trunk call from London), or write, when you can be assured of his personal attention. Trade 180-433

EXTENDED PAYMENTS (continued)

DEFERRED payments. A laugh is worth hundreds of groans. Buy your car from me, and you will have no need to groan. Deferred payments is a speciality of mine, and I am prepared to sell you a car or find the money to buy a car from someone else, and let you pay me by instalments. From one-fifth down and balance by 12 monthly payments. My terms are exceptionally favourable and worthy of everybody's consideration. These terms apply to touring or light cars, hire cars, or commercial vehicles. Before considering anyone else, get into communication with me at once. Note: Cars on view in new garage, two minutes from office. Write wire, phone or call, Marian G. Paige, the only extensively-advertising Lady Motor Dealer, 12 years practical experience, 199 Piccadilly, London (an office opposite Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerrard 4417. Trade 179-655

HOODS AND SCREENS

HOODS for light cars, 55s.; hoods re-covered in black waterproof leatherette, 45s.; in khaki, 25s. Stockport Garage Co., 37 Wellington Rd. N., Stockport. Trade zzz-189

TODD and Co., Duncan St., Islington, London. Several shop-soiled hoods. Send measurements. Hoods re-covered and repaired. Trade 178-6519

LIGHT car hoods, 50s.; windscreens, 35s.; made from measurements. Lang and Webb, Jackson Rd., Holloway, London. Trade 178-1753

BUNYAN SHIELD and HOOD CO., removed to 4 Worcester St., Wolverhampton. Old-established manufacturers, hoods and screens; light car hoods speciality; hoods re-covered and repaired; expedition and experience. Trade 182-6553

INSURANCE.

WHY pay your insurance premium a year in advance when you can pay monthly without extra cost? Lowest rates and full insurance for light cars and cyclecars. Annual premium payable monthly. For prospectus of Lloyd's Motor Policies, write Manager, General Insurance Co., 199 Piccadilly, London, W. zzz-370

REPAIRERS.

THE AZ-NU Works, 21 Risinghall St., Pentonville, N., radiator, lamp and welding specialists, American radiators a speciality. Trade zzz-817

OVERHAULS to any make of light car. Morgan expert, official repairer to the Morgan Co., all parts in stock; fully-equipped workshop; experienced mechanics; best work only, moderate charges. S. Hall, Stevenage, Herts., 30 miles from London on the Great North Rd. 186-127

RADIATOR and lamp repairs by skilled workmen, lowest prices, quickest delivery, no cure, no pay. Lloyd Motor Radiator Co., 317 Monument Rd., Birmingham. 189-c186

G. N. HIGGS.

OVERHAULS. We specialize in overhauls and repairs to light cars. Our mechanics are fully conversant with all makes, and in consequence know how to overcome difficulties in the most expeditious manner.

SPARES required are machined on our premises, where the latest machinery is available.

OWNERS who require a thorough and satisfactory job are those for which we cater, and we shall always be happy to give any facilities for inspecting work during completion.

TRADE. We shall be pleased to quote for gear cutting, machine work, or the overhaul of complete units.

G. N. HIGGS, 31 Vauxhall Bridge Rd., Victoria, S.W. Trade 179-698

SITUATIONS VACANT.**Defence of the Realm Act**

REGULATION 8 (b).

Under the above regulation, advertisements offering situations with firms whose works are situated within 30 miles of London and whose business consists wholly or mainly in engineering, ship-building, or the production of munitions of war, or of substances required for the production thereof, must contain the words:— 'NO PERSON ENGAGED ON GOVERNMENT WORK OR RESIDENT MORE THAN 10 MILES DISTANT NEED APPLY.'

When the advertiser's works are situated more than 30 miles from London all applications must be made through a Labour Exchange, by means of a box number allocated by the Board of Trade. Forms of application may be obtained from any Labour Exchange, or from the offices of this paper. Each advertisement must clearly state that no person already engaged on Government work need apply.

TUITION.

UNLIMITED practical motor tuition until satisfied for one inclusive fee at the largest motor instruction works in the world and situate in the heart of London. Apply - The British School of Motoring, Ltd., 5 Coventry St., Piccadilly Circus, W. The leading practical training institute for the motor industry; fully-qualified staff of instructors; open day and night; special car owner's economy course, saves endless expense (individual tuition at hours convenient to yourself); training also for every position in the motor industry; written guarantee for unlimited tuition until Royal Automobile Club certificate obtained (special course). Call or send postcard for free illustrated prospectus (C.C.). Note address, British School of Motoring, Coventry House, 5 Coventry St., Piccadilly Cir., W. zzz-241

THE Motor Training Institute Ltd., appointed by the Royal Automobile Club since 1907. Write for free illustrated prospectus, or call and inspect our institute, 10 Heddon St., Regent St., W., or the works: 21a London Rd., St. John's Wood, N.W. zzz-221

BRIGHTON. Turberville Motor School for ladies and gentlemen and their servants. Driving instruction cars, new 1915 model. Technical rooms filled with complete working chassis. Lady instructor for ladies. Prospectus free. Bath St., Seven Dials. Phone, 371 Brighton. 220-512

BRIGHTON. Learn to drive in comfort and safety at the Turberville Motor School, Bath St., on an up-to-date new 1915 model car. Prospectus free. Phone, 371 Brighton. 220-513

TYRES AND TUBES.

ST. MARTIN'S. The cheapest house for all kinds of accessories, new and second-hand. Write for our giant list.

ST. MARTIN'S. Tyres and tubes for light cars, hundreds of bargains, new and second-hand; our prices are the lowest; write, mentioning requirements, or call.

ST. MARTIN'S. Stepney wheels from 25s.; also liners, gaiters, etc.

ST. MARTIN'S. Retreading and repairs of all descriptions.

ST. MARTIN'S. We supply all your requirements. We can buy or sell your car on commission. We can quote you for tyres, lamps, lighting sets, magnetos, carburetters, etc. Call or write, St. Martin's Motor Works, 12 Upper St. Martin's Lane, London, W.C. (one minute from Leicester Sq. Tube). Telephone, Regent 5070. Trade zzz-196

ECONOMIC for cyclecar and Ford tyres, hundreds in stock for immediate delivery: 650 by 65, 650 by 75, 700 by 80, 700 by 85, 710 by 85, 30 by 3, and 30 by 3½; retreading and repairs; obtain our prices before ordering elsewhere. Economic Tyre Co., 137 Lewisham High Rd., New Cross. Phone, New Cross 1393. Trade 179-1740

**WANTED.
Cars.**

WANTED, for cash, immediately, any makes, second-hand light cars. Rey, 378 Euston Rd. Tel., Regent 4219. Trade 211-c420

WANTED. Good second-hand or new light cars purchased for cash or taken in exchange for new cars or motorcycles. Service Co., 282 High Holborn, London. Trade zzz-253

IF you want to dispose of your light car, we will give you good market value, spot cash down, no delay; no models previous to 1913 wanted. Ring up Holborn 5777, or write Wauchope's, 9 Shoe Lane, London. Trade 183-324

HUMBERETTE, Singer, Calcott, Standard, or any good make for cash. J. Phillips, 164 Elm Park Mansions, Park Walk, S.W. zzz-738

THE Car and Tyre Mart will purchase your car for cash; distance no object; expert advice gratis. Write, phone or wire, 113 and 114 Long Acre, W.C. Trade zzz-732

WANTED, light cars, cyclecars, spot cash paid, bring or send. Wands-worth Motor Exchange, Ebner Street, Wandsworth (Town Station). Trade 186-b814

WANTED, Morgan runabouts, fair prices given for clear purchase, or taken in part payment car or motorcycle. James Fryer, Ltd., Commercial Road, Hereford. Trade zzz-303

THE Pytchley Autocar Co., Ltd., are open to purchase for cash any modern and good make of light car, special prices given for Standard, Singer, Calthorpe and Swift light cars. 216 Great Portland St., W. Telephone No., Mayfair 4535. Trade 180-445

WANTED, Singer, Calcott, Standard or other good makes of light cars, either for spot cash or exchange. R. Bamber and Co., Ltd., 33 Liverpool Road, Southampton. Trade 181-461

CARS wanted. Why sell your cars to the trade? They naturally cannot give you full value. Send them to me to be sold direct to the public. I will get you tip-top prices, and will charge you nothing, advertising, garaging, and selling cars for you absolutely free, my clients paying me a commission for buying. By doing this you are relieved of all trouble. You get my cheque in full as soon as the car is sold, whether I sell it for cash, exchange, or on my deferred payment terms. Cash advanced while pending sale. To clients unable to deliver cars at my garage, I will arrange to collect. Note: I have a big demand for Singers, Calthorpes, Calcotts, and similar four-cylinder light cars. Also your car, whether insured against fire, burglary, accident, and air raids whilst in my garage. Before sending the car, get into communication with me. Marian G. Paige, the only Lady Motor Dealer (12 years practical experience), 199 Piccadilly, W. (office opposite Piccadilly Hotel). Tel., "Womanish, London." Phone, Gerrard 4417. Trade 179-661

WANTED, Singer, Morris-Oxford, Lagonda, Humberette, or any good light car at once for cash. 1 Ebner Street, Wandsworth. Trade 179-1750

WANTED, a large number of modern cars for spot cash. We pay the absolute tip-top market prices. No sale on commission business done. Cars purchased on sight for cash only. Distance no object. Write, wire, or phone us. The Motor Car Supply, 330 Euston Rd., N.W. Phone, Regent 4955. Trade zzz-673

WANTED, Jowett light car, 1915 model, preferably with Sankey wheels. Send full particulars to H.S.W., 100 Wickham Rd., Brockley, S.E. 179-6550

PRIVATE motorist requires light car, good make; state price, date, full particulars. 18 Surbiton Rd., Southend. 179-d543

WANTED, Calcotts, Singers, Morris-Oxfords, Standards, Hillmans, Humberettes, G.W.K.s, etc., for spot cash, new or second-hand, good prices. Maudes', 100 Gt. Portland St., London, W. Trade 179-679

CONVALESCENT officer requires for cash, second-hand light car, 10hp Singer, 1914-15, preferred, from anyone disposing of car after Easter holidays, reasonable offer considered. Communications c/o Meek, 254 Archway Road, Highgate, N. 179-d541

LIGHT cars of recent manufacture purchased for cash or exchanged. Send particulars, together with lowest price, Hayes, 108 and 344 Euston Rd. Museum 3541. Trade 179-711

WE are spot cash buyers of Singer, Calcott, G.W.K., or Morgans. Elce and Co., 15-16 Bishopsgate Ave., Camomile St., E.C. Trade 179-750

CASS'S MOTOR MART require to purchase A.-C. Calcott, G.W.K., Hillman, Humberette, Morgan, Morris-Oxford, Perry, Singer, Standard and Swift light cars. Mr. Cass will personally call and inspect your car free of charge, within 150 miles. 5 Warren St., Euston Rd., W. Museum 623. Trade 179-705

G. N. HIGGS.

COMMISSION. Our experience of selling cars on a commission basis tends to prove that it is entirely satisfactory to our clients. Our interests are common, and therefore there cannot be any friction caused by antagonistic point of views.

LIGHT cars of repute and in good condition command a suitable sale. We have a long waiting list and shall be pleased to introduce suitable cars to our clients. We have every facility for storage and for effecting any small adjustment which it may be advisable to make so as to enhance the value of the car.

G. N. HIGGS, 31 Vauxhall Bridge Rd., Victoria, S.W. Trade 179-699

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

WANTED—Cars (continued).

WANTED, modern light car, Singer, Calcott, Morris-Oxford, or any good make, cash at once, privately owned preferred. Box No. 8075, c/o "The Light Car and Cyclecar." Trade 179-1736

LAMBORN MOTORS, LD., require at once a large number of light cars of the following makes, very best prices given—Singer, Standard, Calcott, Hillman, Morris-Oxford, 3 Elizabeth St., S.W. Phone, 6111 Victoria. Trade 179-1733

WE specialize exclusively in light cars and cyclecars and are always open to buy any make. Offer us what you have for sale. We please ourselves by pleasing you. The Light Car Co., 331 Euston Rd., London. Phone, Museum 3143. Trade 179-709

STRETTON and SMITH will pay top prices for modern cars of reputed make, particularly Singers, Calcotts, Bugattis, Stellites, Standards, cash on sight. 23 Woodstock St., Bond St., W. Trade 179-721

C. L. FRANCIS and CO. want several good light cars, not earlier than 1914. Good prices given. 22 Panton St., Leicester Sq. Trade 179-714

F. MEBES and SONS, the original light car specialists, will give the best market price for any of the following light cars—A.C., Calthorpe, Calcott, G.W.K., Hillman, Hummerette, Morgan, Morris-Oxford, Morris-Cowie, Perry, Peugeot, Singer, Standard, Swift, etc.; if you have one of these for disposal communicate with us first; fair dealing assured, we have a reputation to maintain; distance no object. 154-156 Great Portland St., W. Telephone, 3426 Mayfair. Trade 179-741

Wanted—Miscellaneous.

THE Editor of "The Commercial Motor" will be pleased to be advised of any stocks of old type or obsolete commercial-vehicle spare parts, as well as of spares for those touring-car models which are commonly used for conversion to delivery vans, etc. Particulars should state types and principal parts available, and these will be included in the Spare Parts Bureau list published regularly in the editorial columns of "The Commercial Motor." Letters should be marked "Spare Part," and addressed to The Editor, "Commercial Motor," 7 Rosebery Av., E.C. zzz-75

WANTED, good second-hand garage pump, with pressure gauge and long hose, cheap. Grange, Trent, New Barnet. 179-d58

BOOKS AND PUBLICATIONS.

"MOTORISTS' HANDBOOK," containing 200 questions and answers; a most useful and instructive book; the novice should always keep a copy on his car, price 1s., by post 1s. 3d. The Motor Training Institute, Ld. (Dept. D), 10 Heddon St., Regent St., W. zzz-887

"THE LIGHT CAR MANUAL," written throughout with a scrupulous choice of the simplest wording. Makes every detail of the light car clear as it goes along. Economical running and upkeep specially considered, and all driving problems dealt with. Contains a most instructive section on the control systems of most light cars now on the market. Price, bound in cloth 1s. 6d. net, in paper 1s., postage 1s. 3d., and 1s. 3d., respectively from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C. zzz-684

"LIGHT CAR AND CYCLECAR" TWIN MODEL. Many users of V-type twin engines are doubtful as to the exact positions of the pistons in the cylinders owing to the slight overlap. The working model makes this plain, showing at the same time the positions of valves and magneto contact breaker. 6d. net, post free 7d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"HOW AND WHERE TO TOUR BY MOTORCYCLE AND CYCLECAR." A book on touring written from an entirely new standpoint—that of the motorcyclist and cyclecarist. Forms a guide to guidebooks, tells of best methods of preparing for tours. Specially planned routes suitable for light cars and cyclecars. 1s. net, post free 1s. 2½d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

MAP OF FIFTY MILES ROUND LONDON. A clearly-drawn map on the scale of four miles to the inch. Roads coloured brown, no detail of importance omitted. Includes such widely-separated towns as Harwich and Portsmouth and Dover and Oxford, and covers the whole of Middlesex, Surrey, Sussex and Kent, and large parts of Essex, Hants., Herts., and Bucks. On paper 1s. net, mounted on linen 1s. 6d. net, postage 1d. extra. "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"THE MOTORIST'S WORKSHOP." The ideal book for every owner of a light car or cyclecar who wishes to undertake his own repairs. Clearly and entertainingly written. Illustrated. 1s. net, post free 1s. 2d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"HOW TO BUILD A CYCLECAR." The very book for the amateur craftsman who is considering the possibility of building his own machine. Copiously illustrated with 94 scale drawings. 1s. net, post free 1s. 2d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"OBTAINING INCREASED POWER," by A. W. Judge, A.R.C.Sc., Wh.Sc. This book is designed for the assistance of the cyclecarist and light car owner. It is copiously illustrated with diagrams. It deals most thoroughly with the question of efficiency, and sets out in clear language the means by which the utmost power may be got out of the machine. 6d. net, post free 7½d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"THE PROFILE ROAD BOOK OF ENGLAND AND WALES." The best road book extant. All the main roads and many cross routes are dealt with. A profile plan is given of every road, by which its ups and downs and distances can be seen at a glance. Road surfaces described. Bound in cloth 1s. net, post free 1s. 1½d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"THE MOTOR BOAT MANUAL," 6th edition, revised. The standard guide to the motor boat for pleasure purposes. How launches and yachts are built. Various types of motor boats. The working of the marine internal-combustion engine. Useful scale plans of motor boats. Bound in waterproof cloth; 180 pages, over 150 illustrations. 1s. 6d. net, post free 1s. 9d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

"MOTOR CYCLING MANUAL," 3rd edition, 50th thousand. The work of practical motorcyclists. The third edition of "Motor Cycling Manual" is undoubtedly the best handbook on the motorcycle extant. It has been thoroughly overhauled, greatly enlarged, and 130 new illustrations added. Covers every point in connection with the working of the engine and driving the machine on the road. Special up-to-date section on sidecars; 1s. 6d. net in cloth; 1s. net in paper, postage 3d. extra, from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

BOOKS AND PUBLICATIONS (continued).

"MOTOR CYCLING," The brightest and most interesting motor-cycling paper. Out first with illustrations and descriptions of new motor-bicycles and accessories. A special feature consists of reports of hill-climbs and trials illustrated with photographs, and produced under daily newspaper conditions. Written and illustrated by motorcyclists for motorcyclists. Now the only journal devoted solely to the interests of the motor-bicycle. Tuesdays, 1d. From any bookstall or newsagent.

"LIGHT CAR AND CYCLECAR POCKET BOOK." This useful little book has been designed to enable light car and cyclecar owners to keep a record of their mileage and running expenditure, also contains useful tables and information. Leather case, handy waistcoat pocket size, ample space for personal notes. 1s. net, post free 1s. 1d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

PROFILE ROAD BOOK. The best road book extant. Covers the whole of the country, giving profile plans showing "ups and downs" of the roads. 1s. net, post free 1s. 1½d., from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Av., London, E.C.

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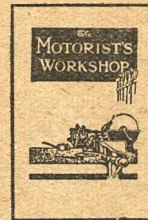
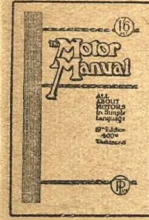
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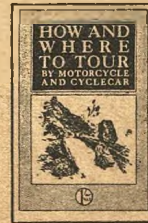
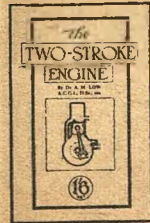
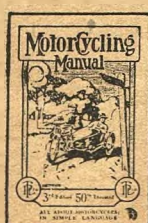
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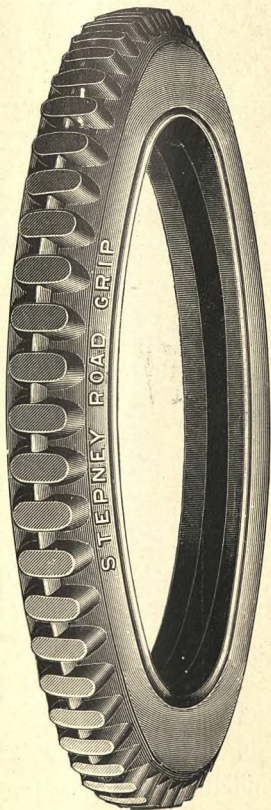
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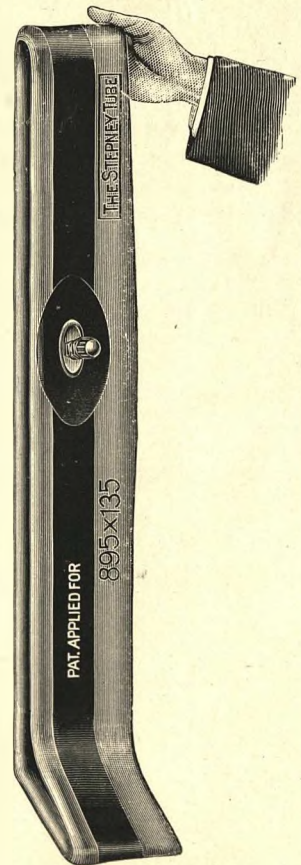
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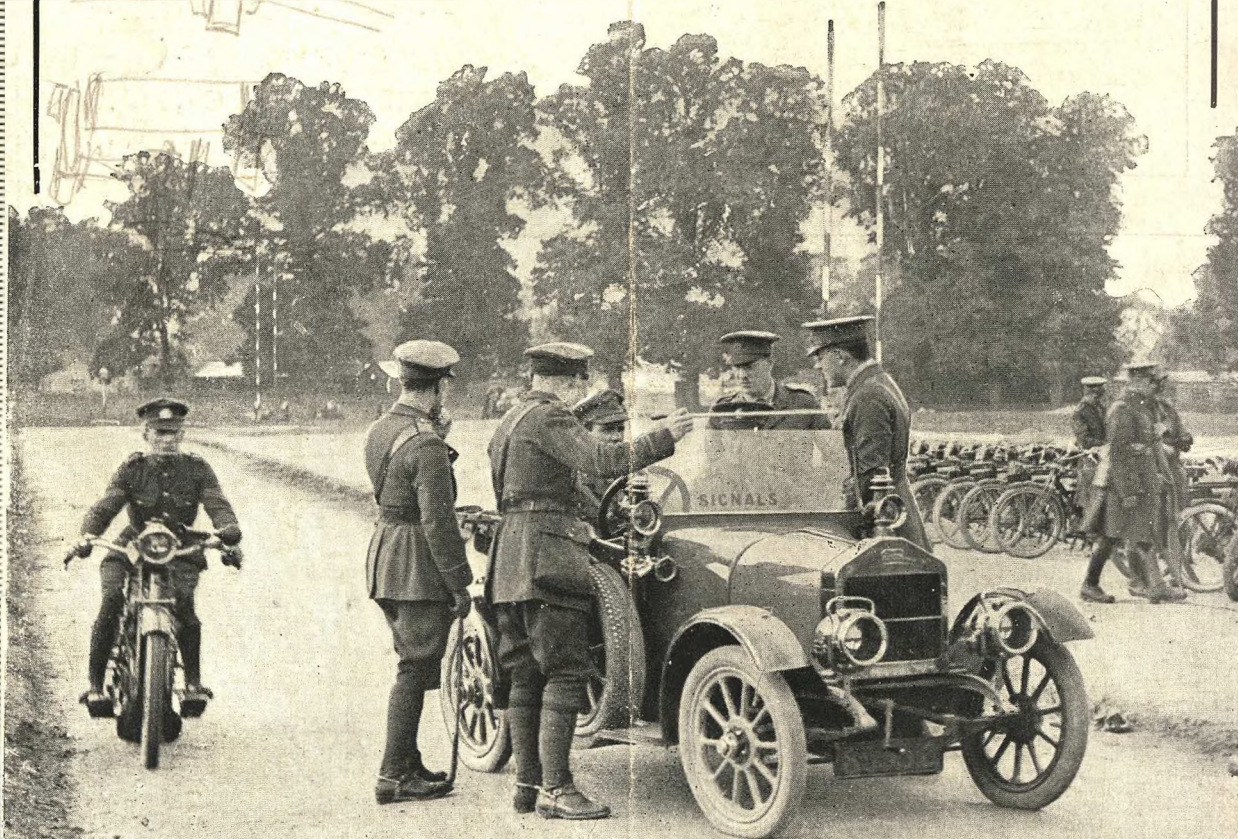


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